# Sebree Solar, LLC

Case No. 2021-00072

Application - Volume 2 Tab 12

## Kentucky State Board on Electric Generation and Transmission Siting Sebree Solar, LLC – Case No. 2021-00072 Application – Exhibit 12 Volume 2, Tab 12

#### **Filing Requirement**

A site assessment report as specified in KRS 278.708. (KRS 278.706(2)(l))

- (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 the 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(3))

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 278.708(4))

#### **Respondent: Brian Bartels**

Pursuant to KRS 278.708(3) and (4), the attached Site Assessment Report was prepared by Environmental Consulting and Technology, Inc., under the direction and supervision of Brian Bartels, on behalf of Sebree. The Site Assessment Report summarizes the Project and includes each of the elements required by the statute.

With regard to a description of the proposed facility, Section 1.0 of the Site Assessment included the relevant information. Information concerning the proposed site development plan is present throughout the Site Assessment Report, but particular attention is drawn to Exhibit 3, which contains detailed maps about the proposed Project area.

In accordance with KRS 278.708(3)(a)1., information concerning the surrounding land uses for residential, commercial, agricultural, and recreational purpose is found on page one of the Site Assessment Report. As set forth therein, "[t]he Project area has historically been used for agricultural and forestry purposes and the Project parcels are predominately bordered by agricultural farmland and scattered rural homesteads."

In accordance with KRS 278.708(3)(a)2., the legal boundaries of the proposed site are included in Exhibit 2 of the Site Assessment Report.

In accordance with KRS 278.708(3)(a)3., the Site Assessment Report includes a summary of the proposed access controls that will be applicable to the Project site. On pages one and two of the Site Assessment Report, several strategies for controlling access are identified, including: (1) appropriate security fencing that is installed in accordance with the National Electric Safety Code; (2) appropriate signage to warn potential trespassers in locations visible to the public, local residences and business owners. Page two of the Site Assessment Report further confirms that the project will be appropriately gated. On page eleven, the Site Assessment Report notes that access control will be provided by guidelines of the North American Electric Reliability Corporation ("NERC"), National Fire Protection Association ("NFPA") and the Occupational Safety and Health Administration ("OSHA").

In accordance with KRS 278.708(3)(a)4. and 5., Exhibit 3 to the Site Assessment Report, the Project's preliminary layout, includes the location of all facilities and other structures

associated with the Project. Exhibit 3 and Exhibit 5, the Traffic and Dust Study, also include a description of the location and use of access ways, internal roads and one railway that passes through the proposed Project area. This information is further discussed in Section 1.0 of the Site Assessment Report.

In accordance with KRS 278.708(3)(a)6., page three of the Site Assessment Report indicates that "it is not anticipated that the additional external utility services or support will be required during typical plant operations."

In accordance with KRS 278.708(3)(a)7., the Project's compliance with applicable setback requirements under KRS 278.704(2) - (5) are discussed on pages two through four of the Site Assessment Report.

In accordance with KRS 278.708(3)(a)8, an evaluation of the noise levels expected to be produced by the Project both during its construction and subsequent operations are included in Section 4.0 of, and in Exhibit 4 to, the Site Assessment Report. The Site Assessment Report concludes that the calculated construction noise pressure levels – at their maximum – are similar to, or lower than, typical farming operations. When the effects of foliage, wind direction, dispersal of operating equipment and other factors are taken into account, the sound levels are expected to be even less than the typical noise associated with a tractor.

In accordance with KRS 278.708(3)(b), an evaluation of the compatibility of the Project with its scenic surroundings is included in Section 2.0 of the Site Assessment Report. Additional support for the evaluation is found in Sebree's preliminary visual representation of proposed vegetative screening, which is included with the project drawings (Exhibit 3).

In accordance with KRS 278.708(c), an analysis of the potential changes in property values and land use resulting from the siting, construction and operation of the Project for adjacent

property owners is the subject of an extensive analysis set forth in Exhibit 1 to the Site Assessment Report. This analysis is described and summarized in Section 3.0 of the Site Assessment Report.

In accordance with KRS 278.708(d), an evaluation of anticipated peak and average noise levels associated with the Project's construction and operation at the property boundary is included in Section 4.0 of the Site Assessment Report. This analysis is further supported by Exhibit 4 to the Site Assessment Report, the Noise Impact Assessment.

In accordance with KRS 278.708(e), the impact of the Project'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 is included in Section 5.0 of the Site Assessment Report, with additional detailed information found in Exhibit 5 to the Site Assessment Report.

Finally, in accordance with KRS 278.708(4), the Site Assessment report suggests several mitigating measures to be implemented by Sebree to minimize or avoid adverse effects identified in the Site Assessment Report. This information can be found throughout the various reports, but is also summarized in Section 6.0 of the Site Assessment Report.

The following documents are attached hereto and incorporated herein:

Attachment A: Site Assessment Report 21 Pages)

Exhibit 1: Property Value Impact Studies (165 Pages)

Exhibit 2: Legal Property Descriptions of Site (69 Pages)

Exhibit 3: Preliminary Site Layout (17 Pages)

Exhibit 4: Noise Impact Assessment (33 Pages)

Exhibit 5: Traffic and Dust Study (15 Pages)

Exhibit 6: Phase I Environmental Site Assessment (392 Pages)

# Sebree Solar, LLC

Case No. 2021-00072

Application - Volume 2
Tab 12
Attachment A

Site Assessment Report (21 Pages)



## **Site Assessment Report**

August 2021 ECT No. 200196-0600

Sebree Solar, LLC



#### **Document Review**

The dual signatory process is an integral part of Environmental Consulting & Technology, Inc.'s (ECT's) Document Review Policy No. 9.03. All ECT documents undergo technical/peer review prior to dispatching these documents to any outside entity.

This document has been authored and reviewed by the following employees:

Christopher Mason	Xiomara Gerlach		
Author	Peer Review		
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Signature	Signature		
00/06/2021	00/05/2021		
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## List of Acronyms and Abbreviations

BMP Best management practices

CSX CSX transportation
CWA Clean Water Act
dBA A-weighted decibels

E&S Erosion and sediment control ESA Environmental Site Assessment

kV Kilovolt

MWac Megawatt alternating current

PV Photovoltaic

SCADA Solar meteorological station, supervisory control, data acquisition

SPL Sound pressure level

USACE United States' Army Corps of Engineers



### 1.0 Description of Proposed Site

<u>REQUIREMENT</u>: per KRS 278.708 (3)(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 the 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.

#### **COMPLIANCE:**

The proposed Sebree Solar facility (Project) will be capable of generating 250 megawatts alternating current (MWac) and includes an approximately 4.85-mile transmission line. The Project is to be located on a site encompassing approximately 1,200 acres located in Henderson County and Webster County, Kentucky, approximately seven miles south of the City of Henderson and directly north of the Town of Robards. The acreage of 1,200 includes 200 acres being considered as alternate locations in order to provide flexibility in project design. The power generated by the Project will provide clean, renewable electricity, and will interconnect with the transmission system owned by the Big Rivers Electric Corporation at the 161 kilovolt (kV) Reid Substation, located east of Pennyrile Parkway (Interstate 69) in Webster County, Kentucky. The Project area has historically been used for agricultural and forestry purposes and the Project parcels are predominately bordered by agricultural farmland and scattered rural homesteads.

Photovoltaic (PV) solar panels will be mounted on racking, which will fix the solar panels to the ground. Additional infrastructure at the Project will include central electric inverters and transformers, underground electrical collection systems (distribution equipment), electrical collector substation, point of interconnection switchyard (including power control equipment), an overhead transmission line approximately 4.85 miles in length, a solar meteorological station, and SCADA hardware. A control house for protective relay panels and site controllers will also be constructed. Permanent private gravel and/or earthen access roads with gated ingress/egress points and security fencing will be constructed to access and maintain the facilities.

An approximately seven-foot security fence, including 1 foot of barbed wire will be constructed around the Project's facilities in compliance with the National Electrical Safety Code. Barbed wire will be excluded from portions of the security fence in or along any boundary adjoining residential properties as described in Section 30.02.d of the Henderson County Zoning Ordinance.



Access control strategy will also include appropriate signage to warn potential trespassers. The Project will ensure that all site entrances and boundaries have adequate signage, particularly in locations visible to the public, local residents, and business owners.

Where there are potential visual impacts created by the Project, such as areas near residences, a naturalized vegetative screening plan will be implemented to minimize these impacts. This will also reduce the effects of any noise generated by equipment (primarily inverters) associated with the Project.

The proposed Project will be in compliance with the Henderson County solar ordinance's setback requirements, which include 25-foot setbacks from perimeter property lines of the Project area and at least 100-foot setbacks from any residential structure. Henderson County solar setbacks are not required for interior property lines if the project spans multiple contiguous properties. The electric transmission line portion of the Project is not subject to setback requirements in either Henderson County or Webster County.

#### Compliance Summary:

- 1. A detailed description of the surrounding land uses is identified in the Property Value Impact Study, conducted by CohnReznick (**Exhibit 1**). As described in this report, surrounding land uses are predominately comprised of farmlands or forests, with a few residential homesteads. The Property Value Impact Study concludes on Page 10 that "...the proposed Project would not be incompatible with surrounding uses and would not negatively impact the surrounding properties."
- 2. **Exhibit 2** contains the legal descriptions of the Project's participating parcels.
- 3. A preliminary layout of the proposed Project is included in **Exhibit 3**, which details the proposed access locations to the site. A seven-foot-tall security fence will be constructed around the Project's facilities and will include gated access to the site. Appropriate signage, including "High Voltage Keep Out" or equivalent warning signs, will also be placed at all gates, entrances, and approximately every 100 to 200 ft along the perimeter of the Project's facilities.
- 4. The preliminary layout of the Project (Exhibit 3) details the location of proposed facility arrays, approximately 4.85-mile transmission line, and other infrastructure. The existing Reid EHV substation and transmission system owned by Big Rivers Electric Corporation will be utilized for the Project.
- 5. **Exhibit 3** also provides the preliminary layout of the proposed Project. Use of access ways, internal roads, and railways is discussed in the Traffic and Dust Study (**Exhibit 5**). One railway is located within the proposed Project; however, use of railways for construction is not anticipated and impacts to railway traffic during Project operation are not expected.
- 6. The existing Reid EHV Substation, located east of Pennyrile Parkway (Interstate 69) in Webster County, will be utilized for the Project (**Exhibit 3**). The 161 kV Reid EHV Substation, owned by the Big Rivers Electric Corporation, will serve as the Project's Point of Interconnection and carry



- power generated by the Project. It is not anticipated that additional external utility services or support will be required during typical plant operation.
- 7. Applicable setback requirements are discussed in the Verified Application for Sebree Solar, LLC (Application, Volume 1, Tab 4) and Section 2.0 of this Site Assessment Report. Sebree Solar will comply with the setback requirements set forth in the Henderson County Solar Ordinance. The electric transmission line portion of the Project is not subject to setback requirements in either Henderson County or Webster County.
- 8. A Noise Impact Assessment, conducted by DNV Energy Systems (DNV) is included in **Exhibit 4** and details the noise levels expected to be produced by the construction and operation of the Project. This report indicates that maximum sound pressure levels at nearby receptors are expected to be less than 78.0 A-weighted decibels (dBA) during Project construction and less than 51.0 dBA during Project operations. Noise levels during construction are anticipated to be similar in magnitude with other sources that may be active in rural agricultural environments, such as farm machinery. Modeled levels during operation are considered to be similar to a quiet rural environment.
- 9. **Exhibit 5** is a Traffic and Dust Study conducted by Integrated Engineering. This study concluded that the local roadway system has adequate excess capacity to continue to perform at a very high level of service despite predicted temporary increases in traffic during the construction phase of the Project. Furthermore, the report indicated that there will be no significant increase in traffic during the operation phase of the Project, and that while land disturbing activities may temporarily contribute to airborne materials, impacts can be reduced through best management practices such as revegetation, application of water, and covering of spoil piles. Lastly, the Project is not expected to have any impact to nearby railways.
- 10. A Phase I Environmental Site Assessment (ESA) was conducted by ECT in December 2020 for an area that includes the proposed Project area. No evidence of any recognized environmental conditions was identified. See **Exhibit 6** for the complete Phase I ESA, which will be updated in November 2021 prior to the commencement of construction activities.



## 2.0 Compatibility with Scenic Surroundings

<u>REQUIREMENT</u>: per KRS 278.708 (3)(b); An evaluation of the compatibility of the facility with scenic surroundings.

#### **COMPLIANCE:**

Compatibility with the surrounding land uses is discussed in the Property Value Impact Study (**Exhibit 1**), which determined on Page 10 that "...the proposed Project would not be incompatible with surrounding [land] uses and would not negatively impact surrounding properties." The Project is located within flat and occasionally elevated farmlands, with Project equipment base elevations ranging from approximately 404 ft to 466 ft above mean sea level, as described in Section 4.0 of **Exhibit 4**.

Additionally, solar panel heights will not exceed 25 feet from the highest natural grade below each solar panel, as required by the Henderson County Ordinance. Components of the proposed Project, including inverters, solar panels, and additional ancillary solar equipment will be set back at least 25 feet from perimeter property lines and at least 100 ft from any residential structure, as required by Section 30.02.c. of the Henderson County Zoning Ordinance.

A proposed vegetative buffer, approximately 9,960 ft in total length, will be planted in areas adjacent to residential properties around the Project boundary where one does not already exist. Vegetative screening will be planted in accordance with regulations detailed in Section 30.02.d of the Henderson County Zoning Ordinance and will include a naturalized mix of trees and shrubs suitable for the specific site conditions. As required in the Henderson County Zoning Ordinance, vegetative screening combined with seven-ft tall fencing will provide "reasonable screening to reduce the view of the SES from residential dwelling units on adjacent lots (including those lots located across a public right of way)."

The proposed vegetative screening will provide an attractive buffer to help draw the viewer's attention, effectively mitigating any potentially negative visual impacts from the Project. Additionally, Sebree Solar, LLC will leave existing vegetation between solar equipment and neighboring residences in place, to the extent practicable, to help screen the Project and reduce visual impact. The preliminary site plan (**Exhibit 3**) shows the locations planned for the vegetative buffer and depicts a visual representation of the potential vegetative screening. Species to be utilized for the vegetative buffer will include non-invasive trees and shrubs suitable to the site conditions. A mixture of evergreen and deciduous species may be utilized to provide visual interest across all seasons. Utilizing a variety of species is also beneficial to minimize the risk of pests and disease. Preference will be given to commercially available cultivar species that are native to the state of Kentucky and may include a mixture of the following species detailed in **Table 1**.



Table 1. Potential Evergreen and Deciduous Species Utilized by the Proposed Project

Туре	Species	Scientific Name	
	White Pine	Pinus strobus	
Coniferous Trees and Shrubs	Virginia Pine	Pinus virginiana	
Confidences frees and shrubs	Red Cedar	Juniperus virginiana	
	Common Juniper*	Juniperus communis	
	Serviceberry	Amelanchier spp.	
	Dogwood	Cornus spp.	
Broadleaf Small Trees and Shrubs	Winterberry	llex spp.	
	Chokecherry	Prunus virginiana	
	Ninebark	Physocarpus opulifolius	
	Wumac	Rhus spp.	
	Viburnum	Viburnum spp.	

<sup>\*</sup> an upright growing habitat cultivar



## 3.0 Property Value Impacts

<u>REQUIREMENT</u>: Per KRS 278.708 (3)(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.

#### **COMPLIANCE:**

A detailed description of the surrounding land uses is identified in the Property Value Impact Study, conducted by CohnReznick, and is attached as **Exhibit 1.** The Property Value Impact Study examines property values adjacent to solar uses for ten existing solar facilities in Minnesota, Indiana, Georgia, Florida, North Carolina, Virginia and Michigan. It then provides site specific analysis focused on the Sebree Solar project and determines whether it will result in any significant measurable and consistent impact on adjacent property values in Henderson County, Kentucky. In summary, the Property Value Impact Study determined that the proposed Project is considered a "locally compatible use," and it is not anticipated to negatively impact property values in and around it.

The Property Value Impact Study reviewed published studies that also analyzed the impact of solar farms on adjacent property values. On page 22, the report states that "These studies found little to no measurable and consistent difference between the Test Areas Sales and the Control Areas Sales attributed to the solar farms. Specifically, in a 2017 study conducted by Chicago County Assessor John Keefe, Keefe analyzed the numbers for 15 parcels alongside or near the North Start Solar Farm that sold between January 2016 and October 2017. Based on trends exhibited by 750+ sales throughout the county, Keefe concluded that the homes, located on 375<sup>th</sup>, 367<sup>th</sup>, Keystone, Little Oak, Lincoln Trail, and Kost Trail were all in excess of assessed and reported that valuation hasn't suffered."

Additionally, market participants were also interviewed in the Property Value Impact Study, including County Property Value Administrators in Kentucky, to provide additional insight as to how farmland and single-family homes with views of solar farms were evaluated on the market. The report states that "Grant County, Kentucky Property Value Administrator, Elliot Anderson, told us that Duke Energy built a 2.7 MW solar farm near Crittenden, adjacent to existing homes on Claiborne Drive in December 2017. There have been nine arm's length home sales on that street since the solar farm came online, due to normal market conditions. Each of those nine homes sold higher than its Assessed Value, one of them over 32 percent higher. The Assessed Values in Grand County are based on 100 percent Fair Market Values as determined by the Property Values Administrator's office. Anderson noted that several more lots are for sale by the developer and four more homes are currently under construction, set to deliver in 2021. Anderson said that the solar farm has no impact either on adjoining home values or on marketability or desirability of those homes adjacent to the solar farm. Anderson added, the homes sold at market prices in a market that has been experiencing a boom since at least mid-2019."



## 4.0 Anticipated Noise Levels at Property Boundary

<u>REQUIREMENT</u>: Per KRS 278.708 (3)(d); *Evaluation of anticipated peak and average noise levels associated with the facility's construction and operation at the property boundary.* 

#### **COMPLIANCE:**

A Noise Impact Assessment was conducted by DNV Energy Systems for the Project and is included as **Exhibit 4**. The Noise Impact Assessment evaluated potential noise impacts resulting from both the construction and operation of the Project. During Project development, construction is anticipated to occur intermittently over the course of eighteen months to two years at different locations throughout the Project site. Noise-producing construction activities include pile driving for solar array panel racking as well as demolition and site preparation activities involving grading. During operational conditions, an estimated 93 total solar inverters, including 78 inverters plus 15 alternates, and one step-up transformer, located at the Project substation, were evaluated.

A summary of the Noise Impact Assessment results is located in Sections 5.0 and 6.0 of the Noise Impact Assessment (**Exhibit 4**). The Noise Impact Assessment determined that maximum sound pressure levels at nearby receptors are expected to be less than 78.0 dBA during Project construction and range from 27.7 dBA to 51.0 dBA during Project operations. These results were adjusted with an A-weighting filter, which was "applied to closely approximate the human ear's response to sound" as dBA, which is commonly used when assessing environmental and industrial sounds.

A detailed discussion of noise impacts during construction, included in Section 5.0 of **Exhibit 4**, indicates that "the closest structure is located at least 350 feet from the Project property boundary; therefore, Sound Pressure Levels (SPLs) at nearby receptors ... are expected to be less than 78.0 dBA... It is important to note that this analysis assumes the construction equipment associated with each phase is operating simultaneously at the specified distance. This assumption is conservative as the equipment will likely be more spread out around the site and not likely to be operating at the same time. Other noise attenuation effects such as atmospheric absorption, ground effect, reflection and shielding by topographical features or objects were not considered in the analysis." The Noise Impact Assessment further states that "Typical farming equipment such as a tractor can emit sound levels at approximately 80 dBA at 50 ft. The calculated construction sound pressure levels are expected to be similar or lower than typical farming equipment at all receptors. Considering farming activity occurs during the day when construction is scheduled, sound emitted by construction equipment should be familiar to what the community currently experiences in the existing sound environment. Due to the conservative nature of the assessment, it is expected that sound levels will be less than the reference tractor sound level at 50 ft."

A detailed discussion of noise impacts during operation, included in Section 6.0 of **Exhibit 4**, indicates that "the highest modelled results throughout the Project area for A-weighted sound pressure levels ... are 51.0 dBA. This can be considered similar to a noise levels in a quiet rural environment." Further, the report states that, "additional attenuation from foliage was not considered in this assessment, implying that lower sound levels are expected in areas where there is foliage present in the line of sight between any noise generators and a sound receptor. Similarly, because the model assumes every receptor is downwind of every sound source at all times, lower sound levels are expected at times when a receptor is upwind of any sound source."



The Project anticipates that all construction, operation, and maintenance activities will generally occur from 6:00 AM to 6:00 PM. There may be some occasions during commissioning when activities will occur later into the evening, but this would be a rare exception. The duration of the construction period is anticipated to last for eighteen months to two years.



## 5.0 Effect on Road, Railways, and Fugitive Dust

<u>REQUIREMENT</u>: Per KRS 278.708 (3)(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.

#### **COMPLIANCE:**

A Traffic and Dust Study was conducted by Integrated Engineering/PRIME AE for the Project and is included as **Exhibit 5**. This study assesses the Project's potential impacts to road and rail traffic, as well as anticipated levels of fugitive dust created from construction and operational traffic.

The Traffic and Dust Study determined that "even though the traffic in the project vicinity is predicted to increase during the construction phase of the Project, there is so much excess capacity that this roadway system will continue to perform at a very high level of service. This includes morning and evening peaks as construction workers enter and exit the Project site and periodic delivery of construction materials and equipment." A detailed discussion of the effect of Project construction and operation on roadway traffic is included in Section 2.0 of **Exhibit 5**. Furthermore, Sebree Solar, LLC will develop a traffic management plan, implement traffic guidance, and install appropriate signage to ensure driver safety during construction. During Project operations "there will be no significant increase in traffic and there will be very little, if any, impact to the existing road system."

Section 3.0 of **Exhibit 5** describes anticipated Fugitive Dust Impacts associated with the proposed Project. During Project construction, "land disturbing activities associated with the proposed Project may temporarily contribute to airborne materials. To reduce wind erosion of disturbed areas, appropriate revegetation measures, application of water, or covering of spoil piles may occur. In addition, any open-bodied truck transporting dirt will be covered when the vehicle is in motion. The size of the Project site, distance to nearby structures and roadways, combined with vegetative buffers along property boundaries and fencerows will aid in managing off sites dust impacts. Internal roads will be compacted gravel, which may result in an increase of airborne dust particles during dry conditions and when internal road traffic is heavy. During construction activities, water may be applied to the internal road system to reduce dust generation."

One CSX Transportation (CSX) rail line is located within the Project corridor; however, the proposed Project will not be using railways for any construction or operation activities. Section 4.0 of **Exhibit 5** describes the anticipated impacts on existing railways within the Project boundary. In summary, "Railway impacts to construction traffic are anticipated to be very minimal with only sporadic delays when the railway is active. Likewise, there will be no railway impact during the operational phase of this solar site. There are not anticipated damages to existing railroad infrastructure."



## 6.0 Mitigation Measures

<u>REQUIREMENT</u>: Per KRS 278.708(4); 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; and per KRS 278.708(6); The applicant shall be given the opportunity to present evidence to the board regarding any mitigation measures. As a condition of approval for an application to obtain a construction certificate, the board may require the implementation of any mitigation measures that the board deems appropriate.

#### **COMPLIANCE:**

Sebree Solar, LLC is anticipating implementing the following mitigation measures to minimize or avoid adverse effects identified within the Site Assessment Report:

- 1. Within areas of the Project a visual buffer will be used to mitigate viewshed impacts to sensitive receptors nearby, primarily residences. Anticipated planting areas, a preliminary site layout and preliminary visual representation of the proposed vegetative screening are included in **Exhibit 3**. Vegetative screenings will be planted primarily in areas where residential parcels adjacent to the Project do not have existing vegetation. Additionally, Sebree Solar, LLC will leave existing vegetation between solar equipment and neighboring residences in place, to the extent practicable, to help screen the Project and reduce visual impact.
- 2. Within the Project area, 2 acres of native pollinator-friendly species will be cultivated.
- 3. Components of the proposed Project, including inverters, solar panels, and additional ancillary solar equipment will be set back at least 25 ft from perimeter property lines and at least 100 ft from any residential structure as required by Section 30.02.c. of the Henderson County Zoning Ordinance. The electric transmission line portion of the Project is not subject to setback requirements in either Henderson County or Webster County.
- 4. Sebree Solar has committed to use low-sulphur diesel trucks and equipment to the extent practicable during construction in addition to down lighting in locations where lighting is required.
- 5. During Project operations, where lighting installation is required, Sebree Solar, LLC has committed to using down lighting.
- 6. Sebree Solar, LLC will notify residents and businesses in the vicinity of the proposed Project about the start of construction, potential construction noises, and mitigation plans at least a month prior to commencing Project construction. These notifications will include contact information for receiving complaints.
- 7. Prior to and during construction, Erosion and Sediment Control (E&S) devices and Best Management Practices (BMPs), such as silt fences/silt socks, sediment basins, sediment traps, and/or buffer zones, will be deployed around sensitive resources.
- 8. Post-construction, disturbed areas will be seeded with a native and/or non-invasive perennial grass and herbaceous seed mix. E&S devices will be inspected and maintained until vegetation in disturbed areas has been returned to pre-construction conditions or the Project site is stable.
- 9. Environmental permitting pertaining to state and federally regulated wetlands and watercourses, as well as stormwater discharges, will be addressed as applicable based on



proposed impacts. The following permits and other applications will be obtained from the appropriate regulatory agencies, as applicable, as the proposed Project prepares for construction:

- a) Wetland delineations have been conducted for the majority of the proposed Project parcels. Sebree Solar, LLC will be conducting wetlands delineations on the remaining parcels, in addition to amending an Approved Jurisdictional Determination, received from the U.S. Army Corps of Engineers (USACE) in April 2021, after the updated delineations have been completed. If the Project is expected to impact jurisdictional features, including regulated wetland and watercourses, a Clean Water Act (CWA) Section 404 permit will be required from the USACE. Additionally, depending on anticipated impacts, a CWA Section 401 Water Quality Certification may also be required from the Kentucky Energy and Environment Cabinet Division of Water. Sebree Solar, LLC has worked to minimize impacts to regulated wetlands and watercourses to the extent possible; however, unavoidable impacts are expected and will be permitted as discussed above.
- b) A General Permit for Stormwater Discharges Associated with Construction Activities will be obtained from the Kentucky Department of Environmental Protection, which is required for projects that disturb one or more acres of land.
- c) Prior to construction, Sebree Solar, LLC will develop a Ground Water Protection Plan compliant with the Kentucky Energy and Environment Cabinet's guidance to identify activities on-site that have the potential to pollute groundwater and BMPs that will be employed during Project development to protect groundwater resources.
- d) Tree clearing activities will be limited seasonally to avoid potential impacts to Indiana and Northern long-eared bat habitat. Additionally, Sebree Solar, LLC has been coordinating with the applicable state and federal agencies.
- 10. The Project will meet all requirements under the Henderson County Solar Ordinance regarding Decommissioning, including posting of a Surety Bond or other form of Security, submittal of a decommissioning plan, and restoration of the property to substantially similar physical condition that existed immediately prior to construction.
- 11. Access control strategy will also include appropriate signage to warn potential trespassers. The Project will ensure that all site entrances and boundaries have adequate signage, particularly in locations visible to the public, local residents, and business owners. Access control will be provided per NERC, NFPA, and OSHA guidelines.
- 12. A Traffic Management Plan will be developed to minimize impacts of any traffic increases and keep traffic safe. The Project will use appropriate signage as needed to aid construction traffic. All necessary permits will be obtained prior to bringing in heavy loads. The traffic management plan will also include protocols to ensure the local fire departments has immediate access to the roadway when needed.



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## Exhibit 1 Property Value Impact Studies



## Exhibit 2 Legal Property Descriptions of Site



## Exhibit 3 Preliminary Site Layout



## Exhibit 4 Noise Impact Assessment



## Exhibit 5 Traffic and Dust Study



## Exhibit 6 Phase I Environmental Site Assessment



# Sebree Solar, LLC

Case No. 2021-00072

Application - Volume 2
Tab 12
Attachment A
Exhibit 1

Property Value Impact Studies (165 Pages)





# IMPACT STUDY OF PROPERTY VALUES ADJACENT TO SOLAR USES A STUDY OF TEN EXISTING SOLAR FACILITIES

Located in Chisago County, Minnesota; Marion County, Indiana; Dougherty County, Georgia; Miami-Dade County, Florida; Brevard County, Florida; Bladen and Cumberland Counties, North Carolina; Rutherford County, North Carolina; Wilson County, North Carolina; Isle of Wight County, Virginia, and Lapeer County, Michigan

#### PREPARED FOR:

Ms. Lina Jensen Project Director Sebree Solar, LLC

#### **SUBMITTED BY:**

CohnReznick, LLP Valuation Advisory Services 200 S Wacker Drive, Suite 2600 Chicago, IL 60606 (312) 508-5900

Andrew R. Lines, MAI Patricia L. McGarr, MAI, CRE, FRICS

April 9, 2021

#### **EXECUTIVE SUMMARY**

Sebree Solar, LLC is seeking approvals for a proposed solar farm to be located in the State of Kentucky.

CohnReznick has been engaged to complete a property value impact study to determine whether existing solar farms have had any measurable impact on the value of adjacent properties. This report summarizes the findings of that study.

The purpose of the assignment is to determine whether proximity to an existing solar farm resulted in any significant measurable and consistent impact on adjacent property values, given the existing uses and zoning of nearby property at the time of development; address potential local concerns regarding any proposed solar farm having a perceived impact on surrounding property values; and, provide a consulting report that can address the required criteria for obtaining approvals for proposed solar energy use projects.

We have included ten established solar farms in our study, focusing on rural and suburban areas with neighboring residential homes, that are comparable to the proposed solar farm locations in Kentucky. Solar farms with a variety of output capacities have been studied because of their proximity to residential properties. We have studied the sales of property located adjacent to the solar farms in order to see if proximity to this use results in any consistent and measurable impact on property values.

Since 1984, we have studied the impacts on adjacent land values of schools, landfills, waste transfer stations, stone quarries, cellular towers, electrical power transmission lines, "Big Box" retail facilities, levies, properties with restrictive covenants, landmark districts, environmental contamination, airports, material defects in construction, stigma, and loss of view amenity for residential high rises. Over the past three years, we have studied more than 25 existing solar farms across the United States of varying sizes to determine whether there has been any measurable impact on adjacent property values.

#### **METHODOLOGY**

The basic premise of this comparative analysis is that if there is any impact on the value of adjacent properties, by virtue of their proximity to a solar farm, it would be reflected by such factors as the range of sale prices, differences in unit sale prices, conditions of sale, and overall marketability. When comparing these factors for properties near the solar farm ("Test Area Sales") to properties locationally removed from the solar farm ("Control Area Sales"), we would expect to see some emerging and consistent pattern of substantial difference in these comparative elements – if, in fact, there was an effect.



#### STUDY FEATURES

Our study includes research and analyses of existing solar farms in the Midwest Southeast, and East, (collectively, the "Existing Solar Farms"), as well as the property value trends of the adjacent land uses, including agricultural, single family and residential properties; a review of published studies, and discussions with market participants. Adjoining properties physically adjacent to the Existing Solar Farms that sold in an arm's length transaction after the completion of the Existing Solar Farms were categorized as Test Area Sales that qualified for further analysis in a paired sale analysis to determine if a difference in price exists.

- Solar Farm 1 (North Star Solar Farm) is located near the City of North Branch, in unincorporated Chisago County, Minnesota. This is a 100 MW AC solar farm that is situated on approximately 1,000 acres of land and is surrounded by agricultural land uses and some residential uses. We found four adjoining properties that qualified for a paired sales analysis.
- Solar Farm 2 (Dominion Indy Solar Farm III) is located in a suburban, yet rural area outside of Indianapolis, in Marion County, Indiana, on a parcel totaling 134 acres. The solar farm has a capacity of 8.6 MW AC of power and the surrounding uses consist of agricultural land to the east, west and south, and a single-family subdivision to the north. We found ten adjoining properties that qualified for a paired sales analysis, two of which have resold for a total of twelve sales.
- Solar Farm 3 (Dougherty Solar) is located in a rural area outside of the nearest city, Albany, in Dougherty County, Georgia, on three parcels totaling over 1,000 acres. The solar farm has a capacity of 120 MW AC of power and the surrounding uses consist of agricultural land to the east, west and north, and singlefamily homes to the south and the northeast. We found one adjoining property that qualified for a paired sales analysis.
- Solar Farm 4 (Miami-Dade Solar Energy Center) is located in unincorporated Miami-Dade County, Florida on 465 acres. The solar farm has a capacity of 74.5 MW AC and the surrounding uses consists of agricultural land, single family homes, and federally owned government land. We found three adjoining properties that qualify for a paired sales analysis.
- Solar Farm 5 (Barefoot Bay Solar Energy Center) is located near the city of Sebastian, in unincorporated Brevard County, Florida on 504.75 acres. The solar farm has a capacity of 74.5 MW AC and the surrounding uses consists of some industrial, agricultural land, single family homes, and municipal land. We found seven adjoining properties that qualify for a paired sales analysis.
- Solar Farm 6 (Innovative Solar 42) is located near the City of Fayetteville in Bladen and Cumberland Counties, North Carolina on 414 acres. The solar farm has a capacity of 71 MW AC of power and the surrounding uses consist of agricultural land, forests, and single family homes. We found one adjoining property that qualified for a paired sales analysis.



- Solar Farm 7 (Rutherford Solar Farm) is located near the city of Forest City in Rutherford County, North Carolina in a primarily rural area, on a 489-acre parcel of land. The solar farm has a capacity of 61 MW AC of power and the surrounding uses consist of agricultural land, vacant land, and single family homes. We found two adjoining properties that qualified for a paired sales analysis.
- Solar Farm 8 (Elm City Solar Facility) is located in the City of Elm City in Wilson County, North Carolina, in a primarily rural area, on 354 acres. The solar farm has a capacity of 40 MW AC of power and the surrounding uses consist of forest, industrial, vacant, and single family homes. We found one adjoining property that qualified for a paired sales analysis.
- Solar Farm 9 (Woodland Solar Farm) is located near the City of Windsor in unincorporated Isle of Wight County, Virginia, in a primarily rural area, on 204 acres. The solar farm has a capacity of 19 MW AC of power and the surrounding uses consist of agricultural land, forest land, and single family homes. We found one adjoining property that qualified for a paired sales analysis.
- Solar Farm 10 (DTE's Lapeer Michigan Solar Projects) is a two-farm project, the Demille Solar Farm and the Turrill Solar Farm, located in the City of Lapeer, Michigan. Demille is a 28.56 MW AC solar farm that is situated on approximately 170 acres of land and is surrounded by agricultural land uses and residential uses. Turrill is a 19.72 MW AC solar farm situated on approximately 200 acres. We found four adjoining properties that qualified for a paired sales analysis.

We analyzed 37 adjoining property sales in Test Areas and 238 comparable sales in Control Areas, collectively, for these identified solar facilities, over the past seven years.



#### **RESULTS**

With regard to their impact on nearby property values, our studies of facilities of various sizes demonstrate that there is no measurable and consistent difference in property values for properties adjacent to solar farms when compared to similar properties locationally removed from their influence. This is supported by our interviews with local real estate brokers who have stated that there is no difference in price, marketing periods or demand for the homes directly adjacent to the solar farm facilities.

We have also interviewed market participants, including County and Township Assessors (with solar facilities in their districts), to give us additional insight as to how the market evaluates farmland and single-family homes located adjacent to solar farms. Local assessors we have spoken with directly have noted that there is no evidence of negative property value impacts due to proximity to a solar farm, and local brokers interviewed have noted that there has been no effect on pricing, marketing time, nor conditions of sale.

We performed three Before and After Analyses, in which we compared sales that occurred prior to the announcement and subsequent development of the solar farm project with sales that occurred after completion of the solar farm project for one solar farm in Florida, one solar farm in Indiana, and one in Minnesota, for both adjoining and non-adjoining properties. No measurable impact on property values was demonstrated in these analyses.

We have also reviewed studies prepared by other real estate valuation experts that specifically analyzed the impact of solar facilities on nearby property values. These studies found little to no measurable or consistent difference in value between the Test Area Sales and the Control Area Sales attributed to the proximity to solar farms.

Considering all of this information, we can conclude that since the property values of the Adjoining Property Sales (Test Area Sales) for the existing solar farms analyzed were not adversely affected by their proximity to solar farms, that properties surrounding other solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short- or long-term.



#### LETTER OF TRANSMITTAL

April 9, 2021

Ms. Lina Jensen Project Director Sebree Solar, LLC

SUBJECT: Property Value Impact Study

Real Estate Adjacent to Solar Farms

Dear Ms. Jensen:

CohnReznick is pleased to submit the accompanying adjacent property values impact study regarding proposed solar energy uses.

In developing this report, we have researched the identified existing solar farms listed below, researched articles and other published studies, and interviewed real estate professionals and Township/County Assessors active in the market where solar farms are located, to gain an understanding of market perceptions.

CohnReznick - Existing Solar Farms Studied								
#	Solar Farm	County	State	MW AC	Acreage			
1	North Star Solar	Chisago	MN	100.00	±1,000			
2	Indy Solar III	Marion	IN	8.60	129.04			
3	Dougherty Solar	Dougherty	GA	120.00	1,037.42			
4	Miami-Dade Solar Energy Center	Miami-Dade	FL	74.50	465.61			
5	Barefoot Bay Solar Energy Center	Brevard	FL	74.50	504.75			
6	Innovative Solar 42	Bladen & Cumberland	NC	71.00	413.99			
7	Rutherford Farm	Rutherford	NC	61.00	488.84			
8	Elm City Solar	Wilson	NC	40.00	354.00			
9	Woodland Solar	Isle of Wight	VA	19.00	211.12			
10	DTE Lapeer Solar	LaPeer	MI	48.28	365.68			

The purpose of the assignment is to determine whether the proximity of the proposed renewable energy facility use (solar farm) will result in any significant measurable and consistent impact on adjacent property values, given the existing uses and zoning of nearby property at the time of development. The intended use of our opinions and conclusions is to assist the client in addressing local concerns regarding a solar farm's potential impact on surrounding property values, in addition to addressing the required criteria for obtaining approvals for proposed solar energy projects, such as minimizing the impact on adjacent property values. We have not been asked to value any specific property, and we have not done so.



The client and intended user for the assignment is Sebree Solar, LLC. Additional intended users of our findings may include various county officials in the state of Kentucky and the Kentucky State Electric Generation and Transmission Siting Board. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

The assignment is intended to conform to the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute as well as applicable state appraisal regulations. Based on the analysis in the accompanying report, and subject to the definitions, assumptions, and limiting conditions expressed in the report, our findings follow below.

#### CONCLUSIONS

We analyzed 37 adjoining property sales and over 238 comparable sales, collectively, for the identified ten solar farms, over the past seven years. We note that proximity to the solar farms has not deterred sales of nearby agricultural land and residential single-family homes nor has it deterred the development of new single-family homes on adjacent land.

No empirical evidence evolved that indicated a more favorable real estate impact on the Control Area Sales as compared to the adjoining, Test Area Sales with regard to such market elements as:

- 1. Range of sale prices
- 2. Differences in unit sale prices
- 3. Conditions of sale
- 4. Overall marketability
- 5. New Development
- 6. Rate of Appreciation

We have also reviewed studies prepared by other real estate valuation experts that specifically analyzed the impact of solar facilities on nearby property values. These studies found little to no measurable and consistent difference in value attributed to the proximity to solar farms between unit prices for Test Area Sales and Control Area Sales and noted that solar energy uses are generally considered a compatible use. We have also interviewed market participants, including County and Township Assessors, to give us additional insight as to how the market evaluates farmland and single-family homes with views of the solar farm.

Considering all of this information, we can conclude that since the Adjoining Property Sales (Test Area Sales) for the existing solar farms analyzed were not adversely affected by their proximity to solar farms, that properties surrounding other solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short- or long-term periods.



If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Very truly yours,

#### CohnReznick LLP

Will.

Andrew R. Lines, MAI Principal- Valuation Advisory Services Certified General Real Estate Appraiser

Florida License No. RZ3899 Expires 11/30/2022 Indiana License No. CG41500037 Expires 6/30/2022 Kentucky License 5663 Expires 6/30/2022 Georgia License No. 360939 Expires 10/31/2021

Patricia L. McGarr, MAI, CRE, FRICS National Director - Valuation Advisory Services Certified General Real Estate Appraiser

Patricia & Mcyars

Indiana License No. CG49600131 Expires 6/30/2022 North Carolina License No. A8131 Expires 6/30/2022 Virginia License No. 4001016998 Expires 3/31/2022 Michigan License No. 1201072979 Expires 7/31/2022

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### SCOPE OF WORK

### **CLIENT**

The client for this assignment is Sebree Solar, LLC.

#### **INTENDED USERS**

Sebree Solar LLC; other intended users may include the client's legal and site development professionals, various county officials in the state of Kentucky and the Kentucky State Electric Generation and Transmission Siting Board. Additional intended users of our findings include all relevant permitting authorities for proposed solar energy use sites in Kentucky.

#### INTENDED USE

The intended use of our findings and conclusions is to address certain criteria required for the granting of approvals for proposed solar energy uses in various location in the state of Kentucky, including the minimization of impact on nearby or adjacent property values. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

#### **PURPOSE**

The purpose of the assignment is to determine whether the proximity of the studied facilities (solar farms) resulted in any significant measurable and consistent impact on adjacent property values, given the existing uses and zoning of nearby property at the time of development; address local concerns regarding a solar farm use having a perceived impact on surrounding property values; and, provide a consulting report that can address criteria for obtaining approvals for Sebree Solar, LLC's proposed solar projects.

**EFFECTIVE DATE** 

DATE OF REPORT

April 9, 2021

April 9, 2021

#### **PRIOR SERVICES**

USPAP requires appraisers to disclose to the client any services they have provided in connection with the subject property in the prior three years, including valuation, consulting, property management, brokerage, or any other services.

This report is a compilation of the Solar Farms which we have studied over the past three years and is not evaluating a specific subject site. In this instance, there is no "subject property" to disclose.



# Prepared for Sebree Solar, LLC

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## **INSPECTION**

Patricia L. McGarr, MAI and Andrew R. Lines, MAI have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.

### MARKET ANALYSIS OF THE IMPACT ON VALUE FROM SOLAR FARMS

### **METHODOLOGY**

According to Randall Bell, PhD, MAI, author of text Real Estate Damages, published by the Appraisal Institute in 2016, the paired sales analysis is an effective method of determining if there is a detrimental impact on surrounding properties.

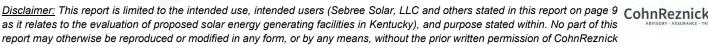
"This type of analysis may compare the subject property or similarly impacted properties called Test Areas (at Points B, C, D, E, or F) with unimpaired properties called Control Areas (Point A). A comparison may also be made between the unimpaired value of the subject property before and after the discovery of a detrimental condition. If a legitimate detrimental condition exists, there will likely be a measurable and consistent difference between the two sets of market data; if not, there will likely be no significant difference between the two sets of data. This process involves the study of a group of sales with a detrimental condition, which are then compared to a group of otherwise similar sales without the detrimental condition."1

As an approved method, paired sales analysis can be utilized to extract the effect of a single characteristic on value. By definition, paired data analysis is "a quantitative technique used to identify and measure adjustments to the sale prices or rents of comparable properties; to apply this technique, sales or rental data on nearly identical properties is analyzed to isolate a single characteristic's effect on value or rent."2 The text further describes that this method is theoretically sound when an abundance of market data is available for analysis. It may be impractical for those property types that do not frequently sell, such as commercial properties. The Appraisal of Real Estate states that the lack of data can reduce the strength of the analysis, and that "an adjustment derived from a single pair of sales is not necessarily indicative" of the value of the single difference (i.e. proximity to an external factor).

Our methodology does not rely on multiple subjective adjustments that are typical in many appraisals and singlepaired sales analyses. Rather, our methodology remains objective and the only adjustments required are for market conditions; this is reasonable as this is an explainable trend tracked by credible agencies. We applied a Trend Analysis to adjust the Control Sales for market conditions (the time between sales), as this is a variable that affects all properties similarly and can be adjusted for in an objective manner. The constant valuation date was determined to be the date of the Test Area sale. According to the Dictionary of Real Estate Appraisal, 6th edition, a Trend Analysis is defined as:

"A quantitative technique used to identify and measure trends in the sale prices of comparable properties; useful when sales data on highly comparable properties is lacking but a broad database on properties with less similar characteristics is available. Market sensitivity is investigated by testing various factors that influence sale prices."

<sup>&</sup>lt;sup>2</sup> The Appraisal of Real Estate 14<sup>th</sup> Edition. Chicago, IL: Appraisal Institute, 2013.





<sup>&</sup>lt;sup>1</sup> Bell, Randall, PhD, MAI. Real Estate Damages. Third ed. Chicago, IL: Appraisal Institute, 2016.

We extracted a monthly appreciation rate for each set of Control Sales and applied that to each respective grouping to normalize the sales to a common valuation date.

#### **PUBLISHED STUDIES**

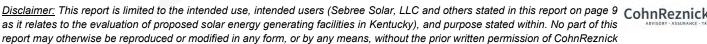
We have also considered various studies that consider the impact of solar farms on surrounding property values. The studies range from survey-based formal research to less formal analyses.

The studies show that over the past decade, the solar industry has experienced unprecedented growth. Among the factors contributing to its growth were government incentives, significant capacity additions from existing and new entrants and continual innovation. The incentives made the solar photovoltaic (PV) industry economically attractive for many consumers and as a result, set the conditions for the boom. A significant amount of farmland trades have been to solar developers; transaction prices for these deals were reported to be between 30 to 50 percent above normal agricultural land prices in 2016.

Clean Energy Trends, a publication developed by Clean Edge, reported in 2013 that investments in new capacity of solar farms increased from approximately \$3 billion USD in 2000 to approximately \$91 billion USD in 2013, just short of the record of \$92 billion USD in 2011. Solar PV installations increased from 31 Gigawatts (GW) in 2012 to a record of approximately 37 GW in 2013. As a result, annual solar PV installations exceeded annual wind installations for the first time. Before 2011, annual wind installations were double annual solar PV installations.

Solar farms offer a wide array of economic and environmental benefits to surrounding properties. Unlike other energy sources, solar energy does not produce emissions that may cause negative health effects or environmental damage. Solar farms produce a lower electromagnetic field exposure than most household appliances, such as TV and refrigerators, and studies have confirmed there are no health issues related to solar farms.<sup>3</sup> The Solar Foundation measured that the solar industry increased employment by 22 percent from 2013 to 2015. Solar farm construction in rural areas has also dramatically increased the tax value of the land on which they are built, which has provided a financial boost to some counties. According to Duke University's Center on Globalization, Governance, and Competitiveness ("DUCGCC"), a study of solar projects in North Carolina indicated despite the 80% tax abatement, the taxable value of a parcel with a solar farm is significantly larger than the taxable value of that same land under agricultural zoning.

<sup>3 &</sup>quot;Electromagnetic Field and Public Health." Media Centre (2013): 1-4. World Health Organization.



Beyond creating jobs, solar farms are also benefiting the overall long-term agricultural health of the community. As explained by ReThink Energy, a conservation foundation, a typical solar farm has more than two-thirds of the field left open and uncovered by solar panels. This unused land, and also all the land beneath the solar panels, will be left to repair naturally.

A solar farm can greatly increase the value of land, offering some financial security for the property owner over 20 to 25 years. Once solar panel racking systems are removed, the land can revert to its original use.

Property value impact studies prepared by other experts have also noted that the installation of utility-scale solar on a property has no measurable or consistent negative impact on adjoining property's value. According to a report titled "Mapleton Solar Impact Study" from Kirkland Appraisals, LLC, conducted in Murfreesboro, North Carolina in September 2017, which studied 13 existing solar farms in the state, the study found that the proposed solar farm had no impact to adjacent vacant residential, agricultural land, or residential homes. The adjoining land for the paired data sales analysis in the report was primarily low density residential and agricultural uses. although there was one case where the solar farm adjoined to two dense subdivisions of homes.

The Chisago County (Minnesota) Assessor's Office conducted their own study on property prices adjacent to and in the close vicinity of the North Star solar farm in Chisago County, Minnesota. At the November 2017 Chisago County Board meeting, John Keefe, the Chisago County Assessor, presented data from his study. He concluded that the North Star solar farm had, "no adverse impact." His study encompassed 15 parcels that sold and were adjacent or in the close vicinity to the solar farm between January 2016 and October 2017. Almost all of the properties sold, were at a price above the assessed value. He further stated that, "It seems conclusive that valuation has not suffered."

Furthermore, Grant County, Kentucky Property Value Administrator, Elliott Anderson, told us that Duke Energy built a solar farm near Crittenden, adjacent to existing homes on Claiborne Drive in December 2017. There have been nine arm's length homes sales on that street since the solar farm came online, due to normal market conditions. Each of those nine homes sold higher than its Assessed Value, one over 32 percent higher. The Assessed Values in Grant County are based on 100 percent Fair Market Values as determined by the Property Value Administrator's office. Anderson noted that several more lots are for sale by the developer and four more homes are currently under construction, set to deliver in 2021. Anderson said that the solar farm had no impact either on adjoining home values or on marketability or desirability of those homes adjacent to the solar farm. Anderson added, the homes sold at market prices in a market that has been experiencing a boom since at least mid-2019.

We note there have been two academic studies completed that attempt to quantify the effect on property values due to proximity to solar. The first paper is a study completed by The University of Texas at Austin, published in May 2018. The paper attempts to qualify that there may be a possible detrimental impact on property values for real estate (single-family homes) located in close distances to a solar facility, and with larger facility size. This opinion was based on survey results with local assessors, of which a majority indicated they had reviewed no data that indicated a negative impact. A small number of those assessor respondents hypothetically surmised an impact, but none had evidence of such statements. Additionally, the research team behind the paper conducted a geospatial analysis to examine both housing density and median income surrounding these

facilities, and made the conclusion "that relatively few homes are likely to be impacted" since few homes are located in proximity to these facilities since they are located in areas with lower populations."

Finally, the University of Texas paper concluded that a real estate professional should undertake a more specific impact study to address and test their initial findings.

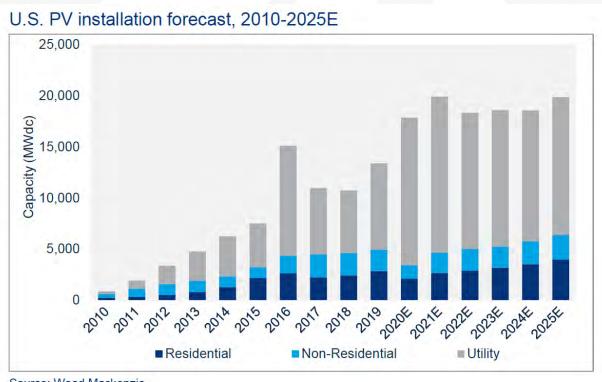
The second paper is a study completed by a team at the University of Rhode Island, published in September 2020. The study utilized a hedonic pricing model, or multiple regression analysis, to quantify the effect of proximity on property values due to solar by studying existing solar installations in Massachusetts and Rhode Island. A significant weakness of the study is that the data points in the Test Area group extend up to a mile away from solar installations, and the preparer of the study acknowledged that view of a solar farm was not a tracked attribute of the sales. Our review of the study indicated that there was not enough reliable data utilized in the analysis to produce credible results and certain data points included in the analysis should have been omitted. That being stated, the total impact on adjacent property was considered by the model to be 1.7 percent - or a very nominal amount that we believe to be immaterial.



### ADJACENT PROPERTY VALUES IMPACT STUDY

### **OVERVIEW OF SOLAR DEVELOPMENT IN THE UNITED STATES**

Solar development increased almost exponentially over the past ten years in the United States as technology and the economic incentives (Solar Investment Tax Credits or ITC) made the installation of solar farms economically reasonable. The cost to install solar panels has dropped nationally by 70 percent since 2010, which has been one factor that led to the increase in installations. A majority of these solar farm installations are attributed to larger-scale solar farm developments for utility purposes. The chart below portrays the historical increase on an annual basis of solar installations in the US as a whole, courtesy of research by Solar Energy Industries Association (SEIA) and Wood Mackenzie, and projects solar photovoltaic (PV) deployment for the next five years, through 2025, with the largest percentage of installations attributed to utility-scale projects.



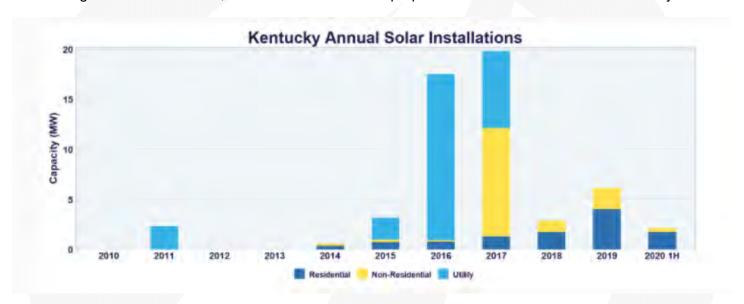
Source: Wood Mackenzie

The United States installed 13.3 Gigawatts (GW) DC of solar photovoltaic capacity for both residential and utilityscale solar projects installed in 2019, representing an increase of 23 percent year-over-year. The first quarter of 2020 was largely unaffected by the Coronavirus Pandemic, and saw 3.6 Gigawatts (GW) DC installed, the largest first quarter on record by over 1 Gigawatt. However, the Solar Industry is not immune from the pandemic. Second quarter is seeing some impact, most acutely in distributed solar, which is expected to see 31 percent fewer installations as compared to last year, as installers face work stoppages and consumer demand reacts to an impending recession. The pipeline for utility-scale PV, as of June 2020, includes capacity of 51 GW combined

from contracted projects (including those under construction) as well as announced but pre-contract sources.<sup>4</sup> With the increase of utility-scale solar installations across the country, solar projects have become a common and understood feature of the landscape and will continue to proliferate with the projected additional capacity to come online in the coming years despite the downside risks caused by the coronavirus pandemic.

### SOLAR DEVELOPMENT IN KENTUCKY

As of the end of the first half of 2020, Kentucky has 54.5 MW of solar installed, ranking only 47th in the US for the capacity of solar installed. There have been significantly more utility investments in clean energy with continued growth on the horizon, with 590.04 MW of solar proposed to be installed over the next five years.



Kentucky only has a few solar installations, and most of them are less than 10 MW of power. The largest solar site in Kentucky is the Kentucky Utilities Co. project located in Mercer County, Kentucky. This solar farm is part of the E.W. Brown Generating Station, consisting of 457 MW of coal-fired power generation, 895 MW of natural gas fired power generation, 10 MW of solar power generation, and 33 MW of hydroelectric power generation. The generating station was established in 1925 with the construction of the Dix Dam and Dix hydroelectric facility, representing Kentucky's first hydroelectric dam by the time it was completed in 1925. Herrington Lake was also formed as a result, which has numerous residential homes along the waterfront and is a popular fishing and recreation destination. The solar facility was added in 2016 and sits on fifty acres of the power plant property, providing electricity to power approximately 1,500 homes. We note there are some homes to the east of the solar arrays along Herrington Lake with boat docks that were built in the 1960s before the solar panels were constructed. These homes are more expensive than the median home value in the county on a per square foot of gross living area basis given their waterfront location on Herrington Lake, although they are accessible only via a utility road on the power plant property. Homes on the other side of Herrington Lake are adjacent to a golf

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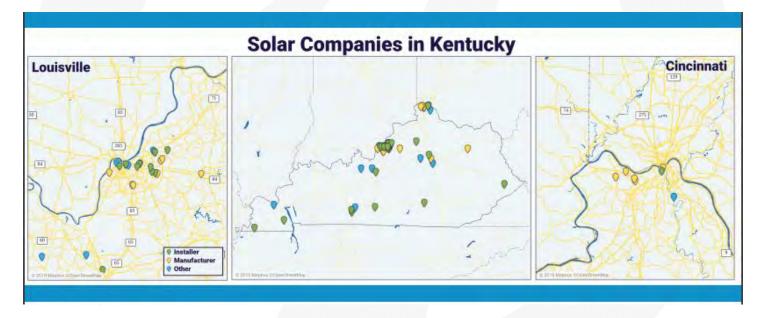


<sup>&</sup>lt;sup>4</sup> Solar Energy Industries Association, Solar Market Insight Report 2020 Q2, released June 2, 2020.

course and are generally larger in size. As identified in the Methodology section earlier in this report, credible results from paired sales analysis can be achieved when it is used to extract the effect of a single characteristic on value. We did not prepare an independent evaluation of the homes adjacent to the solar panels since it is difficult to extract any other possible external influence on property values, including adjacency to the coal-fired and natural gas combustion generators at the E.W. Brown Generating Station or proximity to a golf course.

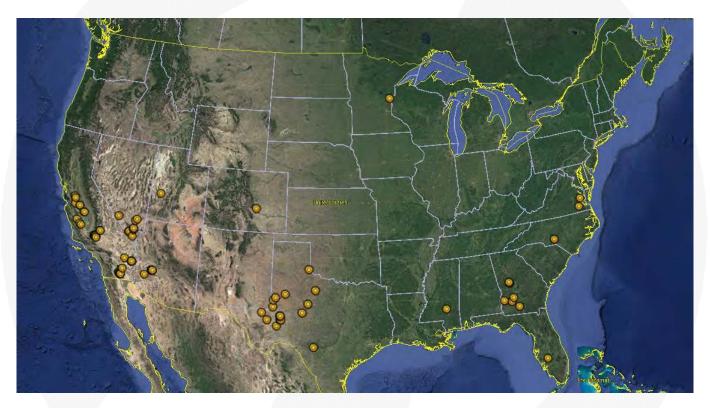
The next largest solar farm is East Kentucky Power Cooperative, Inc.'s Cooperative Solar One project that installed in November 2017, located in Clark County, KY with a capacity to generate 8.5 MW of electricity. A Clark County, Kentucky Property Valuation Administrator, Jason Neely, noted there have been no complaints regarding the Cooperative Solar One project. Additionally, Neely stated he has not seen any evidence of lowered property values in the area and no reduction in assessed property values has been made due to proximity to the solar farm.

Kentucky is home to 1,362 solar related jobs, and 55 solar related companies, which includes 15 manufacturers, and 22 installers/developers. We have presented a map for these companies on the following page, courtesy of the SEIA.



#### LARGE-SCALE SOLAR IN THE UNITED STATES

According to the U.S. Energy Information Administration (EIA) through June 2020, there were ±230 solar facilities in operation that generate more than 50 MW AC of power, and ±84 solar facilities in operation that generate more than 100 MW AC of power. A map illustrating existing solar farms with capacities greater than 100 MW is presented below (indicated by yellow suns), using data retrieved from the Energy Information Administration (EIA). There are currently no operating solar farms in Kentucky with capacities greater than 25 MW, although new large, utility scale projects have been approved in the surrounding states within the last 2 years or are under construction.

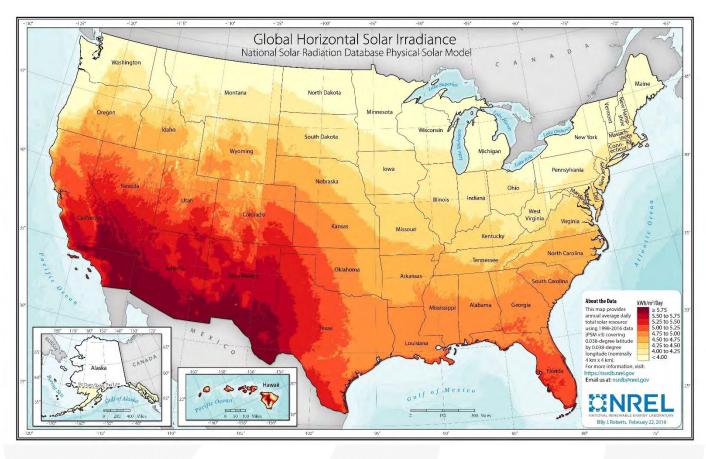


To meet zoning and planning requirements, and/or to take advantage of certain incentive programs, several solar farms are built by the same developer around the same location, de facto functioning as one larger solar farm. Many of these solar facilities are located in California, with several located in Florida, Texas, Nevada, North Carolina, Arizona, Georgia and Utah. Additionally, these installations are typically located in outlying areas where site costs are lowest, and residential development and sales activity is minimal in these areas. While we have reviewed each for surrounding uses, the majority are not good candidates for a paired sales analysis since they were either recently constructed or surrounding development/sales activity was minimal.



In the United States there are ±27 operating solar farms with generating capacities above 200 MW AC, presented below (indicated by green suns). All of the existing solar farms in operation as of June 2020 that have a generating capacity of greater than 200 MW AC are located in the southwestern United States. This is due to economies of scale for reducing development costs by maximizing size in areas where there is maximum sunlight, and can be correlated between the below aerial image and the map presented on the following page developed by the National Renewable Energy Laboratory (NREL).





The vast majority of them are locationally removed from development. For example, the 253 MW AC solar farm known as Antelope Valley Solar Ranch One, as shown below, is located in the Mojave Desert on non-crop producing land, approximately 50 miles north of the City of Los Angeles and feeds into the Pacific Gas and Electric's power grid.





The largest operating solar farm in the United States and one of the largest in the world is the Topaz Solar Farm. located in California Valley in eastern San Luis Obispo County, in the northern portion of the

Carrizo Plains. The Topaz Solar Farm has a total nameplate compacity of 585.9 MW AC, and was constructed over time between 2013 and 2014 on 4,700 acres of private land, consisting of five individual permitted installations ranging in size from 90 MW to 151 MW. Pacific Gas and Electric purchased the electricity generated under a 25-year power purchase agreement. The power generated is enough to power nearly 160,000 average California homes, and at the time of development economic benefits were an estimated \$417 million, including property and sales tax revenue for the county, wages from employment, and supply chain spending.



We also spoke with the San Luis Obispo Real Property Appraiser Ross Felthousen who indicated that this is an environmentally sensitive area, and it is the least desirable for nearly any type of development. The Carrizo Plain is a large-enclosed grassland containing the Carrizo Plain National Monument, the largest single native grassland remaining in California and national historic landmark. Additionally, the San Andreas Fault is located along the eastern edge of the Carrizo Plains. The area is remote in nature, as it is at least an hour in either direction to reach major cities; although, for solar development it has a high amount of "sun" days, two existing high capacity power lines, and little fog days due to its location in the California Valley.

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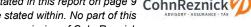


As part of the development process, the developer purchased the underlying land and also had to purchase land for mitigation since there are endangered plant and animal species in this area (aside from also meeting "100" conditions of approval). Screening and fencing were required to be compatible with the endangered species' native habitat. According to the owner's project description, the developer worked with the county, state, and federal resource agencies, and national and local environmental groups, to avoid, minimize and mitigate environmental impact, including the following:

- "Productive grassland habitat for native plants and animals while passively farming the sun's energy.
- No panel washing is required. Annual rainfall in the [Carrizo] Plains is sufficient to clean the panels.
- Year-round vegetation monitoring provides dust control and habitat for native species. Annually, a variety of grazing methods are used throughout the project footprint for vegetation management.
- Between 2015 and 2020, monitoring efforts of the San Joaquin kit fox a federally listed endangered species – will be done throughout the project footprint and the surrounding mitigation lands.
- Situated on nonprime agricultural land, animals can graze throughout the project footprint within wildlife movement corridors. The movement corridors support Pronghorn Antelope and Tule Elk."5

While it was undergoing development, the construction of this and the neighboring California Valley Solar Ranch spurred hundreds of new jobs, requiring on-site housing due to its remote location. As a result, there was a flurry of activity in the area, which included reopening a vacant motel for the construction workers. Fewer than 500 people live in this area, most of which are retirees, ranchers, or those working on protecting the Carrizo Plains. The area has seen limited development activity since water is sparse, and the quality of the groundwater is also questionable in areas.

In the 1960s, an antiquated subdivision known as California Valley was platted, which includes more than 7,000-2.5 acre lots. Success of the subdivision largely relied on municipal water supply, but it never came to fruition due to several issues. Since then, approximately 100-200 of the lots have been developed, limited to areas were private wells have the quantity and quality of water for residential use. Public services are limited in this area given the low population. According to Felthousen, the 2.5-acre lots in California Valley are estimated at \$3,000 to \$10,000 per acre depending on the availability of water, and there is very minimal demand given the prior comments on the area. The image on the next page illustrates the location of the subdivision.



<sup>&</sup>lt;sup>5</sup> https://www.bherenewables.com/include/pdf/fact\_sheet\_topaz.pdf



California Valley Subdivision Location (indicated by orange star)



As encircled by the red oval on the prior page, most of the development in the subdivision is limited to this area as it is the most prevalent with water for private wells.

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After reviewing local environmental barriers and the lack of public infrastructure, these two solar farms in California Valley did not qualify for further analysis as the local area is not comparable to the Project Area and the presence of several external factors reduces the credibility of an analysis. San Luis Obispo Real Property Appraiser Ross Felthousen indicated that neither solar farms affected property values in the local area, and in fact increased local activity.

The remainder of the existing solar farms in operation over 200 MW AC are located in areas where there is no adjacent development to study and these did not qualify for further analysis. The next section details the selected Existing Solar Farms in the adjacent property value impact study.

#### SELECTION OF SITES AND ANALYSES

Because of the lack of large existing utility-scale solar installations in Kentucky, we expanded our analysis and reviewed other large solar farms in other states. We reviewed additional solar farms located in Kentucky; however, they were not candidates for a paired sale analysis due to external factors or lack of adjoining sales.

Based on our previous assessment of solar development, we have studied established solar farms in the Midwest/South (one in Georgia, two in Florida, one in Indiana, one in Minnesota, and one in Michigan) and the East (three in North Carolina and one in Virginia) because of their size and the way that soil conditions, climate, and topography contribute to property values and their potential for impact on property values in addition to the adjacent uses and development trends.

The selected solar sites in this analysis were considered based on their similarities in surrounding areas, size, and availability of arm's length adjoining property transaction data that were available for analysis. Of significance is the North Star Solar Farm located in Chisago County, Minnesota. This is a utility scale solar farm is located in a rural area surrounded by single family residences and agricultural land, similar to the proposed projects.

In total, we identified ten solar farms to study with comparable sales where generally the only difference was the attribute under study: proximity to a solar farm.

Ownership and sales history for each adjoining property to an existing solar farm through the effective date of this report is maintained within our workfile. Adjoining properties with no sales data or that sold prior to the announcement of the solar farm were excluded from further analysis. Adjoining properties that sold in a nonarm's length transaction (such as a transaction between related parties, bank-owned transaction, or between adjacent owners) were excluded from analysis as these are not considered to be reflective of market price levels. The adjoining properties that remained after exclusions were considered for a paired sale analysis.



The difference in price is considered to be the impact of the proximity to the solar farm. Two types of paired sales analyses were considered based on the availability of data:

- Comparing sales of adjoining properties prior to the announcement of the solar farm to sales of adjoining properties after announcement and subsequent development of the solar farm (a "Before and After Analysis").
- Comparing sales of adjoining properties after the announcement and subsequent development of the solar farm to sales of comparable properties that are locationally removed from their influence.

We have considered both types of paired sales analyses in this study. We performed three "Before and After Analyses," as defined above, for one solar farm in Indiana, one in Minnesota, and one in Florida. The remaining existing solar farms studied did not qualify for this Before and After Analysis due to lack of quantity of homogenous sale data. All ten solar farms qualified for the second type of paired sales analysis, which was comparing sales of properties locationally removed from the solar farm (Control Area) to sales of adjoining properties that occurred after the announcement and subsequent development of the solar farm project (Test Area).

We have found Control Area sales data through the local Multiple Listing Service (MLS) and other real estate broker databases and verified these sales through county records, conversations with brokers, the individual county's GIS services, and the county assessor's office. It is important to note that these Control Area Sales are not adjoining to any solar farm, nor do they have a view of a solar farm from the property. Therefore, neither the announcement nor the completion of the solar farm use could have impacted the sale price of these properties.

To make direct comparisons, the sale price of the Control Area Sales will need to be adjusted for market conditions to a common date. In this analysis, the common date is the date of the Adjoining Property Sale after the completion of the solar farm. After adjustment, any measurable difference between the sale prices would be indicative of a possible price impact by the solar farm, if any.

For the ten existing solar farms studied, a summary of the analysis completed for each solar farm studied is presented on the following pages. Details of these analyses are retained within our workfile, and will be provided to the client for their review (or to a party of the hearing), after execution of a specific Non-Disclosure Agreement relating to our research and interviews.

We also noted that our impact study data and methodology have been previously reviewed by our peer in the filed – Kirkland Appraisals, LLC – as well as by the Solar Energy Industries Association (SEIA).



### SOLAR FARM 1: NORTH STAR SOLAR FARM, CHISAGO COUNTY, MINNESOTA



Coordinates: Latitude 45.486756, Longitude -92.884206

PINs: Multiple

Total Land Size: ±1,000 Acres

**Date Project Announced: 2014** 

**Date Project Completed:** October 2016

Output: 100 MW AC

## **Overview and Surrounding Area:**

The North Star Solar Farm is located approximately four miles southeast of the City of North Branch in unincorporated Chisago County, near the intersection of Route 69 and Route 72. The solar farm was developed by Community Energy Solar in 2016 and is the largest solar farm in the Midwest. The solar farm features 440,000 solar panels and a power output capacity of 100 MW AC, which is enough to power 20,000 homes. The owner, North Star, LLC, has a 25-year purchase contract for the power produced by the project with Xcel Energy.

Chisago County lies on Minnesota's eastern border, abutting the western border of Wisconsin, across the Saint Croix River. The North Star Solar Farm is approximately 16 miles west of the border with Wisconsin and is just



over one mile west of the Kost Dam public park and reservoir, a 28-acre park on the south branch of the Sunrise River.

### The Immediate Area:

The North Star Solar Farm is surrounded by agricultural land to the north and west. To the south and east of the project there are several residential properties, some of which are nestled within the actual solar farm.

All of the adjacent land parcels to the solar farm are used for agricultural or residential purposes.

The solar farm has agricultural and deer fencing around parts of the project. Additionally, native vegetation and trees previously existed as a buffer along the frontage roads.

Prior Use: Agricultural use

## **Real Estate Tax Information:**

Prior to development of the solar farm, in 2015, this ±1,000-acre site paid real estate taxes of \$37,250, annually. After the solar farm development, in 2017, real estate taxes increased to \$112,856, a 203 percent increase in tax revenue for the site.

PIN	Acres
Chisago County, MN	
09.00348.00	74.91
09.00349.00	74.30
09.00350.10	16.95
09.00351.10	68.01
09.00353.00	81.87
09.00354.00	121.84
11.00517.00	72.07
11.00528.00	66.42
11.00529.00	60.26
11.00726.00	40.55
11.00730.00	68.32
11.00731.00	160.83
11.00732.00	30.52
11.00732.10	10.00
TOTAL	946.85

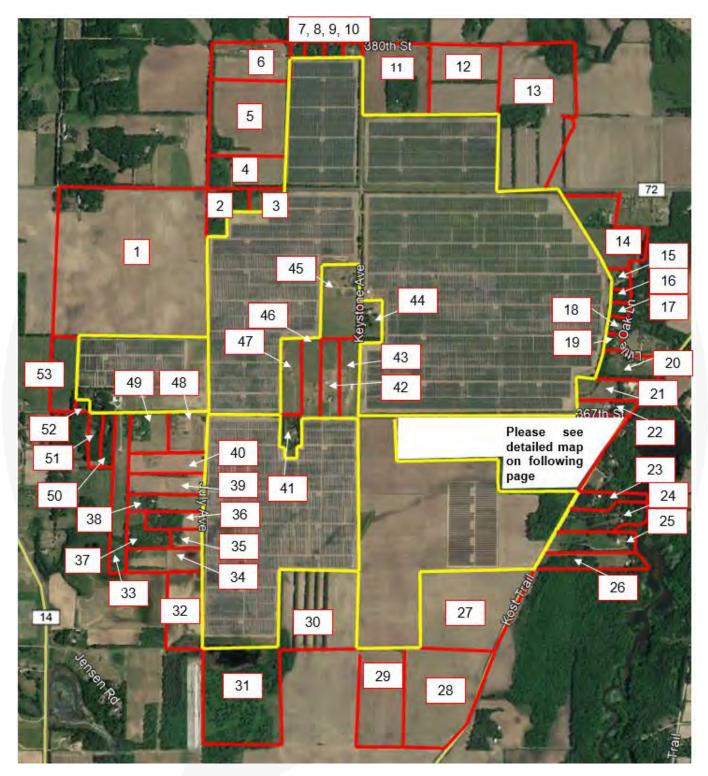
	201	5 Taxes	20	17 Taxes	Tax
	- 1	Paid		Paid	Increase
				4/2	
	\$	2,806	\$	8,546	205%
	\$	2,818	\$	8,578	204%
	\$	644	\$	2,752	327%
	\$	3,260	\$	9,806	201%
	\$	3,114	\$	8,678	179%
	\$	4,578	\$	13,324	191%
	\$	3,382	\$	7,440	120%
	\$	1,460	\$	6,836	368%
	\$	1,506	\$	7,284	384%
	\$	1,010	\$	3,968	293%
	\$	3,426	\$	7,638	123%
	\$	3,598	\$	17,924	398%
	\$	788	\$	4,748	503%
	\$	4,860	\$	5,334	10%
ł	\$	37,250	\$	112.856	203%

2015 Assessed		201	7 Assessed	Value	
	Value		Value	Increase	
\$	198,800	\$	233,900	18%	
\$	199,600	\$	234,800	18%	
\$	45,600	\$	75,300	65%	
\$	230,900	\$	268,400	16%	
\$	220,500	\$	237,500	8%	
\$	324,200	\$	364,700	12%	
\$	194,400	\$	224,100	15%	
\$	180,000	\$	210,000	17%	
\$	168,700	\$	168,800	0%	
\$	110,700	\$	140,700	27%	
\$	315,700	\$	338,200	7%	
\$	422,500	\$	469,100	11%	
\$	84,900	\$	109,500	29%	
\$	257,700	\$	290,100	13%	
\$	2.954.200	\$	3.365.100	14%	

# **Adjoining Properties:**

The maps on the following pages display the parcels that contain the solar farm (outlined in yellow). Properties adjoining the solar site (outlined in red) are numbered for subsequent analysis.

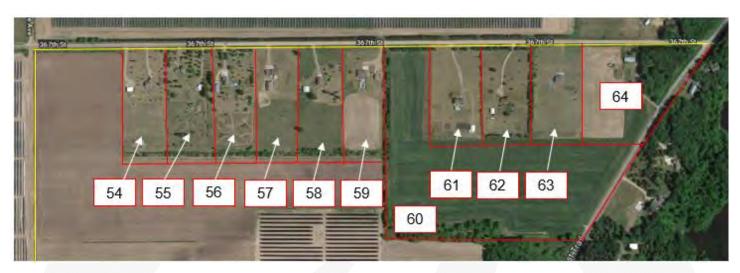




North Star Solar Farm - Adjoining Properties

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North Star Solar Farm - Adjoining Properties

In reviewing Adjoining Properties to study in a Paired Sales Analysis, several properties and sales were considered but eliminated from further consideration as discussed below.

While assembling the solar development site, the developer of the solar farm acquired seven homes along 367<sup>th</sup> Street and nearby, Adjoining Properties 41, 42, 43, 44, 45, 46, and 47, which are surrounded by the solar arrays. According to conversations with the solar developer, they purchased the homes prior to development to provide interim housing for employees as the solar farm was under construction, or for potential use for the project area (which ultimately was not necessary). Per the developer the houses were purchased at an assemblage premium above their appraised values. After construction, the developer sold all seven homes at market prices, six to new buyers, and one, Adjoining Property 47, which was re-purchased by the original owner. This indicates that the development of the North Star Solar Farm did not deter transactions nor affect sale prices in the surrounding area.

Clifford Sheppeck, broker at Keller Williams Classic, was hired by Renewable Energy Asset Co, LLC, the solar farm developer, to market and sell the remaining five properties that the developer owned. We discussed these transactions with Mr. Sheppeck who indicated they all sold within two months, which was in line with the market.

In addition to the seven homes sold by the developer, we identified six other properties all which sold since the construction of the solar farm: Adjoining Properties 3, 10, 18, 38, 54 and 64. In all, a total of 13 identified Adjoining Properties have sold during or since the construction of the solar farm. These properties are discussed further in the following sections.

### Properties Excluded from Paired Sales Analysis

Adjoining Property 3, located at 10009 375th Street, sold most recently in July 2019 for \$260,000, or \$172.41 per square foot of finished living area. This property is improved with a modular/pre-fabricated home in the rambler style, with one story and a basement with a partial walk-out portion, on just over five acres of land. During our search for similar homes that sold away from the solar farm, we did not locate enough market transactions of homes around the time of the most recent sale of Adjoining Property 3 with similar construction and land size to

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yield reliable conclusions in a paired sale analysis. Although, this home, located at 10009 375th Street, sold most recently in July 2019 for \$260,000 it had also sold in March 2016 for \$219,900, during construction of the solar farm. The home also sold in March of 2005 for \$163,000. We have excluded the 2016 sale from paired sale analysis because we cannot separate any influence from construction on the sale price at that time. However, we can calculate the average monthly appreciation from 2005 to 2019 (+0.27 percent) which is higher than the average monthly home price appreciation in the same zip code of 55056 according to the FHFA Housing Price Index (discussed in more detail later), which was 0.0 percent over the same period. It is evident that the home value increased at a higher rate than homes in the local area over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm. The buyer's broker in the 2019 sale, Gail Reinhard, noted that the buyer had no concerns or issues with the home's proximity to the solar farm and the price paid was market oriented.

Adjoining Property 10, located at 10270 380th Street, sold in June 2018 for \$163,800, or \$143.18 per square foot of finished living area. The property is improved with a small, single-story, modular/pre-fabricated home with no basement, which is atypical for the area. Most the homes in the area, while similar in gross living areas, are onestory, single-family homes with basements, many with some level of finished square footage below grade. We conducted a search in the area for comparable modular homes without basements but did not find sufficient data yield reliable conclusions in a paired sale analysis. Additionally, this home does not appear to have been listed on the local MLS as we could not identify a broker contact for the most recent sale. We have reached out to the buyer and seller to confirm the nature of the transaction, but as of this writing, we have not made contact. We note that the home sold previously in July 2004; however, county sale records indicate the 2004 sale was between related parties which disqualifies it as an arm's length transaction. Due to limited sales in the area to categorize as Control Area Sales, Adjoining Property 10 was excluded from further analysis.

Adjoining Property 22, located at 11210 367th Street, sold in March 2015 for \$280,000, or \$74.55 per square foot of finished living area. It is a rambler built in 1974 with a full finished basement and has some ancillary farm buildings on a 5.2 acre site. This property also sold previously in December 2003 for \$107,000 before the solar farm was constructed. We have excluded the 2015 sale from paired sale analysis because we cannot separate any influence from construction on the sale price at that time. However, we can calculate the average monthly appreciation from 2003 to 2015 (+0.71 percent) which is higher than the average monthly home price appreciation in the same zip code of 55056 according to the FHFA Housing Price Index (discussed in more detail later), which was -0.1 percent over the same period. It is evident that the home value increased at a higher rate than homes in the local area over the same period. This information is also presented in the Before and After Analysis later in the study of the North Star solar farm.

Adjoining Property 38, located at 36438 July Avenue, sold during construction of the solar farm in October 2015 for \$225,000, or \$117.68 per square foot of finished living area. It is a home designed specifically as a passive solar home, taking advantage of the same renewable energy potential of the North Star solar farm. The property is set back behind five acres of agricultural land and is secluded behind trees and operates as a mixed-use "hobby farm." This is a highly atypical use with no comparable sales and it sold during construction; we have excluded the 2015 sale from paired sale analysis because we cannot separate any influence from construction on the sale price at that time. We note that the home sold previously in November 2003; however, we could not



prepare a Before and After analysis utilizing this prior transaction as the most recent sale was marketed as a passive solar home. For these reasons, Adjoining Property 38 was excluded from further analysis.

Adjoining Property 41, located at 10095 367th Street, is subject to an existing 30-year lease for the southern 6.24 acres of the parcel for solar panels in the North Star solar farm. Because the property is a participating parcel in the solar farm, and due to the additional rental income from the land, the June 2017 sale of this property for \$336,900, or \$135.48 per square foot of finished living area, was excluded from a paired sales analysis. The sale of this property in May 2016 was to the solar developer for an above appraised value of \$365,000, which was an atypically motivated transaction. Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis.

Adjoining Property 43, located at 10254 367th Street, sold for \$335,000 in July 2017, for \$191.21 per square foot of finished living area, and is a two-story home with an atypical floor design. Most of the homes in the area, while having similar gross living areas, are one-story, single-family homes with basements. We conducted a search in the area for comparable above-grade, two-story homes, but did not find sufficient sales data. Mr. Sheppeck was the listing broker for this property and confirmed its atypical nature. He indicated that it sold at a price that was in-line with the market even though two-story homes are considered to be rare in the area. Due to limited comparably designed sales in the area, Adjoining Property 43 was excluded from a paired sales analysis. The prior sale of this property was to the solar developer for assemblage during construction for \$535,000, an above market price, in July 2016. Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis.

Adjoining Property 44. located at 37083 Keystone Avenue, sold for \$257,000, or \$157,86 per square foot of finished living area, in August 2017 and is a one-story rambler style home with an inferior quality of construction and an inferior basement. Sale listing materials indicated deferred maintenance. Most comparable sales either have finished or walk-out basements and average to above-average construction and condition quality. Due to limited comparable sales for this property, Adjoining Property 44 was excluded from a paired sales analysis. The prior sale of this property was in October 2016, to the solar developer for assemblage, for \$302,500. Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis.

Adjoining Property 45, located at 37206 Keystone Avenue, sold in June 2017 for \$290,000, or \$149.48 per square foot of finished living area, from the solar farm developer. The property is a split-entry home on over 20 acres. The home features an attached 3-car garage, a detached two-car garage with a finished second story, and a fenced in-ground pool. The County Assessor classified this property as agricultural due to its large acreage. Because this home is atypical (large acreage and pool) there were no comparable sales in the area and Adjoining Property 45 was excluded from further analysis. This home was previously purchased by the solar farm developer in July 2016 for \$450,000, an above market price, for assemblage during solar farm construction. After construction was complete, the home was sold in 2017 at a market-oriented price, in an average number of days listed on the Multiple Listing Service (MLS). Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis.

Adjoining Property 47, located at 10090 367th Street, most recently sold in March 2018 for \$302,500, or \$127.53 per square foot of finished living area, from the solar farm developer. This home was previously purchased by



the solar farm developer in August 2016 for \$360,800, an above market price, for assemblage during solar farm construction. According to the broker, Cliff Sheppeck, the original owner leased the house back from the developer after the sale, never moved out, and was hired to do maintenance and upkeep on the other six houses the developer purchased in the area. When the developer no longer needed the property, he sold it back to the original owner in 2018 at a market-oriented price. Because of the relationship between the parties in 2018 and 2016, we have not included it in a Paired Sales Analysis nor a Before and After analysis.

Adjoining Property 64, located at 36640 Kost Trail, sold in December 2019 for \$310,000, or \$139.70 per square foot of finished living area. The property is an above-grade, two-story home and has a partially finished basement, on over 8 acres of land. The property also includes a detached 2-car garage and a pole barn. Jeff Turbeville, broker at Edina Realty Inc., explained this two-story home style is atypical in the area and not enough control sales could not be found in our search for a credible paired sales analysis; thus, Adjoining Property 64 was excluded from further analysis.

## Properties Included in Paired Sales Analysis

Adjoining Property 18, located at 37096 Little Oak Lane, sold in April 2017 for \$289,000, or \$119.82 per square foot of finished living area. The home is a rambler style, one-story, home with a finished walk-out basement on a 2.07-acre parcel. The improvements on this property are located approximately 225 feet from the nearest solar panel. The buyer's broker, Amy Lamb, noted that the home was in good shape and had been on the market for two years because the seller would not lower the price to market levels during previous listings. In the summer, Lamb noted, the solar panels were barely visible from the back of the property, but in winter they were visible. Lamb asked the buyers if the solar panel view would be a problem and their opinion was that the neighboring solar panels meant no other development that created traffic or noise would be built to disturb them. This home qualified for a paired sales analysis and was studied in Group 2, as detailed on subsequent pages. We have also studied this property in a Before and After analysis later in this report as it also sold in 2006, prior to construction of the North Star solar farm.

Adjoining Property 42, located at 10200 367th Street, sold in November 2017 for \$330,000, or \$151.93 per square foot of finished living area. The home is a split-level style house on 9.30 acres. The improvements on this property are approximately 393 feet from the nearest solar panel. This home qualified for a paired sales analysis and was studied in Group 1, as detailed on subsequent pages. This home was previously purchased by the solar farm developer in July 2016 for \$387,900, an above market price, for assemblage during solar farm construction. After construction was complete, the home was sold in 2017 at a market-oriented price, in an average number of days listed on the Multiple Listing Service (MLS). Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis.

Adjoining Property 46, located at 10132 367th Street, sold most recently in December 2020 for \$415,000, or \$196.87 per square foot of finished living area. The home is a split-level style house on 9.31 acres. The home features an attached 3-car heated garage, an 816 square foot detached heated garage, and a 1,400 square foot outbuilding. The improvements on this property are approximately 330 feet from the nearest solar panel. This home also sold in October 2017 for \$333,000 from the solar developer who had purchased it in September 2016 for \$387,900, an above market price, for assemblage during solar farm construction. After construction was complete, the home was sold in 2017 at a market-oriented price, in an average number of days listed on the

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Multiple Listing Service (MLS). This home qualified for a paired sales analysis and was studied in Group 1 (2017) sale), and in Group 3 (2020 sale), as detailed on subsequent pages. Because this home traded in an atypically motivated transaction in 2016, we have not included it in a Before and After analysis.

Adjoining Property 54, located at 10009 375th Street, sold in July 2019 for \$260,500, or \$137,83 per square foot of finished living area. The home is a is a split-level style house on 5.0 acres. The improvements on this property are located approximately 352 feet from the nearest solar panel. This home qualified for a paired sales analysis and was studied in Group 1, as detailed on subsequent pages. We have also studied this property in a Before and After analysis later in this report as it also sold in 1999, prior to construction of the North Star solar farm.

### Paired Sales Analysis

### Group 1

We analyzed three split-level homes that sold between 2016 and 2017 that were located adjacent to the North Star solar farm.

North Star Solar Test Area Sales - Group 1									
Adj. Property #	Address	Sale Price	Sita Siza	Beds	Baths	Year Built	GLA (SF)	Sale Date	Price PSF
52	10505 367th St	\$260,500	5.00	3	2	1999	1,890	Aug-16	\$137.83
42	10200 367th St	\$330,000	9.30	4	3	2003	2,172	Nov-17	\$151.93
46	10132 367th St	\$333,000	9.31	4	3	2001	2,108	Oct-17	\$157.97
Median		\$330,000	9.30	4	3	2001	2,108	Oct-17	\$151.93

Throughout our analysis we have relied on square footage data from the Chisago County Assessor's office for home sizes. We have included above-grade and finished below-grade square footage in our calculations as the market in this area considers finished square feet on every level to be livable. Split-level homes and those with basements or walkout basements are prevalent in this area. We note that the square footage for Adjoining Property 42 is shown on the MLS real estate listing from 2017 as being 2,350, we have utilized the Assessor's livable square footage of 2,172 in our analysis.

We analyzed 11 Control Area Sales, single family homes with similar location, construction, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Test Area Sales, that were not located in close proximity to the solar farm.

The Control Area Sales for Group 1 are split-level homes with either 3 or 4 bedrooms and 1.5 to 4 bathrooms. We excluded sales that were bank-owned, those between related parties, or others under duress as non-arm's length transactions.

When adjusting sale prices for market conditions (time between date of Test Area Sale and Control Area Sale date) throughout this analysis we have used regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for the zip code 55056, the zip code of all Test Area and Control Area Sales, for the compounded monthly rate of appreciation. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI

is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. We adjusted Group 1 Control Area Sales using the FHFA HPI for the period from 2016 through 2017.

The results of our analysis for Group 1 are presented below.

CohnReznick Paired Sale Analysis North Star Solar Group 1							
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF					
Test Area Sales (3)	Adjoining solar farm	\$151.93					
Control Area Sales (11)	No: Not adjoining solar farm	\$139.50					
Difference between Unit Pri Adjusted Median Unit Pri	8.91%						

We note a somewhat large positive difference in adjusted median price per square foot between the median of the Test Area Sales and the Control Area Sales. The price differential is likely attributable to the larger parcel sizes of the Test Area Sales, which range from 5.00 acres to 9.31 acres. The Control Area Sales home sites range from to 2.29 to 7.10 acres, with a median of 5.0 acres. Control Area Sales with lot sizes that bracketed the Test Area Sales on the high side did not transact during the period studied but the properties are considered comparable. The sale prices of Adjoining Properties in Group 1 were not negatively impacted by the homes' proximity to the North Star solar farm.

We note that the median unit sale price of the most recent sales of each of the excluded adjoining properties identified previously is \$141.44 per square foot. As indicated above, the included Test Area Sales have a median unit price of \$151.93 per square foot. Inclusion of the excluded adjoining property sales would not have made a conclusive impact on the conclusions of the paired sale analysis.



<sup>6</sup> https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx

### Group 2

We analyzed Adjoining Property 18, a single-story, rambler style home that sold in 2017.

North Star Solar Test Area Sale - Group 2									
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median GLA (SF)	Median Sale Date	Median Price PSF
18	37096 Little Oak Ln	\$289,000	2.07	4	3.0	2001	2,412	Apr-17	\$119.82

We analyzed 10 Control Area Sales, single family homes with similar location, construction, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Test Area Sale, that were not located in close proximity to the solar farm.

Adjoining Property 18 sits on a somewhat small lot for the home size in this area. So as to capture homes that bracket the Test Area Sale home size, those ranging from 2,314 square feet to 3,371 square feet of finished living area (including finished basements), the parameters of our search for Control Area Sales were widened to include lot sizes between 1 and 10 acres.

The Control Area Sales for Group 2 are rambler style homes with 4 bedrooms and 2 to 4 bathrooms on less than 10-acre parcels. We excluded sales that were bank-owned, those between related parties, or others under duress as non-arm's length transactions. We adjusted the Control Area Sales for market conditions using the compounded monthly growth rate exhibited in the FHFA House Price Index, for the period from 2016 through 2018.

CohnReznick Paired Sale Analysis North Star Solar Group 2							
No. of Sales	Adjusted Median Price Per SF						
Test Area Sales (1)	Adjoining solar farm	\$119.82					
Control Area Sales (10)	No: Not adjoining solar farm	\$118.72					
Difference between Unit Pr Adjusted Median Unit Pric	0.92%						

Noting no significant price differential, it does not appear that the North Star solar farm had any negative impact on adjacent property value in Group 2.



# **Group 3**

Adjoining Property 46 was analyzed as a 2017 sale in Group 1 and sold again most recently in December 2020. While this sale is not yet published in the Chisago County Assessor's data, the sale has been recorded in the public record and the MLS.



Photo of 10132 367th Street (Adjoining Property 46) with view of solar arrays from 2020 MLS listing

North Star Solar Test Area Sale - Group 3									
Adi Property # Address Median Site Size Median Medi							Median Price PSF		
46	10132 367th St	\$415,000	9.31	4	3.0	2001	2,108	Dec-20	\$196.87

We analyzed six Control Area Sales, single family homes with similar location, construction, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Test Area Sale, that were not located in close proximity to the solar farm.

The Control Area Sales for Group 3 are split-level style homes with 4 bedrooms and 2 or 3 bathrooms on one to ten acre parcels. We excluded sales that were bank-owned, those between related parties, or others under



duress as non-arm's length transactions. We adjusted the Control Area Sales for market conditions using the compounded monthly growth rate exhibited in the FHFA House Price Index, for the period from 2018 through 2019 (the most recent data available). The results of our analysis are presented below.

CohnReznick Paired Sale Analysis North Star Solar Group 3							
No. of Sales	Adjusted Median Price Per SF						
Test Area Sale (1)	Adjoining solar farm	\$196.87					
Control Area Sales (6)	No: Not adjoining solar farm	\$139.60					
Difference between Unit Pr Adjusted Median Unit Pric	41.02%						

We note that the sale price of the 2020 sale of Adjoining Property 46 is the highest for this home type (split-level) in all the County Assessor data from 2016 to 2020 for North Branch Township. However, the selling broker, Candace Rindahl, remarked that the price was market for the area at the time of sale. We see this in a study of the rate of appreciation over the course of three years between the prior sale and most recent sale. Adjoining Property 46 appreciated at a faster rate than the local area, as seen in the following table.

	Test Area Sale							FHFA Housin	Zip Code ng Price Index ange		
Property ID	Address	Land Area (Acres)	Total Finished Living Area (SF)	Most Recent Sale Date	Most Recent Sale Price	Prior Sale Date	Prior Sale Price	Total Appreciation	Monthly Appreciation Rate	Total Appreciation	Monthly Appreciation Rate
AP 46	10132 367th St	9.31	2,108	12/20/20	\$415,000	10/20/17	\$333,000	24.62%	0.58%	17.43%	0.42%

We note a somewhat large positive difference in adjusted median price per square foot between the Test Area Sale and the Control Area Sales. The most comparable Control Area Sale, Control Area Sale 5 (6836 410<sup>th</sup> Street), sold for an adjusted sale price per square foot of \$182.74 a difference of 7.2 percent to the unit sale price of the Test Area Sale. We find that on a macro and micro level of analysis, the sale price of Adjoining Property 46 (Group 3) was not negatively impacted by its proximity to the North Star solar farm.

The differential between the Test Sale and the Control Sales is much higher than any of our other studies; we have considered this to be an outlier. While the indication shows that the adjacent solar farm has not negatively impacted the property value for this home, we have considered that this house has "set the market" for this kind of property type (home style, age and acreage) - we believe that this differential will likely stabilize in the near future as other homes catch up to the appreciation shown by Adjoining Property 46. Thus, we have not included this Group in the collection of impact studies in our conclusion.

# A Repeat Sales Study (Before and After Construction of the Solar Farm Analysis)

In a 2017 study conducted by Chisago County Assessor John Keefe, Keefe analyzed the sales of 15 parcels alongside or near the North Star Solar Farm that sold between January 2016 and October 2017. Based on trends exhibited by 750+ sales throughout the county, Keefe concluded that the homes, located on 375th, 367th, Keystone, Little Oak, Lincoln Trail, and Kost Trail were all "in excess of assessed" and reported that "valuation hasn't suffered."7

Considering Keefe's 2017 study, we conducted a supplemental analysis in which we compared the sale prices of the three homes sold in Group 1 that are adjacent to the North Star Solar Farm (Test Area Sales Group) to

the previous sale price of the home, commonly known as a "Repeat Sales Analysis" utilizing a sale and resale of the same property. These sales reflect the average site size, home type, and home size of properties in the surrounding area. In our comparison for each property analyzed, we calculated the total appreciation between each sale, the number of months that elapsed between each sale, and determined the monthly appreciation rate for the property. We then compared the extracted monthly appreciation rates to the change in the Federal Housing Finance Agency (FHFA) Home Price Index in Minnesota's 55056 zip code (where the studied homes are located) over the same period. The index for zip codes is measured on a yearly basis and is presented to the right.

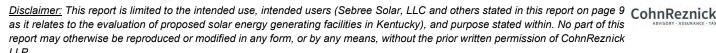
We conducted the same analysis for seven single-family properties that are not within proximity to the North Star Solar Farm, that were within the Group 1 Control Area Sales. The tables on the following page present this study.

There was one home in the Test Area Sales group that experienced negative appreciation (Adjoining Property 18, 37096 Little Oak Lane) from when it sold first in 2006 to the most recent sale in 2017. There was also one home in the Control Area Sales group that experienced negative appreciation (G1-2, 5183 366<sup>th</sup> Street) from when it sold first in 2007 to the most recent sale in 2016. During the calendar years of 2005, 2006 and 2007, housing prices in the United States were reaching their peak. In 2006 the HPI reached 251.83, a record at that time. Post-recession homes prices, after 2008 did not recover to the same or higher levels until 2019 and 2020. When the homes sold

55056 Zip Code - Housing Price Index Change (Year Over Year) **Not Seasonally Adjusted** 

Year	Annual Index	Annual Change (%)	Compounded Monthly Change (%)
1991	100.00		
1992	101.15	1.15%	0.10%
1993	105.00	3.81%	0.31%
1994	110.54	5.28%	0.43%
1995	121.51	9.92%	0.79%
1996	127.27	4.74%	0.39%
1997	134.29	5.52%	0.45%
1998	141.08	5.06%	0.41%
1999	149.86	6.22%	0.50%
2000	169.13	12.86%	1.01%
2001	187.18	10.67%	0.85%
2002	200.83	7.29%	0.59%
2003	212.82	5.97%	0.48%
2004	226.83	6.58%	0.53%
2005	246.73	8.77%	0.70%
2006	251.83	2.07%	0.17%
2007	243.35	-3.37%	-0.29%
2008	223.07	-8.33%	-0.72%
2009	196.72	-11.81%	-1.04%
2010	179.99	-8.50%	-0.74%
2011	163.09	-9.39%	-0.82%
2012	155.38	-4.73%	-0.40%
2013	165.02	6.20%	0.50%
2014	175.59	6.41%	0.52%
2015	187.02	6.51%	0.53%
2016	203.03	8.56%	0.69%
2017	220.28	8.50%	0.68%
2018	235.98	7.13%	0.58%
2019	248.44	5.28%	0.43%
2020	258.67	4.12%	0.34%

<sup>&</sup>lt;sup>7</sup> https://www.cleanenergyresourceteams.org/chisago-county-boards-real-estate-update-shows-solar-has-no-impact-property-values





# Prepared for Sebree Solar, LLC

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in 2017 and 2016, respectively, the housing market had not fully recovered in the area and the negative appreciation tracks with the overall market conditions, illustrated in the red boxes in the table to the right.

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Test Area Sales Group									55056 Zip Code - FHFA Housing Price Index					
Property ID	Address	Land Area (Acres)	Total Finished Living Area (SF)	Most Recent Sale Date	Most Recent Sale Price	Prior Sale Date	Prior Sale Price	Total Appreciation	Months Elapsed Between Sales	Monthly Appreciation Rate	Index Level During Year of Most Recent Sale		Total Appreciation	Monthly Appreciation Rate
AP 54	10505 367th Avenue	5.00	1,890	8/19/2016	\$260,500	4/30/1999	\$123,294	111.28%	208	0.36%	203.03	149.86	35.48%	0.15%
AP 22	11210 367th Street	5.20	3,756	3/31/2015	\$280,000	12/19/2003	\$107,000	161.68%	135	0.71%	187.02	212.82	-12.12%	-0.10%
AP 18	37096 Little Oak Lane	2.10	2,412	4/11/2017	\$289,000	1/27/2006	\$308,000	-6.17%	134	-0.05%	220.28	251.83	-12.53%	-0.10%
AP 3	10009 375th Street	5.10	1,040	7/12/2019	\$260,000	3/4/2005	\$163,000	59.51%	172	0.27%	248.44	246.73	0.69%	0.00%
	Median - Test Area Sales	5.05	2,151		d			**************************************		0.32%				0.02%

Control Area Sales Group									55056 Zip Code - FHFA Housing Price Index					
Property ID	Address	Land Area (Acres)	Total Finished Living Area (SF)	Most Recent Sale Date	Most Recent Sale Price	Prior Sale Date	Prior Sale Price	Total Appreciation	Months Elapsed Between Sales	Monthly Appreciation Rate	Index Level During Year of Most Recent Sale	Prior Sale Year Index Level	Total Appreciation	Monthly Appreciation Rate
G1-1	10589 Wilcox Road	5.00	1,900	7/6/2016	\$262,500	9/26/2007	\$223,700	17.34%	105	0.15%	203.03	243.35	-16.57%	-0.17%
G1-2	5183 366th Street	2.29	1,530	7/28/2016	\$227,708	4/13/2007	\$207,000	10.00%	112	0.09%	203.03	243.35	-16.57%	-0.16%
G1-3	4359 Elk Court	2.50	1,970	1/20/2017	\$263,000	11/25/1998	\$175,365	49.97%	218	0.19%	220.28	141.08	56.14%	0.20%
G1-4	39088 More Ferry Road	5.00	1,838	1/27/2017	\$229,000	9/29/2005	\$185,000	23.78%	136	0.16%	220.28	246.73	-10.72%	-0.08%
G1-7	4737 377th Street	2.50	2,002	6/28/2017	\$230,000	7/20/1999	\$138,400	66.18%	215	0.24%	220.28	149.86	46.99%	0.18%
G1-8	8628 380th Street	5.00	1,842	7/6/2017	\$275,000	4/23/2010	\$203,000	35.47%	86	0.35%	220.28	179.99	22.38%	0.23%
G1-9	6417 360th Street	5.00	2,346	7/7/2017	\$325,009	5/16/2008	\$270,000	20.37%	110	0.17%	220.28	223.07	-1.25%	-0.01%
	Median - Control Area Sales	5.00	1,900							0.17%				-0.01%

Most home sites outside of a subdivision in this area are within the 2.00- to 5.00-acre range, as shown in the Control Area Sales table on the prior page. The median gross living area for each group differs by less than 50 square feet of living area. The analysis described in this section, however, does not require us to make adjustments to the sales as we are only evaluating the difference in appreciation rates between a sale and resale of the same property.

As mentioned earlier in the report, Adjoining Property 3, (10009 375th Street), sold most recently in July 2019 for \$260,000 and also sold in March 2016 for \$219,900, during construction of the solar farm. The home sold first in 2005 for \$163,000. We have excluded the 2016 from our analysis because we cannot separate any influence from solar farm construction on the sale price at that time.

### Conclusion

When compared to the FHFA home price index for the local zip code, the median monthly appreciation rate of the Test Area Sales group and the Control Area Sales group both outperformed the average for the zip code, as depicted in the far-right column in the tables on the prior page. As such, we concur with Assessor Keefe's conclusion that there does not appear to be a consistent detrimental impact on properties adjacent to the North Star Solar Farm.



**SOLAR FARM 2: DOMINION INDY SOLAR III, MARION COUNTY, IN** 

Coordinates: Latitude 39°39'14.16"N, Longitude 86°15'35.06"W

PIN: 49-13-13-113-001.000-200

Total Land Size: 129.04 acres

Date Project Announced: August 2012

**Date Project Completed:** December 2013

**Output:** 8.6 MW AC (11.9 MW DC)



Aerial imagery retrieved from Google Earth

### **Overview and Surrounding Area:**

The Dominion Indy III Solar Farm was developed by Dominion Renewable Energy and became operable in December 2013. This solar farm has ground-mounted solar panels and has the capacity for 8.6 Megawatts (MW) AC of power. The panels are mounted in a fixed tilt fashion with 12 inverters.



The Dominion Indy III solar farm is located in Decatur Township, in the southwest portion of Marion County, Indiana. The solar farm is approximately 10 miles southeast of the Indianapolis International Airport and approximately eight and a half miles from the center of Indianapolis.

### **The Immediate Area:**

The solar installation is on the southern side of West Southport Road. Adjoining parcels to the west, south, and east are agricultural in nature, actively farmed primarily with row crops and large areas of mature trees. There is one single family home on 4.78 acres of land at the northwest corner of the solar site, with frontage on West Southport Road, identified in our analysis as Adjoining Property 9.

To the north, across West Southport Road from the solar site, is the single-family residential subdivision known as Crossfield. Originally developed with over 81 acres of land by the Key Life Insurance Company, the one- and two-story homes in the subdivision were built between approximately 1998 and 2011.

All of the adjacent land parcels to the solar farm are used for agricultural or residential purposes.

The solar farm is surrounded by a chain link fence that contains all the solar panels. Additionally, there are some natural shrubs and deciduous trees on all sides of the property; this vegetation was in place before the solar farm was developed.

Prior Use: Agricultural use

**Real Estate Tax Information:** Prior to development of the solar farm, in 2013, the owner of this 129-acre site paid real estate taxes of \$1,788 annually. After development of the solar farm development, in 2015, real estate taxes increased to approximately \$16,405, an 818 percent increase in tax revenue for the site.

PIN	Acres
Marion County, IN	
49-13-13-113-001.000-200	129.04
<u> </u>	
TOTAL	129.04

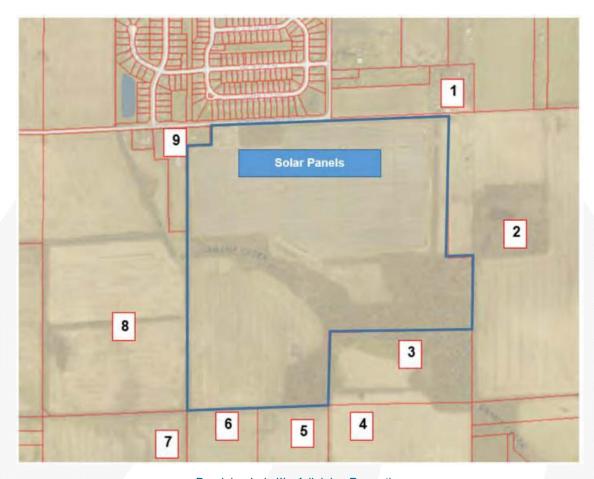
 3 Taxes Paid	20	15 Taxes Paid	Tax Increase		
\$ 1,788	\$	16,405	818%		
\$ 1,788	\$	16,405	818%		

2013	Assessed Value	201	5 Assessed Value	Value Increase		
\$	89,400	\$	109,900	23%		
\$	89,400	\$	109,900	23%		

# Paired Sale Analysis:

The maps on the following pages display the parcels within the solar farm is located (outlined in blue). Properties adjoining this site are numbered for subsequent analysis.





Dominion Indy III - Adjoining Properties



Dominion Indy III - Adjoining Properties

We have considered two types of paired sales analysis with regards to the Dominion Indy III Solar Farm. The first compares sales of Adjoining Properties to the solar farm after the completion of the solar farm site (Test Area Sales) to similar properties not proximate to the solar farm (Control Area Sales). We utilized this type of paired sale analysis for all three Groups of Adjoining Properties under study.

The second type of paired sale analysis is known as a Before and After analysis which compares sales of Adjoining Properties that occurred prior to the announcement of the solar farm with the sales of the same Adjoining Properties after the completion of the solar farm development. We were able to use home sale data from the Crossfield subdivision that is located to the north of the solar site, across West Southport Road.

# Group 1 - Agricultural Land

Adjoining Property 2 is a vacant 86.96-acre agricultural parcel located to the east of the solar site. Adjoining Property 2 sold in October 2017 and was considered for a paired sale analysis, known as a Test Area Sale, in Group 1.

The property line of this unimproved parcel is approximately 166 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 12.



Test Area Sale Group 1 - Agricultural Land									
Adjoining Property #	Adjoining Property # Address Sale Price Site Size (AC) NCCPI Index Wetlands				Floodplain	Sale Price/AC	Sale Date		
Adjoining Property 2	5755 W Southport Rd, Indianapolis, IN	\$738,584	89.96	63.4	1%	Zone X	\$8,210	Oct-17	

Crop yields have been the basis for establishing a soil productivity index, and are used by county assessors, farmers, and market participants in assessing agricultural land. While crop yields are an integral part in assessing soil qualities, it is not an appropriate metric to rely on because "yields fluctuate from year to year, and absolute yields mean little when comparing different crops. Productivity indices provide a single scale on which soils may be rated according to their suitability for several major crops under specified levels of management such as an average level." The productivity index, therefore, not crop yields, is best suited for applications in land appraisal and land-use planning.

The United States Department of Agriculture's (USDA) National Resources Conservation Services (NRCS) developed and utilizes the National Commodity Crop Productivity Index (NCCPI) as a national soil interpreter and is used in the National Soil Information System (NASIS), but it is not intended to replace other crop production models developed by individual states.<sup>8</sup> The focus of the model is on identifying the best soils for the growth of commodity crops, as the best soils for the growth of these crops are generally the best soils for the growth of other crops.<sup>9</sup> The NCCPI model describes relative productivity ranking over a period of years and not for a single year where external influences such as extreme weather or change in management practices may have affected production. At the moment, the index only describes non-irrigated crops, and will later be expanded to include irrigated crops, rangeland, and forestland productivity.<sup>10</sup>

Yields are influenced by a variety of different factors including environmental traits and management inputs. Tracked climate and soil qualities have been proven by researchers to directly explain fluctuations in crop yields, especially those qualities that relate to moisture-holding capacity. Some states such as Illinois have developed a soil productivity model that considers these factors to describe "optimal" productivity of farmed land. Except for these factors, "inherent soil quality or inherent soil productivity varies little over time or from place to place for a specific soil (map unit component) identified by the National Cooperative Soil Survey (NCSS)." The NRCS Web



<sup>&</sup>lt;sup>8</sup> Agricultural land rental payments are typically tied to crop production of the leased agricultural land and is one of the primary reasons the NCCPI was developed, especially since the model needed to be consistent across political boundaries.

<sup>&</sup>lt;sup>9</sup> Per the User Guide for the National Commodity Crop Productivity Index, the NCCPI uses natural relationships of soil, landscape and climate factors to model the response of commodity crops in soil map units. The present use of the land is not considered in the ratings.

<sup>&</sup>lt;sup>10</sup> AgriData Inc. Docs: http://support.agridatainc.com/NationalCommodityCropProductivityIndex(NCCPI).ashx

<sup>&</sup>lt;sup>11</sup> USDA NRCS's User Guide National Commodity Crop Productivity Index (NCCPI)

Soil Survey website has additional information on how the ratings are determined. The **State of Indiana** does not have its own crop production model and utilizes the NCCPI.

In analyzing agricultural land sales for Control Area Sales with similar characteristics to Adjoining Property 12, we have excluded any parcels with NCCPI soil indices less than 50.0 and greater than 85.0.

We identified and analyzed four Control Area Sales that were comparable in location, size, and use that were not located in close proximity to the solar farm. The Control Area Sales for Adjoining Property 2 are land tracts that were larger than 20 acres and utilized specifically as farmland. We excluded sales that were bank-owned, those between related parties, split transactions, and land with significant improvements.

The Control Area Sales were adjusted for market conditions using a regression and trend analysis to identify the appropriate monthly market condition adjustment. Using the agricultural land sale data published in the *Land Sales Bulletin*, <sup>12</sup> from January 2016 through December 2017, which includes reliable and credible data for analysis, we extracted a monthly rate of change of 0.50 percent.

The results of our analysis for Adjoining Property 2, in Group 1 is presented below.

CohnReznick Paired Sale Analysis Dominion Indy III Solar Group 1 - Agricultural Land						
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per Acre				
Test Area Sale (Adjoining Property 2)	Yes: Solar Farm was completed by the sale date	\$8,210				
Control Area Sales (4)	No: Not adjoining solar farm	\$8,091				
	Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales					

It is noted that we have kept this analysis within our study despite it being the sole land-only analysis. While we have not tabulated the difference in our reconciled average of variance (from study to study), this is important because it shows that agricultural land adjacent to solar but also lying in the future path of development does not show any degradation of value.

<u>Noting the relatively low price differential</u>, in which the Test Area Sale was higher than the median for the Control Areas Sales, it does not appear that the Dominion Indy III solar farm had any negative impact on the adjoining agricultural property values.

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<sup>12</sup> https://www.landsalesbulletin.com/

We identified a total of nine Adjoining Properties that sold after the develoment of the solar farm as single-family home uses. Adjoining Properties 11, 13, 14, 15, 18, 20, 22, 24 and 26 were analyzed in two paired sales analyses (Group 2 and Group 3). These nine properties were analyzed as single-family homes and they are located in the Crossfield subdivision, across West Southport Road from the solar site, as seen in the prior aerials.

It should be noted that Adjoining Properties 11 and 24 have sold more than once since the solar farm was constructed, and each sale is included in the analysis. Adjoining Property 11 sold first in December 2015 and later in July 2018, approximately two and a half years later. Adjoining Property 24 sold first in February 2014 and later in April 2019, approximately five years later. Our research indicated that these were arm's-length sales between typically motivated buyers and sellers.

The nine Adjoining Properties that were included in our paired sales analysis were divided into two groups, based on the sale dates of the Test Area Sales.

#### **Group 2**

For Group 2 (sales in 2014 – 2016), we analyzed four Control Area Sales with similar location, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Group 2 Test Area Sales described below.

Dominion Indy III Solar Test Area Sales Group 2									
Adj. Property#	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths		Median Square Feet	Median Sale Date	Median Price PSF
, -, ,	5933 Sable Dr, 5829 Sable Dr, 5813 Sable Dr, 5737 Sable Dr	\$129,375	0.23	4	2.0	2008	2,163	Jul-15	\$59.10

The Test Area Sales in Group 2 are located between 230 feet and 404 feet from the house to the solar panels. The Control Area Sales for Group 2 are located beyond this area in other areas of the Crossfield subdivision and in other nearby subdivisions. The Control Area Sales did not have a view of the solar farm.

#### **Group 3**

For Group 3 (sales in 2017 - 2019), we analyzed a set of seven Control Area Sales with similar locations, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Group 3 Test Area Sales described on the next page.



	Test Area Sales Group 3								
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median Square Feet	Median Sale Date	Median Price PSF
11, 13, 14, 15, 18, 24, 26	5933 Sable Dr, 5921 Sable Dr, 5921 Sable Dr, 5915 Sable Dr, 5909 Sable Dr, 5841 Sable Dr, 5737 Sable Dr, 5731 Sable Dr	\$169,900	0.23	3	2.5	2006	2,412	Jul-18	\$72.15

The Test Area Sales in Group 3 are located between 227 feet and 419 feet from the house to the solar panels. The Control Area Sales are located beyond this area, in other areas of the Crossfield Subdivision, and in other nearby subdivisions. The Control Area Sales did not have a view of the solar farm.

Control Area Sales in Groups 2 and 3 were adjusted for market conditions using a regression analysis to identify the appropriate monthly market condition adjustment. The results of our study are presented below.

CohnReznick Paired Sale Analysis Dominion Indy III Solar Group 2							
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF					
Test Area Sales (4)	Adjoining solar farm	\$59.10					
Control Area Sales (8)	No: Not adjoining solar farm	\$57.84					
Difference between Unit Pr Adjusted Median Unit Pri	2.18%						

CohnReznick Paired Sale Analysis Dominion Indy III Solar Group 3							
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF					
Test Area Sales (7)	Adjoining solar farm	\$72.15					
Control Area Sales (11)	No: Not adjoining solar farm	\$71.69					
Difference between Unit Pri Adjusted Median Unit Pric	0.65%						

The Test Area Sales for Group 2 sold with a median of 33 days on market, while the Control Area Sales for Group 2 sold with a median of 31 days on market. The Test Area Sales for Group 3 sold with a median of 17



# **Prepared for Sebree Solar, LLC**

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days on market, while the Control Area Sales for Group 3 sold with a median of 25 days on market. There is no <u>significant negative marketing time differential.</u>

**Noting the relatively low price differentials,** it does not appear that the Dominion Indy III solar farm had any negative impact on adjoining residential property values.



# **Before Announcement and After Construction of the Solar Farm Analysis:**

Due to the number of sales over time in the Crossfield subdivision, we were able to conduct an analysis on the unit prices of single-family homes before the solar farm announcement date in comparison to the prices of single-family homes after the construction of the Dominion Indy III solar farm. We have provided our conclusions from the data below and the following page contains a chart with the data.

- 25 Test Area Sales were sold from 2006 to 2019 and 46 Control Area Sales sold from 2008 to 2019.
  - ➤ The Test Area Sales are homes located adjoining the Dominion Indy III Solar Farm in the Crossfield subdivision.
  - ➤ The Control Area Sales are homes located in the remainder of the Crossfield subdivision, not adjoining the solar farm.
- In both the Test Area Sales (ORANGE) and Control Area Sales (BLUE) plotted on the chart on the following page, new construction homes sold through 2011, prior to announcement of the solar farm.
- The dotted lines are polynomial trend lines plotted by Microsoft Excel in order to illustrate and approximate the "average" trend of each set of data.
- The economic climate improved in the period from 2013 to 2019 as shown by the Red line representing the
  Federal Housing Finance Agency's House Price Index for the East North Central region that includes Indiana.
  After construction of the solar farm, in parallel with the improving economic climate, it appears that unit prices
  for both the Test Area Sales and the Control Area Sales appreciated at a similar rate over the period from
  2013 to 2019.

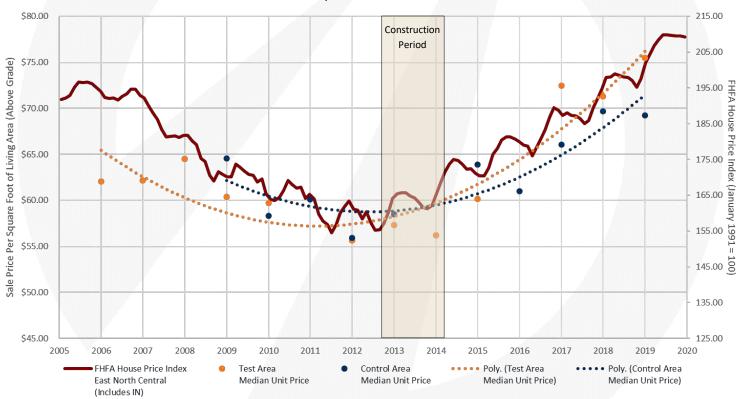
A difference in appreciation rates does not appear to exist between Test Area Sale homes versus the Control Area Sale homes.

Sale prices of single-family homes after the construction of the solar farm exhibit a similar appreciation trend as sales prior to the solar farm announcement. Overall, our findings indicate that there *is not a consistent and measurable difference* in prices that exists in association with homes proximate to the Dominion Indy III solar farm.



# Before Announcement and After Construction of the Solar Farm Analysis:

Dominion Indy III - Crossfield Subdivision: Test Area vs Control Area Comparison of Unit Sale Prices from 2006 to 2019



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# **SOLAR FARM 3: DOUGHERTY SOLAR, DOUGHERTY COUNTY, GEORGIA**

Coordinates: Latitude 31.305614, Longitude 84.022637

PIN: 00144/00001/03D, 00120/00001/007,00146/00001/01B

Total Land Size: ±1,037.42 Acres

Date Project Announced: August 2018

Date Project Completed: November 2019

Output: 120 MW AC



Aerial imagery retrieved from Google Earth

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The 120 MW AC capacity, Dougherty Solar project was developed by NextEra in 2019. This solar site is expected to generate \$10 million in tax revenue over its lifetime. The project sits on a ±1,037.42-acre site which was a former agricultural land site. Georgia Power signed a 30-year Power Purchase Agreement with NextEra Energy to buy the solar generated power and NextEra Energy owns and maintains the installation. The solar facility consists of 5,232 rows of support beams for 440,535 solar panels.

<u>The Surrounding Area:</u> The Dougherty County Solar project is located in unincorporated Dougherty County, with a city of Albany mailing address, Georgia. Georgia Route 3 (Liberty Expressway) is approximately 4.5 mile west of the solar site, and connects the surrounding area to downtown Albany, which is approximately 8 miles northwest of the solar site. We note the nearest interstate, Interstate 75, is approximately 31 miles east of the solar site. The surrounding area is rural in nature with agricultural and low density residential uses surrounding the property.

<u>The Immediate Area:</u> Within a one-mile radius of the solar farm, surrounding uses mainly consist of agricultural land, with some single-family homes to the south and the northwest. Adjacent land parcels to the solar farm are mainly residential, with some agricultural uses. Additional surrounding land uses are an industrial use to the southeast of the southern-most panels. The majority of the residential housing is located to the south of the solar site, along Spring Flats Road, with some homes located along Gaissert Road to the northeast.

The solar site is built on a large, mostly flat agricultural site. The site is bounded by Spring Flats Road and Moultrie Road to the south with single family homes along these roads, agricultural land to the west, vacant land to the east, and agricultural land and more single family homes to the north. The adjoining homes sites are all buffered from the solar site by mature trees, bushes, and other shrubbery.

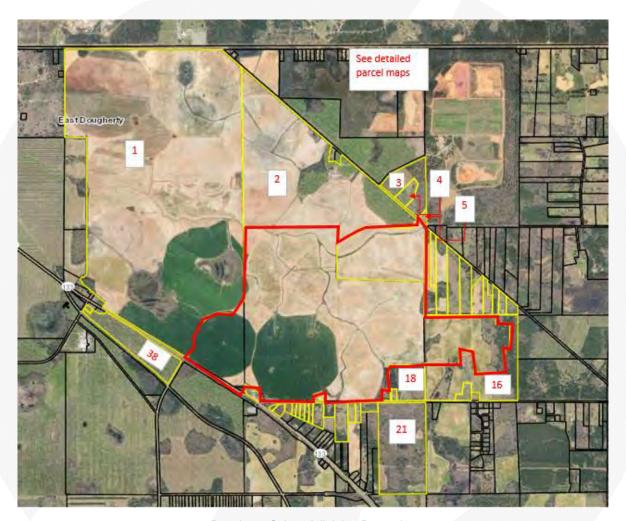
Prior Use: Agricultural use

Real Estate Tax Information: The assessed value in Dougherty County has not changed for the solar parcel since decreased slightly from 2018, prior to the development of the solar farm, to 2020, after the development of the solar farm. We note \$61,000 of this decrease is due to the demolition of existing improvements (Parcel 00120/00001/007). Removing the improvements from the 2018 assessed value only accounts for a decrease of 0.32% from this parcel, although given the solar farm's recent construction it is possible the site would be reassessed during the next cycle. Historical real estate taxes are not available form Dougherty County public records.

Parcel IDs	Acres	2018 Assessed Value	2020 Assessed Value	Value Increase
Dougherty County 00144/00001/03D	143.75	\$546,300.00	\$546,300.00	0.00%
00120/00001/007	792.98	\$2,253,000.00	\$2,185,100.00	-3.11%
00146/00001/01B	100.69	\$398,600.00	\$398,600.00	0.00%
Total	1,037.42	\$3,197,900.00	\$3,130,000.00	-2.17%



The maps below and following display the solar project (parcels outlined in red). Properties adjoining the solar site are outlined in yellow and numbered for subsequent analysis. We note the Dougherty County GIS has not updated its aerial imagery to include the solar panels on the solar site.



Dougherty Solar - Adjoining Properties





Dougherty Solar - Adjoining Properties





Dougherty Solar - Adjoining Properties





Dougherty Solar - Adjoining Properties

Adjoining Properties 1-18, 20, 21, 24-31, 33-38 all sold between August 1973 and September 2019, prior to the date of completion of the subject solar site. These properties have been excluded from further analysis.

We do note Adjoining Property 27 was sold in July 2019, during the construction period of the solar farm. Since it was sold during the construction period, we have excluded it from being considered as a Test Area Sale since we cannot extract the external influence of construction on the sale price. We spoke to the selling broker for this transaction, Christy Wingate, with Parker Real Estate Group. She noted the future presence of the solar farm did not impact the sales price at all. Additionally, she noted in her experience, the presence of a solar farm is neither an attraction nor a deterrant for nearby home buyers. She noted a similar case with a new solar farm in Leesburg, Georgia, which is much smaller than the solar farm under analylsis, within a predominately residential area.

Adjoining Property 32 sold in December 2019 and we analyzed it for potential inclusion as a Test Area Sale; however, since the sale was a gift sale with no allocated sales price, we have not analyzed it further since the transaction was not a market transaction.

Adjoining Property 19 was sold in February 2020, however this sale was also a gift sale between family members with no allocated sales price. Therefore we did not analyze it.



Adjoining Property 22 sold in August 2020 for \$19,500, although according to public records does not note this sale was a "Fair Market Sale." Additionally, the county GIS marked this sale as unqualified for a market transactions. Therefore, we did not analyze this sale further.

#### Paired Sales Analysis:

We have considered only one type of paired sales analysis, which compares sales of properties proximate to the solar farm (Control Area) to the sales of adjoining properties after the completion of the solar farm project (Test Area).

We found one adjoining property that qualified for a paired sales analysis. Adjoining Property 23 (Test Area Sale), circled in blue on the previous page, was considered for a paired sales analysis, and sold in June 2020, after the completion of the solar farm. This property was analyzed as single-family home use.

Adjoining Property 23 (Test Area Sale) was considered for a paired sales analysis, and we analyzed this property as a single-family home use, which is a 2,750 square foot home located on a 3.44- acre parcel that sold in June 2020. The property line of this parcel is approximately 202 feet from the closest solar panel, and the improvements are approximately 312 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 23.

	Adjoining Property 23											
					Site							
					Size	2.0			Square			
Status	Address	City	County	Sale Price	(AC)	Beds	Baths	Year Built	Feet	Improvements	Sale Price/SF	Sale Date
Sold	2916 SPRING FLATS RD	Albany	Dougherty	\$205,000	3.44	4	2.5	1980	2,750	1-Story SFR	\$74.55	Jun-20

We note that Adjoining Property 23 has an in-ground pool. We have found Control Area Sale data through Zillow and verified these sales through county records, conversations with brokers, and the County Assessor's Office. We excluded sales that were not arm's length, such as REO sales or those transactions between related parties. We have included only sales with a similar number of bedrooms, bathrooms, and living area, as well as land area. Additionally, we only selected Control Area Sales of single family homes also had an in-ground pool.



It is important to note that these Control Area Sales are not adjoining to any solar farm, nor do they have a view of one from the property at the time of their sales. Therefore, the announcement nor the completion of the solar farm use could not have impacted the sales price of these properties. It is informative to note that the average and median marketing time (from list date to off market date) for Control Area Sales was 83 days and 119 days, respectively. The Test Area sale had a marketing time of 99 days. This is an indication that the marketability of the Test Area sale was not negatively influenced by proximity to the Dougherty Solar project. The Control Area Sales are comparable in most physical characteristics and bracket Adjoining Property 23 reasonably.

Control Area sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeat-sales index measuring average price changes in repeat sales or refinancing of the same properties. The results of the paired sales analysis for the Dougherty Solar project are presented below.

CohnReznick Paired Sales Anaysis Dougherty County Solar Facility Adjoining Property 23							
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF					
Test Area Sale (1)	Yes: Adjoining solar farm	\$74.55					
Control Area Sales (5)	Control Area Sales (5) No: Not adjoining solar farm						
Difference between Unit Price Adjusted Median Unit Price	-2.21%						

The difference between the unit price of the Test Area Sale and the Adjusted Median Unit Price of the Control Area Sales is considered within the range for a typical market area. One of the Control Area Sales was 20 years newer than the Test Area Sale. A secondary analysis excluding this sale indicated an adjusted median unit sale price of \$74.47 per square foot, which is in line with the Test Area Sale unit price of \$74.55 per square foot.

**Noting no significant price differential**, it does not appear that the Dougherty Solar project impacted the sales price of the Test Sale, Adjoining Property 23.



# SOLAR FARM 4: MIAMI-DADE SOLAR ENERGY CENTER, MIAMI DADE COUNTY, FL

Coordinates: Latitude 25°38'34.5"N, 80°29'16.5"W

PIN: 30-5813-000-0020

Recorded Owner: Florida Power & Light Company

Total Land Size: 465 acres

**Date Project Announced:** October 2017

Date Project Completed: January 2019

Output: 74.5 MW AC



2020 Aerial imagery retrieved from Google Earth

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# **Overview and Surrounding Area:**

The Miami Dade Solar Energy Center is situated in unincorporated Miami-Dade County, just west of Florida State Road 997. The site comprises approximately 300,000 solar panels on a fixed-tilt system, generating enough energy to power around 15,000 homes.

It is surrounded to the north, west, and south by rural residences and agricultural uses. The Kendall Tamiami Executive Airport is located due east, along the flight path for one of the airport's runways. A canal runs along the west side of the property, and beyond that is 306 acres of federal government land and four agricultural use lots. The predominant lot size in the surrounding area is approximately five acres and uses vary from palm tree farms, equestrian centers, citrus groves, to rural residences. These lots are zoned GU – Interim District, which categorizes land not otherwise specified in the unincorporated areas of Miami Dade County. This designation allows for uses consistent with the surrounding character, or a density of one residence for every 5 acres. <sup>13</sup> As such, development is limited to rural residences or agricultural uses

Prior Use: Agricultural use

**Real Estate Tax Info:** The chart below shows the increase from 2018 (before construction) to 2019 (after construction) in the assessed value of the parcels and the total real estate taxes.

PIN	Acres
Miami-Dade County 30-5813-000-0020	465.61
TOTAL	465.61

2018 Taxes Paid		20	19 Taxes Paid	Tax Increase
\$	40,777	\$	179,761	341%
\$	40,777	\$	179,761	341%

201	8 Assessed Value	20 <sup>-</sup>	19 Assessed Value	Value Increase
\$	2,460,316	\$	10,575,924	330%
\$	2,460,316	\$	10,575,924	330%



<sup>&</sup>lt;sup>13</sup> http://www.miamidade.gov/zoning/districts.asp

#### Paired Sale Analysis - Residential Land:

The following map numbers the adjoining parcels for subsequent analysis. The 39 adjoining parcels are a mix of single family residences, agricultural land, and government land. We have identified five parcels that have transferred since the solar farm was completed, adjoining parcels 3, 13, 31, 33, and 35. Adjoining properties 3 and 33 transferred as deed corrections between related parties and are not considered market sales. Adjoining Property 35 was bought by the owner of the adjoining parcel for assemblage purposes and was also removed from the study. The remaining three parcels, adjoining properties 13, 31, and 33 were considered for a paired sales analysis. These three parcels have an interim agricultural use with residential development allowed under the GU zoning.





We identified six Control Area sales with similar location, square footages, lot sizes, and ages that sold from a reasonable sale time from the median sales date of the test sales. Control Area sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeat-sales index measuring average price changes in repeat sales or refinancing of the same properties. The result of our study is presented below.

CohnReznick Paired Sale Analysis - Miami Dade Solar						
Potentially Impacted by Solar Farm Adjusted Median Pric						
Control Area Sales (6)	No: Not adjoining solar farm	\$81,866				
Test Area Sales (3)	Adjoining solar farm	\$82,491				
Difference 0.76%						

Noting no negative price differential, it does not appear that the Miami Dade Solar Energy Center impacted the sales price of adjoining properties 13, 31, and 33.



# SOLAR FARM 5: BAREFOOT BAY SOLAR ENERGY CENTER, BREVARD COUNTY, FL

Coordinates: Latitude 27°52'15.5"N, Longitude 80°31'38.3"W

PINs: Several

Recorded Owner: Florida Power & Light Company

Total Land Size: 505 acres

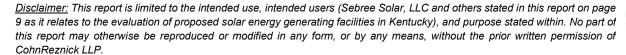
Date Project Announced: January 2017

Date Project Completed: May 2018

Output: 74.5 MW AC



2020 Aerial imagery retrieved from Google Earth





# **Overview and Surrounding Area:**

The Barefoot Bay Solar Energy Center is located north of Sebastian, in the unincorporated community of Micco, in coastal Brevard County, Florida. The solar installation sits on a 462-acre site, on land that was formerly an orange grove. Florida Power & Light held an open house for the area residents in January of 2017. The construction started in June of 2017 and was completed in May of 2018. The solar energy center has a capacity of approximately 74.5 MW AC. The site comprises approximately 300,000 solar panels on a fixed-tilt system, generating enough energy to power around 15,000 homes.

The solar site is approximately 450 feet south of Micco Road, an east-west arterial, approximately 1.5 miles west of U.S. 1, which runs along the shores of the Indian River. The solar installation is surrounded by trees and vegetation, and is adjoined by residential development to the north and east. Along Micco Road, to the northwest of the solar farm are several mixed-use lots, with agricultural, rural residential, and industrial uses.

The solar site is surrounded to the north and northeast primarily by the Barefoot Bay manufactured home community. Barefoot Bay is the largest manufactured home community in Florida where homes are permanently built, bought, and sold as real property. The community has three pools, a bar and restaurant, a golf course and other recreational and entertainment activities.

The population is estimated to be over 12,000 persons and approximately 80 percent of residents are over 55 years old, however, there is no age restriction in the community. The entire community sits on approximately 1,000 acres originally purchased and developed starting in 1968, with almost total absorption of lots by 1996. A total of 5,000 lots were platted and lots sizes currently range from 50 feet wide by 80 feet deep (4,000 square feet) to 75 feet wide by 100 feet deep (7,500 square feet). Homes are close together and with the standard setbacks homes can be 15 feet apart from one another.

A longtime local real estate agent and community resident at Barefoot Bay Realty said that the homes that border the solar site to the northeast, along Papaya Circle, are considered perimeter lots and are more desirable due to the lack of backyard neighbors. There is a swale (a broad and shallow ditch with water) that separates the lots from the solar site and the agent noted that many people in the community are unaware that the solar site is even there. The prices and marketing times of homes adjoining the solar farm on Papaya Circle in Barefoot Bay are not impacted by their proximity to the installation, and in fact may benefit from the increased privacy provided by the solar site.

The Barefoot Bay agent reported that small homes on small lots may sell for \$70,000 and larger homes on larger and better located lots can sell for over \$200,000. In the experience of Barefoot Bay Realty agents, there are typically 80 to 100 homes on the market at any one time and the average marketing time is considered to be 60 days.

To the east of the solar farm are rural residential lots with extended driveways. Several of these parcels are flag lots with secluded residences set back. At the southeast corner of the solar site, are approximately 441 acres of land zoned agricultural-residential by Brevard County owned by a cattle ranch operation.



To the south of the solar site lies the Wheeler Stormwater Park which is a 300-acre stormwater management area. The site includes 163 acres of park land with dynamic walking and nature trails, which was opened to the public in 2017.

On the western boundary of the solar site is the Sottile Canal, a canal that flows into the north prong of the St. Sebastian River, a major tributary of the Indian River Lagoon. South of Micco Road west of the Canal is the new residential subdivision known as the Lakes at St. Sebastian Preserve, on land platted as Paladin Estates. The Lakes at St. Sebastian Preserve is located approximately 2.3 miles west of the Indian River. The single-family home community features new homes being built by two national homebuilders. The homes will have city water and septic but the subdivision is outside the city limits of Sebastian in Brevard County. Several homes have been built in the community as of July 2020 but the street with lots that back onto the Sottile Canal (Lago Vista Drive) will be built in a later phase. Real estate sales people for both builders noted that the view of the solar installation is primarily obstructed from the lots that will back to the Canal and there has been no impact on home sales or interest in the development due to its location proximate to the solar installation.

To the west of the solar site, south of Lakes at St. Sebastian Preserve, is state-owned land utilized for flood control.

Prior Use: Agricultural use

**Real Estate Tax Info:** The chart below shows the increase from 2016 (before construction) to 2018 (after construction) in the assessed value of the parcels and the total real estate taxes.

PIN	Acres
Brevard County	7
3006694	56.20
3007862	48.51
3008628	320.14
3008630	1.00
3008632	9.00
3010467	69.90
TOTAL	504.75

2016 Taxes Paid		2018 Taxes Paid		Tax Increase
\$	1,038	\$	9,426	808%
\$	896	\$	10,859	1112%
\$	6,077	\$	60,433	895%
\$	23	\$	22	-4%
\$	162	\$	1,888	1069%
\$	1,291	\$	13,685	960%
\$	9,485	\$	96,313	915%

2016 Assessed Value		2018 Assessed Value		Value Increase
\$	67,440	\$	618,200	817%
\$	58,210	\$	727,650	1150%
\$	384,170	\$	4,001,750	942%
\$	600	\$	600	0%
\$	10,500	\$	126,000	1100%
\$	83,880	\$	908,700	983%
\$	604,800	\$	6,382,900	955%

#### Paired Sale Analysis:

The maps on the following pages number the adjacent parcels for subsequent analysis. We have identified thirteen sales that have transferred since the solar farm construction, adjacent parcels 6, 7, 13, 14, 18, 30, 37, 40, 47, 50, 51, 76, and 86. Adjoining property 14 was a liquidation sale and removed from consideration. Adjoining properties 37 and 50 transferred off the multiple listing service and are non-owner occupied. Adjoining property 30 has a large converted patio and is atypical for Barefoot Bay: this sale was considered an outlier and removed from analysis. While adjoining properties 76 and 86 are technically adjacent, they are atypical flag lots with driveways that operate as de facto roads. The residence for property 76 is buffered from the solar farm by



# **Prepared for Sebree Solar, LLC**

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two other residences. Adjoining property 86 is atypically larger than other sales in the market area and is approximately forty percent wetland. Properties 76 and 86 were considered outliers and removed from the study.

The remaining seven parcels, adjoining properties 6, 7, 13, 18, 40, 47, and 51 were considered for a paired sales analysis. We have divided these properties into two groups as discussed further on the following pages.

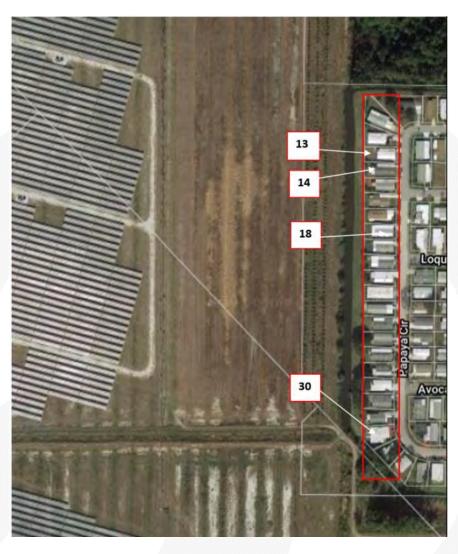




Barefoot Bay Farm Adjoining Properties

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Barefoot Bay Farm Adjoining Properties - Insert A



Barefoot Bay Farm Adjoining Properties - Insert B



Barefoot Bay Farm Adjoining Properties - Insert C



Adjoining properties 6 and 7 are residential lots. They were purchased by the same buyer from two different sellers on different sale dates. We identified seven Control Area Sales with similar location and lot sizes that sold from a reasonable sale time from the median sales date of the test sales. The test sales had a median marketing time of two to three months, as did the control sales. Control Area sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeat-sales index measuring average price changes in repeat sales or refinancing of the same properties. The result of our study is presented below.

CohnReznick Paired Sale Analysis - Barefoot Bay (Group 1)						
Potentially Impacted by Adjusted M Solar Farm Price Per						
Control Area Sales (7)	No: Not adjoining solar farm	\$51,000				
Test Area Sales (2)	Adjoining solar farm	\$54,500				
Difference 6.86%						



Adjoining properties 13, 18, 40, 47, and 51 are improved residential dwellings. Since Barefoot Bay is a homogenous subdivision with a large number of residences, we were able to identify 126 control sales located in the Barefoot Bay manufactured home community, all manufactured homes on residential lots, with gross living areas of 1,100 SF to 1,800 SF, that sold from a reasonable sale time from the median sales date of the test sales, excluding outliers and non-arm's length transactions. Barefoot Bay has typical marketing times of two months. The test sales had a median marketing time of approximately a month and a half. Control Area sales were adjusted for market conditions using a regression analysis to identify the appropriate monthly market condition adjustment. The result of our study is presented below.

CohnReznick Paired Sale Analysis - Barefoot Bay (Group 2)						
Potentially Impacted by Adjusted Medi Solar Farm Price Per SF						
Control Area Sales (126)	No: Not adjoining solar farm	\$93.95				
Test Area Sales (5)	Adjoining solar farm	\$95.90				
Difference 2.07%						

<u>Noting the relatively low price differential</u>, in which the Test Area Sales were higher than the median for the Control Areas Sales, it does not appear that the Barefoot Bay Solar Energy Center had any negative impact on adjoining property values or marketing times.



# <u>Summary of Before and After Construction of the Solar Farm Analysis:</u>

Due to the frequency of sales in the Barefoot Bay subdivision, we were able to conduct an analysis on the prices of manufactured homes before the solar farm announcement date in comparison to the prices of manufactured homes after the construction of the solar farm. We have provided our conclusions from the data below and the following page contains a chart with the data.

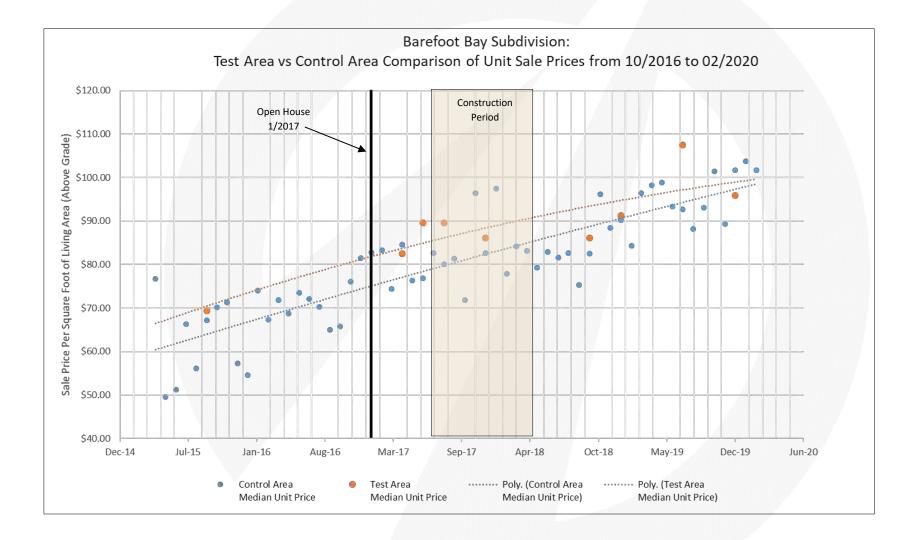
Nine Test Area sales and 903 Control Area Sales were identified from Q2 2015 to Q1 2020.

- > The Test area sales (ORANGE) are located adjoining to the Barefoot Bay Solar Energy Center.
- ➤ The Control area sales (BLUE) are located in the remainder of the Barefoot Bay subdivision.

The dotted lines are polynomial trend lines plotted by Microsoft Excel in order to illustrate and approximate the "average" trend of each set of data. After construction of the solar farm, in parallel with the improving economic climate, it appears that unit prices for both the test and control areas appreciated at a similar rate over the period from Q2 2015 to Q1 2020. A difference in appreciation rates does not appear to exist between homes in the Test Area versus homes in the Control Area.

Sale prices of manufactured homes after the construction of the solar farm exhibit a similar appreciation trend as sales prior to the solar farm announcement. Overall, our findings indicate that there is not a consistent and measurable difference that exists in association with proximity to a solar farm.





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SOLAR FARM 6: INNOVATIVE SOLAR 42, BLADEN AND CUMBERLAND COUNTIES, NC

Coordinates: Latitude 34.847627, Longitude -78.877360

Cumberland County PIN: 0339-67-3814

Bladen County PINs: 033900553698, 033900751483, 033900658763

Total Land Size: 414 acres

Date Project Announced: May 2014

Date Project Completed: September 2017

Output: 71 MW AC



Aerial imagery retrieved from Google Earth



# **Overview and Surrounding Area:**

Innovative Solar Farm 42 was developed by Innovative Solar Systems and became operational in September 2017. There are over 271,000 solar arrays on the farm that can generate power for approximately 12,000 homes.

Innovative Solar Farm 42 is located in unincorporated Bladen and Cumberland Counties, in North Carolina, approximately 17 miles south of Fayette, North Carolina and 21 miles north of Elizabethtown, North Carolina. The county line bisects the solar farm, with Cumberland County on the north side and Bladen County on the south side. Innovative Solar Farm is located just south of County Line Road in Cumberland County and approximately one mile west of North Carolina Highway 87.

The Immediate Area: The solar farm is surrounded by residential land to the north, residential and forest land to the west, and agricultural and forest land to the south and east.

**Landscaping:** The solar farm is buffered from the residences along County Line Road with a chain link fence. and tree plantings. The solar farm is clearly visible.

Prior Use: Agricultural use

Real Estate Tax Info: The chart below shows the increase from 2017 (before construction) to 2018 (after construction) in the assessed value of the parcels and the total real estate taxes.

PIN	Acres
Cumberland County, NC	
0339-67-3814	261.39
Bladen County, NC	
33900553698	82.48
33900751483	17.92
033900658763	52.20
TOTAL	413.99

2017 Taxes Paid		20	018 Taxes Paid	Tax Increase	
\$	5,263	\$	37,699	616%	
\$	920	\$	947	2.96%	
\$	234	\$	241	2.96%	
\$	622	\$	640	2.96%	
\$	7,039	\$	39,527	462%	

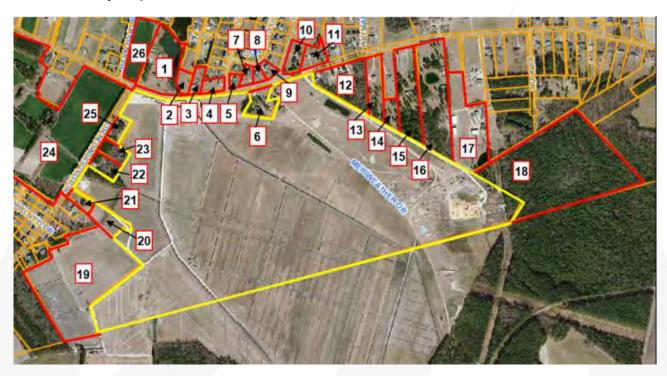
2017 Assessed		2018 Assessed		Value
Value		Value		Increase
\$	541,500	\$	3,920,850	624%
\$	108,870	\$ \$ \$	108,870	0.00%
\$	27,690		27,690	0.00%
\$	73,600		73,600	0.00%
\$	751,660	\$	4,131,010	450%

#### Paired Sale Analysis:

We found two Adjoining Properties that qualified for a paired sales analysis: Adjoining Property 11 and Adjoining Property 2. Adjoining Property 2 was a speculative construction home built after the completion of the solar farm (see further discussion in the Solar Farm Factors in Harmony of Use section). The map on the following page displays the parcels adjoining to the solar farm panels (outlined in red), these parcels are numbered for subsequent analysis. Note, that the GIS map views do not have updated aerial imagery that display the solar panels in the image on the following page.



# **Cumberland County Map**



Innovative Solar 42 - Adjoining Properties

# **Bladen County Map**



Innovative Solar 42 - Adjoining Properties



## Group 1

Adjoining Property 11 was considered for a paired sales analysis, and sold during the construction period of the solar farm. The property was analyzed as a single-family home use.

The Control Area Sales were 1-story homes, with three bedrooms and two or three bathrooms with comparble sizes that sold within a reasonable time frame. We excluded sales that were bank-owned, and those between related parties.

The Control Area Sales were adjusted for market conditions using a regression analysis to identify the appropriate monthly market conditions adjustment. The result of our analysis for Innovative Solar 42 - Group 1e are presented below.

CohnRezr Innova						
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF				
Test Area Sales (1)	Adjoining solar farm	\$107.09				
Control Area Sales (7)	No: Not adjoining solar farm	\$100.18				
	Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales					

The Test Area Sale sold after 71 days on market (2-3 months), while the Control Area Sales ranged from 1 day on market to 175 days on market (0-6 months), with a median of 116 days on market. We note no negative marketing time differential.

Noting no negative price differential, with the Test Area Sale having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales, it does not appear that the Innovative Solar 42 energy use had any negative impact on adjacent property values.



## Group 2

Adjoining Property 2 was considered for a paired sales analysis, and sold after completion of the solar farm. We discussed this sale with the listing broker, Kevin Grullon, who said the solar farm did not impact the sales price nor the marketing time.

The Control Area Sales were 2-story homes, with three and four bedrooms and two to four bathrooms with comparble sizes that sold within a reasonable time frame. We excluded sales that were bank-owned, and those between related parties. For Adjoining Property 2, we analyzed seven Control Area Sales.

Control Area Sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment. The result of our analysis for Innovative Solar 42 – Group 2 are presented below.

	nick Paired Sale Analysis ative Solar Group 2	
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Test Area Sales (1)	Adjoining solar farm	\$111.77
Control Area Sales (7)	No: Not adjoining solar farm	\$105.34
Difference between Unit Pr Adjusted Median Unit Pri	6.10%	

The Control Area Sales ranged from 13 days on market to 225 days on market (0-8 months), with a median of 46 days on market. The Test Area Sale sold after 153 days on market (3-4 months) and it was listed during construction, which explains the above average time on market since closing can only occur after the home had been completed.

**Noting no negative price differential**, with the Test Area Sale having a higher unit sale price than the median adjusted unit sale price of the Control Area Sales, it does not appear that the Innovative Solar 42 energy use had any negative impact on adjacent property values.



## SOLAR FARM 7: RUTHERFORD FARM, RUTHERFORD COUNTY, NC

Coordinates: Latitude 35.257778, Longitude -81.830560

**PIN:** 1556-31-0185

Total Land Size: 489 acres

Date Project Announced: November 24, 2015

**Date Project Completed:** December 2016

Output: 61 MW AC



Aerial imagery retrieved from Google Earth

## Overview and Surrounding Area:

The Rutherford Farm Solar use is located in unincorporated Rutherford County, North Carolina. The solar farm was developed by Cypress Creek Renewables and became operational in December 2016. Southern Power and Turner Renewable Energy purchased the solar facility on July 8, 2016. The solar farm has over 289,000 solar modules that can generate power for approximately 12,000 homes.



The Rutherford Farm solar use is approximately 7 miles southeast of Forest City, in Rutherford County, in southwestern North Carolina. The solar facility is situated approximately 3 miles northeast of the intersection of Chase High Road and US 221, a major thoroughfare that traverses the county.

## The Immediate Area:

Surrounding land uses consists of residential and forest land to the north, forest and commercial to the east, vacant and forest land to the south. All of the adjacent land parcels to the solar farm are used for agricultural or residential purposes.

The solar farm has a hedge buffer along portions of the farms where the residential development is closest. Along all solar panels areas adjacent to residential, a row of trees buffer the view of the panels.

# Prior Use: Wooded

## **Real Estate Tax Information:**

Prior to development of the solar farm, the assessed value of the property was \$466,200 and ownership paid \$3,156 in taxes. In 2018, after the completion of the solar farm, the assessed value of the solar farm property increased to \$1,075,800 and taxes increased to \$7,391, a 131 percent increase in tax revenue.

PIN	Acres
Rutherford County 1556-31-0185	488.84
TOTAL	488.84

 2016 Taxes Paid		18 Taxes Paid	Tax Increase
\$ 3,203	\$	7,391	131%
\$ 3,203	\$	7,391	131%

2016	016 Assessed 2018 Assessed Value Value Increas		Value Increase	
\$	466,200	\$	1,075,800	131%
\$	466,200	\$	1,075,800	131%

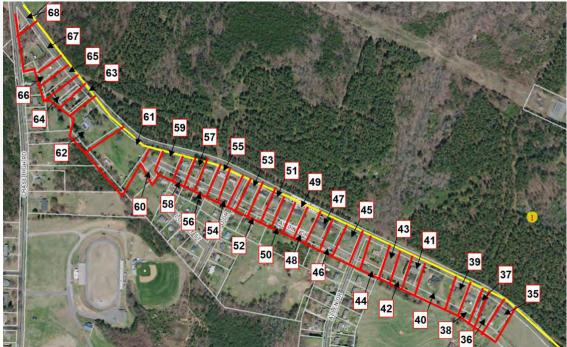
### Paired Sale Analysis:

In reviewing adjoining properties to study in a Paired Sale Analysis, seven properties and sales were considered in total but six were eliminated from further consideration as discussed below.

The map on the following page displays the Adjoining Properties (outlined in red) to the solar farm parcel (outlined in yellow). Properties adjoining this parcel are numbered for subsequent analysis.







Rutherford Farm Solar - Adjoining Properties

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Five Adjoining Properties (21, 22, 36, 56, and 57) were eliminated from further consideration because they were sales with no recorded sales value or property transfers in off-market transactions. Adjoining Property 2 was a transfer between related parties. Adjoining Property 55 sold in October 2020; however, this property is a duplex with one two-bedroom unit rented. We were not able to locate sales of other duplex properties in the surrounding area that are comparable to the property. As additional duplex sales occur, we will monitor and generate a paired sale analysis for this property at a later date.

We found one Adjoining Property that qualified for a Paired Sale analysis. Adjoining Property 46, the Test Area Sale, was considered for a paired sales analysis. The property was analyzed as a single-family home use. It should be noted that this sale occurred after announcement but prior to construction of the solar farm. We spoke with the selling broker for this property, Brent Washburn, who confirmed that the solar farm had not been constructed at the time of sale, and said the announcement had no impact on the sale.

Adjoining Property 46 was considered for a paired sales analysis, and we analyzed this properties as singlefamily home use. The improvements on this property are located 139 feet to the nearest solar panel.

	Test Area Sale Rutherford Farm Solar								
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median Square Feet	Median Sale Date	Median Price PSF
46	434 Ferry Rd	\$85,000	0.41	3	2.0	1977	1,590	Jan-16	\$53.46

We analyzed six Control Area Sales, single family homes with similar location, construction, square footages, lot sizes, and ages, use that were not located in close proximity to the solar farm, that also sold within a reasonable time frame from the median sale date of the Test Area Sale. The Control Area Sales are one-story homes with 3 bedrooms and one to two bathrooms. We excluded sales that were bank-owned, and those between related parties.

The Control Area Sales were adjusted for market conditions using a regression to identify the appropriate monthly market conditions adjustment. The results of our analysis for the Rutherford Farm solar facility are presented on the next page.



CohnRezr Ruth		
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Test Area Sales (1)	Adjoining solar farm	\$53.46
Control Area Sales (6)	No: Not adjoining solar farm	\$52.49
Difference between Unit Pr Adjusted Median Unit Pri	1.85%	

Noting no significant price differential, with the Control Area Sales having a slightly lower median unit sale price than the unit sale price of the Test Area Sale, it does not appear that the Rutherford Farm Solar energy use had any negative impact on adjacent property values.



**SOLAR FARM 8: ELM CITY SOLAR FACILITY, WILSON COUNTY, NC** 

Coordinates: Latitude 35.781111, Longitude -77.846940

PINs: 3744-33-6758.01, 3744-11-9000.000

Total Land Size: 354 acres

Date Project Announced: September 2014

Date Project Completed: July 2012

Output: 40 MW AC



Aerial imagery retrieved from Google Earth

## **Overview and Surrounding Area:**

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The Elm City Solar use is located in Elm City, North Carolina. Duke Energy owns the solar facility and selected HelioSage Energy to develop it. The solar farm went into operation in March 2016 and can generate power for approximately 7,000 homes. Nearly a half million solar panels comprise the farm.

Wilson County is located in central North Carolina. The county is primary rural in nature, with the city of Wilson being the county seat. Elm City is actually a town with a population of less than 1,200. The Elm City Solar Farm is located to the southeast of Elm City, approximately a third of a mile to the east of State Highway 301. Surrounding land uses consist of residential and forest land to the north; forest and agricultural land to the east; vacant, forest, and residential land to the south; and residential, industrial, vacant, and forest land to the west.

## The Immediate Area:

All of the adjacent land parcels to the solar farm are used for agricultural, residential, and/or industrial purposes.

Landscaping: The Elm City Solar Farm is buffered from the adjoining residential lots with a fence and tree plantings.

Prior Use: Agricultural use

Real Estate Tax Info: In 2016, prior to the property being assessed as a solar farm, the assessed value of the property was \$206,220 and ownership paid \$2,805 in real estate taxes. In 2017, the assessed value increased to \$1,779,830 and the real estate tax increased to \$24,206.

PIN	Acres
Wilson County	
3744119000.000	249.00
3744336758.01*	105.00
TOTAL	354.00

2016 Taxes Paid		2017 Taxes Paid		Tax Increase
\$	2,805	\$	14,624	421%
\$	1,494	\$	9,581	541%
\$	4,298	\$	24,206	463%

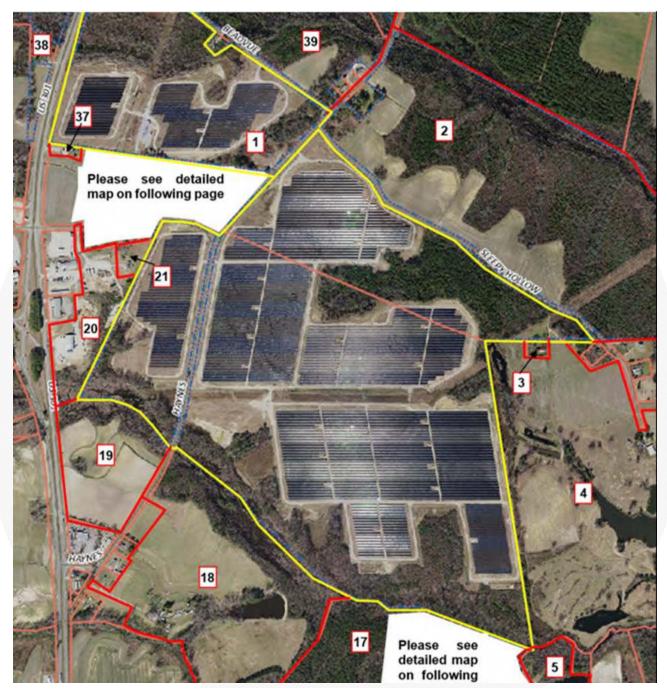
2010	6 Assessed Value	201	7 Assessed Value	Value Increase
\$	206,220	\$	1,075,330	421%
\$	117,881	\$	704,500	498%
\$	324,101	\$	1,779,830	449%

<sup>\*</sup> This parcel was split from it's parent prior to construction. The 2016 Assessed Value is based on the pro-rata amount for the entire 471.53 acre parent parcel.

# Paired Sale Analysis:

The map on the following page displays the parcels adjoining the solar farm (outlined in red). Properties adjoining the solar parcels are numbered for subsequent analysis.





Elm City Solar - Adjoining Properties





Elm City Solar - Adjoining Properties



Elm City Solar - Adjoining Properties



Adjoining Property 23 (Test Area Sale) was considered for a paired sales analysis, which sold after development of the solar farm. The property was analyzed as a single-family home use. We discussed this sale with Selby Brewer with First Wilson Properties, Inc who sold the property. He said the buyers "did not even mention" the solar farm, and he saw no market difference.

For Adjoining Property 23, we analyzed eight Control Area Sales that sold within a reasonable time frame from the sale date of Adjoining Property 23. The Control Area Sales are ranch homes with three bedrooms and one and two bathrooms. We excluded sales that were bank-owned, and those between related parties.

The Control Area Sales were adjusted for market conditions using a regression analysis to identify the appropriate monthly market conditions adjustment. The result of our analysis for Elm City Solar is presented below.

CohnReznick Paired Sale Analysis  Elm City Solar					
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF			
Test Area Sales (1)	Adjoining solar farm	\$56.60			
Control Area Sales (8)	No: Not adjoining solar farm	\$55.57			
Difference between Unit Pri Adjusted Median Unit Pri	1.85%				

Noting no negative marketing time differential, the days on market for the Test Area Sale was 38 days (0-1 month), while the Control Area Sales ranged from five to 204 days on market (0-8 months).

Noting no negative price differential, it does not appear that the Elm City Solar impacted the sales price of the Test Sale, Adjoining Property 23. This was confirmed by the real estate agent who marketed and sold this home.



SOLAR FARM 9: WOODLAND SOLAR FARM, ISLE OF WIGHT COUNTY, VA

Coordinates: Latitude 36.890000, Longitude -76.611000

PINs: 41-02-004, 41-02-001, 41-02-001A, 41-02-005

Total Land Size: 211.12 acres

Date Project Announced: August 4, 2015

**Date Project Completed:** December 2016

Output: 19.0 MW AC



Aerial imagery retrieved from Google Earth

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# **Overview and Surrounding Area:**

The Woodland Solar Farm is located in unincorporated Isle of Wight County, Virginia, and was developed by Dominion Virginia Power in 2016. This solar farm has a capacity of 19.0 Megawatts (MW) AC of power, which is enough to power 4,700 homes. The solar farm sits on 204 acres, part of Oliver Farms, a 1,000-acre site that was chosen for its flat land and proximity to power lines. The land under the solar arrays was previously farmed and used to grow broccoli, collards, peas, strawberries and butter beans. The solar installation includes 79,648 solar panels and was one of the largest of its kind at the time of construction.

Isle of Wight County is in the southeast part of Virginia and has shoreline along the James River on its eastern border. The county is predominantly rural and has two incorporated towns, Smithfield and Windsor. The Woodland Solar facility is approximately 27 miles northwest of Norfolk, Virginia, across the Elizabeth River and the Nansemond River. The solar site is also approximately 21 miles southwest of Newport News, Virginia. The town of Smithfield is approximately nine miles northeast of the solar facility and the town of Windsor is approximately 12 miles southwest. The solar facility is near the intersection of State Route 600 (Oliver Drive) and State Route 602 (Longview Drive).

## The Immediate Area:

Land uses surrounding the Woodland Solar facility include forests and agricultural land to the north, west, and south, and residential and farm land to the east.

Landscaping around the solar site consists of the naturally occurring vegetation and forests. It should be noted that the land owner that leases the land to the developer has agricultural buildings and other structures along Longview Drive and the nearest solar panels are approximately 220 feet from the property line.

Prior Use: Agricultural use

Real Estate Tax Info: In 2015, prior to the property being assessed as a solar farm, the assessed value of the property was approximately \$542,200 and ownership paid \$4,609 in real estate taxes (see below). In 2016, the assessed value increased to \$3,021,600 and the real estate tax increased to \$27,844.

PIN	Acres
Isle of Wight County, VA	
41-02-004	107.32
41-02-001	62.66
41-02-001A	8.08
41-02-005	33.06
TOTAL	211.12

2015 Taxes Paid		20 <sup>-</sup>	16 Taxes Paid	Tax Increase		
\$	2,250	\$	15.985	610%		
\$	1,369	\$	8,601	529%		
\$	230	\$	1,193	420%		
\$	761	\$	2,065	171%		
\$	4,609	\$	27,844	504%		

201	5 Assessed Value	201	Value Increase	
\$	264,700	\$	1,728,100	553%
\$	161,000	\$	939,900	484%
\$	27,000	\$	110,700	310%
\$	89,500	\$	242,900	171%
\$	542,200	\$	3,021,600	457%

# Paired Sale Analysis:

The map below displays the Adjoining Properties to the solar farm (outlined in red). Properties adjoining the solar farm parcels are numbered for subsequent analysis.



Woodland Solar - Adjoining Properties

In reviewing Adjoining Properties to study in a Paired Sale Analysis, several properties and sales were considered but eliminated from further consideration as discussed below.

We identified three Adjoining Properties that sold since the solar farm started operations in December 2016: Adjoining Property 3, and two parcels included in Adjoining Property 5. The two properties that were considered part of Adjoining Property 5, sold between related parties, and were sales between family members of the land lessor for the solar site. These two sales were excluded from further analysis.



Adjoining Property 3 was considered for a paired sales analysis, and we analyzed this property as single-family home use. The improvements on this property is located approximately 600 feet to the nearest solar panel.

Test Area Sale - Adjoining Property 3									
Adj. Property#	Address		Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median GLA (SF)	Median	Median Price PSF
3	18146 Longview Drive	\$175,000	1.00	3	1	1978	1,210	Jun-16	\$144.63

We analyzed five Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to the solar farm, that sold within a reasonable time frame from the median sale date of the Test Area Sale. The Control Area Sales one-story homes with three bedrooms and one and two bathrooms. We excluded sales that were bank-owned, and those between related parties.

The Control Area Sales were adjusted for market conditions using a regression analysis to identify the appropriate monthly market conditions adjustment. The result of our analysis for Woodland Solar Farm is presented below.

CohnReznick Paired Sales Anaysis Woodland Solar Farm Adjoining Property 3							
No. of Sales	Adjusted Median Price Per SF						
Test Area Sale (1)	Yes: Adjoining solar farm	\$144.63					
Control Area Sales (5)	No: Not adjoining solar farm	\$137.76					
Difference between Unit Price of 1  Median Unit Price of Co	4.99%						

The difference between the unit price of the Test Area Sale and the Adjusted Median Unit Price of the Control Area Sales is considered within the range for a typical market area.

Noting no negative marketing time differential, the Test Area Sale sold in 33 days (1-2 months), while the Control Area Sales sold between 17 and 37 days (0-2 months), with a median time on market of 28 days.

Noting no negative price differential, with the Test Area Sale having a higher unit sale price than the Control Area sales, it does not appear that the Woodland Solar Farm had any negative impact on adjacent property values.



# SOLAR FARM 10: DTE'S LAPEER SOLAR PROJECT, LAPEER, MICHIGAN

Coordinates: Latitude 43.0368219316, Longitude -83.3369986251

PINs: L20-95-705-050-00, L20-98-008-003-00

Owner of Record: DTE Electric Company & City of Lapeer

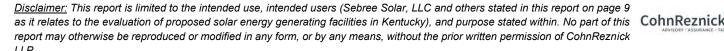
Total Land Size: ±365 Acres

**Date Project Announced: 2016** 

Date Project Completed: May 2017

Output: 48.28 MW AC







# **Overview and Surrounding Area:**

The DTE Lapeer solar farm is located just south of the City of Lapeer, in Lapeer County, Michigan and is a joint project between the City of Lapeer and DTE Electric Company. The solar farm was developed with Inovateus Solar MI, LLC to meet Michigan renewable energy standards. The solar farm features over 200,000 panels, a power output of 48.28 MW AC, and produces enough energy to power 14,000 homes. The Lapeer solar project was developed in two phases: the Demille Solar installation and the Turrill Solar installation. For purposes of our study, taken together, both installations are considered one solar farm.



DTE's Lapeer Solar Projects Demille and Turrill solar installations

Lapeer is considered to be in the Tri-Cities area of central Michigan and is approximately 21 miles east of the City of Flint. Interstate-69 serves Lapeer and runs east-west just south of the solar farm. The two phases of the solar installation are on the east and west sides of Michigan State Route 24 from each other.



## **The Immediate Area:**

Land uses surrounding the Demille installation include a correctional facility and industrial uses to the west, buffered by a mature stand of trees, a retail center to the northeast, other commercial uses to the east along MI-24/South Lapeer Road, and residential homes to the southeast. Interstate-69 runs south of the Demille solar installation.

The Turrill installation is surrounded to the north by a residential subdivision, to the north and east by industrial uses, to the south by vacant land and residential homes, and to the west by light commercial and professional uses along MI-24/South Lapeer Road. Hunter's Creek divides two sets of solar arrays in the Turrill installation.

The Demille installation is surrounded on the west by a large grove of mature trees. A small part of the solar farm extends southward and adjoins Interstate-69 while more mature trees and shrubbery buffer the rest of the southern exposure of the south side of the solar panels. To the southeast, buffering the subdivision homes are mature trees and some shrubbery. The eastern border of the solar installation is primarily existing mature trees, and some vacant land. To the northeast corner of the solar panels is a senior living facility, Stonegate Health Campus, developed before the solar facility that is buffered by shrubbery and mature trees. According to employees at Stonegate the solar panels are not visible from the building.

The Turrill installation is separated from Tower Road on the west by trees and shrubbery. To the south, existing mature trees and shrubbery buffers the solar panels from Turrill Road. The solar panels are bisected by Hunters Creek, which runs roughly north-south. Mature trees buffer the industrial uses on the eastern side and the northeastern corner of the solar panels. The northern border of the solar panels is separated from the Hunters Creek subdivision by mature trees as well.

Prior Use: Agricultural use

### **Real Estate Tax Information:**

Prior to the development of the solar farm, the land under the Demille and Turrill solar installations were municipal-owned and were not subject to property tax. After development, in 2017, the land became taxable and taxes were \$82,889 total, as shown below.

PIN	Acres
Lapeer County, MI	
L20-98-008-003-00*	110.84
L20-95-705-050-00*	254.84
TOTAL	365.68

2016 Taxes Paid		201	17 Taxes Paid	Tax Increase	
\$	-	\$	34,294	N/A	
\$	-	\$	48,595	N/A	
\$	-	\$	82,889	N/A	

	ssessed alue	201	7 Assessed Value	Value Increase		
\$ - \$ -		\$	726,700 1,029,750	N/A N/A		
\$	-	\$	1,756,450	N/A		

<sup>\*</sup> Prior to development as a solar farm, the parcels were municpal property without a taxable value.



# **Paired Sale Analysis:**

The maps, below, and on the following pages display properties adjoining the solar sites that are numbered in red for subsequent analysis.

## **Demille Solar Farm**



DTE's Lapeer Solar Projects - Demille Adjoining Properties

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DTE's Lapeer Solar Projects - Demille Adjoining Properties



### **Turrill Solar Farm**



DTE's Lapeer Solar Projects - Turrill Adjoining Properties





DTE's Lapeer Solar Projects - Turrill Adjoining Properties

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In reviewing Adjoining Properties to study in a Paired Sale Analysis, several properties and sales were considered but eliminated from further consideration as discussed below.

We identified seven Adjoining Properties that sold since the solar farm started operations in May of 2017: Adjoining Properties 3, 4, 7, 9, and 16 for the Demille Solar Farm, and Adjoining Properties 3 and 4 for the Turrill Solar Farm. Of these properties, three were considered atypical for the area.

Adjoining Property 7 adjacent to the Demille Solar farm is a split-level home with a finished walk out basement with a pool. The typical home in the area has a traditional basement and pools are atypical. The unusual nature of this sale was confirmed with the selling broker, Renee Voss (see comments below).

Adjoining Property 16 just south of the Demille Solar Farm is a 10.1-acre lot that is buffered by trees. The home is atypical for the area, as most homes are situated on lots between 1-acre and 1.5-acres in size and were built before 1980; this home was built in 2008. We interviewed the broker Josh Holbrook (see comments below) who confirmed the atypical nature of this property.

Adjoining Property 3, just west of the Turrill Solar Farm, was a ranch home with 1,348 square feet on a lot that was just over one acre. Comparables for homes of this size, type, and lot size were not available in the immediate market area. It should be noted that the price per square foot for this home (\$108.01) is significantly higher than median price per square foot of either data set we studied.

As a part of our research, we interviewed three local real estate brokers that sold homes adjacent to the Lapeer Solar farm. According the brokers, there was no impact on the home prices or marketability due to the homes' proximity to the solar arrays.

Renee Voss of Coldwell Banker, selling broker of the raised ranch at 1138 Don Wayne Drive (Adjoining Property 7), which is adjacent to the Demille solar farm at the southeast corner, noted that there was no impact on this sale from the solar farm located to the rear. The home, which has a pool in the backyard, sold quickly with multiple offers, Voss stated.

Josh Holbrook, the selling broker of 1408 Turrill Road (known as Adjoining Property 16), located just south of the Demille Solar Farm, said the solar farm had no impact on the sale and that the community takes pride in the solar farm.

Anne Pence of National Realty Centers, the selling broker for 1126 Don Wayne Drive, a single-family home adjacent to the Demille solar farm (known as Test Area Sale 9), reported that "the solar farm did not have any effect on the sale of this home. The buyers did not care one bit about the solar field in the back yard. The fact is that you know no one is going to be behind you when they develop a solar farm in your back yard. And there they put up trees to block the view. My in-laws also actually live at end of that street, even though they haven't sold or put their house on market, they don't mind the solar panels either. It's not an eyesore. And another house sold on that block, a raised ranch home, and it sold with no problems."



# **Group 1 – Demille:**

Adjoining Properties 3, 4, and 9 to the Demille Solar Farm were considered for a paired sales analysis, and we analyzed these properties as single-family home uses in Group 1. The improvements on these properties are located between 210 to 255 feet to the nearest solar panel.

Test Area Sales Group 1 - Demille Solar									
Adj. Property # Address Median Site Size (AC) Median Baths Median Square Built Median Square Feet Sale Date Property #							Median Price PSF		
3, 4, 9	1174 Alice Dr, 1168 Alice Dr, 1126 Don Wayne Drive	\$160,000	0.50	3	2.0	1973	1,672	May-18	\$86.12

We analyzed seven Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to the solar farm, that sold within a reasonable time frame from the median sale date of the Test Area Sales in Group 1. The Control Area Sales for Group 1 are ranch homes with three bedrooms and one and two bathrooms. We excluded sales that were bank-owned, and those between related parties.

The Control Area Sales were adjusted for market conditions using a regression analysis to identify the appropriate monthly market conditions adjustment. The result of our analysis for DTE's Lapeer Solar Project -Group 1 is presented below.

DTE Lapeer Solar Group 1 - Demille Solar						
No. of Sales	No. of Sales  Potentially Impacted by Solar Farm					
Test Area Sales (3)	Adjoining solar farm	\$86.12				
Control Area Sales (7)	No: Not adjoining solar farm	\$85.92				
Difference between Unit Pri Adjusted Median Unit Pri	0.24%					

The days on market for the three Test Area Sales had a median of 28 days on market (ranging from 5 to 48 days), while the median days on market for the Control Area sales was 72 days (ranging from 14 to 224 days), and we note no negative marketing time differential.



# Group 2 – Turrill:

Adjoining Property 4 to the Turrill Solar Farm was analyzed separately since it is a two-story home on a larger lot as Group 2. The home on Adjoining Property 4 is 165 feet from the property line to the nearest solar panel.

Test Area Sale Group 2 - Turrill Solar									
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median Square Feet	Median Sale Date	Median Price PSF
4	1060 Cliff Drive	\$200,500	1.30	4	2.5	1970	2,114	Sep-18	\$94.84

We analyzed four Control Area single-family homes sales with similar construction that were not located in close proximity to the solar farm, that sold within a reasonable time frame from the sale date of Adjoining Property 4.

The Control Area Sales for Group 2 are 2-story homes with between two and four bedrooms and 2.5 to 3.0 bathrooms. We excluded sales that were bank-owned, and those between related parties.

We adjusted the Control Area Sales for market conditions using a regression analysis to identity the appropriate monthly market conditions adjustment. The result of our analysis for DTE's Lapeer Solar Project – Group 2 is presented below.

CohnReznick Paired Sale Analysis DTE Lapeer Solar Group 2 - Turrill Solar						
No. of Sales	Adjusted Median Price Per SF					
Test Area Sale (1)	Adjoining solar farm	\$94.84				
Control Area Sales (4)	No: Not adjoining solar farm	\$91.80				
Difference between Unit Pr Adjusted Median Unit Pric	3.31%					

The days on market for the Test Area Sale was 2 days, while the median days on market for the Control Area sales was 35 days (ranging from 11 to 177 days), and we note no negative marketing time differential.

**Noting no negative price differential**, with the Test Area Groups having a higher unit sale price than the Control Area sales, in either Group, it does not appear that the DTE's Lapeer Solar had any negative impact on adjacent property values.



## SUMMARY OF ADJOINING USES

The table below summarizes each subject solar farm's adjoining uses.

		Composi	tion of Surroun	ding Uses (% o	f Surrounding	Acreage)	1
Solar Farm#	Solar Farm	Acreage % of Surrounding Agricultural Uses	Acreage % of Surrounding Residential Uses	Acreage % of Surrounding Industrial Uses	Acreage % of Surrounding Office Uses	Acreage % of Surrounding Other Uses	Avg. Distance from Panels to Improvements (Feet)
1	North Star	75.00%	15.00%	0.00%	0.00%	10.00%	350
2	Dominion Indy Solar III	97.70%	2.30%	0.00%	0.00%	0.00%	474
3	Dougherty Solar	76.42%	22.46%	1.12%	0.00%	0.00%	350
4	Miami-Dade Solar Energy Center	56.10%	10.00%	0.00%	0.00%	34.00%	915
5	Barefoot Bay Solar Energy Center	0.00%	9.71%	88.08%	0.00%	2.20%	734
6	Innovative Solar 42	20.00%	25.00%	0.00%	0.00% 0.00% 55		405
7	Woodland Solar	25.00%	5.00%	0.00%	0.00%	60.00%	615
8	Rutherford Farm	10.00%	40.00%	10.00%	0.00%	40.00%	180
9	Elm City Solar	20.00%	15.00%	10.00%	0.00%	50.00%	295
10	Lapeer Solar	60.00%	35.00%	0.00%	0.00%	5.00%	260

Overall, the majority of the surrounding acreage for each comparable solar farm is made up of agricultural land, some of which have homesteads. There are also smaller single-family home sites that adjoin the solar farms we have studied. We have found that these solar farms are sound comparables in terms of adjoining uses, location, and size.



#### MARKET COMMENTARY

Additionally, we have contacted market participants such as appraisers, brokers, and developers familiar with property values around solar farms. Commentary from our conversations with these market participants is recorded below.

A Clark County, Kentucky Property Valuation Administrator, Jason Neely, noted there have been no complaints regarding East Kentucky Power Cooperative, Inc.'s Cooperative Solar One project installed in November 2017 located in the county, which has a capacity to generate 8.5 MW of electricity. Additionally, Neely stated he has not seen any evidence of lowered property values in the area and no reduction in assessed property values has been made due to proximity to the solar farm.

A Grant County, Kentucky Assessor stated that they have not seen a reduction in assessed property values or market values for adjacency to solar farms.

A McNairy County, Tennessee Assessor stated that they have not applied reductions to assessed value for adjacency to solar farms.

Christy Wingate, a real estate broker with Parker Real Estate Group, noted in her experience, the presence of a solar farm is neither an attraction nor a deterrant for nearby home buyers.

A Miami Dade County, Florida Assessor stated that they do not reduce assessed property values for adjacency to Solar Farms.

A Putnam County, Florida Assessor stated that they have not seen a reduction in assessed value for adjacency to Solar Farms.

Renee Davis, Tax Administrator for Bladen County, North Carolina, stated that she has not seen any effect on property values due to proximity to a solar farm.

We spoke with Jim Brown, an appraiser for Scotland County, North Carolina, who stated that he has seen no effect on property values due to proximity to a solar farm.

We spoke with Gary Rose, a tax assessor for Duplin County, North Carolina, who stated that he has seen no effect on property values in regards to proximity to a solar farm.

Kathy Renn, a property Valuation Manager for Vance County, North Carolina, stated that she has not noticed any effect on property values due to proximity to a solar farm.

Larry Newton, a Tax Assessor for Anson County, North Carolina, stated that there are six solar farms in the county ranging from 20 to 40 acres and he has not seen any evidence that solar farms have had any effect on property values due to proximity to a solar farm.

We spoke with Patrice Stewart, a Tax Administrator for Pasquotank County, North Carolina, and she has seen no effect on land or residential property values due to proximity to the solar farms in Pasquotank County.



We spoke with the selling broker of the Adjoining Property for Elm City Solar, in North Carolina, Selby Brewer, who said the solar farm did not impact the buyer's motivation.

We spoke with Amy Carr, Commissioner of Revenue in Southampton County, Virginia, who stated that most of the solar farms are in rural areas but she has not seen any effect or made any adjustments on property values. They have evaluated the solar farm land considering a more intense use, which increased the assessed value.

The Interim Assessor for the town of Whitestown in Oneida County, New York, Frank Donato, stated that he has seen no impact on property values of properties nearby solar farms.

Steve Lehr at the Department of Assessment for Tompkins County, New York, mentioned that the appraisal staff has made no adjustments regarding assessed values of properties surrounding solar farms. Marketing times for properties have also stayed consistent. Lehr noted that a few of the solar farms in Thompkins County are on land owned by colleges and universities and a few are in rural areas.

At this point in time, Al Fiorille, Senior Valuation Specialist in the Tompkins County Assessment department in New York, reported that he cannot measure any negativity from the solar farms and arrays that have been installed within the county.

Mason Hass, the Riverhead Assessor in Suffolk County, on Long Island, New York stated that the solar farms in his town are in industrial zoned areas and he has not seen any impact on adjacent properties.

The Assessor for the town of Smithtown in Suffolk County, New York, Irene Rice, has not seen any impact on property values as a result of their location near the newly built solar farms in her town.

In the Assessor's office in the town of Seneca, Ontario County, New York, Shana Jo Hamilton stated that she has seen no impact on property values of properties adjacent to solar farms.

Michael Zazzara, Assessor of the City of Rochester in Monroe County, New York commented that the City has a couple of solar farms, and they have seen no impact on nearby property values and have received no complaints from property owners.

While there are one or two homes nearby to existing solar farms in the town of Lisbon in St. Lawrence County, New York, Assessor Stephen Teele has not seen any impact on property values in his town. The solar farms in the area are in rural or agricultural areas in and around Lisbon.

The Assessor for the Village of Whitehall in Washington County, New York, Bruce Caza, noted that there are solar farms located in both rural and residential areas in the village and he has seen no impact on adjacent properties, including any concerns related to glare form solar panels.

Laurie Lambertson, the Town Assessor for Bethlehem, in Albany County, New York noted that the solar farms in her area are tucked away in rural or industrial areas. Lambertson has seen no impact on property values in properties adjacent to solar farms.



We spoke with Ken Surface, a Senior Vice President of Nexus Group. Nexus Group is a large valuation group in Indiana and has been hired by 20 counties in Indiana regarding property assessments. Mr. Surface is familiar with the solar farm sites in Harrison County (Lanesville Solar Farm) and Monroe County (Ellettsville Solar Farm) and stated he has noticed no impact on property values from proximity to these sites.

We interviewed Missy Tetrick, a Commercial Valuation Analyst for the Marion County Indiana Assessor. She mentioned the Indy Solar III sites and stated that she saw no impact on land or property prices from proximity to this solar farm.

We spoke with Dorene Greiwe, Decatur County Indiana Assessor, and she stated that solar farms have only been in the county a couple of years, but she has seen no impact on land or property prices due to proximity to this solar farm.

Connie Gardner, First Deputy Assessor for Madison County Indiana, stated that there are three solar farms in her county, and she has seen no impact on land or property prices due to proximity to these solar farms.

We spoke with Tara Shaver, Director of Administration for Marion County, Indiana Assessor/Certified Assessor, and she stated that she has seen no impact on land or property prices due to proximity to solar farms.

Candace Rindahl of ReMax Results, a real estate broker with 16 years of experience in the North Branch. Minnesota area, said that she has been in most of the homes surrounding the North Star Solar Farm and personally sold two of them. She reported that the neighboring homes sold at market rates comparable to other homes in the area not influenced by the solar farm, and they sold within 45 days of offering, at the end of 2017, which was in line with the market.

Dan Squires, Chisago County Tax Assessor, confirmed that the Chisago County Assessor's Office completed their own study on property values adjacent to and in close vicinity to the solar farm from January 2016 to October 2017. From the study, the assessor determined the residential homes adjacent to the North Star Solar Farm were in-line with the market and were appreciating at the same rate as the market. 14

14 Chisago County Press: County Board Real Estate Update Shows No "Solar Effects" (11/03/2017)



## SOLAR FARM FACTORS ON HARMONY OF USE

The data from the solar farms included in this Property Value Impact Study, clearly indicates that solar farms are generally a compatible use with agricultural and residential uses.

The following section analyzes specific physical characteristics of solar farms and is based on research and our solar farm site visits.

Appearance: Most solar panels have a similar appearance to a greenhouse or single-story residence can range from 8 to 20 feet, but are usually not more than 15 feet high. As previously mentioned, developers generally surround a solar farm with a fence and often leave existing perimeter foliage, which minimizes the visibility of the solar farm. The physical characteristics of solar farms are compatible with adjoining agricultural and residential uses.

Sound: Solar panels in general are effectively silent and sound levels are minimal, like ambient sound. There are limited sound-emitting pieces of equipment on-site, which only produce a guiet hum (e.g. substation). However, these sources are not typically heard outside the solar farm perimeter fence.

**Odor:** Solar panels do not produce any byproduct or odor.

Greenhouse Gas (GHG) Emissions: Much of the GHG produced in the United States is linked to the combustion of fossil fuels, such as coal, natural gas, and petroleum, for energy use. Generating renewable energy from operating solar panels for energy use does not have significant GHG emissions, promoting cleaner air and reducing carbon dioxide (CO<sub>2</sub>) emissions to fight climate change.

Traffic: The solar farm requires minimal daily onsite monitoring by operational employees and thus minimal operational traffic.

Hazardous Material: Modern solar panel arrays are constructed to U.S. government standards. Testing shows that modern solar modules are both safe to dispose of in landfills, and are also safe in worst case conditions of abandonment or damage in a disaster. 15 Reuse or recycling of materials would be prioritized over disposal. Recycling is an area of significant focus in the solar industry, and programs for both batteries and solar panels are advancing every year. While the exact method of recycling may not be known yet as it is dependent on specific design and manufacturer protocol, the equipment is designed with recyclability of its components in mind, and it is likely that solar panel and battery energy storage recycling and reuse programs will only improve in 25 years' time.

Examples of homes built adjoining to solar farms are presented on the following pages.



<sup>&</sup>lt;sup>15</sup> Virginia Solar Initiative - Weldon Cooper Center for Public Service - University of Virginia (https://solar.coopercenter.org/taxonomy/term/5311)



Innovative Solar 42 (2017) Cumberland County, NC



Innovative Solar 42 (2019) Cumberland County, NC

Disclaimer: This report is limited to the intended use, intended users (Sebree Solar, LLC and others stated in this report on page 9 as it relates to the evaluation of proposed solar energy generating facilities in Kentucky), and purpose stated within. No part of this CohnReznick report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick



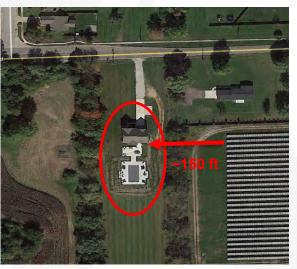


**Developer Built Home** Sold 6/18/19 for \$265,900 (\$110.75/sf) Cumberland County, NC (adjacent to Innovative 42 solar farm)

For the solar farm Dominion Indy III, the adjacent land to the west was acquired and subsequently developed with a large estate home – after the solar panels had been in operation for years.



Dominion Indy III Solar Farm September 2014



Dominion Indy III Solar Farm October 2016



Estate home adjacent to Dominion Indy III Solar Farm On-site pool and attached garage (home cost estimated at \$450,000 - October 2015)



#### SUMMARY AND FINAL CONCLUSIONS

We have reviewed published methodology for measuring impact on property values as well as published studies that analyzed the impact of solar farms on property values. We have also interviewed market participants to give us additional insight as to how the market evaluates farmland and single-family homes with views of the solar farm. These studies found little to no measurable and consistent difference between the Test Area Sales and the Control Area Sales attributed to the solar farms. We then can conclude that since the Adjoining Property Sales (Test Area Sales) were not adversely affected by their proximity to the solar farm, that properties surrounding other proposed solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods.

The purpose of this property value impact study is to determine whether the presence of a solar farm has caused a measurable and consistent difference in values between the Test Area Sales and the Control Area Sales. A summary of our findings for the paired sales analyses is presented below, which analyzes all of the improved homes, and then an additional analysis summarizing the impact on adjacent residential lots and farmland.

CohnReznick Solar Analysis Conclusions										
Solar Farm No.	Solar Farm	Number of Test Area Sales	Number of Control Area Sales	Median Adjoining Property Sale Price per Unit (Test Area Sales)	Median Control Area Sales Price per Unit	Difference (%)	Avg. Feet from Panel to Lot	Avg. Feet from Panel to House	Impact Found	
Single-l	Family Residential									
1	North Star Solar Group 1	3	11	\$151.93	\$139.50	+8.91%	123	358	No Impact	
	North Star Solar Group 2	1	10	\$119.82	\$118.72	+0.92%	152	225	No Impact	
	North Star Solar Group 3 *	1	6							
2	Indy Solar III Group 2	4	8	\$59.10	\$57.84	+2.18%	240	350	No Impact	
	Indy Solar III Group 3	7	11	\$72.15	\$71.69	+0.65%	165	300	No Impact	
3	Dougherty Solar	1	5	\$74.55	\$76.23	-2.21%	202	312	No Impact	
5	Barefoot Bay Solar Energy Center Group 2	5	126	\$95.90	\$93.95	+2.07%	675	750	No Impact	
6	Innovative Solar 42 Group 1	1	7	\$107.09	\$100.18	+6.91%	215	405	No Impact	
	Innovative Solar 42 Group 2	1	7	\$111.77	\$105.34	+6.10%	240	300	No Impact	
7	Rutherford Farm	1	6	\$53.46	\$52.49	+1.85%	135	180	No Impact	
8	Elm City Solar	1	8	\$56.60	\$55.57	+1.85%	255	295	No Impact	
9	Woodland Solar	1	5	\$144.63	\$137.76	+4.99%	420	615	No Impact	
10	DTE Lapeer Solar Group 1	3	7	\$86.12	\$85.92	+0.24%	220	260	No Impact	
	DTE Lapeer Solar Group 2	1	4	\$94.84	\$91.80	+3.31%	165	250	No Impact	
Median Variance in Sale Prices for Test Area Sales to Control Area Sales						+2.07%				

<sup>31</sup> Adjoining Test Area Sales studied and compared to 221 Control Area Sales

<sup>\*</sup> Note, the paired sale analysis for this group is an outlier as determined earlier in this report and was excluded from this summary table.

Land (Agricultural/Single Family Lots)											
2	Indy Solar III Group 1	1	4	\$8,210	\$8,091	+1.47%	280	-	No Impact		
4	Miami-Dade Solar Energy Center	3	6	\$82,491	\$80,686	+0.76%	766	-	No Impact		
5	Barefoot Bay Solar Energy Center Group 1	2	7	\$54,500	\$51,000	+6.86%	475	-	No Impact		
Median	Variance in Sale Prices for Test to Control			+1.47%							

<sup>6</sup> Adjoining Test Area Sale studied and compared to 17 Control Area Sales

Most of the solar farms under study reflected sales of property adjoining an existing solar farm in which the unit sale prices were effectively the same or higher, except for one, than the comparable Control Area sales that were not near a solar farm. The conclusions support that there is no negative impact for improved residential homes adjacent to solar, nor for residential development lots or agricultural acreage.



Furthermore, Grant County, Kentucky Property Value Administrator, Elliott Anderson, told us that Duke Energy built a solar farm near Crittenden, adjacent to existing homes on Claiborne Drive in December 2017. There have been nine arm's length homes sales on that street since the solar farm came online, due to normal market conditions. Each of those nine homes sold higher than its Assessed Value, one over 32 percent higher. The Assessed Values in Grant County are based on 100 percent Fair Market Values as determined by the Property Value Administrator's office. Anderson noted that several more lots are for sale by the developer and four more homes are currently under construction, set to deliver in 2021. Anderson said that the solar farm had no impact either on adjoining home values or on marketability or desirability of those homes adjacent to the solar farm. Anderson added, the homes sold at market prices in a market that has been experiencing a boom since at least mid-2019.

Based upon our examination, research, and analyses of the existing solar farm uses, the surrounding areas, and an extensive market database, we have concluded that no consistent negative impact has occurred to adjacent property that could be attributed to proximity to the adjacent solar farm, with regard to unit sale prices or other influential market indicators. Additionally, in our workfile we have retained analyses of additional test subjects, each with their own set of matched control sales, which had consistent results, indicating no consistent and measurable impact on adjacent property values. This conclusion has been confirmed by numerous county assessors who have also investigated this use's potential impact on property values.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

With

CohnReznick LLP

Andrew R. Lines, MAI Principal- Valuation Advisory Services Certified General Real Estate Appraiser

Florida License No. RZ3899 Expires 11/30/2022 Indiana License No. CG41500037 Expires 6/30/2022 Kentucky License 5663 Expires 6/30/2022 Georgia License No. 360939 Expires 10/31/2021

Patricia L. McGarr, MAI, CRE, FRICS National Director - Valuation Advisory Services Certified General Real Estate Appraiser

Patricia & Mcyars

Indiana License No. CG49600131 Expires 6/30/2022 North Carolina License No. A8131 Expires 6/30/2022 Virginia License No. 4001016998 Expires 3/31/2022 Michigan License No. 1201072979 Expires 7/31/2022

#### CERTIFICATION

We certify that, to the best of our knowledge and belief:

- 1. The statements of fact and data reported are true and correct.
- 2. The reported analyses, findings, and conclusions in this consulting report are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, findings, and conclusions.
- 3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
- 4. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- 5. We have no bias with respect to the property that is the subject of this report or the parties involved with this assignment.
- 6. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- 7. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value finding, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this report.
- 8. Our analyses, findings, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, which includes the Uniform Standards of Professional Appraisal Practice (USPAP).
- 9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- 10. Patricia L. McGarr, MAI, CRE, FRICS and Andrew R. Lines, MAI have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.
- 11. We have not relied on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, and receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value.
- 12. Sonia K. Singh, MAI, Michael F. Antypas, Amanda G. Edwards, and TJ Schemmel. provided consulting assistance to the persons signing this certification, including data verification, research, and administrative work all under the appropriate supervision.
- 13. We have experience in reviewing properties similar to the subject and are in compliance with the Competency Rule of USPAP.
- 14. As of the date of this report, Patricia L. McGarr, MAI, CRE, FRICS, Andrew R. Lines, MAI, and Sonia K. Singh, MAI have completed the continuing education program for Designated Members of the Appraisal Institute.



If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

With

CohnReznick LLP

Andrew R. Lines, MAI Principal- Valuation Advisory Services Certified General Real Estate Appraiser

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Indiana License No. CG49600131 Expires 6/30/2022 North Carolina License No. A8131 Expires 6/30/2022 Virginia License No. 4001016998 Expires 3/31/2022 Michigan License No. 1201072979 Expires 7/31/2022

#### ASSUMPTIONS AND LIMITING CONDITIONS

The fact witness services will be subject to the following assumptions and limiting conditions:

- 1. No responsibility is assumed for the legal description provided or for matter pertaining to legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated. The legal description used in this report is assumed to be correct.
- 2. The property is evaluated free and clear of any or all liens or encumbrances unless otherwise stated.
- 3. Responsible ownership and competent management are assumed.
- 4. Information furnished by others is believed to be true, correct and reliable, but no warranty is given for its accuracy.
- 5. All engineering studies are assumed to be correct. The plot plans and illustrative material in this report are included only to help the reader visualize the property.
- 6. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for obtaining the engineering studies that may be required to discover them.
- 7. It is assumed that the property is in full compliance with all applicable federal, state, and local and environmental regulations and laws unless the lack of compliance is stated, described, and considered in the evaluation report.
- 8. It is assumed that the property conforms to all applicable zoning and use regulations and restrictions unless nonconformity has been identified, described and considered in the evaluation report.
- 9. It is assumed that all required licenses, certificates of occupancy, consents, and other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- 10. It is assumed that the use of the land and improvements is confined within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in this report.
- 11. The date of value to which the findings are expressed in this report apply is set forth in the letter of transmittal. The appraisers assume no responsibility for economic or physical factors occurring at some later date which may affect the opinions herein stated.
- 12. Unless otherwise stated in this report, the existence of hazardous materials, which may or may not be present on the property, was not observed by the appraisers. The appraisers have no knowledge of the existence of such substances on or in the property. The appraisers, however, are not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, radon gas, lead or lead-based products, toxic waste contaminants, and other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the



- assumption that there is no such material on or in the property that would cause a loss in value. No responsibility is assumed for such conditions or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.
- 13. The forecasts, projections, or operating estimates included in this report were utilized to assist in the evaluation process and are based on reasonable estimates of market conditions, anticipated supply and demand, and the state of the economy. Therefore, the projections are subject to changes in future conditions that cannot be accurately predicated by the appraisers and which could affect the future income or value projections.
- 14. Fundamental to the appraisal analysis is the assumption that no change in zoning is either proposed or imminent, unless otherwise stipulated. Should a change in zoning status occur from the property's present classification, the appraisers reserve the right to alter or amend the value accordingly.
- 15. It is assumed that the property does not contain within its confined any unmarked burial grounds which would prevent or hamper the development process.
- 16. The Americans with Disabilities Act (ADA) became effective on January 26, 1992. We have not made a specific compliance survey and analysis of the property to determine if it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect on the value of the property. Unless otherwise noted in this report, we have not been provided with a compliance survey of the property. Any information regarding compliance surveys or estimates of costs to conform to the requirements of the ADA are provided for information purposes. No responsibility is assumed for the accuracy or completeness of the compliance survey cited in this report, or for the eventual cost to comply with the requirements of the ADA.
- 17. Any value estimates provided in this report apply to the entire property, and any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in this report.
- 18. Any proposed improvements are assumed to have been completed unless otherwise stipulated; any construction is assumed to conform with the building plans referenced in this report.
- 19. Unless otherwise noted in the body of this report, this evaluation assumes that the subject does not fall within the areas where mandatory flood insurance is effective.
- 20. Unless otherwise noted in the body of this report, we have not completed nor are we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property.
- This report should not be used as a basis to determine the structural adequacy/inadequacy of the 21. property described herein, but for evaluation purposes only.
- 22. It is assumed that the subject structure meets the applicable building codes for its respective We assume no responsibility/liability for the inclusion/exclusion of any structural



- component item which may have an impact on value. It is further assumed that the subject property will meet code requirements as they relate to proper soil compaction, grading, and drainage.
- 23. The appraisers are not engineers, and any references to physical property characteristics in terms of quality, condition, cost, suitability, soil conditions, flood risk, obsolescence, etc., are strictly related to their economic impact on the property. No liability is assumed for any engineering-related issues.

The evaluation services will be subject to the following limiting conditions:

- 1. The findings reported herein are only applicable to the properties studied in conjunction with the Purpose of the Evaluation and the Function of the Evaluation as herein set forth; the evaluation is not to be used for any other purposes or functions.
- 2. Any allocation of the total value estimated in this report between the land and the improvements applies only to the stated program of utilization. The separate values allocated to the land and buildings must not be used in conjunction with any other appraisal and are not valid if so used.
- 3. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in the evaluation.
- 4. This report has been prepared by CohnReznick under the terms and conditions outlined by the enclosed engagement letter. Therefore, the contents of this report and the use of this report are governed by the client confidentiality rules of the Appraisal Institute. Specifically, this report is not for use by a third party and CohnReznick is not responsible or liable, legally or otherwise, to other parties using this report unless agreed to in writing, in advance, by both CohnReznick and/or the client or third party.
- 5. Disclosure of the contents of this evaluation report is governed by the by-laws and Regulations of the Appraisal Institute has been prepared to conform with the reporting standards of any concerned government agencies.
- The forecasts, projections, and/or operating estimates contained herein are based on current market 6. conditions, anticipated short-term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes with future conditions. This evaluation is based on the condition of local and national economies, purchasing power of money, and financing rates prevailing at the effective date of value.
- 7. This evaluation shall be considered only in its entirety, and no part of this evaluation shall be utilized separately or out of context. Any separation of the signature pages from the balance of the evaluation report invalidates the conclusions established herein.
- 8. Possession of this report, or a copy thereof, does not carry with it the right of publication, nor may it be used for any purposes by anyone other than the client without the prior written consent of the appraisers, and in any event, only with property qualification.



- 9. The appraisers, by reason of this study, are not required to give further consultation or testimony or to be in attendance in court with reference to the property in question unless arrangements have been previously made.
- 10. Neither all nor any part of the contents of this report shall be conveyed to any person or entity, other than the appraiser's client, through advertising, solicitation materials, public relations, news, sales or other media, without the written consent and approval of the authors, particularly as to evaluation conclusions, the identity of the appraisers or CohnReznick, LLC, or any reference to the Appraisal Institute, or the MAI designation. Further, the appraisers and CohnReznick, LLC assume no obligation, liability, or accountability to any third party. If this report is placed in the hands of anyone but the client, client shall make such party aware of all the assumptions and limiting conditions of the assignment.
- 11. This evaluation is not intended to be used, and may not be used, on behalf of or in connection with a real estate syndicate or syndicates. A real estate syndicate means a general or limited partnership, joint venture, unincorporated association or similar organization formed for the purpose of, and engaged in, an investment or gain from an interest in real property, including, but not limited to a sale or exchange, trade or development of such real property, on behalf of others, or which is required to be registered with the United States Securities and Exchange commissions or any state regulatory agency which regulates investments made as a public offering. It is agreed that any user of this evaluation who uses it contrary to the prohibitions in this section indemnifies the appraisers and the appraisers' firm and holds them harmless from all claims, including attorney fees, arising from said use.

**ADDENDUM A: APPRAISER QUALIFICATIONS** 

<u>Disclaimer:</u> This report is limited to the intended use, intended users (Sebree Solar, LLC and others stated in this report on page 9 as it relates to the evaluation of proposed solar energy generating facilities in Kentucky), and purpose stated within. No part of this CohnReznick report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick





## Patricia L. McGarr, MAI, CRE, FRICS, CRA Principal, National Director, Valuation Advisory Services

200 S. Wacker Drive, Suite 2600 Chicago, IL 60606 312-508-5802 patricia.mcgarr@cohnreznick.com www.cohnreznick.com

Patricia L. McGarr, MAI, CRE, FRICS, CRA, is a principal and National Director of CohnReznick Advisory Group's Valuation Advisory Services practice who is based in Chicago. Pat's experience includes market value appraisals of varied property types for acquisition, condemnation, mortgage, estate, ad valorem tax, litigation, zoning, and other purposes. Pat has been involved in the real estate business since 1980. From June 1980 to January 1984, she was involved with the sales and brokerage of residential and commercial properties. Her responsibilities during this time included the formation, management, and training of sales staff in addition to her sales, marketing, and analytical functions. Of special note was her development of a commercial division for a major Chicago-area brokerage firm.

Since January 1984, Pat has been exclusively involved in the valuation of real estate. Her experience includes the valuation of a wide variety of property types including residential, commercial, industrial, and special purpose properties including such diverse subjects as quarries, marinas, riverboat gaming sites, shopping centers, manufacturing plants, and office buildings. She is also experienced in the valuation of leasehold and leased fee interests. Pat has performed appraisal assignments throughout Illinois and the Chicago Metropolitan area as well as Wisconsin, Indiana, Michigan, New York, New Jersey, California, Nevada, Florida, Utah, Texas, and Ohio. Pat has gained substantial experience in the study and analysis of the establishment and expansion of sanitary landfills in various metropolitan areas including the preparation of real estate impact studies to address criteria required by Senate Bill 172. She has also developed an accepted format for allocating value of a landfill operation between real property, landfill improvements, and franchise (permits) value.

Over the past several years. Pat has developed a valuation group that specializes in serving utility companies establish new utility corridors for electric power transmission and pipelines. This includes determining acquisition budgets, easement acquisitions, and litigation support. Pat has considerable experience in performing valuation impact studies on potential detrimental conditions and has studied properties adjoining landfills, waste transfer stations, stone quarries, cellular towers, schools, electrical power transmission lines, "Big Box" retail facilities, levies, properties with restrictive covenants, landmark districts, environmental contamination, airports, material defects in construction, stigma, and loss of view amenity for residential high rises.

Pat has qualified as an expert valuation witness in numerous local, state and federal courts.



Pat has participated in specialized real estate appraisal education and has completed more than 50 courses and seminars offered by the Appraisal Institute totaling more than 600 classroom hours, including real estate transaction courses as a prerequisite to obtaining a State of Illinois Real Estate Salesman License.

Pat has earned the professional designations of Counselors of Real Estate (CRE), Member of the Appraisal Institute (MAI), Fellow of Royal Institution of Chartered Surveyors (FRICS) and Certified Review Appraiser (CRA). She is also a certified general real estate appraiser with active licenses in numerous states.

#### **Education**

North Park University: Bachelor of Science, General Studies

#### **Professional Affiliations**

- National Association of Realtors
- CREW Commercial Real Estate Executive Women
- IRWA International Right of Way Association

## **Appointments**

Appointed by the Governor in 2017 to the State of Illinois' Department of Financial & Professional Regulation's Real Estate Appraisal Board; Vice-Chairman - 2018

#### **Licenses and Accreditations**

- Member of the Appraisal Institute (MAI)
- Counselors of Real Estate, designated CRE
- Fellow of Royal Institution of Chartered Surveyors (FRICS)
- Certified Review Appraiser (CRA)
- Alabama State Certified General Real Estate Appraiser
- California State Certified General Real Estate Appraiser
- Connecticut State Certified General Real Estate Appraiser
- District of Columbia State Certified General Real Estate Appraiser
- Illinois State Certified General Real Estate Appraiser
- Indiana State Certified General Real Estate Appraiser
- Louisiana State Certified General Real Estate Appraiser
- Maryland State Certified General Real Estate Appraiser
- Massachusetts State Certified General Real Estate Appraiser
- Michigan State Certified General Real Estate Appraiser
- Nevada State Certified General Real Estate Appraiser
- New Jersey State Certified General Real Estate Appraiser
- New York State Certified General Real Estate Appraiser North Carolina State Certified General Real Estate Appraiser
- Indiana State Certified General Real Estate Appraiser
- South Carolina State Certified General Real Estate Appraiser
- Tennessee State Certified General Real Estate Appraiser

## Prepared for Sebree Solar, LLC

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- Texas State Certified General Real Estate Appraiser
- Virginia State Certified General Real Estate Appraiser
- Wisconsin State Certified General Real Estate Appraiser

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## Andrew R. Lines, MAI Principal – Real Estate Valuation, Valuation Advisory Services

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Andrew R. Lines, MAI, is a principal for CohnReznick Advisory Group's Valuation Advisory practice who is based in the Chicago office and has been a CohnReznick employee for over six years. Andrew has been involved in the real estate business for more than 15 years and has performed valuations on a wide variety of real property types including single- and multi-unit residential (including LIHTC), student housing, office, retail, industrial, mixed-use and special purpose properties including landfills, waste transfer stations, marinas, hospitals, universities, telecommunications facilities, data centers, self- storage facilities, racetracks, CCRCs, and railroad corridors. He is also experienced in the valuation of leasehold, leased fee, and partial interests, as well as purchase price allocations (GAAP, IFRS and IRC 1060) for financial reporting.

Valuations have been completed nationwide for a variety of assignments including mortgage financing, litigation, tax appeal, estate gifts, asset management, workouts, and restructuring, as well as valuation for financial reporting including purchase price allocations (ASC 805), impairment studies, and appraisals for investment company guidelines and REIS standards. Andrew has qualified as an expert witness, providing testimony for eminent domain cases in the states of IL and MD. Andrew has also performed appraisal review assignments for accounting purposes (audit support), asset management, litigation and as an evaluator for a large Midwest regional bank.

Andrew has earned the professional designation of Member of the Appraisal Institute (MAI). He has also qualified for certified general commercial real estate appraiser licenses in Arizona, California, Maryland, Florida, Kentucky, Wisconsin, Georgia, Illinois, Indiana, New Jersey and New York. Temporary licenses have been granted in Connecticut, Colorado, Ohio, Indiana, Idaho, Kansas, Minnesota and South Carolina.

### **Education**

Syracuse University: Bachelor of Fine Arts

#### **Professional Affiliations**

- Chicago Chapter of the Appraisal Institute Alternate Regional Representative (2016 2018)
- International Real Estate Management (IREM)
- National Council of Real Estate Investment Fiduciaries (NCREIF)

#### **Community Involvement**

- Fellows Alumni Network World Business Chicago, Founding member
- Syracuse University Regional Council Active Member



# Sonia K. Singh, MAI

Senior Manager – Real Estate Valuation

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Sonia K. Singh, MAI is a senior manager in CohnReznick Advisory Group's Valuation Advisory practice and based in the Bethesda office. For the past eight years, she has engaged in real estate valuation and other real estate consulting services and valued over \$5 billion in real property.

Sonia is adept at valuing a variety of commercial real estate across the United States, including the following complex property types: athletic clubs; full-service hotels and beach resorts; marinas; historic redevelopment projects; recycling facilities; single-family rental home portfolios; master planned communities; and for-sale residential units or subdivisions. She has also performed real estate appraisals involving leasehold interests, air rights ownership, and right-of-way fee simple and easement acquisitions for utility corridors. She has performed these and other appraisals others for purposes including financial reporting, estate planning, gift and estate tax. bond and conventional financing, litigation (eminent domain), and asset management, with the ability to handle appraisals of large portfolios in expedited timeframes. With significant experience in the appraisal of senior living facilities including continuing care retirement communities, skilled nursing facilities, assisted living and memory care facilities, as well as age-restricted housing, Ms. Singh has elevated the firm's modelling of complex healthcare property ownership structures to help illuminate debt/income and lease coverage ratios for federal courts, resulting in millions of dollars in recovered credits for clients.

Additionally, Sonia is experienced in purchase price allocations (GAAP, IFRS, and IRC 1060) for financial reporting, including the early adoption of ASU 2017-01. She has also provided valuation services related to highest and best use analysis, market feasibility studies, and useful life analysis. She has prepared impact studies measuring the possible detrimental impact of economic and environmental influences on property values, including those related to high-voltage transmission lines, distribution warehouses, and solar farms. She has provided expert witness testimony at local county zoning hearings for proposed solar energy uses and their potential detrimental impacts on adjacent property values.

## **Education**

University of Illinois: Bachelor of Science, Actuarial Science



#### **Professional Affiliation, Licenses, and Exams**

- MAI Appraisal Institute, Designated Member
- Urban Land Institute, Associate Member
- Certified General Real Estate Appraiser with Active Licenses in DC and the States of MD, MO, and VA
- Successful completion of the following actuarial exams: Probability (1/P), Financial Mathematics (2/FM), and Models for Financial Economics (3/MFE)

## **Awards and Recognitions**

2019 National Association of Certified Valuators and Analysts (NACVA) and the Consultants Training Institute (CTI) 40 Under Forty Honoree



# Michael F. Antypas

Senior Consultant, Valuation Advisory Services

7501 Wisconsin Avenue, Suite 400E Bethesda, Maryland 20814 301-280-2741 michael.antypas@cohnreznick.com www.cohnreznick.com

Michael Antypas is a senior consultant in CohnReznick Advisory Group's Valuation Advisory Services practice and is based in the Bethesda office. He has assisted other associates and appraisers in the valuation of a variety of retail shopping centers, hotels, market rate and restricted rental apartment properties, Class A office complexes with GSA tenants, mixed-use properties, developable land, and single-family rental home portfolios owned by REITs. He has also completed solar farm impact studies, appraisals for eminent domain disputes, as well as purchase price allocations on various senior living facilities, medical office buildings, and retail centers. In addition, Michael is certified in working with Argus Enterprise valuation software. He is a practicing affiliate in the Appraisal Institute and is working towards becoming a Certified General Real Estate Appraiser.

He graduated from the Villanova School of Business in May of 2016. Some of his other experience working in Real Estate originated through interning with commercial brokers. Throughout his senior year in college, Michael interned with Newmark Grubb Knight Frank as a Capital Markets intern. There he helped create and revise many marketing packages for the firm's senior managing directors. He also assisted in developing underwriting models and projections for offering memorandums. He also worked with a boutique restaurant broker in Washington D.C, Papadopoulos Properties where he compiled market research for his client's use and surveyed prospective restaurants to gauge their interest in expanding to the Washington D.C. market.

#### **Education**

Villanova University: Bachelor of Business Administration, Finance and Real Estate, Minor in Business **Analytics** 

#### **Certifications**

**Argus Enterprise Certified** 

## **Professional Affiliations**

Appraisal Institute, Practicing Affiliate

## TJ Schemmel

## Senior Consultant, Valuation Advisory Services

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TJ Schemmel is a senior consultant in CohnReznick Advisory Group's Valuation Advisory Services practice and is based in the Chicago office. His scope of experience includes assisting other appraisers in performing solar farm impact studies and various special use appraisals. TJ is a licensed Associate Real Estate Trainee Appraiser in Illinois.

Prior to joining CohnReznick, TJ was a financial analyst at Avison Young, specializing in office tenant representation and land development. Over the five years in this position, he participated in office lease negotiations and real estate transactions for companies ranging in size from small start-ups to large multinational corporations. His diverse skill set allowed him to help numerous teams at Avison Young close more than \$150 million of lease transactions. He also supported the land development team on numerous multifamily and office projects for Chicago based investors.

## **Education**

University of Cincinnati: Bachelor of Business Administration

## **Other Affiliations**

Chicago Tutoring - Associate Board Member



# Amanda G. Edwards

Consultant, Valuation Advisory Services

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Amanda Edwards is a consultant in CohnReznick's Valuation Advisory Services practice group and is based in Chicago. Amanda has assisted other appraisers in the valuation of a variety of industrial properties, medical offices, hotels, multifamily properties, condominium developments, retail and mixed-use properties, developable and open space land, and single-family subdivisions. She has also assisted with appraisals and continuing consulting for eminent domain litigation. Additionally, Amanda has provided audit support for Assurance clients of the firm. Amanda is a licensed Associate Real Estate Trainee Appraiser in Illinois, working toward becoming a Certified General Real Estate Appraiser.

Before joining CohnReznick, Amanda worked at the Inland Group of companies valuing properties and underwriting, as well as assisting in the closing of, commercial mortgage loans, nationwide. Property types included industrial, office, multi-family, retail, and hotel, with an emphasis on value-add properties and new construction projects. Amanda has also worked as a commercial lender for builder-developer housing at Fifth Third Bank, specializing in the Chicago metro area. She has also worked valuing senior housing properties and associated business models for acquisition purposes at a senior housing developer/operator.

Amanda has spent considerable time in the consulting environment, developing and conducting in-depth interviews for primary research in a variety of industries such as technology, financial institutions, and industrial manufacturing for private equity clients.

### **Education**

Bryn Mawr College, Bachelor of Arts

#### **Licenses and Affiliations**

- Licensed Associate Real Estate Trainee Appraiser in Illinois
- Practicing Affiliate Appraisal Institute
- Chicago Real Estate Council Member







## IMPACT STUDY OF PROPERTY VALUES ADJACENT TO SOLAR USES

Site Specific Analysis Addendum Report: For the Proposed Sebree Solar Project to be Located in Henderson and Webster Counties, Kentucky

#### PREPARED FOR:

Ms. Lina Jensen Project Director Sebree Solar, LLC

#### **SUBMITTED BY:**

CohnReznick LLP Valuation Advisory Services 200 S. Wacker Drive, Suite 2600 Chicago, Illinois 60606 (312) 508-5900

Andrew R. Lines, MAI Patricia L. McGarr, MAI, CRE, FRICS

#### LETTER OF TRANSMITTAL

April 9, 2021

Ms. Lina Jensen **Project Director** Sebree Solar, LLC

SUBJECT: Addendum - Property Value Impact Study

Proposed Solar Project - Sebree Solar

Henderson County, Kentucky

Dear Ms. Jensen:

This letter and associated report are considered an Addendum to the previously prepared property value impact study report with an effective date of April 9, 2021 ("Primary Report"). All facts and circumstances surrounding the property value impact study that analyzes existing solar farm and any effect on adjacent property values are contained within the cited Primary Report. This Addendum cannot be properly understood without the cited Primary Report and should be reviewed in unison.

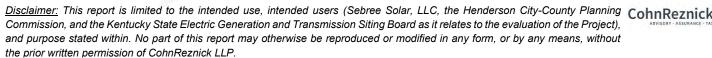
Per the client's request, we have researched the proposed solar farm on land located in unincorporated Henderson County, Kentucky. The proposed solar use, called Sebree Solar, will have a capacity of 250 MW AC (megawatts alternating current).1

The purpose of the assignment is to determine whether the proximity of the proposed renewable energy center use (solar farm) will result in any significant measurable and consistent impact on adjacent property values, given the existing uses and zoning of nearby property at the time of development.

The intended use of our opinions and conclusions is to assist the client in addressing local concerns regarding the proposed solar farm's potential impact on surrounding property values, in addition to addressing the required criteria for obtaining approvals for the proposed solar farm, such as minimizing the impact on adjacent property values. We have not been asked to value any specific property, and we have not done so.

The client and intended user for the assignment is Sebree Solar, LLC. Additional intended users of our findings include the Henderson City-County, Kentucky Planning Commission, as well as the Kentucky State Electric Generation and Transmission Siting Board. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

<sup>&</sup>lt;sup>1</sup> The land area to be utilized for the proposed solar energy use is solely located in Henderson County; however, there are few parcels that will be utilized in adjacent Webster County for the transmission line that will connect the Project Area to the Big Rivers Substation. This report only analyzes the land parcels and surrounding area that concerns the proposed solar energy use portion of the overall project.





The assignment is intended to conform to the Uniform Standards of Professional Appraisal Practice (USPAP). the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute as well as applicable state appraisal regulations.

Based on the analysis in the accompanying report, and subject to the definitions, assumptions, and limiting conditions expressed in the report, our findings follow below.

#### CONCLUSIONS

We analyzed 37 adjoining property sales and over 238 comparable sales, collectively, for the identified ten solar farms (detailed in the Primary Report), over the past seven years. We note that proximity to the solar farms has not deterred sales of nearby agricultural land and residential single-family homes nor has it deterred the development of new single-family homes on adjacent land.

No empirical evidence evolved that indicated a more favorable real estate impact on the Control Area Sales as compared to the adjoining, Test Area Sales with regard to such market elements as:

- 1. Range of sale prices
- 2. Differences in unit sale prices
- 3. Conditions of sale
- 4. Overall marketability
- 5. New Development
- 6. Rate of Appreciation

We have also reviewed studies prepared by other real estate valuation experts that specifically analyzed the impact of solar facilities on nearby property values. These studies found little to no measurable and consistent difference in value attributed to the proximity to solar farms between unit prices for Test Area Sales and Control Area Sales and noted that solar energy uses are generally considered a compatible use.

We have also interviewed market participants, including County and Township Assessors, to give us additional insight as to how the market evaluates farmland and single-family homes with views of the solar farm. These local real estate assessors who have at least one solar farm in their jurisdiction have determined that property adjacent to solar farms have not affected adjacent property values, specifically:

- A Grant County, Kentucky assessor official stated that they have not seen a reduction in assessed property values or market values for adjacency to Solar Farms.
- A McNairy County, Tennessee Assessor stated that they have not applied reductions to assessed value for adjacency to Solar Farms.

Considering all of this information, we can conclude that since the Adjoining Property Sales (Test Area Sales) for the existing solar farms analyzed were not adversely affected by their proximity to solar farms, that properties surrounding other solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short- or long-term periods.



If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Very truly yours,

CohnReznick LLP

Gill.

Andrew R. Lines, MAI Principal- Valuation Advisory Services Certified General Real Estate Appraiser

Kentucky License 5663 Expires 6/30/2022 Florida License No. RZ3899

Indiana License No. CG41500037

Expires 6/30/2022

Expires 11/30/2022

Georgia License No. 360939

Expires 10/31/2021

Patricia L. McGarr, MAI, CRE, FRICS National Director - Valuation Advisory Services Certified General Real Estate Appraiser

Patricia & Mcyars

Indiana License No. CG49600131 Expires 6/30/2022 North Carolina License No. A8131 Expires 6/30/2022 Virginia License No. 4001016998 Expires 3/31/2022 Michigan License No. 1201072979 Expires 7/31/2022

## Adjacent Property Value Impact Study Addendum Report: Proposed Solar Project

Prepared for Sebree Solar, LLC

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#### SCOPE OF WORK

#### **CLIENT**

The client for this assignment is Sebree Solar, LLC.

#### INTENDED USERS

Sebree Solar, LLC, Henderson City-County Planning Commission officials, and the Kentucky State Electric Generation and Transmission Siting Board; other intended users may include the client's legal and site development professionals.

#### INTENDED USE

The intended use of our findings and conclusions is to address certain criteria required for the granting of approvals for the proposed solar energy center use in Henderson County, Kentucky, including the minimization of impact on nearby or adjacent property values. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

#### **PURPOSE**

The purpose of the assignment is to determine whether the proximity of the studied facilities (solar farms) resulted in any significant measurable and consistent impact on adjacent property values, given the existing uses and zoning of nearby property at the time of development; address local concerns regarding a solar farm use having a perceived impact on surrounding property values; and, provide a consulting report that can address criteria for obtaining approvals for Sebree Solar, LLC's proposed solar energy center use.

**EFFECTIVE DATE** 

DATE OF REPORT

April 9, 2021

April 9, 2021

#### **PRIOR SERVICES**

USPAP requires appraisers to disclose to the client any services they have provided in connection with the subject property in the prior three years, including valuation, consulting, property management, brokerage, or any other services.

We have not previously evaluated the Project site.

#### INSPECTION

Patricia L. McGarr, MAI and Andrew R. Lines, MAI have viewed the exterior of the Project and all comparable data referenced in the study in person, via photographs, or aerial imagery.

Disclaimer: This report is limited to the intended use, intended users (Sebree Solar, LLC, the Henderson City-County Planning CohnReznick Commission, and the Kentucky State Electric Generation and Transmission Siting Board as it relates to the evaluation of the Project), and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.

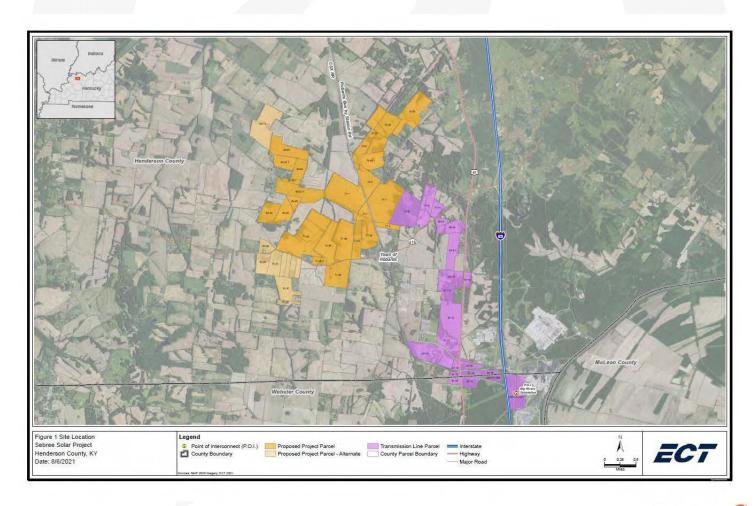


#### IDENTIFICATION AND DESCRIPTION OF THE PROPOSED PROJECT

The Sebree Solar Project ("the Project") is to be located on non-contiguous land parcels in Henderson County, west of Interstate-69 (Pennyrile Parkway), and bisected by Kentucky Route 416. The nearest municipality is Robards to the southeast of the Project Area. The Proposed Project Area is approximately 12 miles south of the City of Henderson.

Based on development plans for a typical solar farm, the proposed 250-megawatt solar energy center project would generally consist of solar photovoltaic arrays, electrical inverters, underground collection lines, security fencing, safety lighting, and other auxiliary infrastructure. The Project will take approximately 18 to 24 months to construct and will be maintained periodically throughout the year. The Project will be protected by seven-foot security fencing and vegetative screening for buffers, in compliance with Henderson County zoning ordinance specifications. The energy generated from the Project will be sold under a Power Purchase Agreement.

The Project will be situated on land parcels utilized for agricultural and forestry purposes, illustrated below by the polygons shaded yellow ("Project Area"). The Project parcels are bordered by agricultural farmland and rural homesteads.



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## **OVERVIEW OF THE SURROUNDING AREA OF THE PROJECT**

The proposed Project consists of a utility-scale, solar energy use in Henderson County, Kentucky. A surrounding area map indicating the location of the Project (designated by a red arrow) is presented below.



Aerial imagery of site area provided by Google Earth, dated March 2021



#### TRAFFIC PATTERNS AND CONNECTIVITY

The Project is to be located on land on the west side of Interstate-69, primarily north of KY-416, but with some parcels south of the state highway, northwest of Robards. Parcels identified for the Project Area are also on both sides of State Routes 1299 and 283.

Major arterials in the Project's surrounding area include Interstate-69 and US 41 that run north-south, directly east of the Project Area. US-41 connects the city of Henderson, approximately 12 miles north of the Project Area, to Sebree, approximately 5 miles to the south. Interstate-69 starts in Henderson and connects south and southwest to Fulton, terminating at the Tennessee state line. The Project is approximately 22 miles south of Evansville, Indiana, 25 miles north of Madisonville, Kentucky along I-69, and approximately 45 miles east of the Illinois state line and the Ohio River.

#### **DEMOGRAPHIC FACTORS**

Demographic data is presented below, as compiled by ESRI, which indicates a slowing in the rate of decline in population and households in the city of Robards from 2010 to the 2025 estimates. Henderson County has also shown consistent rates of slow decline since 2010. Home ownership rates and median household income figures in Robards are stronger than in the county and state. These features indicate a generally stable population and economic base, overall, with some potential for decline in population numbers in the future.

DEMOGRAPHIC PROFILE					
	Robards	Henderson County	Kentucky		
Population					
2025 Projection	448	44,715	4,703,976		
2020 Estimate	465	45,393	4,596,869		
2010 Census	515	46,250	4,339,367		
Growth 2020 - 2025	-3.66%	-1.49%	2.33%		
Growth 2010 - 2020	-9.71%	-1.85%	5.93%		
Households					
2025 Projection	172	18,203	1,861,840		
2020 Estimate	179	18,454	1,819,399		
2010 Census	196	18,705	1,719,965		
Growth 2020 - 2025	-3.91%	-1.36%	2.33%		
Growth 2010 - 2020	-8.67%	-1.34%	5.78%		
2020 Owner Occupied (%)	70.50%	54.10%	60.83%		
2020 Renter Occupied (%)	29.50%	45.90%	39.17%		
2020 Med. Household Income	\$58,655	\$47,979	\$50,617		
2020 Avg. Household Income	\$66,999	\$65,908	\$70,264		



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Adjacent Property Value Impact Study Addendum Report: Proposed Solar Project

**Prepared for Sebree Solar, LLC** 

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#### CONCLUSION

Land uses in the area surrounding the Project can be categorized as predominantly farmland or forest, with a few residential homesteads. The factors presented previously indicate that the proposed Project would not be incompatible with surrounding uses and would not negatively impact surrounding properties.



#### KENTUCKY SOIL PRODUCTIVITY AND VALUE TRENDS

#### NCCPI PRODUCTIVITY INDEX

Crop yields have been the basis for establishing a soil productivity index, and are used by county assessors, farmers, and market participants in assessing agricultural land. While crop yields are an integral part in assessing soil qualities, it is not an appropriate metric to rely on because "yields fluctuate from year to year, and absolute yields mean little when comparing different crops. Productivity indices provide a single scale on which soils may be rated according to their suitability for several major crops under specified levels of management, such as an optimum level."<sup>2</sup> The productivity index, therefore, not crop yields, is best suited for applications in land appraisal and land-use planning.

The United States Department of Agriculture's (USDA) National Resources Conservation Services (NRCS) developed and utilizes the National Commodity Crop Productivity Index (NCCPI) as a national soil interpreter and is used in the National Soil Information System (NASIS), but it is not intended to replace other crop production models developed by individual states.3 The focus of the model is on identifying the best soils for the growth of commodity crops, as the best soils for the growth of these crops are generally the best soils for the growth of other crops.4 The NCCPI model describes relative productivity ranking over a period of years and not for a single year where external influences such as extreme weather or change in management practices may have affected production. At the moment, the index only describes non-irrigated crops, and will later be expanded to include irrigated crops, rangeland, and forestland productivity.5

Yields are influenced by a variety of different factors including environmental traits and management inputs. Tracked climate and soil qualities have been proven by researchers to directly explain fluctuations in crop yields. especially those qualities that relate to moisture-holding capacity. Some states such as Illinois have developed a soil productivity model that considers these factors to describe "optimal" productivity of farmed land. Except for these factors, "inherent soil quality or inherent soil productivity varies little over time or from place to place for a specific soil (map unit component) identified by the National Cooperative Soil Survey (NCSS)."6 The NRCS Web Soil Survey website has additional information on how the ratings are determined. The State of Kentucky does not have its own crop production model and utilizes the NCCPI.

An excerpt of a soil productivity map of the area surrounding the proposed Project Area is presented on the following page as retrieved from the USDA Web Soil Survey, which provides an illustration of the variation in soil productivity across the local area that is based on the NCCPI.

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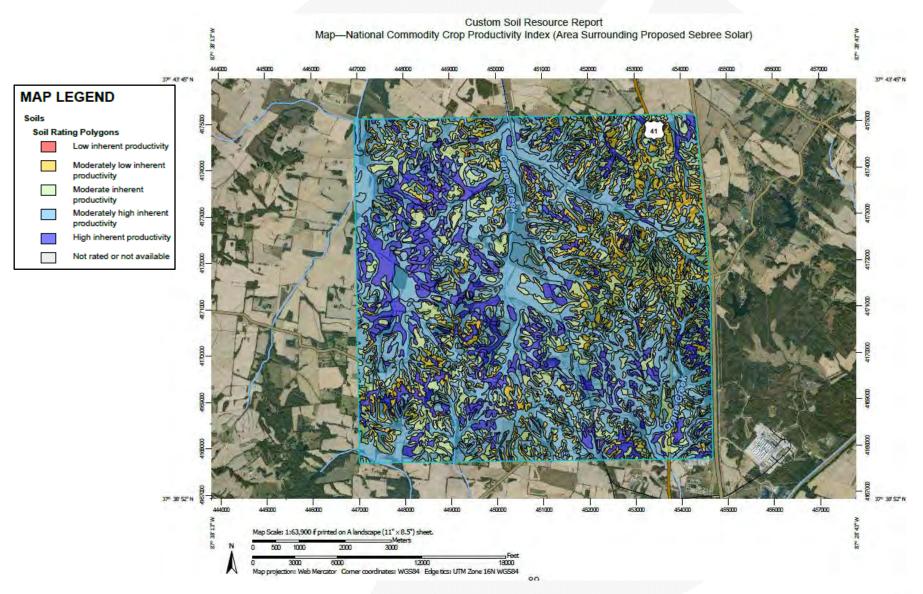
<sup>&</sup>lt;sup>2</sup> Bulletin 811: Optimum Crop Productivity of Illinois Soils. University of Illinois, College of Agricultural, Consumer and Environmental Sciences, Office of Research. August 200.

<sup>&</sup>lt;sup>3</sup> Agricultural land rental payments are typically tied to crop production of the leased agricultural land and is one of the primary reasons the NCCPI was developed, especially since the model needed to be consistent across political boundaries.

<sup>&</sup>lt;sup>4</sup> Per the User Guide for the National Commodity Crop Productivity Index, the NCCPI uses natural relationships of soil, landscape and climate factors to model the response of commodity crops in soil map units. The present use of the land is not considered in the ratings.

<sup>5</sup> AgriData Inc. Docs: http://support.agridatainc.com/NationalCommodityCropProductivityIndex(NCCPI).ashx

<sup>&</sup>lt;sup>6</sup> USDA NRCS's User Guide National Commodity Crop Productivity Index (NCCPI)



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Per the NCCPI, soil productivity is measured on both a numerical scale from 0 to 100, with 0 being the worst and 100 being the best, and by qualitative ratings. The qualitative rating classifications below are determined by the USDA NRCS and provide general comments on the productivity of the soil.

High inherent productivity indicates that the soil, site, and climate have features that are very favorable for crop production. High yields and low risk of crop failure can be expected if a high level of management is employed.

Moderately high inherent productivity indicates that the soil has features that are generally quite favorable for crop production. Good yields and moderately low risk of crop failure can be expected.

Moderate inherent productivity indicates that the soil has features that are generally favorable for crop production. Good yields and moderate risk of crop failure can be expected.

Moderately low inherent productivity indicates that the soil has features that are generally not favorable for crop production. Low yields and moderately high risk of crop failure can be expected.

Low inherent productivity indicates that the soil has one or more features that are unfavorable for crop production. Low yields and high risk of crop failure can be expected.

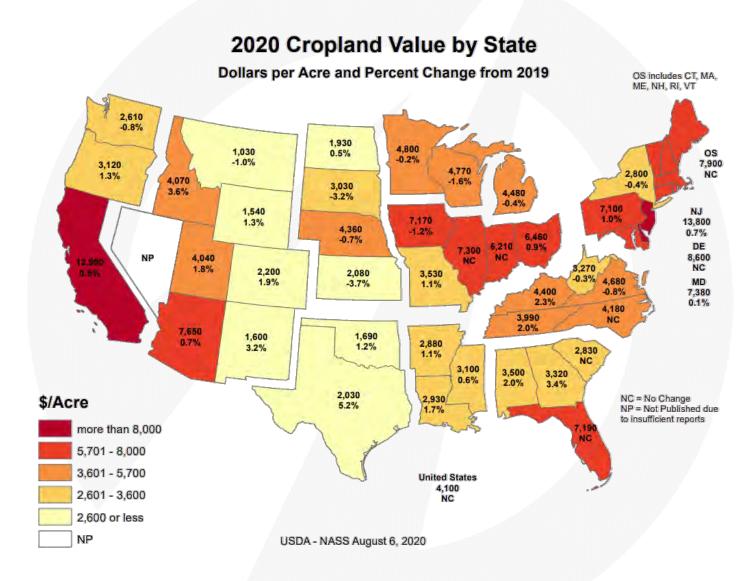
The weighted average soil productivity for the general area was determined to be approximately 62.17. A numerical scale that corresponds to the indicated qualitative ratings above was not available for the NCCPI; however, the soil productivity for this area is near the middle of the range, to slightly above the middle of the range, aligning with the "moderate inherent productivity" and "moderately high inherent productivity" categories. According to the qualitative scale above, land with the moderate inherent productivity classification is generally favorable for crop production, and moderately high inherent productivity land is generally quite favorable for crop production.

<sup>&</sup>lt;sup>7</sup> Quantitative ratings are also show in ranges of 0.00 to 1.00. AgriData Inc. presents the NCCPI index rating multiplied by 100 in a range of 0.00 to 100.00 to show up to four significant figures.



#### **AREA VALUE TRENDS - CROPLAND**

Agricultural land values are heavily influenced by relative crop production yields. The following exhibit compiled by the USDA National Agricultural Statistics Service (NASS) provides an illustration of how regional conditions such as weather conditions, geographies, and soil conditions can affect farm real estate values.



Per the NASS report, the average value of cropland in Kentucky for 2020 was \$4,400 per acre, an increase of 2.3 percent from 2019. In addition, the report indicated that the average annual growth rate for farmland values in Kentucky from 2016 to 2020 was 2.59 percent.8

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https://www.nass.usda.gov/Publications/Todays Reports/reports/land0820.pdf

#### AREA VALUE TRENDS - RESIDENTIAL HOMES

The Project is in southern Henderson County, Kentucky. We have studied home sales in the zip code of 42452, identified by a Robards mailing address. There are a mix of single-family home types in this area, manufactured homes, and homes with one- and two-stories. Older homes were built as early as the late 1890s and as recently as 2014. Based on research from Zillow and Realtor.com, price points for arm's length, non-distressed sales can range from \$65 per square foot to \$187 per square foot of gross living area.

There has been steady sale activity in the study area surrounding the Project Area throughout the last year. There were 27 single-family home sales during the past 12 months, from April 2020 through the end of March 2021. Of those home sales, 19 were considered arm's-length and not distressed sales, excluding outliers where the property was purchased for development or land value.

To illustrate the sales activity in the areas surrounding the proposed Project Area, a map of the 27 single-family homes sales (represented by yellow dots) from Zillow, is presented below.



Map of 12 months of sales activity in zip code 42452, courtesy of Zillow.com

Homes sold were primarily rural homesteads with acreage, with only five of the 19 arm's length sales on under one acre of land. Lot sizes ranged from 0.35 acre for a home in the center of town in Robards, to a home on 25.87 acres, southwest of Robards.



## **Home Sales Surrounding Proposed Project Area** (April 2020 through March 2021)

Single Family Homes	Median Lot	Median Living	Min. Sale	Max. Sale	Median Sale
	Size (Acres)	Area (SF)	Price	Price	Price PSF
Zip Code 42452 (Robards)	5.00	1,861	\$80,000	\$455,000	\$104.17

The table below illustrates residential home value trends for the proposed Project's Henderson County location. The source is the Federal Housing Finance Agency's (FHFA) House Price Index (HPI), which is a weighted, repeat-sales index measuring changes in single-family house prices.

FHFA House Price Index (HPI) Zip Copde 424 (in Henderson County, KY)			
Year	Annual Change (%)	HPI	
2000		131.92	
2001	3.84%	136.98	
2002	2.84%	140.87	
2003	3.81%	146.24	
2004	3.93%	151.98	
2005	1.68%	154.53	
2006	2.84%	158.92	
2007	-0.38%	158.31	
2008	-1.79%	155.48	
2009	-0.08%	155.35	
2010	0.30%	155.82	
2011	1.73%	158.51	
2012	0.01%	158.53	
2013	-0.30%	158.05	
2014	2.40%	161.85	
2015	3.78%	167.97	
2016	2.67%	172.45	
2017	4.52%	180.25	
2018	3.93%	187.33	
2019	3.80%	194.44	
2020	6.10%	206.30	
Average Annual Change (%)	2.28%		

Based on the data shown above, the trend in residential home values in the zip codes beginning with 424 (all but the eastern third of Henderson County) have steadily increased at an average annual rate of 2.28 percent over the past 20 years. The areas surrounding the proposed Project Area are considered to be stable.



#### LOCAL LAND DEVELOPMENT TRENDS

Land values can be driven by a site's proximity to the path of development. The closer a property is to the path of development, and without natural barriers to development, the more value a property may have in the future. Henderson County is very rural in nature with a density of 97 people per square mile (2020 population of 45,393 and 466 square miles).

The vast majority of the County is zoned Agricultural (shown shaded in white on the zoning map below). There are some areas zoned M-2, Heavy Manufacturing, in the County (shaded blue), an area on the west side of the city of Henderson on the Ohio River, but primarily concentrated in the southern portion of the County, along the Green River. The largest area of industrial or heavy manufacturing zoned land is located south of Robards, on either side of I-69, stretching southward to the County line.

Existing industrial or manufacturing uses near the proposed Project Area (indicated by the red arrow) include the Columbia Sportswear distribution warehouse, the Tyson's Foods poultry processing plant, and the Americold cold storage facility, all on the east side of I-69. On the west side of I-69, heavy manufacturing uses include the Century Aluminum Sebree smelter operations, as well as a portion of the Big Rivers Electric Cooperation coalfired electric plant.



Excerpt from Henderson County Zoning Map, courtesy of the Henderson City-County GIS website

It is assumed that the proposed Project Area has a future land uses consistent with its current use as agricultural land.





Aerial Imagery dated November 2004

Aerial Imagery dated October 2020

According to the aerial images above, there has not been much development in the local area between November 2004 and October 2020, outside of the areas zoned for industrial uses, south of the proposed Project Area. Generally, any undeveloped agricultural land is considered to be an interim use as the intensity of uses grows in step with macroeconomic factors; however, the Project and the land surrounding it are not in the path of development in the foreseeable future and a change in use is not expected.



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#### SUMMARY AND FINAL CONCLUSIONS

The Project is located in a stable area that is predominantly agricultural in nature with some residential homesteads. Local development has not been robust over the past twenty years, and the surrounding land parcels are not expected to change from agricultural uses. Based on our analysis of real estate taxes in the Primary Report, solar farm uses incur anywhere from 131% to ±1,000% increase in real estate tax revenue for the local area, feeding back into essential services and schools. Local land and residential home prices have remained stable to increasing over the past five years and are anticipated to align in the future with macroeconomic changes. Overall, the proposed Project is considered a locally compatible use.

We have reviewed published methodology for measuring impact on property values as well as published studies that analyzed the impact of solar farms on property values. These studies found little to no measurable and consistent difference between the Test Area Sales and the Control Area Sales attributed to the solar farms. Specifically, in a 2017 study conducted by Chisago County Assessor John Keefe, Keefe analyzed the numbers for 15 parcels alongside or near the North Star Solar Farm that sold between January 2016 and October 2017. Based on trends exhibited by 750+ sales throughout the county, Keefe concluded that the homes, located on 375th, 367th, Keystone, Little Oak, Lincoln Trail, and Kost Trail were all "in excess of assessed" and reported that "valuation hasn't suffered."9

We have also interviewed market participants, including County and Township Assessors, to give us additional insight as to how the market evaluates farmland and single-family homes with views of the solar farm. These local real estate assessors who have at least one solar farm in their jurisdiction have determined that property adjacent to solar farms have not affected adjacent property values. The McNairy County, Tennessee Assessor, Brandon Moore, stated that his department has not applied reductions to assessed value for adjacency to Solar Farms.

Grant County, Kentucky Property Value Administrator, Elliott Anderson, told us that Duke Energy built a 2.7 MW solar farm near Crittenden, adjacent to existing homes on Claiborne Drive in December 2017. There have been nine arm's length homes sales on that street since the solar farm came online, due to normal market conditions. Each of those nine homes sold higher than its Assessed Value, one over 32 percent higher. The Assessed Values in Grant County are based on 100 percent Fair Market Values as determined by the Property Value Administrator's office. Anderson noted that several more lots are for sale by the developer and four more homes are currently under construction, set to deliver in 2021. Anderson said that the solar farm had no impact either on adjoining home values or on marketability or desirability of those homes adjacent to the solar farm. Anderson added, the homes sold at market prices in a market that has been experiencing a boom since at least mid-2019.

Based upon our examination, research, and analyses of the existing solar farm uses, the surrounding areas, and an extensive market database, we have concluded that no consistent negative impact has occurred to adjacent property that could be attributed to proximity to the adjacent solar farm, with regard to unit sale prices or other influential market indicators. Additionally, in our workfile we have retained analyses of additional

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https://www.cleanenergyresourceteams.org/chisago-county-boards-real-estate-update-shows-solar-has-no-impact-property-values <u>Disclaimer:</u> This report is limited to the intended use, intended users (Sebree Solar, LLC, the Henderson City-County Planning CohnReznick Commission, and the Kentucky State Electric Generation and Transmission Siting Board as it relates to the evaluation of the Project),

Test Area Sales, each with their own set of matched Control Area sales, which had consistent results, indicating no consistent and measurable impact on adjacent property values. This conclusion has been confirmed by numerous county assessors who have also investigated this use's potential impact on property values.

We then can conclude that since the Adjoining Property Sales (Test Area Sales) were not adversely affected by their proximity to the solar farm, that properties surrounding the proposed solar farm Project operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

CohnReznick LLP

Andrew R. Lines, MAI

Gull.

Principal- Valuation Advisory Services

Certified General Real Estate Appraiser

Kentucky License 5663

Expires 6/30/2022

Florida License No. RZ3899

Expires 11/30/2022

Indiana License No. CG41500037

Expires 6/30/2022

Georgia License No. 360939

Expires 10/31/2021

Patricia L. McGarr, MAI, CRE, FRICS

National Director - Valuation Advisory Services

Certified General Real Estate Appraiser

Indiana License No. CG49600131

Patricia & Mcya

Expires 6/30/2022

North Carolina License No. A8131

Expires 6/30/2022

Virginia License No. 4001016998

Expires 3/31/2022

Michigan License No. 1201072979

Expires 7/31/2022



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#### CERTIFICATION

We certify that, to the best of our knowledge and belief:

- 1. The statements of fact and data reported are true and correct.
- 2. The reported analyses, findings, and conclusions in this consulting report are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, findings, and conclusions.
- 3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
- 4. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this
- 5. We have no bias with respect to the property that is the subject of this report or the parties involved with this assignment.
- 6. Our engagement in this assignment was not contingent upon developing or reporting predetermined
- 7. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value finding, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this report.
- 8. Our analyses, findings, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, which includes the Uniform Standards of Professional Appraisal Practice (USPAP).
- 9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- 10. Patricia L. McGarr, MAI, CRE, FRICS and Andrew R. Lines, MAI have viewed the exterior of the Project and of all comparable data referenced in this report in person, via photographs, or aerial imagery.
- 11. We have not relied on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, and receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value.
- 12. Sonia K. Singh, MAI, Michael F. Antypas, Amanda G. Edwards, and TJ Schemmel provided consulting assistance to the persons signing this certification, including data verification, research, and administrative work all under the appropriate supervision.
- 13. We have experience in reviewing properties similar to the subject and are in compliance with the Competency Rule of USPAP.
- 14. As of the date of this report, Patricia L. McGarr, MAI, CRE, FRICS, Andrew R. Lines, MAI, and Sonia K. Singh, MAI have completed the continuing education program for Designated Members of the Appraisal Institute.



If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

all

CohnReznick LLP

Andrew R. Lines, MAI Principal- Valuation Advisory Services Certified General Real Estate Appraiser

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Patricia & Mcyars

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#### ASSUMPTIONS AND LIMITING CONDITIONS

The fact witness services will be subject to the following assumptions and limiting conditions:

- 1. No responsibility is assumed for the legal description provided or for matter pertaining to legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated. The legal description used in this report is assumed to be correct.
- 2. The property is evaluated free and clear of any or all liens or encumbrances unless otherwise stated.
- 3. Responsible ownership and competent management are assumed.
- 4. Information furnished by others is believed to be true, correct and reliable, but no warranty is given for its accuracy.
- 5. All engineering studies are assumed to be correct. The plot plans and illustrative material in this report are included only to help the reader visualize the property.
- 6. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for obtaining the engineering studies that may be required to discover them.
- 7. It is assumed that the property is in full compliance with all applicable federal, state, and local and environmental regulations and laws unless the lack of compliance is stated, described, and considered in the evaluation report.
- 8. It is assumed that the property conforms to all applicable zoning and use regulations and restrictions unless nonconformity has been identified, described and considered in the evaluation report.
- 9. It is assumed that all required licenses, certificates of occupancy, consents, and other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- 10. It is assumed that the use of the land and improvements is confined within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in this report.
- 11. The date of value to which the findings are expressed in this report apply is set forth in the letter of transmittal. The appraisers assume no responsibility for economic or physical factors occurring at some later date which may affect the opinions herein stated.
- 12. Unless otherwise stated in this report, the existence of hazardous materials, which may or may not be present on the property, was not observed by the appraisers. The appraisers have no knowledge of the existence of such substances on or in the property. The appraisers, however, are not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, radon gas, lead or lead-based products, toxic waste contaminants, and other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No

- responsibility is assumed for such conditions or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.
- 13. The forecasts, projections, or operating estimates included in this report were utilized to assist in the evaluation process and are based on reasonable estimates of market conditions, anticipated supply and demand, and the state of the economy. Therefore, the projections are subject to changes in future conditions that cannot be accurately predicated by the appraisers and which could affect the future income or value projections.
- 14. Fundamental to the appraisal analysis is the assumption that no change in zoning is either proposed or imminent, unless otherwise stipulated. Should a change in zoning status occur from the property's present classification, the appraisers reserve the right to alter or amend the value accordingly.
- 15. It is assumed that the property does not contain within its confined any unmarked burial grounds which would prevent or hamper the development process.
- 16. The Americans with Disabilities Act (ADA) became effective on January 26, 1992. We have not made a specific compliance survey and analysis of the property to determine if it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect on the value of the property. Unless otherwise noted in this report, we have not been provided with a compliance survey of the property. Any information regarding compliance surveys or estimates of costs to conform to the requirements of the ADA are provided for information purposes. No responsibility is assumed for the accuracy or completeness of the compliance survey cited in this report, or for the eventual cost to comply with the requirements of the ADA.
- 17. Any value estimates provided in this report apply to the entire property, and any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in this report.
- Any proposed improvements are assumed to have been completed unless otherwise stipulated; any 18. construction is assumed to conform with the building plans referenced in this report.
- 19. Unless otherwise noted in the body of this report, this evaluation assumes that the subject does not fall within the areas where mandatory flood insurance is effective.
- 20. Unless otherwise noted in the body of this report, we have not completed nor are we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property.
- 21. This report should not be used as a basis to determine the structural adequacy/inadequacy of the property described herein, but for evaluation purposes only.
- 22. It is assumed that the subject structure meets the applicable building codes for its respective We assume no responsibility/liability for the inclusion/exclusion of any structural component item which may have an impact on value. It is further assumed that the subject property will meet code requirements as they relate to proper soil compaction, grading, and drainage.

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23. The appraisers are not engineers, and any references to physical property characteristics in terms of quality, condition, cost, suitability, soil conditions, flood risk, obsolescence, etc., are strictly related to their economic impact on the property. No liability is assumed for any engineering-related issues.

The evaluation services will be subject to the following limiting conditions:

- 1. The findings reported herein are only applicable to the properties studied in conjunction with the Purpose of the Evaluation and the Function of the Evaluation as herein set forth; the evaluation is not to be used for any other purposes or functions.
- 2. Any allocation of the total value estimated in this report between the land and the improvements applies only to the stated program of utilization. The separate values allocated to the land and buildings must not be used in conjunction with any other appraisal and are not valid if so used.
- No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have 3. assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in the evaluation.
- 4. This report has been prepared by CohnReznick under the terms and conditions outlined by the enclosed engagement letter. Therefore, the contents of this report and the use of this report are governed by the client confidentiality rules of the Appraisal Institute. Specifically, this report is not for use by a third party and CohnReznick is not responsible or liable, legally or otherwise, to other parties using this report unless agreed to in writing, in advance, by both CohnReznick and/or the client or third party.
- 5. Disclosure of the contents of this evaluation report is governed by the by-laws and Regulations of the Appraisal Institute has been prepared to conform with the reporting standards of any concerned government agencies.
- 6. The forecasts, projections, and/or operating estimates contained herein are based on current market conditions, anticipated short-term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes with future conditions. This evaluation is based on the condition of local and national economies, purchasing power of money, and financing rates prevailing at the effective date of value.
- 7. This evaluation shall be considered only in its entirety, and no part of this evaluation shall be utilized separately or out of context. Any separation of the signature pages from the balance of the evaluation report invalidates the conclusions established herein.
- 8. Possession of this report, or a copy thereof, does not carry with it the right of publication, nor may it be used for any purposes by anyone other than the client without the prior written consent of the appraisers, and in any event, only with property qualification.
- 9. The appraisers, by reason of this study, are not required to give further consultation or testimony or to be in attendance in court with reference to the property in question unless arrangements have been previously made.



- 10. Neither all nor any part of the contents of this report shall be conveyed to any person or entity, other than the appraiser's client, through advertising, solicitation materials, public relations, news, sales or other media, without the written consent and approval of the authors, particularly as to evaluation conclusions, the identity of the appraisers or CohnReznick, LLC, or any reference to the Appraisal Institute, or the MAI designation. Further, the appraisers and CohnReznick, LLC assume no obligation, liability, or accountability to any third party. If this report is placed in the hands of anyone but the client, client shall make such party aware of all the assumptions and limiting conditions of the assignment.
- 11. This evaluation is not intended to be used, and may not be used, on behalf of or in connection with a real estate syndicate or syndicates. A real estate syndicate means a general or limited partnership, joint venture, unincorporated association or similar organization formed for the purpose of, and engaged in, an investment or gain from an interest in real property, including, but not limited to a sale or exchange, trade or development of such real property, on behalf of others, or which is required to be registered with the United States Securities and Exchange commissions or any state regulatory agency which regulates investments made as a public offering. It is agreed that any user of this evaluation who uses it contrary to the prohibitions in this section indemnifies the appraisers and the appraisers' firm and holds them harmless from all claims, including attorney fees, arising from said use.



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Adjacent Property Value Impact Study Addendum Report: Proposed Solar Project

Prepared for Sebree Solar, LLC Page | 27

**ADDENDUM A: APPRAISER QUALIFICATIONS** 





# Patricia L. McGarr, MAI, CRE, FRICS, CRA Principal, National Director, Valuation Advisory Services

200 S. Wacker Drive, Suite 2600 Chicago, IL 60606 312-508-5802 patricia.mcgarr@cohnreznick.com www.cohnreznick.com

Patricia L. McGarr, MAI, CRE, FRICS, CRA, is a principal and National Director of CohnReznick Advisory Group's Valuation Advisory Services practice who is based in Chicago. Pat's experience includes market value appraisals of varied property types for acquisition, condemnation, mortgage, estate, ad valorem tax, litigation, zoning, and other purposes. Pat has been involved in the real estate business since 1980. From June 1980 to January 1984, she was involved with the sales and brokerage of residential and commercial properties. Her responsibilities during this time included the formation, management, and training of sales staff in addition to her sales, marketing, and analytical functions. Of special note was her development of a commercial division for a major Chicago-area brokerage firm.

Since January 1984, Pat has been exclusively involved in the valuation of real estate. Her experience includes the valuation of a wide variety of property types including residential, commercial, industrial, and special purpose properties including such diverse subjects as quarries, marinas, riverboat gaming sites, shopping centers, manufacturing plants, and office buildings. She is also experienced in the valuation of leasehold and leased fee interests. Pat has performed appraisal assignments throughout Illinois and the Chicago Metropolitan area as well as Wisconsin, Indiana, Michigan, New York, New Jersey, California, Nevada, Florida, Utah, Texas, and Ohio. Pat has gained substantial experience in the study and analysis of the establishment and expansion of sanitary landfills in various metropolitan areas including the preparation of real estate impact studies to address criteria required by Senate Bill 172. She has also developed an accepted format for allocating value of a landfill operation between real property, landfill improvements, and franchise (permits) value.

Over the past several years. Pat has developed a valuation group that specializes in serving utility companies establish new utility corridors for electric power transmission and pipelines. This includes determining acquisition budgets, easement acquisitions, and litigation support. Pat has considerable experience in performing valuation impact studies on potential detrimental conditions and has studied properties adjoining landfills, waste transfer stations, stone quarries, cellular towers, schools, electrical power transmission lines, "Big Box" retail facilities, levies, properties with restrictive covenants, landmark districts, environmental contamination, airports, material defects in construction, stigma, and loss of view amenity for residential high rises.

Pat has qualified as an expert valuation witness in numerous local, state and federal courts.

Pat has participated in specialized real estate appraisal education and has completed more than 50 courses and seminars offered by the Appraisal Institute totaling more than 600 classroom hours, including real estate transaction courses as a prerequisite to obtaining a State of Illinois Real Estate Salesman License.

<u>Disclaimer:</u> This report is limited to the intended use, intended users (Sebree Solar, LLC, the Henderson City-County Planning CohnReznick Commission, and the Kentucky State Electric Generation and Transmission Siting Board as it relates to the evaluation of the Project), and purpose stated within. No part of this report may otherwise be reproduced or modified in any form, or by any means, without the prior written permission of CohnReznick LLP.



Pat has earned the professional designations of Counselors of Real Estate (CRE), Member of the Appraisal Institute (MAI), Fellow of Royal Institution of Chartered Surveyors (FRICS) and Certified Review Appraiser (CRA). She is also a certified general real estate appraiser with active licenses in numerous states.

#### **Education**

North Park University: Bachelor of Science, General Studies

#### **Professional Affiliations**

- National Association of Realtors
- CREW Commercial Real Estate Executive Women
- IRWA International Right of Way Association

#### **Appointments**

Appointed by the Governor in 2017 to the State of Illinois' Department of Financial & Professional Regulation's Real Estate Appraisal Board; Vice-Chairman - 2018

#### **Licenses and Accreditations**

- Member of the Appraisal Institute (MAI)
- Counselors of Real Estate, designated CRE
- Fellow of Royal Institution of Chartered Surveyors (FRICS)
- Certified Review Appraiser (CRA)
- Alabama State Certified General Real Estate Appraiser
- California State Certified General Real Estate Appraiser
- Connecticut State Certified General Real Estate Appraiser
- District of Columbia State Certified General Real Estate Appraiser
- Illinois State Certified General Real Estate Appraiser
- Indiana State Certified General Real Estate Appraiser
- Louisiana State Certified General Real Estate Appraiser
- Maryland State Certified General Real Estate Appraiser
- Massachusetts State Certified General Real Estate Appraiser
- Michigan State Certified General Real Estate Appraiser
- Nevada State Certified General Real Estate Appraiser
- New Jersey State Certified General Real Estate Appraiser
- New York State Certified General Real Estate Appraiser
- North Carolina State Certified General Real Estate Appraiser
- Indiana State Certified General Real Estate Appraiser
- South Carolina State Certified General Real Estate Appraiser
- Tennessee State Certified General Real Estate Appraiser
- Texas State Certified General Real Estate Appraiser
- Virginia State Certified General Real Estate Appraiser
- Wisconsin State Certified General Real Estate Appraiser





# Andrew R. Lines, MAI Principal – Real Estate Valuation, Valuation Advisory Services

200 S. Wacker Drive, Suite 2600 Chicago, IL 60606 312-508-5892 andrew.lines@cohnreznick.com www.cohnreznick.com

Andrew R. Lines, MAI, is a principal in the CohnReznick Transaction and Turnaround Advisory Valuation Advisory practice who is based in the Chicago office and has been a CohnReznick employee for over nine years. Andrew has been involved in the real estate business for more than 20 years and has performed valuations on a wide variety of real property types including single- and multi-unit residential (including LIHTC), student housing, office, retail, industrial, mixed-use and special purpose properties including landfills, waste transfer stations, marinas, hospitals, universities, telecommunications facilities, data centers, self-storage facilities, racetracks, CCRCs, and railroad corridors. He is also experienced in the valuation of leasehold, leased fee, and partial interests, as well as purchase price allocations (GAAP, IFRS and IRC 1060) for financial reporting.

Andrew has completed valuations nationwide for a variety of assignments including mortgage financing, litigation, tax appeal, estate gifts, asset management, workouts, and restructuring, as well as valuation for financial reporting including purchase price allocations (ASC 805), impairment studies, and appraisals for investment company guidelines and REIS standards. Andrew has qualified as an expert witness, providing testimony for eminent domain cases in the states of IL and MD. Andrew has also performed appraisal review assignments for accounting purposes (audit support), asset management, litigation and as an evaluator for a large Midwest regional bank.

Andrew has earned the professional designation of Member of the Appraisal Institute (MAI). He has also qualified for certified general commercial real estate appraiser licenses in Arizona, California, Maryland, Florida, Georgia, Kentucky, Illinois, Indiana, New Jersey and New York. Temporary licenses have been granted in Connecticut, Colorado, Ohio, Indiana, Idaho, Kansas, Minnesota and South Carolina.

#### **Education**

Syracuse University: Bachelor of Fine Arts

#### **Professional Affiliations**

- Chicago Chapter of the Appraisal Institute Alternate Regional Representative (2016 2018)
- International Real Estate Management (IREM)
- National Council of Real Estate Investment Fiduciaries (NCREIF)

#### **Community Involvement**

- Fellows Alumni Network World Business Chicago, Founding member
- Syracuse University Regional Council Active Member





# Sonia K. Singh, MAI Senior Manager - Real Estate Valuation Valuation Advisory Services

7501 Wisconsin Avenue, Suite 400E Bethesda, Maryland 20814 301-280-5193 sonia.singh@cohnreznick.com www.cohnreznick.com

Sonia K. Singh, MAI is a senior manager in CohnReznick Advisory Group's Valuation Advisory practice and based in the Bethesda office. For the past eight years, she has engaged in real estate valuation and other real estate consulting services and valued over \$5 billion in real property.

Sonia is adept at valuing a variety of commercial real estate across the United States, including the following complex property types: athletic clubs; full-service hotels and beach resorts; marinas; historic redevelopment projects; recycling facilities; single-family rental home portfolios; master planned communities; and for-sale residential units or subdivisions. She has also performed real estate appraisals involving leasehold interests, air rights ownership, and right-of-way fee simple and easement acquisitions for utility corridors. She has performed these and other appraisals others for purposes including financial reporting, estate planning, gift and estate tax. bond and conventional financing, litigation (eminent domain), and asset management, with the ability to handle appraisals of large portfolios in expedited timeframes. With significant experience in the appraisal of senior living facilities including continuing care retirement communities, skilled nursing facilities, assisted living and memory care facilities, as well as age-restricted housing, Ms. Singh has elevated the firm's modelling of complex healthcare property ownership structures to help illuminate debt/income and lease coverage ratios for federal courts, resulting in millions of dollars in recovered credits for clients.

Additionally, Sonia is experienced in purchase price allocations (GAAP, IFRS, and IRC 1060) for financial reporting, including the early adoption of ASU 2017-01. She has also provided valuation services related to highest and best use analysis, market feasibility studies, and useful life analysis. She has prepared impact studies measuring the possible detrimental impact of economic and environmental influences on property values, including those related to high-voltage transmission lines, distribution warehouses, and solar farms. She has provided expert witness testimony at local county zoning hearings for proposed solar energy uses and their potential detrimental impacts on adjacent property values.

#### **Education**

University of Illinois: Bachelor of Science, Actuarial Science



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Adjacent Property Value Impact Study Addendum Report: Proposed Solar Project

Prepared for Sebree Solar, LLC Page | 32

# **Professional Affiliation, Licenses, and Exams**

- MAI Appraisal Institute, Designated Member
- Urban Land Institute, Associate Member
- Certified General Real Estate Appraiser with Active Licenses in DC and the States of MD, MO, and VA
- Successful completion of the following actuarial exams: Probability (1/P), Financial Mathematics (2/FM), and Models for Financial Economics (3/MFE)

# **Awards and Recognitions**

2019 National Association of Certified Valuators and Analysts (NACVA) and the Consultants Training Institute (CTI) 40 Under Forty Honoree



# Sebree Solar, LLC

Case No. 2021-00072

Application - Volume 2
Tab 12
Attachment A
Exhibit 2

Legal Property Descriptions (69 Pages)

# **Legal Description of Owner's Property**

The following described real property located in Henderson County, Kentucky, more particularly described as follows, to wit:

Consisting of 45.50 acres, more or less, located about ¼ mile west of Robards, Kentucky, on the Robards and Cairo Road, bounded and described as follows:

Beginning at a stake on the south side of the Robards and Cairo Road, corner to Mrs. Duncan in L. B. Eblens' line (formerly William Eblen), thence with Eblens' east line north 2½ degrees west 20. 75 chains, more or less, to the east right of way line of State Highway #283, thence with said east right of way line north 3 degrees east 27.50 chains, thence with a curve to the right, said curve having a radius of 2834. 90 feet, a distance of 3.57 chains to S.E. Kings' line, thence with Kings' line South 87¼ degrees east 7.43 chains, more or less, to a stake near a black gum, thence south 1¼ degrees east 49.93 chains to a point in the Robards and Cairo Road, thence with said road, south 82 degrees west 9.75 chains to the place of beginning, containing 45.50 acres, more or less, but subject to legal highways.

The above being the same property acquired by Phillip D. Branson and his wife Robin R. Branson by Deed dated July 7, 1997, of record in Deed Book 649, Page 120, in the Henderson County Clerk's office.

# Legal Description of Owner's Property

Beginning on the South side of Robards and Cairo Road at corner post to C. B. Hester 27¼ links South of said post, N 82½ E 25 rods, 12 links with W.G. Duncan's line to H.J. Pooles's corner; thence N 8¾ N 12 rods, 22 links to H.J. Poole's corner; thence N 81½ E 9 rods, 4 links to Dr. A.S. Denton's corner; thence N 8¾ W 21 rods, 13 links to Dr. A.S. Denton's corner; thence N 85 E 14 rods; 5 links to J.P. Cosby's corner; thence N 20 W 18 rods, 5½ links to J.L. Cosby's corner; thence N 69 E 31 rods; 21 links to another corner of J.P. Cosby's; thence S 27 E 3 rods to another corner of J.P. Cosby's; thence N 73 E 17 rods, 23 links with George Royster's line to J. T. Triplett's corner; thence N 23 W 17 rods, 23 links to another corner of J.T. Triplett's; thence N 68½ W 17 rods, 2 links to L & N Railroad; thence with railroad N 23 W 107 rods, 18 links to Lee King's corner; thence with King's line N 83½ W 55 rods, 5 links to C. B. Hester's corner thence S ½ E 199 rods, 18 links to beginning, containing 77-49/100 acres, more or less.

LESS the following described property which was conveyed to the Board of Education of Henderson County, Kentucky, by deed of Shelby Scott and wife, Lillie M. Scott, dated the 5<sup>th</sup> day of August, 1953, of record in Deed Book 163, Page 105, Henderson County Court Clerk's Office, to-wit:

Beginning at an iron nail in Kentucky State Highway No. 416, corner with Frank Fraser (20 feet south of north fence line on said highway), runs with said highway S 84° 53' W 421.8 feet to a nail in highway, corner with M.T. Day; thence N 00° 30' E 653 feet to a stake and post, corner with Shelby Scott in M.T. Day's line; thence with (division line) N 88° 30' E 722.4 feet to a stake, corner with Shelby Scott in J.W. Duncan's line; thence S 20° 00' E 28 feet to a stake and post, corner with J.W. Duncan and Dr. A.S. Denton's estate; thence S 83° 15' W 234.3 feet to a stake and post, corner with the Dr. A.S. Denton Estate; thence S 6° 17' E 354.3 feet to a stake and post, corner with the Dr. A.S. Denton Estate and Frank Fraser; thence S 82° 50' W 50 feet to a stake and post, corner with Frank Fraser; thence S 6° 25' E 212.5 feet to the point of beginning, containing 7.217 acres.

ALSO LESS the following described property conveyed by John William Fulkerson and his wife, Lillie Elizabeth Fulkerson, to the County of Henderson by deed dated May 16, 1977, of record in Deed Book 294, Page 432, to-wit:

Beginning at an iron pin corner to the Robards School and Galloway; thence with the line of the Robards School, N 88° 52' E 722.87 feet to an iron pin corner to Chandler; thence with the line of Chandler, N 17° 12' W 269.25 feet to an iron pin corner to Fulkerson; thence with the line of Fulkerson, S 88° 17' W 637.26 feet to an iron pin corner to Galloway; thence with the line of Galloway, S 1° 24' W 252.41 feet to the point of beginning, containing 3.99 acres, more or less.

Being the same property conveyed to John William Fulkerson and his wife, Lillie Elizabeth Fulkerson, as joint tenants, with right of survivorship, by deed from Dorsul, Incorporated, a Kentucky corporation, dated April 23, 1970, of record in Deed Book 247, Page 317, in the

Henderson County Clerk's Office. John William Fulkerson died intestate on October 21, 1978, thus vesting fee simple title in Lillie Elizabeth Fulkerson by virtue of the survivorship clause in said deed. See affidavit of death of record in Deed Book 359, Page 45, in the Henderson County Clerk's Office, Lillie Elizabeth Fulkerson died intestate on May 3, 1984, and left the grantors, John W. Wilson and Richard Melvin Wilson as her only heirs at law. See affidavit of descent of record in Deed Book 358, Page 607, in the Henderson County Clerk's Office.

The above being the same property acquired by Delnoe Brock and Fay Brock, husband and wife, by Deed dated August 21, 1985, of record in Deed Book 359, Pages 84-86, in the Henderson County Clerk's office.

Containing 66 acres, more or less.

#### **Legal Description of Owner's Property**

The following described real property located in Henderson County, Kentucky, to- wit:

#### Tract 1:

Beginning at a point in the line of Lot No. 2, 1 pole from the line of the dower; thence S. 60 3/4 E. 9.68 chains to a point 1 pole from the Southeast corner of the dower; thence N. 30 3/4 E. 1 pole to a stake, Southeast corner to the dower and Lot No. 5 (Double dogwood pointer); thence S. 60 3/4 E. 14.88 chains to a stake corner to Lots 5 and 6; thence S. 30 3/4 W. 16.77 chains to a stake, 3 elm pointers, in Henry Funston's line, corner to Lot No. 7; thence N. 14 W. 7.51 chains to a double sweet gum (1 prong down) corner to Henry Funston's land; thence S. 75 ½ W. 28.65 chains to a stake in Henry Funston's line, corner to Lot No. 2; thence N. 30 3/4 E. 30.74 chains to the beginning, containing 50 acres.

Also the right of way for a passway over a strip of land, beginning at the corner of Lots Nos. 1 and 2 in the dower line and extending to the corner of the dower and Lot No. 5; thence with the line of the dower and Lot No. 5 to the corner of Lots Nos. 4 and 5: thence with the line of Lots Nos. 4 and 5 to another corner of Lots Nos. 4 and 5; thence with the line of Lot No. 4 and A.O. Edwards and F. Porter to Canoe Creek.

SAVINGS AND EXCEPTING the following tract conveyed to C.A. Compton by deed dated April I, 1889, from said George R. Smith, and recorded in Deed Book 14, page 246, in the Henderson County Court Clerk's Office, to wit:

Beginning at a stake in the line between Geo. R. Smith and Ella Compton and 5 poles 14 links from the Southeast corner of the dower interest; thence S. 60 1/4 E. 58 poles and 22 links to a stake in Addie Smith's line; thence S. 31 W. 66 poles and 20 links to a stake in Henry Funston's line and double elm and single elm marked as pointers; thence with said Funston's line, N. 13 ½ W. 30 poles and 5 links to a gum and corner to Henry Funston; thence with another line of said Funston, S. 84 W. 31 poles and 8 links to a stake in said line; thence N. 20 ½ E. 67 poles and 14 links to the beginning, containing 16.63 acres.

FURTHER SAYING AND EXCEPTING the following parcel conveyed by Thomas A. Smith and wife, to Otho Alexander by deed dated August 14, 1946, and recorded in Deed Book 127, page 416, to wit:

Beginning at a stake in the boundary of the lands of Thomas A. Smith and Mrs. Eula Spencer and at a point 3 poles North 42° W. from a twin black oak and continuing two chains N 42 W to a stone in the line of Mrs. Eula Spencer at the point where the land of Otho Alexander and Thomas A. Smith meet; thence Northeast with the meanderings of an old creek to the middle of the present drainage ditch; thence N. 55 E. 3 poles to the mouth of a small drainage ditch; thence with the middle of said ditch to the beginning, containing .6 of an acre, more or less.

#### Tract 2:

Lot No. 2 in the Division of the lands of Thomas A. Smith, to wit:

Beginning at a stone 40 feet from the middle of the L&N R.R. on the East side of same in Henry Funston's line and 20 feet from the corner; thence N 30 3/4 E. 43.85 chains to a point in the line of Lot No. 1 and 1 pole from the line of the dower; thence S, 60 3/4 E 13.38 chains to a point in the line of Lot No. 3, 1 pole from the line of the dower; thence S. 30 3/4 W. 30.79 chains to a stake in Henry Funston's line, a corner to Lot No. 3; thence S. 75 ½ W. 18.89 chains to the beginning, containing 50 acres.

Also, the right of way for a passway over a strip of land, beginning at the corner of Lots Nos. 1 and 2 in the dower line and extending to the corner of dower and Lot No. 5; thence with line of dower and Lot No. 5 to the corner of Lots Nos. 4 and 5; thence with the line of Lots 4 and 5 to another corner of Lots Nos 4 and 5; thence with the line of Lot No. 4 and A.O. Edwards and F. Porter to Canoe Creek.

SAVING AND EXCEPTING from the above tract, the following described tract conveyed by G.R. Smith to A.S. Denton by deed dated March 31, 1902, and recorded in Deed Book 32, page 299, in the office aforesaid.

Beginning at a stake in the East line of Robards and Busby Station Road, 16 feet from Henry Funston's line; thence N. 21 1/4 W. 30 links to a stake on east side of above mentioned road in Ed. Otey's line; thence with Ed. Otey's line N. 32 E. 126 poles to a fence post in said line; thence S. 74 E. 35 poles 8 6/10 links to a stake: thence S. 2 I W. 88 poles and 16 links to a stake 16 feet at right angles from Henry Funston's line; thence S. 77 W. 69 poles and 21 links to the beginning, containing 30 acres.

#### Tract 3:

Lot No. 2 of the Division of the dower of Margaret Smith, deceased, bounded as follows:

Beginning at a point in middle of Creek, corner to Lot No. 4 of this Division; thence with line of Lot No. 4 and middle of ditch S. 55 E. 63 poles to a point in the middle of ditch corner to Lot No. 1 of this division, elm pointer; thence S. 31 1/2 W. 113 poles to a stake corner to Lot No. 1 in line of private passway; thence N. 59 W., 35 poles and 12 links to a stake, corner to Lot No. 3, a passway along this line from this corner to a point 16 feet S. 59 E. from Ed. Otey's corner is reserved for Lot No. 3; thence N. 31 ½ E. 52 poles and 9 links to a stake in a ditch, corner to Lot No. 3; thence N 44 W. 15 poles to a fence post corner to Lot No. 4, hackberry pointer; thence N. 31 1/2 E. 21 poles to a stone, corner to Busby land; thence N. 59 W. 10 poles to a stake, corner to the Busby land; thence N. 31 ½ E. 28 poles to middle of the creek; thence N. 31 ½ E. 28 poles to middle of the creek; thence with creek to beginning, containing 32.61 acres.

#### Tract 4:

Lot No. 3 in the Division of the Dower of Margaret Smith, deceased, bounded as follows: A tract of land East of L&N R.R. containing 5 acres, to wit:

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Beginning at a stake in a line between Ed. Otey and E.A. Royster; running N. with E.A. Royster and Mattie L. Ligon; East and South with Richard Smith's line.

SAVING AND EXCEPTING the following described property conveyed by George R. Smith to Edwin A. Royster by deed dated December 3, 1913, and recorded in Deed Book 50, page 433, in the office aforesaid. Beginning at a stake, two white oaks pointers corner to E.A. Royster; thence N. 33 ½ E. 6.20 chains to a double black oak on the bank of a branch; thence N. 42 3/4 W. 2.74 chains to a stone, corner to E.A. Royster and J.M. Alexander; thence S. 33 ½ W. 6.84 chains to a stake corner to E.A. Royster; thence S. 57 ½ E. 2.50 chains to the Beginning, containing 1.63 acres.

CONTAINING, IN ALL 88. 75 acres, more or less, but subject to legal highways.

2020003031

HENDERSON CO, KY FEE \$55.00 PRESENTED / LODGED: 03-27-2020 08:58:22 AM

RECORDED: 03-27-2020 RENESA ABNER CLERK BY: TONYA WILSON

BK: RE 643 PG: 44-51

MAILED TO: 3/30/2020 LAND SERVICES GROUP 700 UNIVERSE BLVD JUNO BEACH, FL 33408-2657

# **Legal Description of Owner's Property**

The following described real property located in Henderson County, Kentucky, to- wit:

Beginning at a stake, corner to Sam Spencer in a few feet of a large maple tree, south 86° east 47 poles, 13 links to a stake, corner to Luther Eblen; thence north 4-3/4° east 43 poles to a stone, corner to Eblen; thence south 86° east 1 pole and 17 links to a stone; thence north 11-1/2° east 51 poles and 7 links to a stone, corner to Mrs. Wm. Eblen; thence north 87° west 33 poles to a corner in T.T. Royster's line; thence with his line south 18° west 95 poles, 16 links to the beginning, containing 21 acres, more or less but subject to legal highways.

Beginning at a stone, J.W. Otey's corner; thence running north 67-1/2° west 37 poles and 19 links to a maple stump, corner with Tom Spencer in Otey's line: thence south 27-1/2° west 179 poles and 3 links to a stone in the Royster line, corner with Tom Spencer; thence south 59-1/2° east 70 poles and 11 links to an elm in the Lithecum line, corner with Eblen; thence north 17-1/2° east 190 poles and 15 links to the beginning; containing 61.8l acres, more or less, but subject to legal highways.

Beginning at stone, corner to Samuel Spencer: thence south 88-1/2° east 117-3/4 poles to a stone in Felix Eakins' line; thence north 135 poles to a stone; thence north 88-1/2° west 117-3/4 poles to a stone; thence south with Samuel Spencer's line to the beginning, containing 100 acres, more or less, but subject to legal highways.

Beginning at a post oak stump in Lee Eakins line, corner to L.B. Eblen & W.G. Duncan & running thence with Duncan's line N. 1 W. 245 feet to a point in the middle of the Robards & Cairo Road and in L. B, Eblen's line; thence with the middle of said road S. 87-50 W. 411 feet, S. 71-10 W. 286 feet & S. 53-55 W. 126 feet to a point in middle of said road and in the T. T. Royster's line; thence with Royster's line S. 83-50 E. 616 feet to a post in said line; thence with Royster's and Lee Eakins line N. 89-45 E. 176 feet to the beginning, and containing 3.2 acres.

LESS AND EXCEPT the following tract sold by Mrs. W.D DeVasher and her husband to E. U. Weldon by deed recorded in Deed Book 109, at Page 119, Henderson County Court Clerk's Office, to-wit:

All that property located on the southeast corner of the intersection of the Robards and Tunnel Hill road and the Petersburg and Anthoston road known as Highway 283. Said parcel of land is bounded on the north by the Robards and Tunnel Hill road; on the east by the property of E.U. Weldon; on the south by the property of Lee Eakins and on the west by State Highway 283, or the Petersburg and Anthoston road, containing one acre, more or less. This is the eastern part of a lot of ground formerly owned by Rufus Eblen. Said State Highway 283 known as the Petersburg and Anthoston road cut said original lot in two, part thereof being located on the east side of said road and the other part on the west side and adjoining the lands of Mrs. W.D. DeVasher. There is only being conveyed by this deed the part that is located on the east side of said Highway 283. The part located on the west side and adjoining the land of Mrs. W.D. DeVasher is not included in this conveyance.

Being Tracts 1, 2, 3 and 6 in that certain deed from Charlotte Gregory Taylor, a Widow, to Arnold G. Taylor dated October 2, 1976, appearing of record in Deed Book 289, at Page 248, in the Henderson County Clerk's Office. Charlotte Gregory Taylor died on or about October \_, 1984, thereby extinguishing her life estate in the above described property.

MAILED 3/16/2020 TO:
JAMES & JANET CORLETT
700 UNIVERSE BLVD
JUNO BEACH, FL 33408

2020002650

HENDERSON CO, KY FEE \$49.00 PRESENTED / LODGED: 03-13-2020 10:21:54 AM

RECORDED: 03-13-2020 RENESA ABNER CLERK BY: SHARON SELLARS

BK: RE 642 PG: 840-845

DEPUTY CLERK

# **Legal Description of Owner's Property**

#### Parcel 1

Beginning at a stone, corner to George Crook in Ed Otey's line, at an angle in the Ed Otey Road, thence N 4½ E 11.66 chains to a stake in Buzz Danton's line, thence N. 80 W. 29.75 chains to a stake in the middle of a ditch, thence with the Ditch S 26 W. 2/50 chains to a stake in the south point of the junction of two ditches, thence S 2½ W 13 chains to a stump in the south line of Ed·Otey road, and E.H. Royster's line, corner to Steele, thence with south line of road S 87 E 30.08 chains to the beginning, containing 40.93 acres in Henderson County, Kentucky.

#### Parcel 2

Beginning at a stone corner to E. Rouster, at an angle in the Frog Island Road; thence N. 3½ E. 11.77 chains to a stone corner to Lot No. 1, in Minors line; thence S. 84½ E. 5.31½ chains to a stake corner to Lot No. 5 in line of Lot No. 1. thence S. 3½ E. 11.73 chains to a stake on North side of road corner to Lot No. 5; thence N. 85 W. 5. 31½ chains to the beginning, containing 6.48 Acres in Henderson County, Kentucky.

A passway 15 feet wide is given on west side of this lot for the benefit of the other lots.

#### Parcel 3

Beginning at a stake in line of Lot No. 5, corner to Not No.6; thence N. 3 ½ E 4.33 chains to a stake, corner to Lot No. 5, in line of Lot No 1, thence S. 84 ½ E. 2.09 chains to a stake corner to Lot No. 1; thence N. 8. E. 3.53 chains to a stake corner to Lot No. 8, in line of Lot No.1; thence S. 85 E. 7.46 chains to a stake corner to Lot No 8, in Handley's line; thence S. 25. W. 2.30 chains to a stake in the branch; thence S. 3. W. 5.77 chains to a stake corner to Lot No. 6, in Handley's line; thence E. 85 W. 9.08 chains to the beginning, containing 6.46 acres. There is to be a passway 15 feet wide a part of the way on the west side of this lot for the benefit of the other lots.

This being the same lot of ground conveyed to Grantors by Joseph Eblen and Nona Eblen by deed of date November 13<sup>th</sup> 1919, and recorded in Deed Book 60 at page 288, Henderson County Clerk's Office, Kentucky.

#### Parcel 4

Also another lot of ground being Lot No. 5 in the division of the lands of R.J. Spencer, Dec'd and bounded as follows:

Beginning at a stake on the North side of the road, corner to Lot No. 4; thence N. 3-½ E. 11.73 chains to a stake corner to Lot No. 4, in line of Lot No. 1; thence S. 84½ E. 5.74 ½ chains to a stake corner to Lot No. 7 in line of Lot. No. 1; thence S. 3 ½ W. 11.69 chains to a stake on the South side of the new road, corner to Lot No. 6; thence N. 85. W. 5.71-½ chains to the beginning, containing 6.45 acres. This being the same ground conveyed to Grantors by Joseph Eblen and Nona Eblen by deed of date November 13<sup>th</sup> 1919 and recorded in Deed Book 60 at page 288, Henderson County Court, Kentucky.

#### Parcel 5

Also another lot of ground being Lot No. 6 in the division of the lands of R.J. Spencer, Dec'd and bounded as follows:

Beginning at a stake on the South side of the new road corner to Lot No. 5; thence N. 3 ½ E. 7.26 chains to a stake corner to Lot No. 7, in line of Lot No. 5; thence S. 85. E. 9.08 chains to a stake corner to Lot No. 7, in Handley's line; thence S. 3. W. 7.36 chains to a stake corner to Handley on South side of new road; thence N. 85. W. 9.11 chains to the beginning, containing 6.69 acres, and being the same ground conveyed to Grantors by Joseph Eblen and Nona Eblen by deed of date November 13<sup>th</sup> 1919, and recorded in Deed Book 60 at page 288, Henderson County Court Clerk's office, Kentucky.

## Parcel 6

Beginning at a stake in the Robards and Tunnel Hill road, corner with Lot No. 2, runs with said road S. 76-15' E. 422.3 feet to a stake at the mouth of the Parson road, corner with Mrs. S.S. Spencer; thence with said road S. 3-35' W. 1680.3 feet to a stake in said road, corner with W.A. Royster estate in the line of Mrs. S.S. Spencer; thence N. 89-14' W. 418.2 feet to a stake, corner with lot No. 2 in the line of the W.A. Royster estate; thence N. 3-35' E. 1775.6 feet to the beginning, containing 16.16 acres, and being Lot No. 1 in the division of the estate of T.W. Royster deed, and conveyed to Vinnie Allgood by Marvin Royster and others by deed of date 28th February 1928, and recorded in Deed Book No. 81 page 195, Henderson County Clerk's Office., Kentucky Together with all buildings and improvements thereon.

#### Parcel 7

FIRST: Lot No. 2 of said division. Beginning at a stake in Miner's line corner to Lot No.1, thence N. 3-1/2 E. 4.44 chains to a stake corner to Lot No. 3, in Miner's line, thence S. 85 E. 13.72 chains to a stake corner to Lot No. 3, in line of Lot No. 8, thence S. 8W. 4.63 chains to a stake corner to Lot No. 1, in line of Lot No. 8, thence N. 84 E. 13.45 chains to the beginning, containing 6.14 acres.

Being the same real property conveyed to Inez Handley and her husband, O.T. Handley, by Addie L. Steele, et al, by deed dated May 17, 1919, of record in Deed Book 59, Page 540, Henderson County Clerk's Office. Said O.T. Handley died testate, a resident of Henderson County, Kentucky, in 1965, and by his will, duly probated and of record in Will Book O, Page 295, said Clerk's Office, his interest in the above described real property was devised to Granter, Inez Handley.

#### Parcel 8

SECOND: Lot N. 1 of said division. Beginning at a stake corner to Lot No. 4, in Miner's line, thence N, 3-½ E.4-37 chains to a stake corner to Lot No. 2, in Miner 's line, thence S. 84-½ E. 13-45 chains to a stake corner to lot No. 2, in the line of Lot No. 8, thence s. 8 w.4 .32 chains to a stake corner to Lot No. 7, thence N. 84-½ E. 13.16 chains to the beginning, containing 5.75 acres in Henderson County, Kentucky.

Being the same real property conveyed to Mrs. Elizabeth Spencer by Addie L. Steele, et al, by deed dated May 17, 1919, of record in Deed Book 90, Page 29, Henderson County Clerk' Office. Said Elizabeth Spencer, who was the same person as Elizabeth Catherine Spencer, died testate, a

resident of Henderson county, Kentucky, on September 2, 1971, and by her will, duly probated and of record in Will Book S, Page 171, said Clerk's Office, the above described real property was devised to her daughter, Grantor, Inez Handley.

#### Parcel 9

THIRD Lot No. 3 of said division. Beginning at a stake in Miner 's line, corner to Lot No. 2, thence N. 3-1/2 E. 4.40 chains to a stake corner to Denton, thence S. 85 E. 14.10 chains to a stake corner to Denton and Lot No, 8, thence S. 8 W. 4.47 chains to a stake corner to Lot No. 2, in line of Lot No.8, thence N.84 W. 13.72 chains to the beginning, containing 6.14 acres in Henderson County, Kentucky.

Being the same real property conveyed to Emmett Spencer by Addie L. Steele, et al, by deed dated May 17, 1919, of record in Deed Book 61, Page 265, Henderson County Clerk's Office. Said Emmett Spencer died intestate and unmarried on December 6, 1929, leaving his mother, Elizabeth C. Spencer, as his only heir at law who inherited from him the above described real property. See Affidavit of Descent of Emmett Spencer of record in Deed Book 90, Page 30, said Clerk's Office. By the aforesaid will of Elizabeth Catherine Spencer of record in Will Book S, Page 171, said Clerk's Office, the above described lot of ground was devised to Grantor, Inez Handley.

2020003029

HENDERSON CO, KY FEE \$52.00 PRESENTED / LODGED: 03-27-2020 08:57:15 AM

RECORDED: 03-27-2020 RENESA ABNER CLERK BY: TONYA WILSON DEPUTY CLERK

BK: RE 643 PG: 31-37

MAILED TO: 3/30/2020 LAND SERVICES GROUP 700 UNIVERSE BLVD JUNO BEACH, FL 33408-2657

# **Legal Description of Owner's Property**

#### Parcel 1

BEGINNING at an iron pin corner to Tract #1, said pin being in the southern R/W of Ky. Hwy. 416, 30 feet from the centerline, and being approximately 1595 feet east of the intersection of W. N. Royster Road in Henderson County, Kentucky; thence with said R/W N 79° 56' 31" E -- 104.50 feet, S 73° 51' 35" E -- 154.97 feet, S 69° 44' 51" E -- 439.82 feet to an iron pin corner to Tract #3; thence with the line of Tract #3 S 8° 41' 19" W -- 2091.63 feet to an iron pin in the line of Tract #5; thence with the line of Tract #5 N 82° 30' 11" W -- 448.26 feet to a post corner to Tract #6; thence with the line of Tract #6 N 80° 25' 40" W -- 89.18 feet to a post corner to Arron Norris; thence with the line of Norris N 79° 57' 06" W -- 386.47 feet to an iron pin at a twin sasafrass corner to Tract #1; thence with the line of Tract #1 N 15° 01' 08" E --2178.38 feet to the point of beginning and containing 39.882 acres. For a more particular description you are referred to a survey plat prepared by Likins and Musgrave dated record in Plat Book 5, Page Henderson County Clerk's Office.

The above being the same property acquired by Chris Daniel and Laveta R. Daniel, husband and wife by Warranty Deed dated April 30, 1986, of record in Deed Book 366, Page 403, in the Henderson County Clerk's office.

QLA: 8186

# Legal Description of Owner's Property

#### Parcel 1

Beginning at a stake in the east line of Robards and Busby Station Road 16 feet from Henry Punston's line, thence N 21-1/4 W 30 links to a stake on the east side of the above mentioned road in Ed Otey's line; thence with Ed Otey's line N 32 E 126 poles to a fence post in said line; thence S 74 E 35 poles 8 6/10 links to a stake, thence S 21 W 88 poles and 16 links to a stake, 16 feet at right angles from Henry Funston's line; thence S 77 W 69 poles and 21 links to the beginning, containing 30 acres, more or less.

70-6

Being the same property conveyed to Karl Wayne Dawson and wife, Lynn R. Dawson by deed recorded in Deed Book 520 page 622 in the Henderson County Court Clerk's office.

#### Parcel 2

TRACT 1: Beginning at a point corner to Dempsey Ligon in the line of public road leading from Robards to Busby Station; thence N. 27-16 W., 17.82 chains corner to Mrs. A. S. Denton on said public road; thence N. 76-15 E., 42.15 chains to a point, corner to F. A. Porter; thence S. 4-17 E. 28.75 chains to a point corner to F. A. Porter; thence S. 17-46 W., 9.70 chains to a point corner to F.A. Porter; thence N. 57-45 W., 34.83 chains to a point corner to Dempsey Ligon; thence S. 15-55 E., 6.12 chains to a point, corner to Dempsey Ligon; thence S. 8-01 W. 4.75 chains to the beginning. Containing 92.88 acres by survey and

plat made January, 1898, by Woodson Hopkins Civil Engineer of Henderson, Kentucky.

TRACT 2: A certain small piece of land lying with F. A. Porter, B. D. Ligon and J. H. Funston lands formerly cornered about 400 square feet for a pass-way for the above farm into a by-way pass, which leads to the country road.

LESS: The following described property conveyed to James Dale Sights and wife, Margaret Ann Sights, by Lola Sizemore, unmarried by deed dated January 6, 1978, of record in Deed Book 301, page 231, Henderson County Court Clerk's Office, to-wit:

A certain tract of land located approximately 1-1/2 miles north of Robards in Henderson County, Kentucky, and being more specifically described as follows: Beginning at an iron pin in the West line of the Dale Sights' property, said pin being located S. 4 deg. 17" E. 455.82 feet from the northwest corner of said Dale Sights' property and the South line of G. H. Spencer; thence with Sights' S. 4 deg. 17' E. 187.65 feet to an iron pin, corner to the Lola Overfield Sizemore property, at which this is a part; thence with the Sizemore remainder as follows: N. 84 deg. 20' W. 101.0 feet to an iron pin; N 27 deg. 01' W. 144.84 feet to an iron pin; and N. 72 deg. 28' E. 159.69 feet to the point of beginning, containing 0.476 acres.

ALSO LESS: A certain tract or parcel located on the northwest side of Kentucky Highway 283 approximately one mile north of the community of Robards in Henderson County, Kentucky, and being more specifically described as follows:

Beginning at an iron pin set in the northwest right-of-way line of Kentucky Highway 283, said iron pin also being located at the southeast corner of the Leo King Heirs property recorded in Deed Book 389, page 372, in the Henderson County Court Clerk's Office; thence with the east line of said King property, North 55° 46' 01" West, a distance of 1615.75 feet to an iron pin set in said King property line; thence severing the Lindsey Embry property recorded in Deed Book 460, page 146, of which this description is a part, the following five (5) calls: (1) South 79° 45' 28" East, a distance of 135.40 feet to a point located in the center of a ditch; (2) South 73° 19' 21" East, a distance of 244.29 feet to a point located in the center of a ditch; (3) North 75° 15' 22" East, a distance of 257.24 feet to a point located in

the center of a ditch; (4) North 69° 07' 30" East, a distance of 403.77 feet to a point located in the center of a ditch; and (5) North 68° 54' 58" East, a distance of 591.43 feet to an iron pin set in the west line of the William Chapman property recorded in Deed Book 450, page 173; thence with the west line of said Chapman property, the west line of the Jack Pepper property recorded in Deed Book 377, page 145, and the west line of the John Sights property recorded in Deed Book 357, page 145, South 01° 51 05" East, a distance of 644.94 feet to an iron pin set at a corner of said Sights property; thence continuing with said Sights property, South 20° 11' 55" West, a distance of 584.55 feet to an iron pin set in said right-of-way line of Kentucky Highway 283; thence with said right-of-way line, South 32° 57' 30" West, a distance of 52.05 feet to the point of beginning, containing 19.7303 acres and being subject to all legal written and unwritten easements and rights-of-way. This description was prepared from a physical survey conducted under the direction of Bruce K. Bailey, KY RLS #2939 on July 1, 1996.

This conveyance is subject to easements, restrictions, rights of way and mineral reservations of record, including, but not limited to that certain surface lease given by the Grantors herein to the Henderson Radio Control Model Airplane Club, Inc., of record in Deed Book 527, page 665, said clerk's office.

Being the same property conveyed to Lindsey Clay Embry by deed from Carolyn Hope Overfield, unmarried, and Tracey Overfield, unmarried, dated June 4, 1996, of record in Deed Book 460, page 146, Henderson County Clerk's Office.

# **Legal Description of Owner's Property**

# Parcel 1

Being all of Tracts 1-A (5.825 acres), 1-B (8.483 acres), 1-C (12.776 acres), 1-D (7.066 acres), 1-E (7.476 acres), I-F (5.029 acres), I-G (6.882 acres), 1-H (17.870 acres), 1-1 (5.062 acres), 14 (8.004 acres), 2-A (9.211 acres), 2-E (6.542 acres), and 2-F (7.148 acres), and Lots I-D (3.903 acres), I-B (3.712 acres), and 2-E (1.876 acres), of the Sandra Westerfield and Leroy Westerfield Subdivision, a plat of which is of record in Plat Book 5, pages 141 and 142, to which plat reference is made for a more particular description, the total acreage conveyed being 116.865 acres.

The above being the same property acquired by Johns Michael Dossett and Brenda Dossett, husband and wife and Chris Dossett and Shirley Dossett, husband and wife by Deed dated May 7, 1999, of record in Deed Book 485, Page 587, in the Henderson County Clerk's office.

QLA: 8325

# **EXHIBIT A TO EASEMENT**

# **Legal Description of Property**

#### Parcel 1

A tract of land in Henderson County, Ky., "Beginning at a stone in the middle of the Robards and Rock House Road, corner to lot No. 4 in the division of E. G. Eakins' estate, extending to a pin oak 6 inches bears north 4-3/4 E a distance of 25-1/3 links; thence with the middle of said road S 88 E 22.02 chains to a stone in the middle of said road, corner to the passway and one road N 88 W from the corner of lot No. 10; thence S 1-1/2 W 17.54 chains to a stone in the W line of the passway and corner to Lot No. 8 and one rod W of the line of Lot No. 10; thence N 88 W 21.97 chains to a stone in the line of Lot No. 4 and corner to Lot No. 8; thence N 1-1/2 E 17.49 chains to the beginning, containing 38 acres, and being the same property devised to Sarah E. Eakins by will of record in Will Book E, page 187, in the office of the Clerk of the Henderson County Court.

Being the same property conveyed to Grantors by Lee Eakins, a single person, by deed dated October 15, 1947, and of record in Deed Book 134 at page 193, Henderson County Court Clerk's Office.

#### Parcel 2

A certain tract of land situated in Henderson County, Kentucky, near Robards, and bounded as follows:

"Beginning at a stake in the middle of the Robards and Rock House Road, a corner to the east side of the passway 1 rod S 88 E from the corner of Lot #9; thence S 1-1/2 W 20 8.06 (?) chains to a stone in the east line of passway and 1 rod east of line of Lot No. 8 and corner to Lot No. 11 a sweet gum side line tree bears N 87 E distant 18-1/10 links; thence S 88 E 19-17/100 chains to a stone in the east line of the Enock Eakins tract and corner to Lot No. 11, a poplar fore and aft five inches in diameter N 30 E 20-23/100 chains to

a post and stone in the N of the Robards and Rockhouse Road, originally northeast corner of the Enoch Eakins tract, sweet gum, dogwood and hickory, originally corner tree down and gone; thence with north side of and with middle of said road N 88 W 17-60/100 to the beginning and containing 39 acres." (The above description taken from a copy of a deed on record at C. C. Office. Said copy made by Virginia E. Kellen, D.C.)

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated June 14, 1977, of record in Deed Book 295, Page 614, in the Henderson County Clerk's office.

#### Parcel 3

That certain parcel located in Henderson County Kentucky, near Robards, and near the Robards and Rock House Road, to wit:

Beginning at a stone near the Southeast corner of the barn and corner of Lot No. 4; thence N.1½° E. 11 16/100 chains to a stone in the line of No. 4 and corner of Lot No. 9; thence S. 88° E. 21 97/100 chains to a stone in the West line of passway and corner to Lot No. 9; thence S. 1½° W. 20 42/100 chains to a stone in West line of passway and corner to Lot No. 7; thence S. 88½° W. 15 74/100 chains to a stone in line of Lot No. 5 and corner to Lot No. 7; thence N. 1½° E. 9 80/100 chains to a stone, corner to Lot No. 5, a hickory 5 inches bears S. 43 ¾ W. distance 7 7/10 links and a sassafras 7 inches bears N. 20½ W. distance 17 1/3 links; thence due West 6 14/100 chains to the beginning.

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated April 28, 1965, of record in Deed Book 219, Page 400, in the Henderson County Clerk's office.

OLA: 9097

# **Legal Description of Owner's Property**

#### Parcel 1

The following property located in the County of Henderson, State of Kentucky, on the Tunnel-Hill Robards Road, as follows:

Beginning at a stake in the Robards and Tunnel Hill Road, corner with lot #4, runs with said roads. 76 15 E. 404 feet to a stake, corner with lot #2, thence S. 35 W. 1881.4 feet to a stake, corner with lot #2 in the W.A. Royster estate's line; thence N. 89 14 W. 398 feet to a stake, carrier with lot #4 in the line of the W.A. Royster estate; thence N. 3 35 E. 1973.2 feet to the beginning.

From the above described tact, there was conveyed to the Commonwealth of Kentucky, for highway purposes, a strip of ground containing approximately ½ acres, as shown by deed dated June 8, 1939, of record in Deed Book 94, Page 517, Henderson County Clerk's office. This conveyance is made subject to said highway deed and all of the property herein conveyed is subject to all legal rights of way.

Containing 17 acres, more or less.

Parcel No.: 61-33

#### Parcel 2

Beginning at a stake in Robards and Tunnel Hill Road corner with Lot #3; thence with said road S 76-15 E 473.6 feet to a stake, corner to Lot #1; thence S 3-35 W 1775.6 feet to a stake corner with Lot #1 in the line of W.A. Royster Estate; thence N 89-14 W 467.6 feet to a stake corner with Lot #3 in the line of W.A. Royster Estate; thence N 3-35 E 1881.4 feet to the beginning.

Being the same property conveyed to James C. Eblen and Joan Eblen (a/k/a Joan E. Eblen), husband and wife, by deed from Herbert Shaw and Marie Shaw, husband and wife, dated January 8, 1974, of record in Deed Book 270, Page 67, Henderson County Clerk's Office.

Containing 20 acres, more or less.

Parcel No.: 61-32

#### Parcel 3

Beginning at an iron pin corner to Tract #2, said pin being in the southern R/W of Ky. Hwy. 416, 30 feet from the centerline, and being approximately 2318 feet east of the intersection of W.N. Royster Road in Henderson County, Kentucky; thence with said R/W S 69°44'47" E-156.98 feet, S 67°26'34" E-262.92 feet to an iron pin corner to Wimberly C. Royster; thence with the line of Royster S 8°59'52" W-1988.59 feet to an iron pin in the line of Tract #5; thence with the line of Tract #5 N 82°30'11" W-398.40 feet to an iron pin corner to Tract #2; thence with the line of Tract #2 N 9°18'03" E-2087.19 feet to the point of beginning. For a more particular description

you are referred to a survey plat prepared by Likins and Musgrave dated \_\_\_\_\_\_, 1986, of record in Plat Book 5, Page 2, of the Henderson County Clerk's Office.

Being the same property conveyed to James C. Eblen and Joan E. Eblen, husband and wife, by deed from W.J. Tillman and Sherry Pl. Tillman, husband and wife, dated April 30, 1986, of record in Deed Book 366, page 548, Henderson County Clerk's Office.

Containing 19 acres, more or less.

Parcel No.: 61-34

#### Parcel 4

Being the New Lot #5 containing 18.0339 acres of the Consolidation to Lot 5, of the John and JoAnn Haynes Subdivision, of record in a Plat Book 6, page 257, Henderson County Court Clerk's office, and to which plat reference is hereby made for a more particular description.

A certain tract or parcel located on the north side of Ky Hwy 416 approximately 1.1 miles west of the town of Robards in Henderson County, Kentucky and being more specifically described as follows:

BEGINNING at an iron pin set in the north right-of-way line of Ky Hwy 416, said iron pin being located 30 feet north of the centerline of the existing pavement of said Ky Hwy 416, and being a corner to New Lot 1 of the John & Joann Haynes Subdivision & Consolidation, a plat of which is recorded in Plat Book 6, page 257; thence with said Lot 1, North 3° 16 minutes 03 seconds West, a distance of 657.53 feet to an iron pin set in the south line of the James Anderson property recorded in Deed Book 341, page 42; thence with said Anderson property, South 88° 30 minutes 01 seconds East, a distance of 1,253.89 feet to an iron pin set in the west line of the Arnold Taylor property; thence with said Taylor property, South 0° 44 minutes 39 seconds East, a distance of 525.20 feet to an iron pin set in the north right-of-way line of said Ky Hwy 416, and being located 30 feet north of said centerline; thence with said right-of-way line, running parallel with and 30 feet north of said centerline, the following four (4) calls:

- (1) South 80 degrees 25 minutes 31 seconds West, a distance of 787.83 feet to a point in said right-of-way line, said point being located South 21° 54 minutes 59 seconds East, 25.52 feet from an iron pin set on or near the west bank of a ditch;
- (2) South 79° 36 minutes 39 seconds West, a distance of

121:02 feet to the beginning of a curve in said right-ofway line;

(3) thence around said curve in a clockwise direction having a delta angle of 27° 29 minutes 14 seconds, and arc distance of 187.60 feet, a radius of 391.04 feet, and chord of North 86° 38 minutes 43 seconds West, a distance of 185.81 feet to the end of said curve;

(4) North 72° 54 minutes 06 seconds West, a distance of 147.97 feet to the point of beginning containing 785557 square feet or 18.0339 acres and being subject to all legal written and unwritten easements and rights-of-way. This description was prepared from a physical survey conducted under the direction of Bruce K. Bailey, Ky RLS # 2939 on January 28, 1993.

No minerals are included in this conveyance.

Being a portion of the same property conveyed to Grantor herein by a deed from May Spencer Thornberry and her husband, E. T. Thornberry to John William Haynes (now deceased) and wife, Johnn Haynes, dated June 8, 1984, of record in Deed Book 351, page 225, Henderson County Court Clerk's office, and deed dated January 15, 1985 of record in Deed Book 362, page 487, and deed dated January 30, 1986, of record in Deed 372, page 262, all in Henderson County Court Clerk's office. For deed of conveyance to southern portion of Lot 1 (2.928 acres), see Deed Book 393, page 415, same office. Said John William Haynes died September 30, 1991, thereby vesting full ownership in Grantor by virtue of survivorship.

Containing 18 acres, more or less.

Parcel No.: 71-46.2

QLA: 7900

# **Legal Description of Property**

FARM 1 Totaling approximately 127 acres PVA 60-70

TRACT 1: Beginning at a stake in the original line in the center of the Frog Island road, corner to Enoch Spencer; thence with the center line of the road N. 57-3/4 W. 69 poles to a dead oak in the said road; thence N. 61 W. 8 poles to a stake in the said road and corner to the lot No. 6, thence with a line to said lot No. 6 N. 5-1/4 E. 87 poles to a stake in Enoch Spencer's line corner to lot No. 6; thence with a line of Enoch Spencer S. 65 E. 123 poles and 14 links to a stake corner to Enoch Spencer; thence with said Spencer's line S. 21-23' W. 16 poles and 10 links to a pin oak; thence S. 31 poles and 6 links to a dead black oak corner to said Spencer; thence with a line of the 14 ½ acre tract described below here-in and N. 65 W. 48 poles and 5 links to a stake where a mulberry and double elm were called for in former survey; thence S. 5 ½ W. 48 poles to the beginning, containing 53 acres; and being the same land conveyed to J. Elliott Denton by Eddie F. Denton and Henrieta Denton, his wife, by deed dated December 1, 1927, recorded in Deed Book 75 at page 76.

TRACT 2: Beginning at a stone at an angle of the Frog Island road, corner with E. N. Royster in Dick Spencer's line; thence N. 1-3/4 E. 55 poles and 21 links to a stake in Dick Spencer's line; thence with a line of the above described 53 acres and N. 64-9' W. 48 poles to a point where an Elm was called for in a former deed; thence with another line of said 53 acre tract S. 6-24' W. 48 poles and 14 links to a stake in said road; thence with said road S. 59 E. 54 poles and 28 links to the beginning, containing 14 ½ acres; and being the same land conveyed to J. Elliott Denton by Eddie F. Denton and Henrieta Denton, his wife, by deed dated December 1, 1927, recorded in Deed Book 75 at page 76.

TRACT 3: Beginning at a stake in the middle of the public road corner to Byars; thence S 14 ½ W. 12.17 chains to a stake corner to Byars in Denton's line; thence N. 60 W. 16.55 chains to stake between and Ash and Elm corner to Elliott Denton; thence N. 32 ½ E. 10.69 chains to a stake in the middle of the public road corner to Elliott Denton; thence with the middle of the public road S. 57 E. 4.33 chains, S. 68-3/4 E. 8.74 chains to the beginning, containing 17.19 acres, except the graveyard containing about 0.13 of an acre which is reserved; and being the same land conveyed to J. Elliott Denton by Mary Olive Howard and W. W. Howard, her husband, by deed dated April 20, 1917, recorded in Deed Book 55 at page 8.

TRACT 4: Being a parcel of land in Henderson County, Kentucky, beginning on a lane leading from the Frog Island road in the line of E. L. Spencer, running S. 23 ½ W. 27.70 chains with said Spencer's line; thence S. 62 ½ E. 19.30 chains with Jane Davis line to Fred Schaeffer's land; thence with Schaeffer's line N. 30 E. 15.90 chains to Book's property; thence N. 32 E. 10.75 chains to a double Ash; thence in a northerly direction to a point in the line of said lane; thence with the line of said lane N. 72 ½ W. 11.84 chains to the beginning, containing 42.88 acres; and being the same land conveyed to J. Elliott Denton by James Murray, unmarried, by deed dated January 1, 1912, recorded in Deed Book 50 at Page 17.

Being the same property conveyed to Harpie L. Denton, by deed from Lucille D. Sellers and M.C. Sellers, her husband, et al, dated July 8, 1954, of record in Deed Book 168, page 395, Henderson County Clerk's Office. Harpie Lee Denton, a/k/a Harpie L. Denton, a/k/a Harpie Royster Denton, died intestate a resident of Henderson County on May 9, 1970, leaving her children, Lucille D. Sellers, Slater A. Denton and Mildred Gardner, as her only heirs at law. See affidavit of descent of record in Deed Book 261, page 14, in the aforesaid clerk's office. Slater A. Denton died testate a resident of Henderson County. His will of record in Will Book 25, page 51, in the aforesaid clerk's office, devised his Interest to Lucille Sellers and Mildred Gardner. Lucille D. Sellers, a/k/a Lucille Sellers, died testate a resident of Ocoee County, Georgia, on September 21, 2004. Her will of record in Will Book 33, page 554, in the aforesaid clerk's office, devised her interest to

her children, James Randolph Sellers, a/k/a James R. Sellers, and Malcolm Edward Sellers, a/k/a Malcolm E. Sellers. Mildred Joy Gardner, a/k/a Mildred Gardner, died testate a resident of Henderson County. Her will of record in Will Book 44, page 791, in the aforesaid clerk's office, devised her interest to Pamela Joy Gardner and Janet Kay Gardner. See also affidavit of real property transfer of record in Deed Book 613, page 592, in the aforesaid clerk's office. James Randolph Sellers died, and pursuant to his Last Will and Testament, of record in Will Book 49, page 445, he left all of his interest in the property to his wife, Nena Estes Henry, Grantor herein.

# FARM 2 Totaling approximately 43 acres PVA 60-37.1

Beginning at a stake in Frog Island Road at Road Fork, corner with Josie Handley, runs with Gravel Road and said Handley S. 86 deg. 40 min. E. 1993 feet to a nail in said road, corner with Irvin Hunter in Josie Handley line; thence with said Irvin Hunter as follows, 5. 12 deg. 22 min. W. 1111 feet to a stake; and thence N 79 deg. 31 min. W. 1594 feet to a nail in Frog Island Road, corner with Irvin Hunter; thence with said road as follows: S. 24 deg. 45 min. E. 112 feet; and S. 30 deg. 29 min. E. 372 feet to a nail in said road corner with Irvin Hunter and M. F. Puryear; thence with said Puryear as follows: S. 88 deg. 37 min. W. 412 feet to a stake; N. 3 deg. 38 min W. 253 feet to a stake; N. 87 deg. 18 min. W. 319 feet to a stake; and thence South 283 feet to a stake, corner with M. F. Puryear; thence N 57 deg. 33 min. W. 1301 feet; thence N. 57 deg. 38 min. W. 1067 feet to a post and stake corner with Owen Spencer and Liggett Brothers; thence with said Liggett Brothers, N. 28 deg. 52 min. E. 1450 feet to a nail in Frog Island Road, corner with Liggett Brothers and Elliott Denton Heirs; thence with said Frog Island Road and Denton Heirs as follows: S. 54 deg. 53 min. E. 770 feet; and S. 57 deg. 06 min. E. 787 feet to a nail in said Road, corner with Elliott Denton Heirs and Josie Handley; thence with said Handley as follows: S. 6 deg. 49 min. W. 320 feet to a stake; and thence N 88 deg. 41 min. E. 373 feet to the place of beginning, containing 117.5 acres, subject to all legal Highways, in accordance with survey of W. W. Poole Registered Engineer, dated June 19, 1956.

LESS AND EXCEPT: 70.653 acres as shown on plat of record in Plat 8ook 10, page 158, Henderson County Clerk's Office, and to which plat reference is hereby made for a more particular description of the property.

ALSO LESS AND EXCEPT: 3.56 acres as shown on plat of record in Plat Book 7, page 798, Henderson County Clerk's Office, and to which plat reference is hereby made for a more particular description of the property. This conveyance is subject to easements, restrictions, rights of way and mineral reservations of record.

Being a portion of the same property conveyed to Fannie W. Royster and E. N. Royster, her husband, as tenants in common, by deed from Samuel Spencer and Virginia Spencer, his wife, dated November 5, 1879, of record in Deed Book 5, page 186, in the Henderson County Clerk's Office. Also being a portion of the same property conveyed to Enoch N. Royster, from Thomas Spencer and Mary C. Spencer, his wife, dated April 27, 1881, of record in Deed Book 6, page 406, in the aforesaid clerk's office. Also being the same property conveyed to E. N. Royster, from Thomas Spencer and his wife, Marcy C. Spencer, dated February 13, 1886, of record in Deed Book 11, page 496, in the aforesaid clerk's office. Also being the same property conveyed to E. N. Royster, from W. N. Royster and T. J. Royster, his wife, dated March 21, 1887, of record in Deed Book 12, page 227, In the aforesaid clerk's office. E. N. Royster, a/k/a Enoch N. Royster, died intestate a resident of Henderson County on June 16, 1928, leaving his wife, Fannie Royster, a/k/a Fannie W. Royster, and his children, Charles E. Royster, a/k/a C. E. Royster, and Harpie Royster Denton, a/k/a Harpie L. Denton, as his only heirs at law. See affidavits of descent of record in Deed Book 128, page 519, and Deed Book 159, page 505, in the aforesaid clerk's office. Fannie W. Royster, a/k/a Fannie Royster, died intestate a resident of Henderson County on October 26, 1946, leaving her children, Charles E. Royster a/k/a C. E. Royster, and Harple Royster Denton, a/k/a Harple L. Denton, as her only heirs at law. See affidavit of descent of record in Deed Book 620, page 205, in the aforesaid clerk's office. C. E. Royster, a/k/a Charles E. Royster, died intestate a resident of Henderson County on July 25, 1955, leaving his wife, Cornelia E. Royster, and his son, Elward N. Royster, as his only heirs at law. See affidavit of descent of record in Deed Book 179, page 12, in the aforesaid clerk's office. See also deed to Elward N. Royster and Freda May Royster, his wife, from Cornelia E. Royster, widow, dated June 26, 1956, of record in Deed Book 179, page 13, in the aforesaid clerk's office. See also deed to Harpie L. Denton, from Elward N. Royster and Freda May Royster, his wife, dated November 12, 1956, of record in Deed Book 181, page 173, in the aforesaid clerk's office. Harpie Lee Denton, a/k/a Harpie L. Denton, a/k/a Harpie Royster Denton, died intestate a resident of Henderson County on May 9, 1970, leaving her children, Lucille D. Sellers, Slater A. Denton and Mildred Gardner, as her only heirs at law. See affidavit of descent of record in Deed Book 261, page 14, in the aforesaid clerk's office. Slater A. Denton died testate a resident of Henderson County. His will of record in Will Book 25, page 51, in the aforesaid clerk's office, devised his interest to Lucille Sellers and Mildred Gardner. Lucille D. Seller, a/k/a Lucille Seller, died testate a resident of Ocoee County, Georgia, on September 21, 2004. Her will of record in Will Book 33, page 554, in the aforesaid clerk's office, devised her interest to her children, James Randolph Sellers, a/k/a James R. Sellers, and Malcolm Edward Sellers, a/k/a Malcolm E. Sellers. Mildred Joy Gardner, a/k/a Mildred Gardner, died testate a resident of Henderson County. Her will of record in Will Book 44, page 791, in the aforesaid clerk's office,

devised her interest to Pamela Joy Gardner and Janet Kay Gardner. See also affidavit of real property transfer of record in Deed Book 613, page 592, in the aforesaid clerk's office. James Randolph Sellers died, and pursuant to his Last Will and Testament, of record in Will Book 49, page 445, he left all of his interest in the property to his wife, Nena Estes Henry, Grantor herein.

# **Legal Description of Property**

The following described property is located on the North side of Kentucky, Highway 416, between Robards and U.S. Highway 41, Henderson County, Kentucky, to wit:

Beginning at a stake, 372 feet southwest from the north corner of the house and Lot Tract No. 1 of Harry Woods and wife, runs with said Woods house Tract No. 1, as follows: from the west right-of-way of the Robards-Niagara Road, N 39 deg. 30' W 212 feet to a stake in

ditch; thence with said ditch and house tract; N 47 deg. 15' E 133 feet; East 95 feet; and N 47 deg. 30' E 242 feet to a stake in ditch, comer with the house tract of 1.8 acres; thence S 29 deg. E 212 feet to a stake in the west right-of-way line of the Robards-Niagara Road, corner with the 1.8 acre house tract; thence with said right-of-way line; N 50 deg. 30' E 218 feet to an iron stake corner with the Russell land; thence with said Russell land; N 51 deg. 56' W 1500 feet to an iron stake, corner with said Russell Land in Clay Tapp's line; thence with said Tapp; S 8 deg. 27' W 1465 feet to a stake in ditch, corner with Dorris Keach in Clay Tapp's line; thence with said Keach and ditch as follows: S 36 deg. E 95 feet; S 68 deg. E 305 feet; and S 18 deg. 15' E 130 feet to a stake in ditch, corner with Dorris Keach in the west right-of-way line of the Robards-Niagara Road; thence with said right-of-way line: N 50 deg. 30' E 738 feet to the place of beginning, containing 27 acres. According to survey of W.W. Poole, registered Engineer N. 2689.

LESS & EXCEPT: A three-fourths (3/4) interest in all minerals, including oil and gas, in and underlying the above described property, the same having been previously excepted and reserved.

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated July 8, 2004 of record in Deed Book 532, Page 772, in the Henderson County Clerk's office.

QLA: 9063

#### **Legal Description of Property**

## 81.71 acres Highway 416 W., Robards

Tract 1: Beginning at a stake near a sassafras post and small hickory in J. W. Ligon's line and corner to Hub Toy; thence N 8 E 132 poles and 14 links to a sweet gum and hickory, corner to A. O. Edwards; thence S 64 ½ E 62 poles and 11 links to a stake between two post oaks, corner to J. P. Triplett; thence \_\_ 7 ½ E 113 poles and 5 links to a stake, corner to Hub Toy; thence N 83 ½ W 61 poles to the beginning, containing 46 ½ acres. Also an 18 foot passway beginning at the corner near the house across the North side of Joe Bridwell to the Knoblick Road, near Thomas J. Eblen.

Tract 2: Beginning at a stone on the south side of the Knoblick Road and corner to R. S. Triplett heirs; thence N 7.35 E 78 poles to a stake in Wm. Crowder line, corner to Alex Reeder; thence N 83 ¼ W 61 poles to a stake near a sassafras, post oak and small hickory, also a corner to said Reeder in J. W. Ligon's line; thence S 8 W 131 poles and 18 links to a stake, corner to R. S. Triplett heirs on the west side of the Knoblick Road; thence N 51 E with meanderings of said Knoblick Road 81 ½ poles to the beginning, containing 40 acres.

Containing in all 86 ½ acres, more or less, but subject to legal highways and rights of way.

LESS AND EXCEPT the following property conveyed by deed of record in Deed Book 281, page 172, in the Henderson County Clerk's Office.

A certain lot of ground located approximately ½ mile east of Robards, Kentucky, on the north side of Kentucky 416 and further described as follows: Beginning 30 feet from the center of Ky. No. 416 and 14 feet from the center of a passway running between Luther Bowley and Keach property; thence with the east side of said passway, N 35°50′ W, 58.11 feet; N 10°43′ W, 26.23 feet; N 0°28′ E, 613.43 feet to a corner to Doris Keach remainder tract; thence N 72°49′ E, 286.70 feet and S 23°18′ E, 371.07 feet to the north line of Ky. No. 416; thence with Ky. No. 416, S 44°32′26″ W, 330.67 feet; S 42°58′ W, 93.62 feet, S 38°37′ W, 86.25 feet, and S 32°02′ W, 69.46 feet to the point of beginning and containing 4.587 acres.

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated May 14, 2019, of record in Deed Book 637, Page 452, in the Henderson County Clerk's office.

QLA: 9061

# Legal Description of Property

A certain tract or parcel of land located in Henderson County, Kentucky being more particularly described as follows:

Beginning at the intersection of the west right-of-way line of U.S. Hwy 41 and the centerline of Kings Creek, said intersection point being located 50 feet perpendicularly west of the centerline of the existing pavement of said U.S. Hwy 41, said right-of-way line being as established by the conveyance of excess right-of-way to E.B. & Florence Griffin in Deed Book 350 Page 299, and said point of intersection being located South 41 degrees 18 minutes 48 second East, 75.00 feet from a set witness monument; thence with the centerline of said King's Creek, as it meanders, but reduced to the following the following thirty-three (33) straight line segments;

- (1) NORTH 87 DEGREES 30 MINUTES 31 SECONDS WEST, a distance of 44.45 feet to a point;
- (2) NORTH 81 DEGREES 57 MINUTES 51 SECONDS WEST, a distance of 37.26 feet to a point;
- (3) NORTH 88 DEGREES 09 MINUTES 09 SECONDS WEST, a distance of 26.92 feet to a point:
- (4) NORTH 78 DEGREES 56 MINUTES 37 SECONDS WEST, a distance of 76.95 feet to a point;
- (5) NORTH 60 DEGREES 21 MINUTES 42 SECONDS WEST, a distance of 28.96 feet to a point;
- (6) NORTH 25 DEGREES 54 MINUTES 23 SECONDS WEST, a distance of 33.78 feet to a point;
- (7) NORTH 05 DEGREES 30 MINUTES 36 SECONDS EAST, a distance of 30.44 feet to a point;
- (8) NORTH 10 DEGREES 23 MINUTES 20 SECONDS EAST, a distance of 21.18 feet to a point;
- (9) NORTH 10 DEGREES 45 MINUTES 03 SECONDS EAST, a distance of 27.92 feet to a point;
- (10) NORTH 00 DEGREES 31 MINUTES 25 SECONDS EAST, a distance of 37.99 feet to a point;
- (11) NORTH 00 DEGREES 36 MINUTES 11 SECONDS EAST, a distance of 32.99 feet to a point;
- (12) NORTH 06 DEGREES 20 MINUTES 27 SECONDS WEST, a distance of 23.84 feet to a point;
- (13) NORTH 03 DEGREES 24 MINUTES 10 SECONDS WEST, a distance of 40.22 feet to a point;
- (14) NORTH 22 DEGREES 51 MINUTES 24 SECONDS EAST, a distance of 26.26 feet to a point;
- (15) NORTH 04 DEGREES 36 MINUTES 38 SECONDS WEST, a distance of 27.00 feet to a point;
- (16) NORTH 29 DEGREES 53 MINUTES 33 SECONDS WEST, a distance of 20.90 feet to a point;
- (17) NORTH 39 DEGREES 17 MINUTES 51 SECONDS WEST, a distance of 233.21 feet to a point;

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated December 27, 2016, of record in Deed Book 621, Page 586, in the Henderson County Clerk's office.

OLA:8914

# **EXHIBIT A TO FORM OF NOTICE**

## **Legal Description of Property**

A certain tract or parcel of land located in Henderson County, Kentucky being more particularly described as follows:

Beginning at the intersection of the west right-of-way line of U.S. Hwy 41 and the centerline of Kings Creek, said intersection point being located 50 feet perpendicularly west of the centerline of the existing pavement of said U.S. Hwy 41, said right-of-way line being as established by the conveyance of excess right-of-way to E.B. & Florence Griffin in Deed Book 350 Page 299, and said point of intersection being located South 41 degrees 18 minutes 48 second East, 75.00 feet from a set witness monument; thence with the centerline of said King's Creek, as it meanders, but reduced to the following the following thirty-three (33) straight line segments;

- (1) NORTH 87 DEGREES 30 MINUTES 31 SECONDS WEST, a distance of 44.45 feet to a point;
- (2) NORTH 81 DEGREES 57 MINUTES 51 SECONDS WEST, a distance of 37,26 feet to a point;
- (3) NORTH 88 DEGREES 09 MINUTES 09 SECONDS WEST, a distance of 26.92 feet to a point;
- (4) NORTH 78 DEGREES 56 MINUTES 37 SECONDS WEST, a distance of 76.95 feet to a point;
- (5) NORTH 60 DEGREES 21 MINUTES 42 SECONDS WEST, a distance of 28.96 feet to a point;
- (6) NORTH 25 DEGREES 54 MINUTES 23 SECONDS WEST, a distance of 33.78 feet to a point;
- (7) NORTH 05 DEGREES 30 MINUTES 36 SECONDS EAST, a distance of 30.44 feet to a point;
- (8) NORTH 10 DEGREES 23 MINUTES 20 SECONDS EAST, a distance of 21.18 feet to a point;
- (9) NORTH 10 DEGREES 45 MINUTES 03 SECONDS EAST, a distance of 27.92 feet to a point; (10) NORTH 00 DEGREES 31 MINUTES 25 SECONDS EAST, a distance of
- 37.99 feet to a point; (11) NORTH 00 DEGREES 36 MINUTES 11 SECONDS EAST, a distance of
- 32.99 feet to a point; (12) NORTH 06 DEGREES 20 MINUTES 27 SECONDS WEST, a distance of
- 23.84 feet to a point; (13) NORTH 03 DEGREES 24 MINUTES 10 SECONDS WEST, a distance of 40.22 feet to a point;
- (14) NORTH 22 DEGREES 51 MINUTES 24 SECONDS EAST, a distance of 26.26 feet to a point;
- (15) NORTH 04 DEGREES 36 MINUTES 38 SECONDS WEST, a distance of 27.00 feet to a point;
- (16) NORTH 29 DEGREES 53 MINUTES 33 SECONDS WEST, a distance of 20.90 feet to a point;
- (17) NORTH 39 DEGREES 17 MINUTES 51 SECONDS WEST, a distance of 233.21 feet to a point;

- (18) NORTH 48 DEGREES 14 MINUTES 46 SECONDS WEST, a distance of 72.63 feet to a point:
- (19) NORTH 74 DEGREES 13 MINUTES 09 SECONDS WEST, a distance of 62,24 feet to a point;
- (20) NORTH 55 DEGREES 33 MINUTES 40 SECONDS WEST, a distance of 36.84 feet to a point;
- (21) NORTH 64 DEGREES 13 MINUTES 50 SECONDS WEST, a distance of 27.95 feet to a point;
- (22) due WEST, a distance of 24.74 feet to a point;
- (23) NORTH 56 DEGREES 38 MINUTES 55 SECONDS WEST, a distance of 88.35 feet to a point;
- (24) NORTH 70 DEGREES 54 MINUTES 23 SECONDS WEST, a distance of 42.99 feet to a point;
- (25) NORTH 75 DEGREES 57 MINUTES 50 SECONDS WEST, a distance of 47.24 feet to a point;
- (26) NORTH 47 DEGREES 20 MINUTES 49 SECONDS WEST, a distance of 89.94 feet to a point, and being located South 86 degrees 23 minutes 44 seconds West, 32.84 feet from a witness monument set;
- (27) NORTH 63 DEGREES 05 MINUTES 00 SECONDS WEST, a distance of 37.97 feet to a point;
- (28) NORTH 46 DEGREES 46 MINUTES 44 SECONDS WEST, a distance of 59.32 feet to a point;
- (29) NORTH 62 DEGREES 46 MINUTES 17 SECONDS WEST, a distance of 60.33 feet to a point;
- (30) NORTH 32 DEGREES 38 MINUTES 54 SECONDS WEST, a distance of 51.65 feet to a point;
- (31) NORTH 34 DEGREES 27 MINUTES 26 SECONDS WEST, a distance of 134.86 feet to a point;
- (32) NORTH 45 DEGREES 43 MINUTES 31 SECONDS WEST, a distance of 29.10 feet to a point;
- (33) NORTH 12 DEGREES 12 MINUTES 39 SECONDS WEST, a distance of 127.43 feet to the juncture of the centerline of said King's Creek and the centerline of the Barren Creek;

thence with the centerline of said Barren Creek as it meanders, but reduced to the following twenty-three (23) straight line segments:

- (1) NORTH 67 DEGREES 45 MINUTES 50 SECONDS WEST, a distance of 96.14 feet to a point;
- (2) NORTH 68 DEGREES 18 MINUTES 39 SECONDS WEST, a distance of 123.31 feet to a point;
- (3) NORTH 80 DEGREES 56 MINUTES 32 SECONDS WEST, a distance of 30.33 feet to a point;

(4) NORTH 63 DEGREES 15 MINUTES 17 SECONDS WEST, a distance of 30.86. feet to a point;

(5) NORTH 36 DEGREES 17 MINUTES 07 SECONDS WEST, a distance of 42.54 feet to a point;

(6) NORTH 18 DEGREES 43 MINUTES 59 SECONDS WEST, a distance of 105.05 feet to a point;

(7) NORTH 07 DEGREES 17 MINUTES 53 SECONDS WEST, a distance of 129.84 feet to a point, being located South 32 degrees 51 minutes 24 seconds West, 31.75 feet from a witness monument set;

(8) NORTH 20 DEGREES 37 MINUTES 25 SECONDS WEST, a distance of 51.75 feet to a point;

(9) NORTH 00 DEGREES 49 MINUTES 49 SECONDS WEST, a distance of 35.94 feet to a point

(10) NORTH 17 DEGREES 46 MINUTES 04 SECONDS WEST, a distance of 49.50 feet to a point:

(11) NORTH 03 DEGREES 07 MINUTES 20 SECONDS WEST, a distance of 28.69 feet to a point;

(12) NORTH 28 DEGREES 03 MINUTES 22 SECONDS WEST, a distance of 107.41 feet to a point;

(13) NORTH 16 DEGREES 26 MINUTES 03 SECONDS WEST, a distance of 37.74 feet to a point;

(14) NORTH 03 DEGREES 18 MINUTES 07 SECONDS EAST, a distance of 27.13 feet to a point;

(15) NORTH 30 DEGREES 57 MINUTES 50 SECONDS WEST, a distance of 36.44 feet to a point;

(16) NORTH 01 DEGREES 13 MINUTES 55 SECONDS WEST, a distance of 48.45 feet to a point;

(17) NORTH 27 DEGREES 51 MINUTES 23 SECONDS WEST, a distance of 56.85 feet to a point;

(18) NORTH 22 DEGREES 50 MINUTES 01 SECONDS WEST, a distance of 85.90 feet to a point;

(19) NORTH 11 DEGREES 56 MINUTES 59 SECONDS WEST, a distance of 50.31 feet to a point;

(20) NORTH 16 DEGREES 12 MINUTES 32 SECONDS WEST, a distance of 139.94 feet to a point;

(21) NORTH 11 DEGREES 35 MINUTES 04 SECONDS WEST, a distance of 95.97 feet to a point;

(22) NORTH 01 DEGREES 54 MINUTES 56 SECONDS EAST, a distance of 77.91 feet to a point;

(23) NORTH 38 DEGREES 05 MINUTES 08 SECONDS WEST, a distance of 76.09 feet to a point in the centerline of said King's Creek, being in the east line of the Presbyterian Church of Henderson property recorded in Deed Book 375 Page 246, said property being Lot 6 in the Division of the Enoch G. Eakins property as

described in Will Book E Page 174 and a plat of which is shown in said will at page 186, and which point is located South 10 degrees 28 minutes 20 seconds West, 45.87 feet from a witness monument set and located North 5 degrees 52 minutes 05 seconds East, 348.15 feet from a 5/8 inch iron pin with no cap found at the southeast corner of said Church property;

thence with the east line of said Church property and then with the Bernard & Martha Jean Busby property known as Lot 5 in said Enoch G. Eakins division, which Busby deed is recorded in Deed Book 561 Page 282, NORTH 05 DEGREES 52 MINUTES 05 SECONDS EAST, a distance of 1313.73 feet to an iron pin set in the east line of said Busby property, and being the southwest corner of the Marion Lee Eakins property known as Lot 8 of said Enoch G. Eakins division, and which Eakins deed is recorded in Deed Book 219 Page 400; thence with said Eakins property, SOUTH 85 DEGREES 41 MINUTES 39 SECONDS EAST, a distance of 1021.26 feet to an iron pin set in the west line of 16.5 foot passway as described in said will of Enoch G. Eakins; thence with the west line of said 16.5 foot passway, SOUTH 06 DEGREES 28 MINUTES 13 SECONDS WEST, a distance of 182.93 feet to an iron pin set at the southwest corner of the end of said passway; thence with the end of said passway, SOUTH 84 DEGREES 37 MINUTES 51 SECONDS EAST, passing a 5/8" sucker rod (female end up), no cap found 0.13 feet to the right of the line at a distance of 16.57 feet, which sucker rod is near the southwest corner of Parcel 2 of the Dennis Branson remainder property recorded in Deed Book 603 Page 997, and then with the south line of said Branson property, which south line is also the south line of Lot II of said Enoch G. Eakins division, and passing an iron pin found on line at a distance of 81.71 feet from the terminus, a total distance of 722.21 feet to an iron pin set in the west right-of-way of said U.S. Hwy 41 as described in said Deed Book 350 Page 299, and being located 50 feet perpendicularly west of the centerline of the existing pavement of said U.S. Hwy 41; thence with said right-of-way line, running parallel with and 50 feet perpendicularly west of said centerline, SOUTH 02 DEGREES 37 MINUTES 13 SECONDS WEST, passing iron pins set on line as 1000.00 feet, 2000.00 feet, and 3000.00 feet, a total distance of 3439.12 feet to the point of beginning containing 109.766 acres and being subject to all legal easements and rights of way. This description was prepared from a physical survey conducted under the direction of Dennis E. Branson, of Branson Surveys, Inc. Ky PLS #2532 on December 14, 2016. All monuments cited herein as "iron pin set" are 5/8 inch smooth-sided iron rods, 18 inches in length with a plastic cap bearing the number 2532. This survey includes portions of Tracts 1,2,6,7 all of Tract 3 as shown in Deed Book 230 Page 402 and all of the property shown in Deed Book 350 Page 299.

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated December 27, 2016, of record in Deed Book 621, Page 586, in the Henderson County Clerk's office.

## **Legal Description of Property**

That certain tract of land located in Henderson County, Kentucky, and more particularly described as follows:

BEGINNING at an iron pin in the north right-of way of the Louisville and Nashville Railroad Anaconda Spur, said pin being north 18 degrees 23 minutes 51 seconds east of centerline station 40 + 80.57 and being a corner to George Kyle and being about 800 feet west of Highway 41 in Henderson County, Kentucky; thence with the north right-of-way of said railroad north 71 degrees 36 minutes .09 seconds west 2976.88 feet to an iron pin, said pin being the P.T. station number 11 + 03.69 of a 6 degrees 42 minutes 08 seconds curve; thence with said curve 689.6 feet to the P.C. of said curve (station 3 + 33.83) the chord being north 48 degrees 30 minutes 24 seconds west 671.09 feet; thence continuing with the Right-of-way of the Louisville and Nashville Railroad Anaconda Spur north 30 degrees 21 minutes 40 seconds west 185.99 feet to a point in the Right-of-way of the mainline of the Louisville and Nashville Railroad, said point being 100 feet east of station 6532 + 81; thence with the Right-of-way of said mainline north 19 degrees 39 minutes 40 seconds west 646.52 feet to a point in a drainage ditch; thence with the ditch south 88 degrees 51 minutes 20 seconds west 46.80 feet to a point and south 57 degrees 33 minutes 20 seconds west 21.11 feet to a point 35 feet from the center of said mainline; thence with

and parallel to said mainline north 19 degrees 39 minutes 40 seconds west 215.98 feet to an iron pin corner to the George Hoffman Estate (station 6541 + 53.69); thence with the line of Hoffman south 79 degrees 39 minutes 05 seconds east 1337.16 feet to an iron pin, north 7 degrees 17 minutes 09 seconds east 2154.87 feet to an iron pin, south 87 degrees 02 minutes 54 seconds east 1145.87 feet to an iron pin and thence north 7 degrees 13 minutes 52 seconds east 337.92 feet to a point in the

center of King's Creek and being a corner to E. B. Griffin; thence with the line of Griffin and the center of said creek as follows: South 39 degrees 39 minutes 35 seconds east 56.48 feet; South 3 degrees 11 minutes 23 seconds East 38,14 feet; South 15 degrees 10 minutes 56 seconds East 459.84 feet; South 15 degrees 30 minutes 48 seconds East 265,12 feet; South 14 degrees 25 minutes 19 seconds East 390.71 feet; South 44 degrees 35 minutes 26 seconds East 63.14 feet; South 71 degrees 00 minutes 11 seconds East 64,22 feet; South 69 degrees 41 minutes 59 seconds East 151.00 feet; South 46 degrees 44 minutes 35 seconds East 54,75 feet; South 12 degrees 56 minutes 33 seconds East 96.91 feet; South 33 degrees 26 minutes 43 seconds East 211.38 feet; South 53 degrees 48 minutes 53 seconds east 225.24 feet; South 64 degrees 14 minutes 35 seconds east 145.86; South 69 degrees 25 minutes 13 seconds east 71.81 feet; South 65 degrees 55 minutes 02 Seconds East 121.93 feet; South 46 degrees 07 minutes 46 seconds east 241.72 feet; South 22 degrees 56 minutes 03 seconds East 114.00 feet; South D degree 55 minutes 49 seconds East 267.70 feet, and South 75 degrees 55 minutes 36 seconds east 128.90 feet to a point in the West Right-of-way of U.S. Highway 41, said point being 141 feet from the center of said highway; thence with the Right-of-way of said Highway South 2 degrees 47 minutes 10 seconds West 198.82 feet to an iron pin, South 8,7 degrees 12 minutes 50 seconds East 20.00 feet to an iron pin, South 2 degrees 47 minutes 10 seconds West 569.46 feet to an iron pin, said pin being the P.T. of a 0 degree 58 minutes 46 seconds curve at station 27+80.54; thence with said curve a chord south 2 degrees 05 minutes 26 seconds west 144.89 feet to an iron pin corner to Robert O'Nan; thence with the line of O'Nan North 72 degrees 02 minutes 27 seconds west 214,54 feet to an iron pin, south 14 degrees 15 minutes 12 seconds west 183.69 feet to an iron pin, and south 72 degrees 58 minutes 29 seconds east 14.11 feet to an iron pin corner to George Kyle, said pin being in the center of Robards Road (now closed); thence with the center of said closed road and the line of George Kyle south 17 degrees 24 minutes 00 seconds west 1112.52 feet to the point of beginning, containing 239.744 acres.

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated December 11, 1986, of record in Deed Book 373, Page 276, in the Henderson County Clerk's office.

QLA: 9127

## EXHIBIT A --

## **Legal Description of Owner's Property**

The following described tracts are located Henderson County, Kentucky:

<u>TRACT 1</u>: A certain tract or parcel of land lying in the county of Henderson, state of Kentucky, on the L & N R.R. near Robards, the same being part of a tract of 100 acres of land conveyed to Saml. E. King by S. A. Young, Commissioner, by deed recorded in Commissioner's Deed Book 1, page 215, in the Henderson County Court Clerk's Office, the part hereby conveyed being bounded as follows: Beginning at a point on the L & N R.R. where said R.R. crosses the south line of the original tract of 100 acres, thence with said original line west to a post oak corner to Eblen and original

beginning corner of the tract of which this is a part, thence with another original line of the whole tract N. 29 deg. E. to L & N R.R. thence with said R.R. to the beginning, containing about 30 acres, more or less.

TRACT 2: A certain tract or parcel of land lying in the county and state aforesaid, near the town of Robards, Kentucky, and bounded as follows: Beginning at a stake in line of Lot #1 corner to Lot #4; thence N 65-1/2 W. 170 p. and 8 1 to a stake, corner to Lot #4; thence S. 22 W. 23 p and 9 L to a stake corner to Lot #6; thence S. 65-1/2 E. 176 P. and 12 L. to a stake in line Lot #1 corner to Lot #6; thence N. 6-1/2 E. 24 P & 13 links to the beginning, containing 26 acres.

TRACT 3: A certain tract or parcel of land lying the county and state aforesaid near the town of Robards and bounded as follows: Beginning at a stake in Lee Eakins line, corner to Lot No. 3; thence N 65-1/2 deg. W. 163 poles and 10 links to a stake corner to Lot No. 3; thence S. 22 deg. W. 24 poles and 4 links to a stake corner to Lot No. 5; thence S. 65-1/2 deg. E. 170 poles and 8 links to a stake corner to Lot No. 5; thence N. 6-1/2 deg. E. 22 poles and 10 links to a stake corner to Lee Eakins near the gate; thence N. 1-1/2 deg. E. 2 poles and 22 links to the beginning, containing 25 acres.

TRACT 4: Lot No. 1 of the division of the John Curry land being a tract of land in Henderson County, Kentucky, near Robards, Kentucky, and bounded as follows: Beginning at a dead oak, corner to Mollie Eakins and Lee King; thence with King's line N. 31-3/4 E. 124 poles to a stake on East side of L & N R.R.; thence N. 88 W. 54 poles to a stake corner to Lee Eakins (16-1/2 feet left along this line for passway for balance of interests) thence S 6-1/2 W. 111 poles and 15 links to the beginning, containing 18.83 acres.

TRACT 5: A certain tract or parcel of land lying in Henderson County, Kentucky, on the East side of the L. & N R.R. about one mile north of Robards and bounded as follows: Beginning at a point on the East line of the right of way of L & N R.R. Co., corner to W. A. Sandefur tract; thence S. 87 deg. E. 18-07/100 chains to a stake. corner to Ligon's land in the Sandefur line and 8 links S. 20 deg. W. from a sassafras tree 15 inches in diameter (2 black oaks down and gone); thence N, 20 deg. E. 17-44/100 chains to a stake corner to another tract of Samuel E. King and in the Ligon line; thence N. 59 deg. W. 36-45/100 chains to a point in the middle of what is called the Porter Public road a corner to another tract of Sanuel E. King 3 small black gums and a dogwood gone, a stake on the east side of said road bears S. 59 deg. E. distant 27 links; thence S. 32-1/2 deg. W. 8-55/100 chains to a post in the east line of right of way of L & N R.R. Co.; thence with the east line of said right of way S. 23-1/2 deg. E. 29-60/100 chains to the beginning, containing 71-83/100 acres.

TRACT 6: A certain tract of land in Henderson County, Kentucky, beginning at a stake corner to Lot No. 6 in line No. 1; thence N. 65-1/2 W. 171 poles and 14 links to a stake corner to No. 6; thence S. 22 W 9 poles and 10 links to a stake corner No. 8, 9 and ½ of No. 7; thence S. 65-1/2 E. 119 poles and 2 links to a stake corner to Nos. 8, 9 and ½ of No. 7; thence N. 6-1/2 E. 10 poles and 10 links to the beginning, and containing 10 acres.

TRACT 7: A certain tract or parcel of land lying and being in the county and state aforesaid, bounded and described as follows: Being Lot No. 3 of the Commissioner's report and division of the lands of the late S. E. King, Lot No. 3 contains a part of Lot No. 2 of the order and part of Lot No. 3 the part of Lot No. 2 is bounded as follows: Beginning at a stone corner to Lot No. 2 of this division and Gus Porter at an angle of the Funston and Porter road; thence S. 58 E. 101 poles to a stake corner to Lot No. 2 in Dr. Ligon's line; thence N. 22 E. 33 poles to a stone corner to Dr. Ligon in the Long line; thence N. 58 W. 94 poles and 20 links to a stone corner to the Long tract in Gus Porter's line; thence S. 32 W. 32 poles and 20 links to the beginning, containing 20 acres, recorded in Deed Book 38, page 228, and dated October 31, 1906.

TRACT 8: A tract of land in the county of Henderson and State of Kentucky, and being Lot #2 of the Commissioner's report of lands of late S. E. King, deceased, and bounded as follows: Beginning at a stake corner to Lot #1 in the middle of the Funston and Porter road; thence S. 58 E. 94 poles to a stake corner to Lot #1; thence N. 32 E. 10 poles and 10 links to a stake corner to Lot #1, thence S. 50 E. 42 poles and 10 links to a stake corner to Lot #1 in Dr. Ligon's line; thence N. 22 E. 40 poles and 20 links to a stake corner to Lot #3, in Dr. Ligon's line, thence N. 58 S. 101 poles to a stake corner to Lot #3 and Gus Porter; thence N. 37 W. 30 poles to a stake corner to Gus Porter; thence S. 32-1/2 W. 36 poles and 24 links to the beginning, containing 37-80/100 acres.

TRACT 9: A certain tract or parcel of land lying and being in the county of Henderson and state of Kentucky, being Lot No. 1 of the commissioner's report of the division of the land of late S. E. King, deceased, and bounded as follows: Beginning at a stake in the middle of Funston and Porter road corner to Lee King's thence S. 58 E. 145 poles to a stone corner to Lee King in Dr. P. Ligon's line; thence N. 22 E. 50 poles and 15 links to a stake corner to Lot No. 2 in Dr. Ligon's line; thence N. 58 W. 42 poles and 10 links to a stake corner to Lot No. 2; thence S. 32 W. 10 poles and 10 links to a stake corner to Lot No. 2; thence N. 58 E. 94 poles to a stake in the middle of the Funston and Porter road corner to Lot No. 2; thence S. 32-1/2 W. 39 poles and 16 links to the beginning, containing 37-80/100 acres.

TRACT 10: Lot No. 6 of the report of division and allotment aforesaid, the same being a tract of land in Henderson County, Kentucky, near the town of Robards, bounded as follows: Beginning at a stake corner to Lot No. 5; thence N. 65-1/2 W. 176 poles and 12 links to a stake corner to Lot No. 5; thence S. 22 W. 18 poles and 11 links to a stake corner to Lot No. 7; thence S. 65-1/2 E. 171 poles and 14 links to a stake in line of Lot No. 1 corner to No. 7; thence N 6-1/2 E. 19 poles and 15 links to the beginning, containing 20 acres.

TRACT 11: A parcel of land in Henderson County, Kentucky, near the town of Robards and bounded as follows: Beginning at an ash stump corner to J. W. Otey; thence with said Otey's line N 65-1/2 W 140 poles to a rock at the root of an ash tree; thence S. 22 W 28 poles and 13 links to a stake corner to Lot No. 3; thence with line of said lot S 65-1/2 E 151 poles and 20 links to a stake in Lee Eakins line corner to Lot No. 3; thence N 1-1/2 E 30 poles and 20 links to the beginning, containing 26 acres, together with right of way for passway 16-1/2 feet wide along the east line of lots numbers 3, 4, 5, 6, 7, 8, and 9 and along the north side of Lot No. 1.

TRACT 12: A certain piece or parcel of land in Henderson County, Kentucky, said land lies on the west side of the L & N R.R. and is the strip cut off by the said railroad from the 76 acre tract bought by J. W. Ligon from Adkins Wall. This tract is supposed to contain 12 acres. This land is bounded on the East by the L & N R.R. and south and west by Widow Catherine Curry land and J. W. Otey land and runs to a point at the northern extremity.

TRACT 13: Lot 3 of the division of John Curry estate and described as follows: A tract of land in Henderson County, Kentucky near the town of Robards and bounded as follows: Beginning at a stake corner

to Lot #2 in the Lee Eakins line; thence N. 65-1/2 W. 151 poles and 20 links to a stake, corner to Lot #2; thence S. 22 W. 27 poles and 12 links to a stake corner to Lot #4; thence S 65-1/2 E. 163 poles and 10 links to a stake corner to Lot #4 in Lee Eakins line; thence N 1-1/2 E. 29 poles and 15 links to the beginning, containing 27 acres, together with right of way for passway 16-1/2 feet wide along the east line of Lots numbers 4, 5, 6, 7, 8, and 9 and north line of Lot #1.

TRACT\_14: A certain tract or parcel of land lying in the County of Henderson, State of Kentucky, north of and in the vicinity of Robards and by survey made December 7th, 1898, bounded as follows: Beginning at a dead white oak corner to J. H. Funston, running thence with his line S. 88-1/2 W. 3,62 chains to a stake on the east side of dirt road; thence with east side of road S. 23 E. 41,07 chains to a stake at intersection of road; thence with N. W. Side of road N. 32-3/4 E. 30.88 chains to a stake in F. A. Porter's line 20 links from corner; thence with Funston's line N. 58 W. 36.34 chains to a black oak stump; thence S. 18-1/2 E. 4.44 chains to a white oak stump; thence S 2-1/2 E. 3.13 chains to the beginning, containing 64.88 acres.

The above 14 Tracts being the same property acquired by Leo King Farm, LLC by Deed dated January 1, 2015 of record in Deed Book 610, Page 673, in the Henderson County Clerk's office.

Tract 15: Being all of Lot 1 of the Hillary L. Raley Minor Subdivision as shown on plat of recorded in Plat book 5, Page 189, in the Henderson County Clerk's Office, to which plat reference is made for a more accurate description.

The above being the same property acquired by Leo King Farm, LLC by Deed dated January 1, 2015 of record in Deed Book 610, Page 672, in the Henderson County Clerk's office.

#### Tract 16:

A certain tract or parcel located approximately 0.7 miles northwest of the City of Robards, Kentucky on Ky Hwy 283 in Henderson County, and being more particularly described as follows:

Beginning at an iron pin set in the west right-of-way line of Ky Hwy 283, said point being located 30 feet west of the centerline of the existing pavement of said highway, being a corner to Doris Jean Hope lot, a plat of which is recorded in Plat Book 7 Page 62 in the Henderson County Court Clerk's Office, said point being located North 63 degrees 05 minutes 50 seconds West, 0.15 feet from a 1/2 inch rebar by PLS #1733 found near the southeast corner of said Hope lot, and said point being located 30 feet west of State Project (SP) 1278 Station 266+67.61; thence with said right-of-way line, running parallel with and 30 feet west of the centerline of the existing pavement of said Ky Hwy 283, the following six (6) calls:

- (1) SOUTH 07 DEGREES 29 MINUTES 32 SECONDS WEST, a distance of 419.73 feet to an iron pin set in said right-of-way line 30 feet west of Sta. 262+48.01;
- (2) SOUTH 07 DEGREES 02 MINUTES 21 SECONDS WEST, a distance of 488.42 feet to an iron pin set in said right-of-way line 30 feet west of Stz. 257+59.68;
- (3) SOUTH 07 DEGREES 09 MINUTES 31 SECONDS WEST, a distance of 435.64 feet to an iron pin set in said right-of-way line 30 feet west of Sta. 253+24.03;
- (4) SOUTH 07 DEGREES 06 MINUTES 24 SECONDS WEST, a distance of 461,45 feet to an Iron pin set in said right-of-way line 30 feet west of Sta. 248+62.55;
- (5) SOUTH 07 DEGREES 13 MINUTES 57 SECONDS WEST, a distance of 608.04 feet to an iron pin set in said right-of-way line 30 feet west of Sta. 242+54.46:
- (6) SOUTH 07 DEGREES 15 MINUTES 43 SECONDS WEST, a distance of 503.65 feet to an iron pin set at the intersection of the west right-of-way line of said Ky Hwy 283, 30 feet west of the centerline of the existing pavement of same, and the north right-of-way line of Ky Hwy 416, 30 feet north of the centerline of the existing pavement of same, said Ky Hwy 416 right-of-way having been conveyed to the Commonwealth of Kentucky by L. B. Eblen in Deed Book 95 Page 364;

Thence with the north right-of-way line of said Ky Hwy 416, running parallel with and 30 feet north of the centerline of the existing pavement, the following three (3) calls:

- (1) SOUTH 88 DEGREES 39 MINUTES 57 SECONDS WEST, a distance of 142.94 feet to an iron pin set in said north right-of-way line;
- (2) around a curve to the left, through a central angle of 16 DEGREES 57 MINUTES 10 SECONDS, an arc distance of 319.26 feet, a chord bearing of SOUTH 80 DEGREES 11 MINUTES 22 SECONDS WEST, a distance of 318.09 feet to an iron pin set in said north right-of-way line;
- (3) SOUTH 71 DEGREES 42 MINUTES 47 SECONDS WEST, a distance of 241.60 feet to an iron pin set in said north right-of-way line, and being in the north line of Tract 3 of the Milton Crowder property recorded in Deed Book 429 Page 192;

Thence with said Crowder Tract 3. NORTH 8! DEGREES 55 MINUTES 09 SECONDS WEST, a distance of 723.82 feet to an iron pin set at the southeast corner of Tract 1 of the Milton Crowder property recorded in Deed Book 429 Page 192; thence with said Crowder Tract 1, the following four (4) calls:

- (1) NORTH 08 DEGREES 49 MINUTES 51 SECONDS EAST, a distance of 709.50 feet to an iron pin set at a corner to said Crowder Tract 1;
- (2) SOUTH 81 DEGREES 55 MINUTES 09 SECONDS EAST, a distance of 27.72 feet to an iron pin set at a corner to said Crowder Tract 1:
- (3) NORTH 15 DEGREES 34 MINUTES 51 SECONDS EAST, a distance of 846.12 feet to an iron pin set at a corner to said Crowder Tract 1:
- (4) NORTH 82 DEGREES 55 MINUTES 09 SECONDS WEST, a distance of 544.50 feet to the northwest corner of said Crowder Tract 1, being in the east line of Tract 2 of the Milton Crowder property recorded in Deed Book 429, Page 192, and being located South 62 degrees 49 minutes 21 seconds West, 25.00 feet from a reference iron pin set inside this, the Katherine Marshall property;

Thence with said Crowder Tract 2 and with Parcel B-Tract 1 of the Loo & Mark Mattingly property recorded in Deed Book 484 Page 281, NORTH 22 DEGREES 04 MINUTES 47 SECONDS EAST, a distance of 2088.00 feet to a wood fence corner post, said fence corner post being located North 19 degrees 15 minutes 25 seconds West, 25.00 feet from an iron pin set inside this, the Katherine Marshall property; thence SOUTH 63 DEGREES 05 MINUTES 50

7

SECONDS EAST, a distance of 840.15 feet to an iron pin set at the southwest corner of said Hope lot; thence with said Hope lot, SOUTH 63 DEGREES 05 MINUTES 50 SECONDS EAST, a distance of 461.07 feet to the point of beginning containing 108.1319 acres and being subject to all legal written and unwritten easements and rights of way. This description was prepared from a physical survey conducted under the direction of Dennis E. Branson, Ky PLS # 2532 on 5-03-03. All references herein to "iron pin set" are 5/8 inch smooth-sided iron pins 24 inches in length with a plastic cap bearing the number 2532. This survey was conducted by the method of closed random traverse, the unadjusted mathematical error of closure ratio of which was 1:97,131 with an angular error of 1 second per angle.

The above being the same property acquired by Leo King Farm, LLC by Deed dated January 1, 2015 of record in Deed Book 610, Page 680, in the Henderson County Clerk's office.

2019014313

HENDERSON CO, KY FEE \$40.00 PRESENTED / LODGED: 12-27-2019 12:22:24 PM

RECORDED: 12-27-2019
RENESA ABNER
CLERK
BY: TONYA WILSON
DEPUTY CLERK

BK: RE 641 PG: 571-582

MAILED TO: 12/30/19
NEXTERA ENERGY RESOURCES LLC
700 UNIVERSE BLVD
JUNO BEACH, FL 33408

# **Legal Description of Property**

A certain parcel of land located in the Henderson County, Kentucky described to-wit:

A lot approximately .3 of a mile north of Henderson-Webster County line at U.S. 41 and MacDonald Road, more specifically described as follows; BEGINNING at a pin in the center of MacDonald Road also being U.S. 41 West R/W line, 120 feet from center of said U.S. 41 running thence with MacDonald Road, N 82 deg. 24" W 257.94 feet to a pin in the east line of Bert Griffin remainder tract; thence with Griffin N 5 deg. 15' E 183.5 feet to a pin; thence also with Griffin line, S 80 deg. 32' E 214.89 feet to a pin in west R/W line of U.S. 41; thence with R/W line, S 8 deg. 26' E 183.5 feet to the beginning, containing 0.973 acres.

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Quit Claim Deed dated October 13, 1999, of record in Deed Book 489, Page 781, in the Henderson County Clerk's office.

QLA: 9231

### EX IBIT A

## **Legal Description of Owner's Property**

Beginning at a stake on North side of Smith's Ferry Road; thence N 11 E 75 poles and 20 links to stake in North line of farm; thence with said line S 60 E 122 poles and 15 links to an ash in WM. Eblen's line; thence with said line S 4 W 1 pole and 19 links to small maple; thence N 86 W 116 poles to rock corner of Samuel Spencer; thence S 4 W 18 poles and 20 links to rock in Samuel Spencer's line and on North side of Smith's Ferry Road; thence N 75 W 2 poles and 13 links to the beginning, containing 21-12/100 acres.

Being the same property conveyed to Edgar McMullin, of the first part, by S.H. Spencer by deed dated January 6, 1932, of record in Deed Book 81, at page 621, Henderson County Court Clerk's office.

Beginning at a stake corner to Lot No. 1 on North side of Smith's Ferry Road; thence with line of said lot N. 11 E 75 poles and 20 links to stake in North line of farm and corner to first lot; thence N 60 W 82 poles and 6 links to a stake; thence S 23 W 99 poles to stake in the middle of Smith's Ferry Road; thence with said road S 77 E 10 poles and 9 links to bend in road; thence with road S 75 E 93 poles and 6 links to beginning, containing 49-77/100 acres, including 1-77/100 acres across the West and allotted James Sugg, and being the same land conveyd to B.W. McMullin by R.E. Sugg, et al. by deed dated January 7, 1891, and recorded in Deed Book 1, at page 590, in the County Clerk's office of Henderson County, Kentucky.

Beginning at a stake, two black oaks near McMullin's Chapel, and beginning corner in the deed; thence with Floyd and Lockett Road S 23 W 43 poles and 6 links to stake; thence S 67 E 39 poles and 8 links to stake in line of Lot #2; thence with line of said Lot N 23 E 38 poles and 5 links to corner of lot #2; thence N 60 W 39 poles and 16 links to beginning, containing 10 acres; and being the same land conveyed to B.W. McMullin by the following: Susan Denton, et al by deed dated March 28, 1897, and recorded in Deed Book 25, at page 197; L.A. Royster by deed dated November, 1897, recorded in Deed Book 38, at page 395; John W. Royster by deed dated November, 1899, and recorded in Deed Book 38, at page 401; Vinnie Algood, &c. by deed dated March 12, 1903, and recorded in Deed Book 38 at page 402; Marvin Royster by deed dated April 3, 1905, and recorded in Deed Book 41, at page 320; S.H. McMullin by deed dated January 22, 1908, and recorded in Deed Book 40, at page 422, and Foster C. Royster by deed dated January 12, 1909, and recorded in Deed Book 42, at page 183, all in the office of the County, Clerk of Henderson County, Kentucky.

LESS a lot of ground just south of said church and bounded as follows: Beginning at a corner post about 8 ft. South of SE corner of said church, running Souht 6 rods to a stake; thence W 12 rods to a stake in edge of Frog Island road; thence North with said road 6 rods to stake in edge of said road, thence east 12 rods to the beginning, containing 9/20 of an acre.

Beginning at a stake corner to Lot #3; thence with Floyd & Lockett road S 23 W 24 poles and 11 links to stake on Lockett & Floyd road; thence S 67 E 39 poles and 8 links to stake in line of lot

#2; thence with said line N 23 E 24 poles and 11 links to stake corner to lot #3; thence with line of said lot N 67 W 39 poles and 8 links to beginning, containing 6 acres; and being the land conveyed to B.W. McMullin by the following: W.B. Spencer by deed dated October 3, 1893, and recorded in Deed Book 20, at page 559, and by W.B. and G.E. Spencer by deed dated Janury 27, 1897, and recorded in Deed Book 24, at page 179, all in the office of the County Clerk of Henderson County, Kentucky.

Beginning at a stake corner of Lot #4 of Floyd and Lockett Road; thence with said road S 23 W 13 poles and 14 links to stake; thence S 67 E 39 poles and 8 links to stake in line of Lot #2; thence with said line N 23 E 13 poles and 14 links to stake, corner to lot #4; thence with line of said Lot N 67 W 39 poles and 8 links to beginning, containing 3-1/3 acres and being the same lands conveyed to S.W. McMullin by the following: Eliza Armstrong, &c. by deed dated October 17, 1898, and recorded in Deed Book 38, at page 403, and by S.H. McMullin by deed dated December 26, 1907, and recorded in Deed Book 40, at page 225, all in the office of the County Clerk of Henderson County, Kentucky.

Beginning at a stake, corner to Lot #5 on Floyd and Lockett road; thence S 23 W 30 poles to junction of Floyd and Lockett and Smith's Ferry Road; thence with Smith's Ferry Road S 77 E 39 poles and 16 links to corner of Lot #2; thence with line of said lot N 23 E 22 poles and 20 links to stake, corner to Lot #5; thence with line of said lot N 67 E 39 poles and 8 links to beginning, contianing 6-1/2 acres, and being the same land conveyed to B.W. McMullin by S. H. McMullin by deed dated December 26, 1907, and recorded in Deed Book 40, at page 225, in the office of the County Clerk of Henderson County, Kentucky.

Tracts (2) to (6) inclusive were inhertited by Edgar McMullin as shown by Affidavit of Descent of record in Deed Book 95, at page 284, Henderson County Court Clerks office.

A tract of land about one mile from town of Robards and bounded as follows: Beginning at a stone to Sam Spencer and Tom T. Royster; thence N 27-3/4 E 28.09 chains to a stake in the middle of a ditch, corner to Lot #2 small sycamore pointer; thence N 59 ½ W 17.91 chains to stake in line of Lot #3 23 links from S.H. McMullin line; thence S 27 ¾ W 28.09 chains to B.W. McMullin's line; thence S 59- ¼ E 18 chains to the beginning, containing 50-36/100 acres.

Being the same land conveyed to the grantors by Thomas Sugg and wife by deed dated January 7, 1904, of record in Deed Book 34, at page 197, said Clerk's office.

Beginning at a stake in middle of a ditch, small sycamore pointer, and corner to Lot #1 (Sugg's) corner; thence N 58 <sup>3</sup>/<sub>4</sub> W 18-14/100 chains to a stake in line of S.N. McMullin; thence N 27 <sup>3</sup>/<sub>4</sub> E 15-18/100 chains to a stake corner to S.N. McMullin in Otey's line; thence S 66 <sup>1</sup>/<sub>2</sub> E 18 - 16/100 chains to a stake in middle of a ditch corner to T.T. Royster; thence S 27 <sup>3</sup>/<sub>4</sub> W 17 - 36/100 chains to the beginning, containing 29 - 450/1000 acres, it being understood and agreed that said McMullin is to have an outlet 23 links wide and 28-9/100 chains long between the line of Thos. Sugg and that of S.N. McMullin, said outlet containing 650/1000 of an acres, containing in all 30-1/10 acres.

Being the same land conveyed to Edgar McMullin by C.N. Royster by deed dated August 28, 1900, of record in Deed Book 30, at page 330, in said Clerk's office.

A certain tract of land lying one mile South of Robards, Kentucky and bounded as follows: Beginning at a corner to Sugg; thence S 65 ¼ E 762 feet to a stake, corner to Thos. Sugg; thence S. 27 ¾ W 2857 feet to a stake, 10 feet from a stone; thence N 58-5/6 W. 763 feet to a stake; thence to the beginning about 2755 feet.

# Containing 49.14 acres

Being the same property conveyed to Edger McMullin and B.W. McMullin by Emma J. Higginson, et al., by deed dated January 1, 1910, recorded in Deed Book 44, at page 41, said Clerk's office, and an undivided one-half interest therein inherited by Edgar McMullin from his father, B.W. McMullin, as shown by Affidavit of Descent of record in Deed Book 95, at page 284, said Clerk's office.

## **EXHIBIT A**

# **Legal Description of Owner's Property**

#### Parcel 1

Beginning at a stake 7 ft. from gate post in wire fence; thence with said fence S  $72 \frac{1}{2}$  E. 56 poles and 17 links to a stake in the fence in J. W. Otey's line; thence N  $19 \frac{1}{2}$  E. 60 poles to a stake in hedge fence; thence N.  $4 \frac{1}{2}$  E. 9 poles and 8 links to a stake in Otey's line; thence N.  $80 \frac{3}{4}$  W. 62 poles and 13 links to a stake at a rail fence 60 poles and 10 links to the beginning, containing 24.46 acres in Henderson County, Kentucky.

And a passway easement of reasonable width over Tract V of that property described in Mortgage Book 344, Page 96 for purposes of ingress and engress from and to Tract II conveyed herein.

#### Parcel 2

Tract Five: Beginning at a stake at the West end of the hedge corner to George T. Crook; thence S. 82 E. 63 poles and 14 links to a stake; corner to Crook and Ed Otey; thence N 4 ½ E. 33 poles to a stone, corner to Fred Schaeffer in Ed. Otey's line at an angle to the Ed Otley road; thence with the South line of the road N. 87 W. 58 poles and 10 links to a stake corner to Lot #7; thence S. 12 ½ W. 28 poles to the beginning, containing 11.60 acres in Henderson County, Kentucky.

## Parcel 3

Being 3.783 acres located on Kentucky Highway 1299 in Henderson County, Kentucky as shown by the plat of record in Deed Book 412, Page 491 in the Henderson County Clerk's Office.

#### Parcel 4

A certain lot or parcel located East of Ky. Hwy. 1299 and South of Ed Otey Road approximately 2 miles Northwest of the town of Robards, in Henderson County, Kentucky, and being more specifically described as follows:

To find the place of beginning, commence at an iron pin set in the East right-of-way line of Ky. Hwy. 1299, said iron pin being located 25 feet East of the centerline of the existing pavement of said Ky. Hwy. 1299, and being a corner to the Spencer Cemetery; thence with said Spencer Cemetery, South 75°23'59" East, a distance of 546.36 feet to an iron pin set at the base of a fence corner post; thence continuing with said Spencer Cemetery, South 7°08'08" West, a distance of 21.85 feet to an iron pin set at a corner to the Catherine Puryear & Elizabeth Nunn property recorded in Deed Book 61 Page 54 in the Henderson County Court Clerk's Office; thence with said Puryear & Nunn property, South 89°34'33" East, a distance of 608.12 feet to an iron pin set in the North line of said Puryear & Nunn property, being the South line of the Irvin Hunter, Jr., property recorded in Deed Book 411 Page 50 of which this description is a part, and being the point of beginning for this description; thence severing said Hunter property, North 10°10'24" East, a distance of 353.14 feet to the North line of said Hunter property, and being the South line of the Dennis & Judith Nunn property recorded in Deed Book 401 Page 324; thence with said Nunn property, South 73°41'29" East, a distance of 929.26 feet to a point in the West

line of Tract 1 of the Hyde Brothers Agricultural Division, a plat of which is recorded in Plat Book 6 Page 29, said point being located South 18°2'57" West, 248.98 feet from an iron pin found at a corner to said Tract 1; thence with said Tract 1, South 18°02'57" West, a distance of 98.32 feet to a point in said West line, said point being located North 18°02'57" East, 107.62 feet from an iron pin found at a corner to Tract 2 of said Division, and being a corner to said Puryear & Nunn property; thence with said Puryear & Nunn property, North 89°34'33" West, a distance of 923.80 feet to the point of beginning containing 206418 square feet or 4.7387 acres and being subject to all legal written and unwritten easements and rights of way. This description was prepared from a physical survey conducted under the direction of Dennis E. Branson, Ky. RLS 2532 on or about December 6, 1991. A plat of said tract is of record in Plat Book 6 at page 162 in the Henderson County Court Clerk's office.

#### Parcel 5

Beginning at a point in the center of the Frog Island Road, corner with Byron Phillips, runs N 58°-28' W 2347 feet to a stake, corner with Mrs. Hilary Denton; thence S 22°-50' W 82 feet to a stake and post, corner with Mrs. Hilary Denton; thence N 59°-56' W 241 feet to a stake corner with Mrs. Lila Chism in Mrs. Hilary Denton 's line; thence N 29°-38' E 3042 feet to a stake in Road, corner with Clarence Sheffer; thence with Road; S 59°-32' E 281 feet to a nail in road, corner with George Vogel and W.B. Algood; thence S 30°-40' W 1976 feet to a post and stake, corner with George Vogel; thence S 58°-10' E 232 feet to a nail in the Frog Island Road, corner with George Vogel in John Pruitt's line; thence with said Road S 29°-33' W 969 feet to the place of beginning, containing 70.1 acres, subject to legal highways and road right-of-ways, as per survey made by W. W. Poole on November 3, 1995.

# LESS the following two lots:

- A 1 acre lot conveyed by Shirley E. Hurt and his wife, Walleen Hurt, to Larry Wayne Rideout and his wife, Claudia Bernice Rideout, by deed dated February 10. 1998, of record in Deed Book 474, Page 491, Henderson County Clerk's Office.
- A 1 acre lot conveyed by Patricia Wiseman, unmarried, to Scott Wayne Rideout and his wife. Amanda L. Rideout, by deed dated November \_\_\_\_\_\_\_\_, 2005, of record in Deed Book 544, Page 927. Henderson County Clerk's Office.

#### Parcel 6

A certain tract or parcel located on the Northeast side of Kentucky Highway 1299, approximately two miles Northwest of the City of Robards, in Henderson County, Kentucky, and being more specifically described as follows:

Unless stated otherwise, any monument referred to herein as a "set iron pin" is a 5/8" diameter rebar, 18" in length set with an orange plastic cap stamped "PLS #2939". All bearings stated herein are referred to the 1983 NAD Kentucky South Zone coordinate system.

Beginning at a point located South 75°35'39" East, a distance of 30.33 feet from a P.K. Nailset at the Northwest corner of Tract 3 of the Mary Ann Sugg property described in Deed Book 549, page 1039, (of which this description is a part) at the Henderson County Court Clerk's Office, said point also being located in East right of way line of Kentucky Highway 1299 as described in

Deed Book 159, page 543, to the Commonwealth of Kentucky, and in the southern line of the Elizabeth Powell property described in Deed Book 361, page 54; thence with the South line of said Powell property, South 75°35'39" East, a distance of 1924.78 feet to an iron pin set at the base of a fence corner post, said iron pin being located in the West line of the John Hyde property described in Deed Book 581, page 130, (see also Tract 2 of the Hyde Brothers Agricultural Division, a plat of which is recorded in Plat Book 6, page 29); thence with the West line of said Hyde property, South 24°11'22" West, a distance of 185.76 feet to an iron pin set at the base of a fence corner post located at the Southwest corner of said Hyde property; thence with the South line of said Hyde property and the South line of the James Green property described in Deed Book 474, page 458, (see also Tract 3 of the Hyde Brothers Agricultural Division, a plat of which is recorded in Plat Book 6, page 29), South 81° 37' 56" East, a distance of 700.92 feet to an iron pin set in the South line of said Green property; thence severing Tract 2 of said Mary Ann Sugg property, South 25°29'46" West, a distance of 862.71 feet to a 30" oak tree with two blazes on the South side located at the Northwest corner of the Glen Royster property described in Deed Book 243, page 612; thence with the North line of said Royster property and the area dedicated as road right of way on the plat recorded in Plat Book 8, page 129 North 80°30'14" West, a distance of 1392.66 feet to an iron pin set in said Commonwealth of Kentucky right of way of Kentucky Highway 1299; thence with said right of way line the following six calls:

- 1) Thence along a curve to the left having a radius of 221.00 feet and being subtended by a chord of North 67°01'18" West, 107.62 feet, an arc distance of 108.71 feet along said curve to a point in said right of way line;
- 2) North 81°06'51" West, a distance of 796.80 feet to an iron pin set in said right of way line;
- 3) Thence along a curve to the right having a radius of 57.00 feet and being subtended by a chord of North 31°49'20" West, 86.42 feet, an arc distance of 98.08 feet along said curve to a point in said right of way line;
- 4) North 17°28'12" East, a distance of 233.85 feet to a point in said right if way line;
- 5) Thence along a curve to the left having a radius of 1844.00 feet and being subtended by a chord of North 11°43'52" West, 368.78 feet, an arc distance of 369.39 feet along said curve to an iron pin set in said right of way line;
- 6) North 05°59'32" East, a distance of 479.20 feet to the point of beginning and continuing 56.61 acres. This description was prepared from a physical survey conducted under the direction of Bruce K. Bailey, PLS #2939 of Bailey Surveys, Inc., on May 5, 2011, and which is of record in Plat Book 9, page 390A, Henderson County Clerk's Office.

#### Parcel 7

Tract 1: Beginning at a stake hickory and dogwood pointer in Oteys line, thence S 62 E 102 poles to a stake 1 pole and 3 links from a black oak corner with Wm. Eades, thence with Eades line N 30 ½ E. 169 ½ poles to a stake thence with Oteys line N. 59 37 W. 102 poles to a stake corner with lot No. 1 of the Marshall Smith division, thence with the line of said lot S 30 ½ W. 173 poles and 3 links to the beginning containing 108 acres more or less.

Less and Except: That property which was conveyed to Doris Keach and Margaret Keach, husband and wife, by deed from Urial Overfield and Lillian Overfield, husband and wife, dated

April 7, 1951 which is recorded in Deed Book 160, Page 58 of the Henderson County Clerk's office and contains two acres, more or less, as described in said deed which 1s incorporated herein by reference.

Less and Except: That property which was conveyed by U.M. Overfield and Lillian Overfield, husband and wife, to the Commonwealth of Kentucky for the use and benefit of the Department of Highways as described in a deed dated September 12, 1944 and contains 4.96 acres, as described in said deed, which description is incorporated herein by reference, and is recorded in Deed Book 119, Page 217 of the Henderson County Clerk's Office.

Less and Except: That property which was conveyed by Lillian Overfield, a widow, to the Commonwealth of Kentucky for the use and benefit of the Department of Highways as described in a deed dated September 21, 1959 of record in Deed Book 197, Page 280 of the Henderson County Clerk's Office, the description of such tract is contained in said deed and is incorporated herein by reference. The deed does not show the number of acres which were conveyed.

Tract 2: Beginning at a point on the West side of said U.S. Highway #41 as widened at the corner of the Urial Overfield farm; running thence with the Overfield line N 59-37 W 78.90 feet to a point, corner to Overfield and the parties of the first part; running thence with a continuation of the division line between said Overfield and parties of the first part land, N 30-30 E. 56.82 feet to a point on the West side of U.S. Highway #41; running thence in a Southeasterly direction with the Westerly line of said Highway as widened, 87.95 feet to the point of beginning, containing 0.05 acre.

Tract 3: A tract of land in Henderson County, Kentucky, approximately 10 miles south of the city of Henderson and ½ mile East of U.S. 41 and more particularly described as follows:

Beginning at a point in the Urial Overfield (now Austin Overfield) line and corner with T.L Book; thence N 36°22' E a distance of 478.5 feet to the corner of Austin Overfield and William P.B. Slaughter; thence N 47°7' E a distance of 580.8 feet to the A. A. Watkins corner; thence S. 55°48' E a distance of 190.4 feet to the intersection of the West right of way line of the Pennyrile Parkway, which is 130 feet left of the station 3235+18 of the Pennyrile Parkway; thence S 6°33'30" E. a distance of 1018.0 feet; thence S 0°31'30" E a distance of 351.95 feet to the corner of H. J. Blackwell; thence N 54°54' W a distance of 1210.0 feet, more or less, to the point of beginning and containing 13.3 acres, more or less.

## Parcel 8

A certain tract or parcel located approximately 1,500 feet East of Kentucky Highway 1299 and l.5 miles Northwest of the City of Robards, in Henderson County, Kentucky and being more specifically described as follows:

Unless stated otherwise, any monument referred to herein as a "set iron pin" is a 1/2' diameter rebar, 18" in length set with an orange plastic cap stamped "PLS #2939". All bearings stated herein are referred to the 1983 NAD Kentucky South Zone coordinate system.

Beginning at a 30" oak tree found with two blazes on the south side, said oak tree being located at the Southeast corner of the Dennis Nunn property described in Deed Book 60l Page 142 at the Henderson County Court Clerk's Office, thence with the East line of said Nunn property, North 25°29'46" East a distance of 826.71 feet to an iron pin set in the south line of the James Green property described in Deed Book 474 Page 458; thence with the South line of said Green property, South 81°31'43" East, a distance of 1549.14 feet to an iron pin set in the West line of the Leo King Farm, LLC property described in Deed Book 610 Page 673; thence with the West line of said Leo King Farm, LLC property, South 04°40'12" East, a distance of 546.48 feet to an iron pin set at the Northwest corner of the Leo Mattingly, Jr. property described in Deed Book 608 Page 536; thence with the West line of said Mattingly property, South 13°54'39" West, a distance of 24.64 feet to a point located in the centerline of a large ditch; thence with the centerline of said large ditch and severing Tract 2 of the Mary Ann Sugg property described in Deed Book 549 Page 1039, of which this description is a part, the following eleven calls:

- 1) South 86°15'04" West, a distance of 77.92 feet to a point located in the centerline of said large ditch;
- 2) North 87°42'08" West, a distance of 135.23 feet to a point located in the centerline of said large ditch;
- North 86°28'26" West, a distance of 74.62 feet to a point located in the centerline of said large ditch;
- 4) South 39°06'20" West, a distance of 153.33 feet to a point located in the centerline of said large ditch;
- 5) South 47°34'08" West, a distance of 122.36 feet to a point located in the centerline of said large ditch;
- 6) South 68°12'17" West, a distance of 180.38 feet to a point located in the centerline of said large ditch;
- 7) South 65°l l'36" West, a distance of 144.66 feet to a point located in the centerline of said large ditch;
- 8) South 60°32'46" West, a distance of 319.67 feet to a point located in the centerline of said large ditch;
- 9) North 89°42'10" West, a distance of 180.80 feet to point located in the centerline of said large ditch;
- North 85°48'58" West, a distance of 849.48 feet to a point located in the centerline of said large ditch;
- South 71°19'53" West, a distance of 17.30 feet to a point located in the North line of Tract 1 of said Marry Ann Sugg property; thence continuing with the center line of said large ditch and severing said Tract 1, of which this description is a part, the following two (2) calls:
  - 1) South 71°19'53" West, a distance of 43.37 feet to a point located in the centerline of said large ditch;
  - 2) North 48°06'19" West, a distance of 42.63 feet to a point located in the East line of the James Riley property described in Deed Book 621 Page 491;

Thence with the East line of said Riley property the following two (2) calls:

1) North 26°14'19" East, a distance of 21.97 feet to an iron pin set at a bend in the East

line of said Riley property;

2) North 27°59'58" East, a distance of 462.00 feet to the point of beginning and containing 43.18 acres.

This description was prepared from a physical survey conducted under the direction of Bruce K. Bailey, PLS #2939 of Bailey Surveys, Inc. on January 24, 2017.

This conveyance is subject to easements, restrictions, rights of way and mineral reservations of record.

See also the plat whereby said 43.18 acres has been consolidated with existing 56.61 acres of record in Plat Book 9, page 390A, making a total of 99.79 acres, more or less, by the Sugg & Nunn Subdivision and Consolidation plat, of record in Plat Book 10, page 186, Henderson County Clerk's Office.

#### Parcel 9

Tract 1: Beginning at a stake corner to lot No. 1 in the middle of Frog Island Road; thence S 80 E 153 poles to the stake corner to lot No. 1 in Thos. Suggs line; thence N 20 E 27 poles and 17 links to a stake corner to lot No. 3 in Suggs line; thence W 87-3/4 W 93 poles and 6 links to a stake corner to the Graveyard; thence with E end of the graveyard; thence South 18-1/2 W 7 poles and 16 links to corner of graveyard; thence North 71 W 33 poles and 23 links to a stake in middle of Frog Island road corner to the graveyard; thence S 13 W 12 poles and 4 links to the beginning, containing 13-50/100 acres.

Tract 2: A tract of land lying and being in Henderson County, Kentucky, in the neighborhood of McMullin's Chapel and bounded and described as follows:

Beginning at a stake in Enoch Royster's line corner to the dower; thence S. 14 W. 131 poles to a stake corner to dower in Patten's line; thence North 88-1/2 W. 28 poles and 4 links to a stake corner to lot #3 in Patten's line; thence N. 14 E 145 poles to a stake, corner to lot #3 in Enoch Royster's line; thence S. 58-1/4 E. 28 poles and 19 links to the beginning, containing 24 acres of land.

Tract 3: A tract of land being lot No. 2 in the division of the land of M.S. Spencer, bounded as follows: Beginning at a post 11 links from a 30" hickory corner to Mrs. E.N. Royster; thence with line of Mrs. E.N. Royster S 0-33 W 264 feet to a 36" sweet gum corner to Mrs. Royster; thence with line of Mrs. Royster N. 58-10 W. 561.3 feet to a stake in North line of a lane known as Spencer Lane and corner to Mrs. Nora Sugg; thence with line of Mrs. Nora Sugg S. 14-22 W 2149.7 feet to a post corner to G.S. Powell; thence with line of G.S. Powell S 87 25 E. 854 feet to a stake corner to Herman Sugg in line of G.S. Powell; thence with line of Herman Sugg N 3-19 E. 1295.3 feet to a post corner to Herman Sugg; thence N. 89-35 E 341.6 feet to post corner to Mrs. Nora Sugg in line of Herman Sugg; thence with line of Mrs. Nora Sugg and Mrs. E.N. Royster N. 9-22 E 498.6 feet and N 2-35 W. 284.1 feet to post corner to Mrs. E.N. Royster; thence with Mrs. Royster's line N 86-58 W. 318.5 feet to the point of beginning, containing an area of 36.5 acres, more or less. Spencer Lane as now located over and across the above tract is to remain open for outlet for 30 acre tract.

Less and Except: A tract of land conveyed to Samuel Lee Hunter, unmarried, in Deed Book 307, page 353 and more particularly described as follows:

A tract of land located 2.1 miles Northwest of Robards on West side of Kentucky Highway 1299 (Frog Island Road), and being more specifically described as follows: Beginning at a spike in center of Ky., 1299, said spike being at existing corner of Catholine Puryear farm, and being 90 feet North of a pipe culvert under Ky., 1299; thence leaving road N 80°22'20" W 70.40 feet to a steel post; thence N 22°02'45" E 121.50 feet to an iron pin; thence severing Puryear farm S 85°20'20" E 37.2 feet to center of said road, thence along center of road S 6°00' W 122.00 feet to point of beginning, containing 0.15 acres, less any legal road right-of-way.

Tract 4: Beginning at a black oak stump an original corner with E.N. Royster, running thence with Royster's line S. 89-1/2 E 6.14 chains to a stake on the West side of the road S. 39-1/2 E. 2 poles; thence S 2-1/2 W 1 pole and S 13-1/2 E. 2 poles; thence S 2-1/2 W 1 pole and S 13-1/2 5.83 poles to a stake; thence N 85-1/2 W 7.17 poles to a stake 8 poles West of a hickory corner with T.W. Spencer estate; thence S 8°57' E 8.05 to the beginning, containing 6 acres, more or less.

Less and Except: A 3.783 acre tract conveyed to Dennis Nunn in Deed Book 412, page 489 and as shown on Plat in Deed Book 412, page 491 in the Henderson County Court Clerk's Office.

Being the same property conveyed to Dennis E. Nunn by deed dated February 14<sup>th</sup>, 2019 of record in Deed Book 635, Page 898 in the Henderson County Clerk's Office.

2020003028

HENDERSON CO, KY FEE \$64.00 PRESENTED / LODGED: 03-27-2020 08:56:56 AM

RECORDED: 03-27-2020 RENESA ABNER CLERK

BY: TONYA WILSON DEPUTY CLERK

BK: RE 643 PG: 20-30

MAILED TO: 3/30/2020 LAND SERVICES GROUP 700 UNIVERSE BLVD JUNO BEACH, FL 33408-2657

# EXHIBIT A

## **Legal Description of Owner's Property**

Being all of Tract 1 of the Elizabeth Powell Ag Consolidation & Division, a plat of which is recorded in Plat Book 9, page 394 and to which plat reference is hereby made for a more particular description. Said tract conveyed contains 24.360 acres.

Being a portion of the same property conveyed to Elizabeth D. Nunn by Deed from Gross C. Lindsay, Trustee, dated November 13, 1985, and of record in Deed Book 361 at page 54, in the Henderson County Court Clerk's Office. It is hereby certified that Elizabeth D. Nunn is the same individual as Elizabeth D. Powell.

## **EXHIBIT A**

## Legal Description of Owner's Property

#### TRACT #1:

A certain tract or parcel located on the southwest side of Kentucky Highway 1299, approximately 1.7 miles northwest of the City of Robards, in Henderson County, Kentucky, and being more specifically described as follows:

Unless stated otherwise, any monument referred to herein as a "set iron pin" is a 1/2" diameter rebar, 18" in length set with an orange plastic cap stamped "PLS #2939". All bearings stated herein are referred to the 1983 NAD Kentucky South Zone coordinate system.

Beginning at a point located North 79° 06' 05" West, a distance of 5.03 feet from an fron pin with cap stamped PLS #3399 found at the northeast corner of the Scott McDonald property described in Deed Book 553, page 131, at the Henderson County Court Clerk's Office, said point also being located in the western right-of-way line of Kentucky Highway 1299; thence with the line of said McDonald property the following two (2) calls:

 North 79° 06' 05" West, a distance of 639,42 feet to an iron pin with cap stamped PLS #3399 found at the northwest corner of said McDonald property;

 South 18° 54' 12" West, a distance of 416.29 feet to an Iron pin with cap stamped PLS #3399 found in the north line of the Robert Crowder property described in Deed Book 491,page 707;

thence with the north line of said Crowder property, North 82° 49° 00" West, a distance of 648,97 feet to a 1.5" pipe found set in a concrete block at the southeast corner of Tract 2 of the Elizabeth Powell Agricultural Consolidation and Division, a plat of which is recorded in Plat Book 9, page 394; thence with the east line of said Elizabeth Powell Agricultural Consolidation and Division, the east line of the Chris Daniel property described in Deed Book 619, page 405, and the east line of Lot 5 of the Robert & Wilma Crowder Subdivision recorded in Plat Book 8, page 124, North 26° 24' 19" East, a distance of 2651.13 feet to an iron pin set in said right-of-way line of Kentucky Highway 1299; thence with said right-of-way line the following three (3) calls:

- South 25° 37° 52" East, a distance of 1444.07 feet to a point in said right-of-way line;
- 2) thence along a curve to the right having a radius of 150.00 feet, an arc distance of 140.04 feet, said curve having a chord direction of South 01° 06′ 49" West, and a chord length of 135.01 feet, to a point in said right-of-way line;
- 135.01 feet, to a point in said right-of-way line;

  South 27° 52' 19" West, a distance of 843.68 feet to the point of beginning and containing 48.31 acres. This description was prepared from a physical survey conducted under the direction of Bruce K. Bailey, PLS #2939 of Bailey Surveys, Inc. on December 13, 2016.

#### TRACT #2:

A certain tract or parcel located on the northeast side of Kentucky Highway 1299, approximately 1.7 miles northwest of the City of Robards, in Henderson County, Kentucky, and being more specifically described as follows:

Unless stated otherwise, any monument referred to herein as a "set iron pin" is a 1/2" diameter rebar, 18" in length set with an orange plastic cap stamped "PLS #2939". All bearings stated herein are referred to the 1983 NAD Kentucky South Zone coordinate system.

Beginning at an Iron pin set in the northeastern right-of-way line of Kentucky Highway 1299, said iron pin also being located at the southeast corner of the additional right-of-way dedicated to the County of Henderson by the plat recorded in Plat Book 8, page 124, at the Henderson County Court Clerk's Office; thence with said County of Henderson right-of-way, North 26° 24' 19" East, a distance of 56.20 feet to an iron pin set in the south line of the Dennis Nunn property described in Deed Book 601, page 142; thence with the south line of said Nunn property, South 80° 30' 14" East, a distance of 1309.38 feet to a 30" oak tree with two blazes on the south side found in the west line of the Mary Ann Sugg property described in Deed Book 549, page 1039; thence with the west line of said Sugg property the following two (2) calls:

- 1) South 27° 59' 58" West, a distance of 462.00 feet to an iron pin set in the west line of said Sugg property;
- South 26° 14' 19" West, a distance of 982.93 feet to an iron pin set in said right-of-way line of Kentucky Highway 1299;

thence with sald right-of-way line of Kentucky Highway 1299 the following three (3) calls:

- thence along a curve to the left having a radius of 210.00 feet, an arc distance of 115.14 feet along said curve, said curve having a chord direction of North 09° 55' 25" West and a chord length of 113.70 feet, to a point located in said right-ofway line;
- 2) North 25° 37' 52" West, a distance of 1471.39 feet to a point located in said right-of-way line;
- thence along a curve to the left having a radius of 221.00 feet, an arc distance of 18.89 feet along said curve, said curve

having a chord direction of North 28° 04' 47" West and a chord length of 18.88 feet to the point of beginning and containing 20.82 acres. This description was prepared from a physical survey conducted under the direction of Brace K. Bailey, PLS #2939 of Bailey Surveys, Inc. on December 13, 2016.

Being the remainder of that certain real property conveyed to Glenn W. Royster and Mildred H. Royster, husband and wife, by deed from Frances H. Strother, Trustee, dated August 15, 1969, of record in Deed Book 243, page 612, Henderson County Clerk's Office, and conveyed to Glenn W. Royster by Mildred H. Royster, unmarried, by deed dated January 14, 2016, of record in Deed Book 615, page 195, Henderson County Clerk's Office. The Grantor, Scott McDonald, obtained title to this real property pursuant to the Last Will and Testament of Glenn W. Royster probated September 29, 2015, of record in Will Book 29, page 275, Webster County Clerk's Office.



2021001930

HENDERSON CO, KY FEE \$55.00 PRESENTED / LODGED: 02-24-2021 02:39:10 PM

RECORDED: 02-24-2021 RENESA ABNER CLERK BY: TONYA WILSON DEPUTY CLERK

BK: RE 649 PG: 237-244

MAILED TO: 2/25/2021 SEBREE SOLAR 700 UNIVERSE BOULEVARD JUNO BEACH, FL 33408

## **Legal Description of Property**

Beginning at a stone corner with S. E. King in F. M. Eakins line running thence with King's line, S. 21 ½ W. 48.82 chains to a stake in Sandefur's line; thence with the line of Sandefur and J. D. Ligon, S. 86-3/4 E. 35.16 chains to a stake 9 links N.E. of a large black oak in A. Brooks' line; thence with the line of A. Brooks and Alex Reeder N. 9½ E. 34.14 chains to a stone corner with Eakins; thence with Eakins' line, N. 58½ W. 26.94 Chains to the beginning, containing 124.30 acres. From which are reserved and not conveyed the graveyard containing one acre, and privilege of burying in said graveyard, and right of way for passway over a passway 16 feet wide from said graveyard along the line of Sandefur and J.D. Ligon to Brooks' line the said passway containing .57 of an acre, leaving a net total hereby conveyed of 122.73 acres.

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated August 20, 2007, of record in Deed Book 557, Page 201, in the Henderson County Clerk's office.

QLA ID: 10478

## EXHIBIT A

## **Legal Description of Owner's Property**

## Parcel 1

A certain tract of land located approximately 1½ miles East of Robards, Kentucky, and more particularly described as follows:

Beginning in the South right of way of Kentucky Highway 416, at the Northeast corner to Dorris Keach's Tract No. 1, said point being in the middle of a large ditch 772 feet North 56° East of the Northeast corner of the Kimberling farm; thence with Kentucky Highway 416 North 56° East 913 feet to a corner to Dorris Keach's Tract No. 2; thence with Tract No. 2, South 20°00' East 938 feet to the North line of Arthur Calvert, and being 1050 feet South 70°45' West of a corner to Calvert; thence with Calvert South 70°45' West 1056 feet to the center of a big ditch; thence with ditch, North 404°30' West 710 feet to the point of beginning and containing 19 acres, more or less. Less

and except:

The following tract described as follows: Beginning in the South line of Kentucky Highway 416, approximately 1½ miles East of Robards, Kentucky, and being more specifically described as follows:

Beginning at the Northwest corner of Dorris Keach Property, 25 feet South of the center of Kentucky Highway 416 and also being the Northeast corner of the Joe Eblen and B.E. Eblen tract of which this is a part; thence with the dividing line between Keach and Eblen, South 19°58'20" East 456.1 feet to a corner of Eblen remainder tract; thence with remainder, North 89°28'30" West

471.50 feet and North 33°29'29" West 175.23 feet to the South right of way of Kentucky Highway 416 and being 25 feet South of the centerline of same; thence running parallel to and 25 feet South of said centerline, North 56° East 498.09 feet to the point of beginning and containing 3.314 acres.

Approx. 16 acres

#### Parcel 2

A tract of parcel of land located in Henderson County, Kentucky on the West side of U.S. Highway 41 and about two miles East of Robards, Kentucky and further described as follows:

Beginning at a stake in the west right of way line of U.S. Highway 41, 40 feet West of the center of the existing pavement and running with the North line of Branson-Allman tract, H. T. Wade and Martin Poole tracts South 86.45 West 2,501 feet to a stake in the center of a big ditch; thence with the bend of said ditch North 10.45 East 540 feet to a stake in center of aforesaid ditch; thence North 70.45 East 2,106 feet to an iron pin; thence South 30.12 East 476 feet to a stake; thence North 69.37 East to a stake in the West right of way line of U.S. Highway 41; thence South 9.04 West 664 feet to a stake in said right of way line; thence 5.29 West 148 feet to the point of beginning containing 47 acres more or less, less the right of way deed to the State of Kentucky by deed dated April 21, 1959, recorded in Deed Book 195, at page 566.

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Less and except the following tracts as follows:

That property conveyed by Louis Sneddon and June Sneddon, husband and wife, by deed to Roger Keene, Sr. and Kathleen Keene, husband and wife, dated May 28, 1993 and being Lot 2 of the Sneddon Subdivision, to the County of Henderson, Kentucky. For a more particular description of said lot and the easements, set back lines and other matters you are referred to plat of record in Plat Book 6, Page 293, of the Henderson County Clerk's Office, which is incorporated herein by reference.

#### **AND**

There is reserved for the benefit of the 4.4 acre tract (as described in Deed Book 295, Page 350) a permanent right of way over the driveway leading from U.S. Highway 41 to the residence located on the 4.4 acre tract which driveway lies near the North boundary line of and on the property herein conveyed.

#### AND

There is further reserved for the benefit of the 4.4 acre tract (as described in Deed Book 295, Page

350) a permanent easement over the tract herein conveyed for a gas line running from the Texas Gas Transmission Line across the tract herein conveyed and serving the residence located on the 4.4 acre tract.

Approx. 46 acres

QLA ID - 9213

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Deed dated 8-Dec-2006, of record in Deed Book 552, Page 790, in the Henderson County Clerk's office.

#### **EXHIBIT A TO EASEMENT**

#### **Legal Description of Property**

The following described real property located in Henderson County, Kentucky, to wit:

A tract of land located about 1 mile from Robards, Henderson County, Kentucky, on the Rock House Road, and more particularly described as follows:

Beginning at a stake in the Rock House Road, corner to E. G. Eakins; thence N 188 poles to a stone in J. D. Robards homestead tract; thence N 80° E 56 poles to a stone in Robards' line, corner to James Reeder, colored; thence S 60 poles to a stone, corner to Ed Allman; thence N 80° E 121 poles, corner to Allman; thence S 66-2/3 poles; thence S 80° W 61 poles to a point, corner to M. J. Moss; thence S 13-2/3 poles; thence S 19° E 72 poles to the Rock House Road, corner to E. G. Cakins; thence with said Rock House Road S 89° W 128 poles to the point of beginning, containing 100.25 acres, more or less.

LESS AND EXCEPT the following described property which was conveyed to Paul Wade and his wife, Lorene Wade, by deed from Henry T. Wade and his wife, Maude M. Wade, dated October 22, 1946, of record in Deed Book 128, page 463, in the aforesaid Clerk's Office, to-wit:

Beginning at an iron stake in the East right of way line of U. S. Highway 41S, running thence with East right of way of said Highway, N 01° 34' E 805 feet to an iron stake, corner in said right of way line with Charles Branson; thence with Branson line, S 85° 15' W 436 feet to a post and iron stake, corner with Charles Branson in H. T. Wade's line; thence with fence, S 05° 11' W 797 feet to an iron stake, corner with H. T. Wade; thence N 87° 03' E 484 feet to the beginning, containing 8.39 acres, according to survey made by W. W. Poole, C. E. on October 19, 1946.

LESS AND EXCEPT the following described property which was conveyed to James H. Wade and his wife, Frances L. Wade, by deed from Henry T. Wade and his wife, Maude M. Wade, dated May 16, 1953, of record in Deed Book 161, page 491, in the aforesaid Clerk's Office, to-wit:

Beginning at a stake in roadway corner with H. T. Wade, runs N O3° 22' E 255 feet to a stake and post, corner with Reed land in H. T. Wade's line; thence N 84° 46' E 483 feet to a post and stake in the West right of way line of U. S. Highway 41, a corner with the Reed land; thence with said right of way line South 1572 feet to a stake in the old Robards-Rock House Road and in the West right of way line of U. S. Highway 41, corner with Lee Eakins to a stake at concrete bridge and ditch, corner with H. T. Wade in Lee Eakins' line; thence with ditch N 32° 40' W 185 feet; and N 04° 16' E 1101 feet to a stake in roadway, corner with H. T. Wade; thence with said roadway S 84° 48' E 221 feet to the place of beginning, containing 25.0 acres, according to survey of W. W. Poole, C. E. on May 16, 1953.

THE ABOVE PROPERTY BEING the same property acquired by Grantor, by Last Will and Testament of Florence Marie Griffin, of record in Deed Book 39, Page 366, in the Henderson County Clerk's office.

QLA: 8923

#### **EXHIBIT A TO EASEMENT**

#### **Legal Description of Property**

#### Parcel 1 (Tract 1 in deed at 493-773)

A tract of land lying and being on the waters of Grave Creek and bounded as follows:

Beginning at a stone, corner with Z. Eakins in Mc Donald's line; thence with Mc Donald's line S 12-6 W 152 poles and 10-1/2 feet to a stake, corner with Mc Donald in Ed Walker's line in old Robards and Sebree Road; thence with said road and Ed Walker to and with J.A. curry's line, S 87-58 E 152 poles to a corner with J.A Curry, in Walker's Line; thence with the Walker line, N11-54, E 130 poles 5-4/10 feet to a stake, corner with Walker's line, N78-47, W 151 poles 8-1/2 feet to the beginning, containing 141.9 acres.

#### Parcel 2 (Tract 2 in deed at 493-773)

A tract of land lying principally in Webster County, Kentucky and partially in Henderson County, Kentucky, described as follows:

Beginning at a point on the West side of the access road on the West side of the Pennyrile Parkway, a corner with Thornton Walker in line of Rideout Heirs; thence in a westerly direction with the line of Thornton Walker and T.O. Kyle a distance of 1980 feet, more or less, to a stake; thence in a Southerly direction with line of T.O. Kyle a distance of 1125 feet, more or less, to a stake in line of Pearline Denton and Rideout Heirs a distance of 1980 feet, more or less, to a stake, corner to Rideout Heirs; thence in a Northerly direction with line of Rideout Heirs a distance of 1155 feet, more or less, to the place of beginning, containing 50 acres, more or less.

#### Parcel 3 (Second Tract 1 in deed at 493-773)

A certain tract or parcel located on the West side of U.S. highway 41 North of Pedler McDonald Road in Henderson County, Kentucky, being more particularly described as follows:

Beginning at an iron pin set found in the West right-of-way line of the US. Highway 41, said iron pin also being in the right-of-way line of CSX Railroad as recorded in Deed Book 250, Page 253 at the Henderson County Clerk's office, Henderson County, Kentucky; thence with the North line of said CSX Railroad, South 85°18'10" West, a distance of 195.06 feet to a point; thence along said CSX right-of way line along a chord North 83°21'26" West, a distance of 338.97 feet having a radius of 880.37 feet to a point; thence along said CSX right-of-way line North 71°45'09" West, a distance of 181.49 feet to an iron pin set in said CSX right-of-way line; thence North 17°14'47" East, a distance of 25.9 feet to an iron pin set, also a corner to K.B Alloy property as recorded in Deed Book 317 Page 225, Deed Book 373 Page 276 and Plat Cabinet 04 Slide 49 at the Henderson County Clerk's Office, Henderson County, Kentucky; thence along the East boundary of said K.B. alloy Property North 17°14'47" E, a distance of 1112.47 feet to an Iron Pin set, also a corner to said K.B. alloy property, also a corner to Malcolm Property as recorded in Deed Book 407 Page 604 at the Henderson County Clerk's Office, Henderson County, Kentucky; thence with the Southern boundary of said Malcolm property, South 73°45'05" East, a distance of 306.82 feet to a iron pin set in the West right-of-way line of U.S. Highway 41, also a corner to said Malcolm property; thence with the West right-of-way line of U.S. Highway 41 along a chord South

02°38'14" East, a distance of 367.68 feet having a radius of 5789.65 feet to a point; thence continuing with these West right-of-way line of U.S. Highway 41 South 04°23'19" East, a distance of 715.35 feet to the point of beginning. Containing 13.09 acres

#### Parcel 4 (Tract 3 on deed at 493-773)

A certain tract or parcel located on the East side of US. Highway 41 North of Pedler Mc Donald Road in Henderson County, Kentucky, more particularly described as follows:

Beginning at an Iron pin found in the East right-of-way line of the U.S Highway 41, also being in the Northern right-of way line of CSX RAILROAD AS RECORDED IN Deed Book 250 Page 253 at the Henderson County Clerk's Office, Henderson County, Kentucky; thence with the North right-of-way line of said CSX Railroad, North 85°33' 56" East, a distance of 1796.85 feet to an iron pin set in the West property line of Rita Trust property as recorded in Deed Book 441 Page 704 at the Henderson County Clerk's Office, Henderson County, Kentucky; thence with the West boundary of said Ritz property North 18°02'02" East, a distance of 313.11 feet to an iron pin set also a corner to said Ritz property, also in the Southern right-of-way of state Route 2097 known as Big Rivers Road; thence with the Southern right-of-way of State Route 2097, North 80°18'39" West, a distance of 388.80 feet to a right of way marker; thence continuing with the Southern rightof-way of State Route 2097, North 88°49'18" West, a distance of 101.12 feet to a right of way marker, thence continuing with the Southern right-of-way of State Route 2097, North 80°17'27" West, a distance of 650.00 feet to a right of way marker; thence continuing with the Southern right-of-way of State Route 2097, North 74°34'49" West, a distance of 100.50 feet to a right of way marker; thence continuing with the southern right-of-way of State Route 2097, North 80°17'27" West, a distance of 625.00 feet to an iron pin set; thence continuing with the Southern right-of-way of state Route 2097, South 64°07'40" West, a distance of 115.38 feet to an iron pin set at the East right-of-way of U.S. Highway 41; thence with the East right-of-way of U.S. Highway 41, South 04°23'19" East, a distance of 697.61 feet to the point of beginning, containing 22.512 acres and being subject to all legal written and unwritten easements and right of way.

There is excepted from this a parcel of land being 90 foot wide at one end and 100 foot wide at the other end and being 145 foot long each side; said parcel being a drainage easements for state Route 2097 as indicated on the plat for this parcel.

#### Parcel 5 (Second Tract 2 in deed at 493-773)

Beginning at a point found South of Tract 1, and said point also being in the South right-of-way line of CSX Railroad as recorded in Book 250, Page 253 at the Henderson County Clerk's Office, Henderson County, Kentucky also being in the West right-of-way line of U.S. Highway 41 South 04°23'19" East, a distance of 135.11 to an iron pin set; thence continuing with the West right-of-way line of U.S. Highway 41, South 85°36 '41" West, a distance of 10.00 feet to a point; thence continuing with the West right-of-way line of U.S. Highway 41 South 04°23'19" East, a distance of 25.00 feet to a point; thence North 85°36'41" East, a distance of 10.00 feet to a point; thence South 04°23'19" East, a distance of 870.00 feet to an iron pin set; thence S 85°36'41" West, a distance of 61.00 feet to an iron pin set; thence South 04°23'19" East, a distance of 111.00 feet to an iron pin set at a corner to the right-of-way to Pedler McDonald Road; thence with the North right-of-way of Pedler McDonald Road North 84°10'30" West, a distance of 1106.79 feet to an iron pin set, at a corner to now or formerly Griffin property as recorded n Deed Book 482 Page

671 at the Henderson County Clerk's Office, Henderson County, Kentucky; thence with the East Property line of said Griffin property North 14°58'30" South, a distance of 1135.85 feet to an iron pin set in the South right-of-way line of said CSX Railroad, also a corner to said Griffin property; thence with the Southern boundary of said CSX Railroad South 71°50'30" East, a distance of 15.00 feet to a point; thence continuing with the Southern boundary of said CSX Railroad North17°14'47" East, a distance of 25.00 feet; thence continuing with the Southern boundary of said CSX Railroad South 71°45'09" East, a distance of 180.19 feet to a point; thence continuing along with the Southern boundary of said CSX Railroad along a chord South 83°21'26" East, a distance of 396.72 feet having a radius of 1030.37 feet to a point; thence continuing with the Southern boundary of said CSX Railroad North 85°18'09", a distance of 194.88 feet to the point of beginning, containing 24.68 acres and being subject to all legal written and unwritten easements and right of way

QLA ID - 9308

THE ABOVE PROPERTY BEING the same property acquired by Grantor (except Tract 4), by Deed dated August 24, 1999, of record in Deed Book 493, Page 773, in the Henderson Clerk's office, and in Book D241, page 408 in the Webster County Clerk's office.

#### **EXHIBIT A**

#### **Legal Description of Owner's Property**

#### Parcel 1

The tract is the remainder portion of J. Leroy Poole's 35 acre tract as described in Deed Book 293 page 388, LESS lot 1 and 2 as shown on the plat and described as follows, being Lot 3 as shown on the plat of record in Deed Book 392, page 317, Henderson County Court Clerk's office.

Beginning at an iron pin in the south right of way of Kentucky Highway 416 and at a corner of Maynard Hust, thence S. 79° 45′ W. 295.91 feet with the Highway to a pin at a corner of Lot 2; thence S. 2° 39′ W. 484.42 feet to a pin and S. 82° 47′ W. 364.43 feet to a pin at a corner between Douglas Denton and Billy Parrish, both calls with Lot 2, thence S. 2° 45′ W. 1798 feet with Parrish "to a stake in old road," "thence with same S. 85° 20′ E. 648 feet to an iron pin in road" at a corner with Maynard Hust, thence N. 2° 45′ E. 2460 feet with Hust to the point of beginning and containing 30.9 acres more or less, the accompanying plat providing a more particular description.

The above being the same property acquired by Donald R. Whitmore and wife, Carolyn A. Whitmore by Deed dated June 30, 1994, of record in Deed Book 442, Page 519, in the Henderson County Clerk's office.

#### Parcel 2

Beginning at a RR spike corner to Tom Melton, said spike being in the centerline of the Spencer-Thornberry Road and being approximately 2750 feet south of the intersection of Ky. Hwy. 416 in Henderson County, Kentucky; thence with the centerline of said road South 57° 37′ 24″ East - 30.25 feet, South 64° 26′ 56″ East - 76.32 feet, South 57° 12′ 36″ East - 61.62 feet, South 39° 01′ 56″ East - 73.52 feet, South 11° 05′ 53″ East - 90.14 feet, South 7° 04′ 52″ West - 236.18 feet to a RR spike corner to Tract 5A of the Jack Tillman Subdivision; thence with the line of said subdivision

North 83° 00' 22" West - 100.47 feet to an iron pin, North 23° 14' 30" West - 16.04 feet to an iron pin, North 82° 44' 54" West - 604.19 feet to an iron pin, South 2° 45' 30" East -- 505.72 feet to an iron pin in the line of A. F. Royster; thence with the line of Royster North 83° 18' 14" West - 1106.93 feet to a 12" Hackberry corner to Terry Duncan; thence with the line of Duncan North 15° 24' 31" West - 213.17 feet, North 9° 49' 28" West - 256.23 feet, North 8° 52' 57" West -432.62 feet to a post, North 34° 30' 31" East - 39.03 feet to a post, North 16° 33' 18" West - 1152.37 feet to a post in the line of Chris Daniels; thence with the line of Daniels, James Eblen and W. C. Royster South 82° 30' 11" East - 1244.66 feet to an iron pin corner to James Eblen; thence with the line of Eblen South 83° 23' 26" East - 239.01 feet to a 12" Maple corner to Tom Melton; thence with the line of Melton South 3° 14' 53" East -- 1056.85 feet to an iron pin, South 85° 35' 34" East - 540.95 feet to the point of beginning and

containing 63.413 acres. See plat of record in Plat Book 5, page 2.

### Parcel 3

Being all of the following lots of the Margaret Moore Minor Subdivision and Consolidation as follows:

Tract 1: Consisting of one lot: Lot 1 (3.1115 acres).

Tract 2: Consisting of one lot: Lot 1 (5.3236 acres).

Both tracts being recorded in Plat Book 6, page 199, in the Henderson County Court Clerk's Office. For a more particular description, see Exhibit "A" attached hereto and made a part hereof.

Being the same property conveyed to Grantors herein by a deed dated June 3, 1992, from Margaret E. Moore, widow, of record in Deed Book 423, page 62, in the Henderson County Court Clerk's Office.

#### Parcel 4

The tract is the remainder portion of J. Leroy Poole's 35 acre tract as described in Deed Book 293, page 388, LESS Lot 1 and 2 as shown on the plat and described as follows, being Lot 3 as shown on the plat of record in Deed Book 398, page 367, in the Henderson County Court Clerk's Office.

Beginning at an iron pin in the south right-of-way of Kentucky Highway 416 and at a corner of Maynard Hust, thence South 79° 45′ West 295.91 feet with the highway to a pin at a corner of Lot 2; thence South 2° 39′ West 484.42 feet to a pin and South 82° 47′ West 364.43 feet to a pin at a corner between Douglas Denton and Billy Parrish, both calls with Lot 2, thence South 2° 45′ West 1798 feet with Parrish "to a stake in old road," "thence with same South 85° 20′ East 648 feet to an iron pin in road" at a corner with Maynard Hust, thence North 2° 45′ East 2460 feet with Hust to the point of beginning and containing 30.9 acres more or less, the accompanying plat providing a more particular description.

#### Parcel 5

Beginning at an iron pin corner to Windy Knob Dairy, said pin being the northern R/W of Ky. Hwy. 416, 30 feet from the centerline and being approximately 125 feet east of the intersection of W. N. Royster Road in Henderson County, Kentucky; thence with the line of Windy Knob Dairy North 1° 54′ 57″ East - 320.64 feet to a post, North 1° 20′ 55″ East - 467.81 feet to a post, North 1° 24′ 29″ East 179.47 feet to an iron pin corner to Jack Pryor's remainder; thence with said remainder, South 78° 55′ 21″ West - 229.63 feet to a post, North 87° 08′ 10″ West - 159.71 feet to an iron corner to Lot No. 2 of the Jack Pryor Subdivision; thence with the line of Lot No. 2, South 1° 52′ 02″ West - 909.92 feet to an iron pin in the R/W South 87° 09′ 06″ East -

191.39 feet, South 86° 22' 55" East - 197.61 feet to the point of beginning and containing 8.242 acres.

Being Lot No. 1 of the Jack Pryor Subdivision appearing of record in Plat Book 5, page 61, in the Henderson County Court Clerk's Office.

LESS & EXCEPT: No minerals are included in this conveyance.

Parcels 2-5 above being the same property acquired by Donald R. Whitmore and wife, Carolyn G. Whitmore by Deed dated November 4, 1999, of record in Deed Book 491, Page 698, in the Henderson County Clerk's office.

#### Parcel 6

Beginning at a stake in Royster and Thornberry Road, corner with Forrest Edwards, in J. L. Blue line, runs N 88 - 20 W 1359 feet to Red Oak, corner with Forrest Edwards in Mrs. Fannie Royster's line; thence N 1 - 40 E 23 feet to a Black Gum, corner of Mrs. Fannie Royster; thence N 88 - 20 W 618 feet to a post oak; thence north 205 feet to a stake in Earl Knight's line, corner with Olvia Royster Heirs 10 acre tract; thence with line of 10 acre tract S 88 - 20 E 1980 feet to the Royster-Thornberry Road; thence with same S 1 - 15 W 230 feet to the beginning, containing 10 acres.

LESS: The following 7 acres conveyed to Ralph Ray Royster and wife, Barbara Jean Royster, by Cecile Royster, widow, by deed of even date herewith, to-wit:

Beginning at a stake in the Royster and Thornberry Road, at the southeast corner of Tract No. 1 of the property conveyed to Grantor and husband by deed dated July 14, 1951, of record in Deed Book 152, page 312, in the Henderson County Court Clerk's Office; thence North 88 deg. 20' West 1325.756 feet to a point corner to the remainder of Tract No. 1 of the 1951 deed; thence North 1 deg. 40' East 230 feet to a point corner with Tract No. 2 conveyed to Grantor and husband by the 1951 deed; thence with Tract No. 2 South 88 deg. 20' East 1325.756 feet to the Royster and Thornberry Road; thence with said road South 1 deg. 15' West 230 feet more or less to the point of beginning and containing in all 7 acres and being the southeast corner of the property conveyed to Grantor by the, 1951 deed.

#### Parcel 7

Beginning at a stake, corner with V. A. Royster 10 acrestract, runs North 222 feet to a stake in Earl Knight's line, corner with Mrs. Lymer Ligon 25 acrestract; thence south 88 - 20 East 1983 feet to Royster-Thornberry Road,

corner with Mr. and Mrs. Gus Ligon; thence with road S-1 - 15 W 222 feet to a stake in division line, corner with V. A. Royster; thence North 88 - 20 West 1980 feet to the beginning, containing 10 acres.

Parcel 6 & 7 above being the same property acquired by Donald R. Whitmore and wife, Carolyn G. Whitmore by Deed dated August 11, 1998, of record in Deed Book 479, Page 78, in the Henderson County Clerk's office.

#### Parcel 8

A lot or parcel of land lying in Henderson County, Kentucky, and being Lot No. 1 in the Division of the lands of W.A. Royster, decd., and bounded as follows:

Beginning at a stake in the center of the public road Corner to Olivia Royster and in the line of Powell Eblen, thence with center line of said road North 2 deg. 15' East 4.64 chains to a stake; thence with the center line of said road, North 3 deg. 45' East 9.47 chains to a stake corner with N. E. Royster; thence with E. N. Royster's line South 87 deg. 15' East 36.33 chains to a stake corner with H. K. Betts; thence South 2 deg. 45' West 44.10 chains to a stake, thence North 87 deg. 15' West 36.33 chains to the beginning, containing 51.25 acres.

The above being the same property acquired by Donald R. Whitmore and wife, Carolyn G. Whitmore by Deed dated January 24, 2003, of record in Deed Book 520, Page 382, in the Henderson County Clerk's office.

QLA: 8181

# Sebree Solar, LLC

Case No. 2021-00072

Application - Volume 2
Tab 12
Attachment A
Exhibit 3

Preliminary Site Layout (17 Pages)

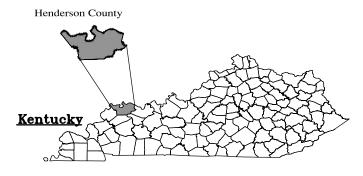
Page 1 of 17

# **CONCEPTUAL SITE PLAN**

# SEBREE SOLAR PROJECT

PHASE 1

PREPARED FOR



KENTUCKY STATE MAP

PROJECT SITE IN	IFORMATION
SITE ADDRESS	TBD
COUNTY PARCEL NUMBER	VARIOUS
GPS COORDINATES	VARIOUS
SITE ELEVATION	450 FT A.M.S.L.
UTILITY NAME	TBD
UTILITY ADDRESS	TBD
UTILITY CONTACT INFORMATION	TBD
DEVELOPER NAME	SEBREE SOLAR, LLC
DEVELOPER ADDRESS	700 UNIVERSE BLVD., JUNO BEACH, F
DEVELOPER CONTACT	LINA JENSEN
CIVIL ENGINEER OF RECRD (EOR) NAME	TBD
CIVIL EOR ADDRESS	TBD
CIVIL EOR CONTACT INFORMATION	TBD
APPLICABLE BUILDING PERMIT AUTHORITY	TBD
SYSTEM AC SIZE (MW AT POI)	250
SYSTEM DC SIZE (MW)	361.49
MODULE COUNT	850,564
INVERTER COUNT	78
SWITCHGEAR COUNT	TBD
TRANSFORMER COUNT	1
EQUIPMENT PAD COUNT	TBD
PROJECT ZONING	AGRICULTURAL
NON PARTICIPATING PARCEL BUFFER	25 FEET
OCCUPIED STRUCTURE BUFFER	100 FEET
ROAD R.O.W. BUFFER	40 FEET
SURFACE WATER BUFFER	25 FEET
WETLAND BUFFER	25 FEET
STREAM BUFFER	25 FEET
PROJECT AREA	1,200 ACRES
ROAD LENGTH	66,700 FEET / 12.6 MILES
LANDSCAPE BUFFER	10,370 FEET



SEBREE SOLAR, LLC 700 UNIVERSE BLVD JUNO BEACH, FL 33408

> Contact: Lina Jensen, Project Director Sebree Solar, LLC (832) - 613 - 7247

CITY OF ROBARDS HENDERSON COUNTY, KENTUCKY, 40146

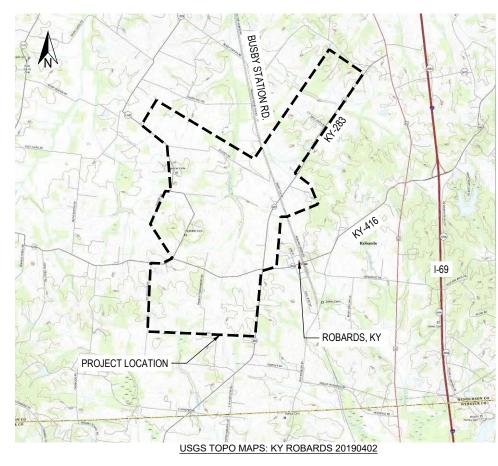
BY



707 East Third Avenue
New Smyrna Beach, Florida 32169
Tel: (386) 427-0694 Fax: (386) 427-0899
Agent's E-mail: cfagerstrom@ectinc.com
Agent's Tel: (386) 852-0387
http://www.ectinc.com

ECT PROJECT NUMBER 20-0196

AUGUST 2021 KENTUCKY SITING BOARD REVIEW SET



PROJECT LOCATION MAP

N.T.S.

#### INDEX OF DRAWINGS

C1.00	COVER PAGE
C1.01	EXISTING CONDITIONS
C1.02	OVERALL LAYOUT PLAN
C1.03 -	SITE EXHIBITS
C1.14	
C2.01	CIVIL DETAILS
C2.02	LANDSCAPE ILLUSTRATION

CALL BEFORE YOU DIG 811





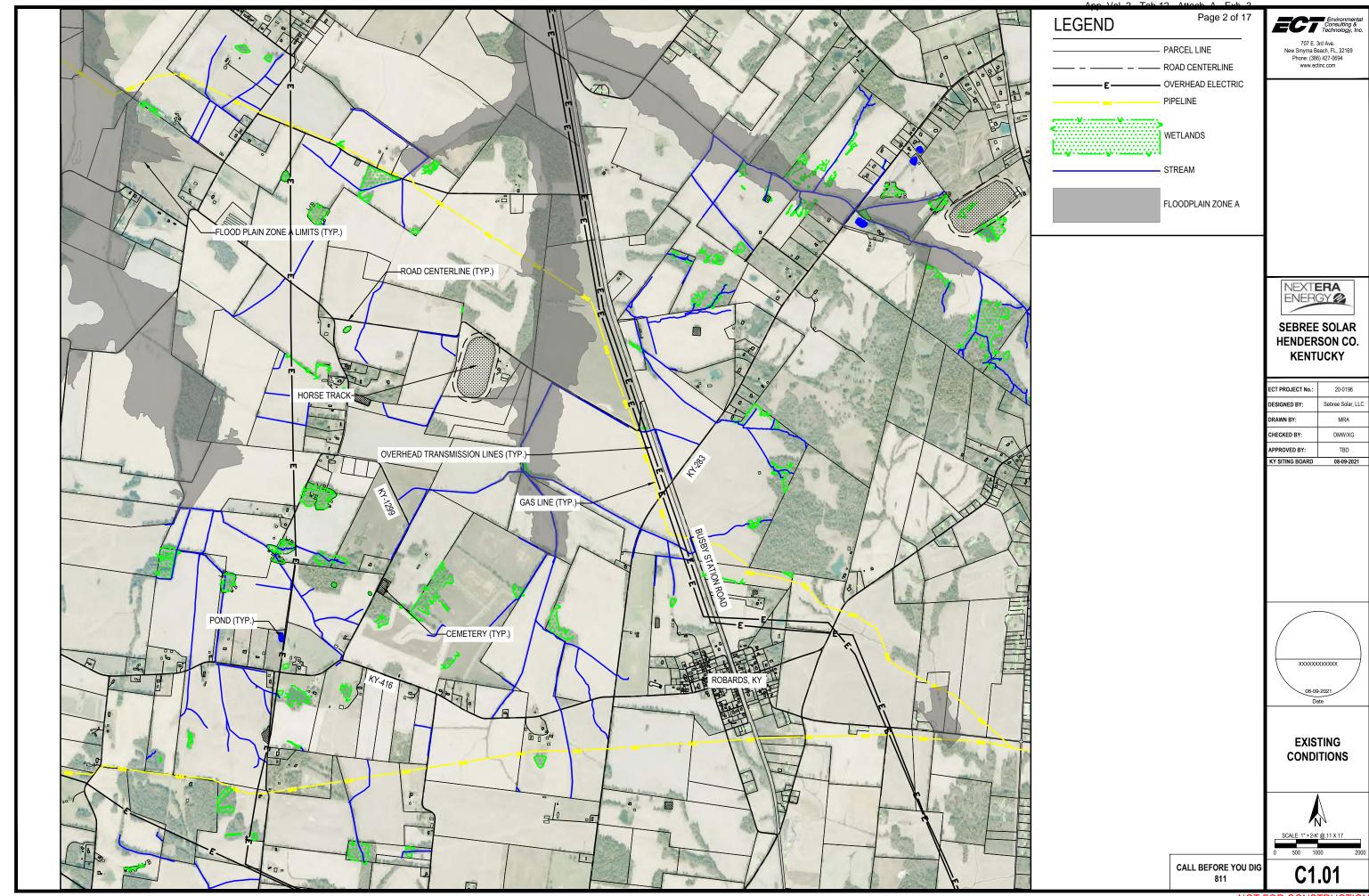
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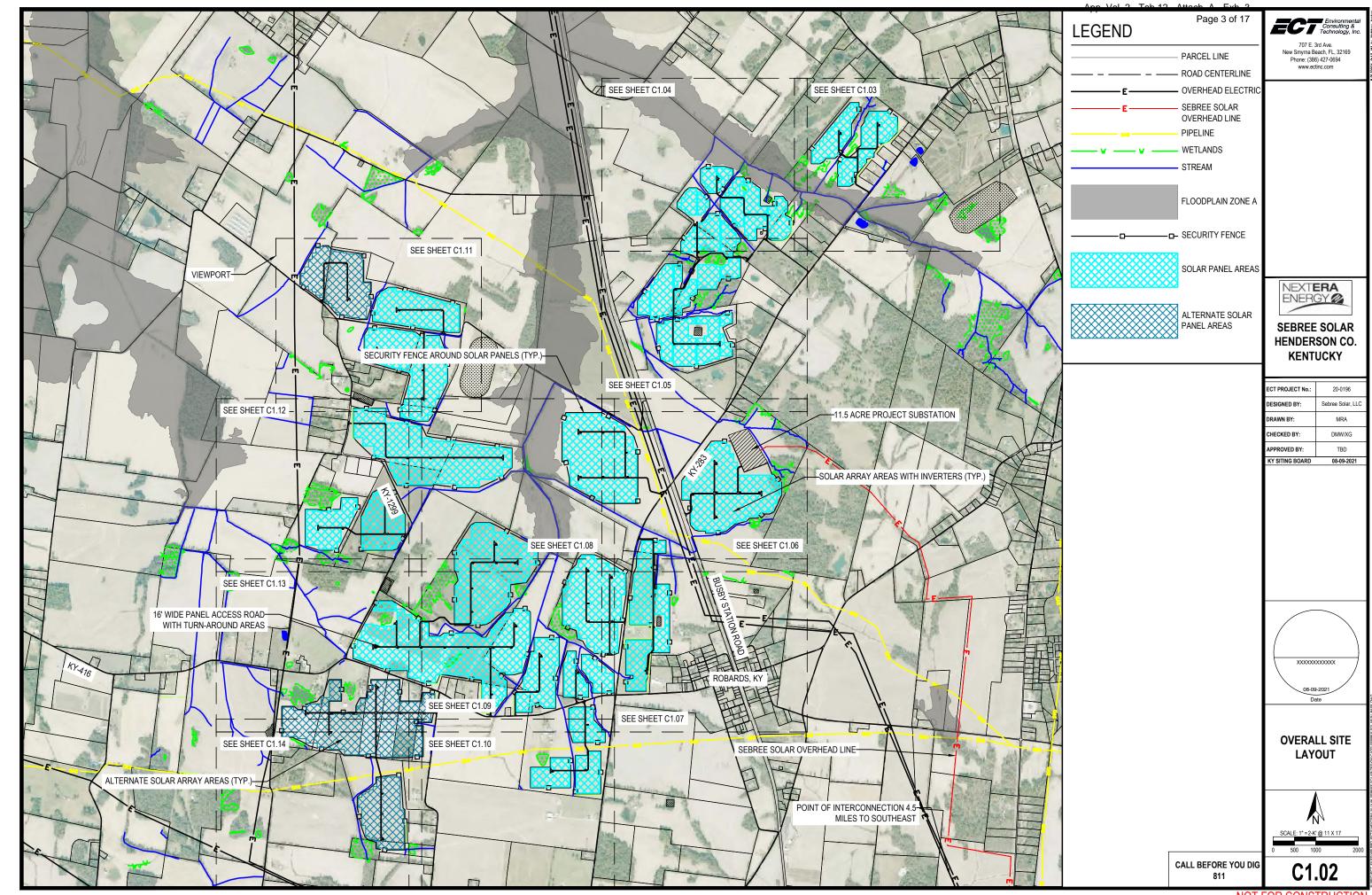
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Sebree Solar, LLC
MRA
DMW/XG
TBD
08-09-2021

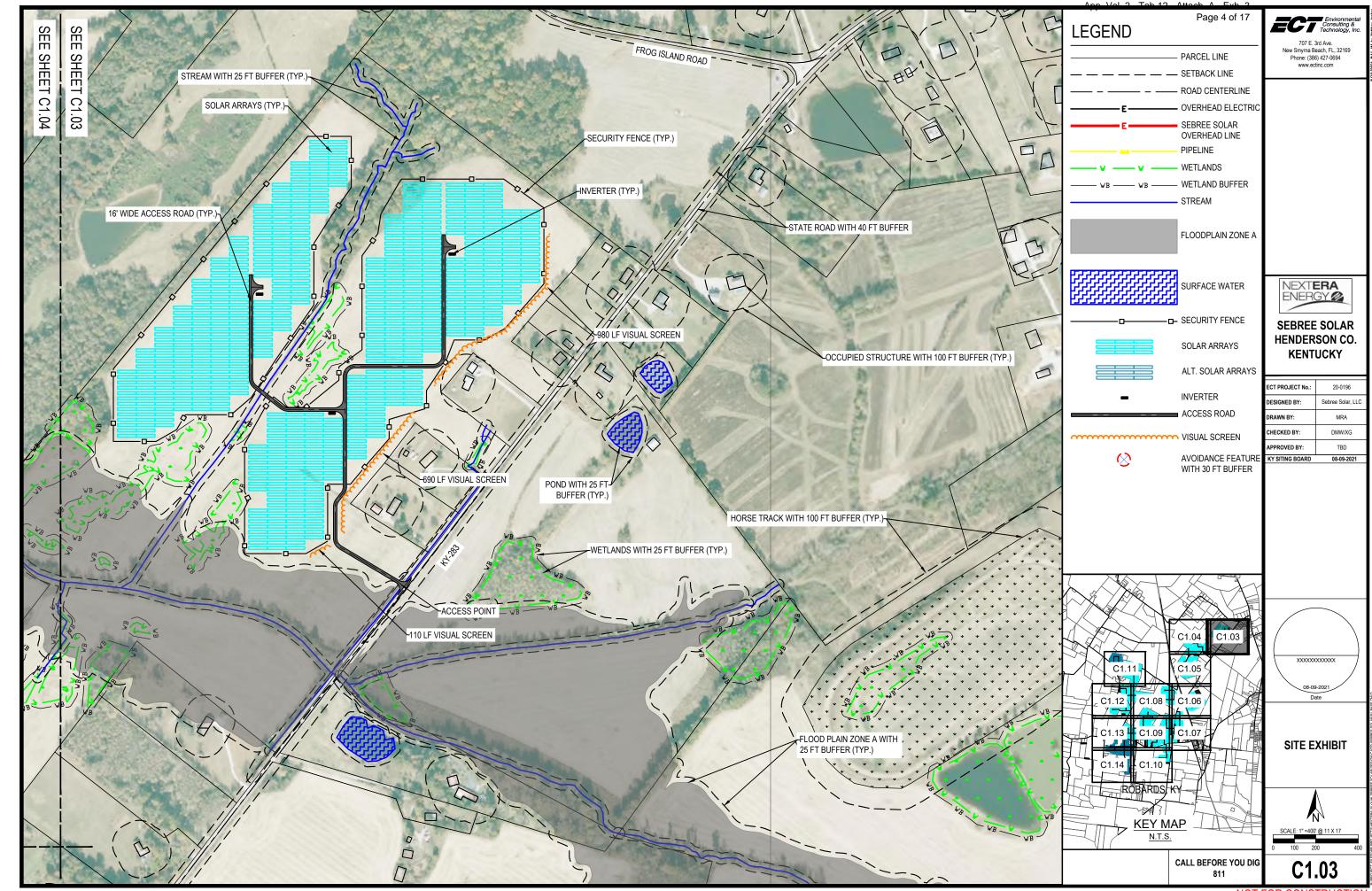


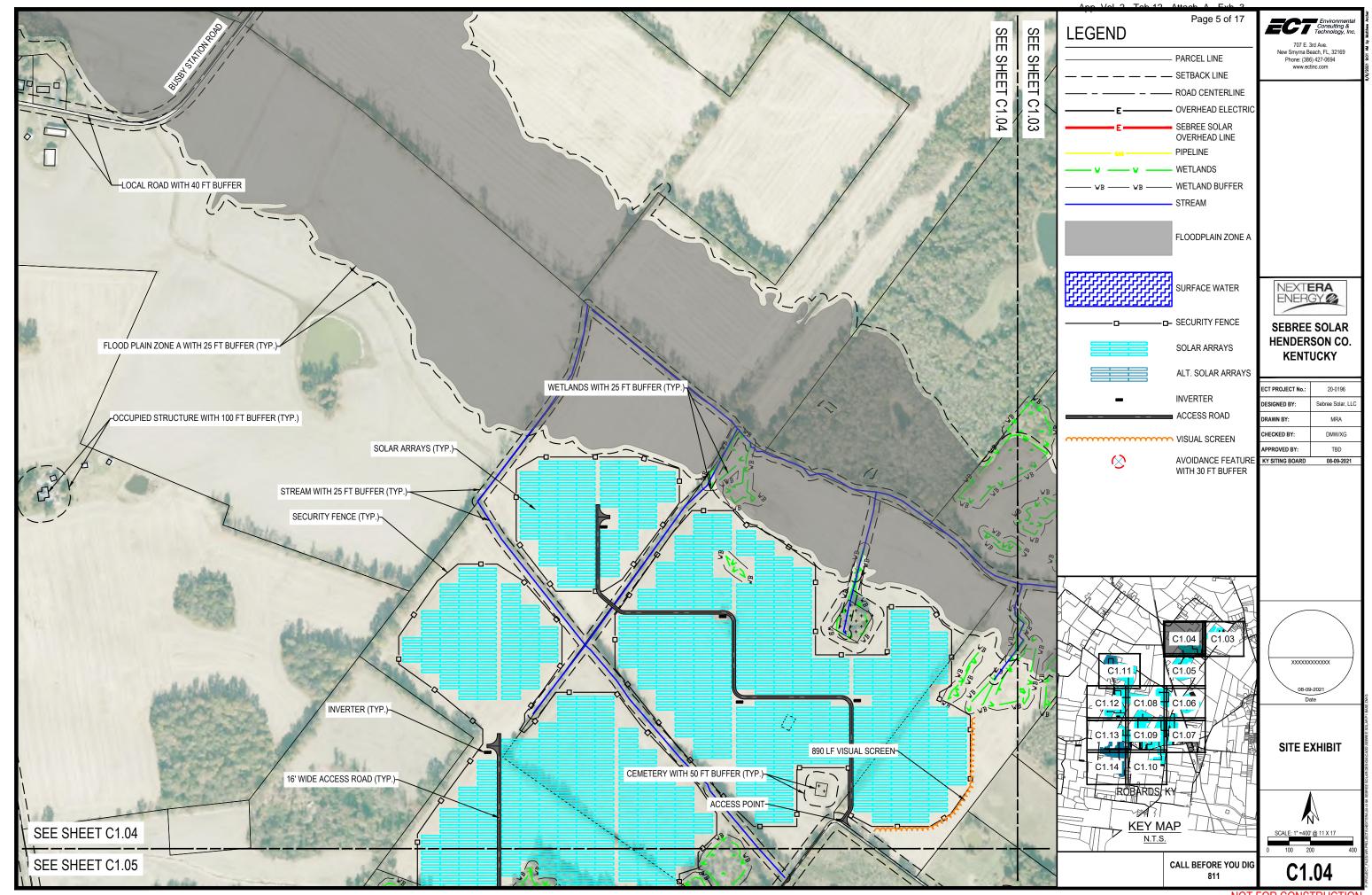
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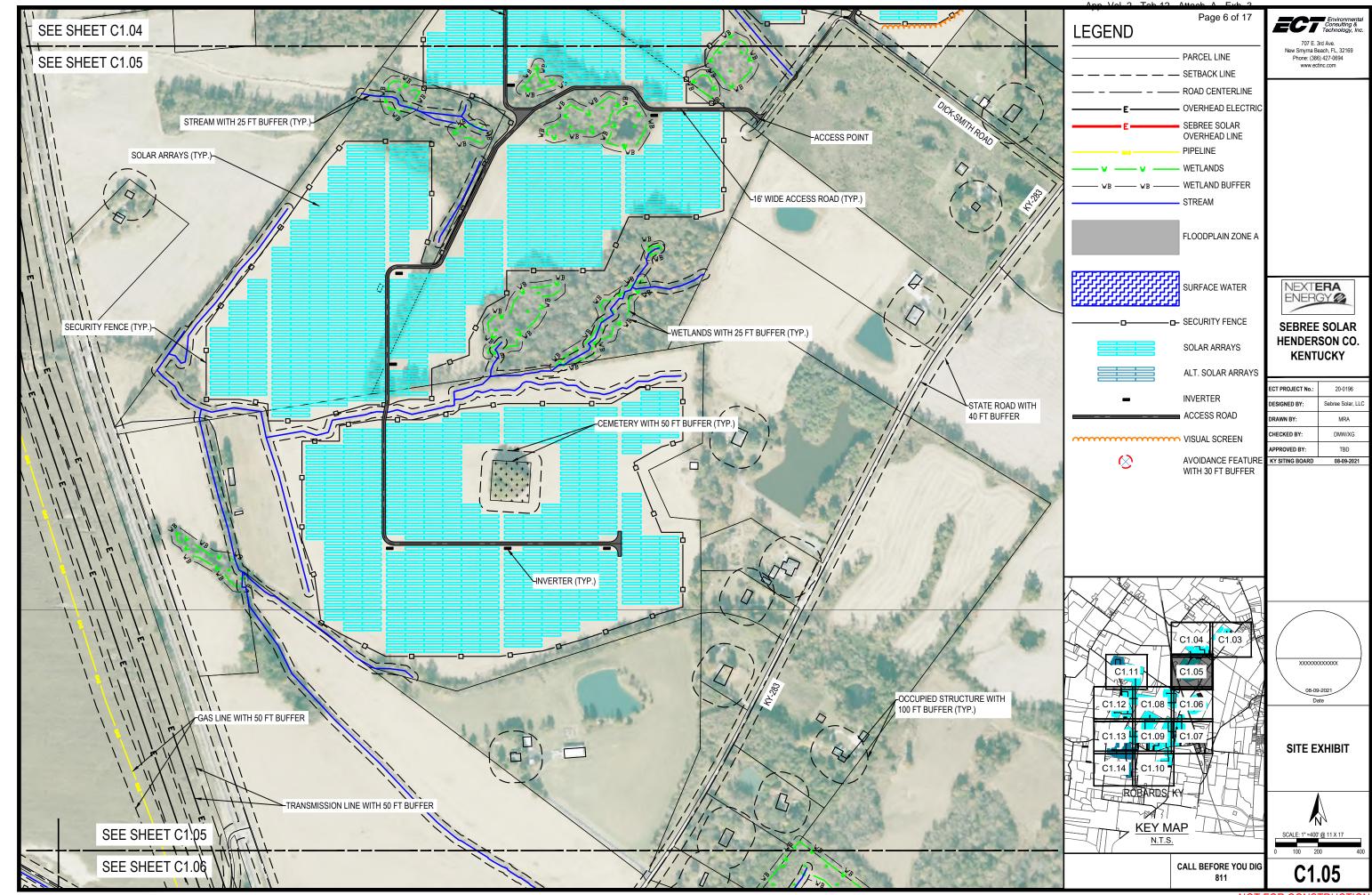
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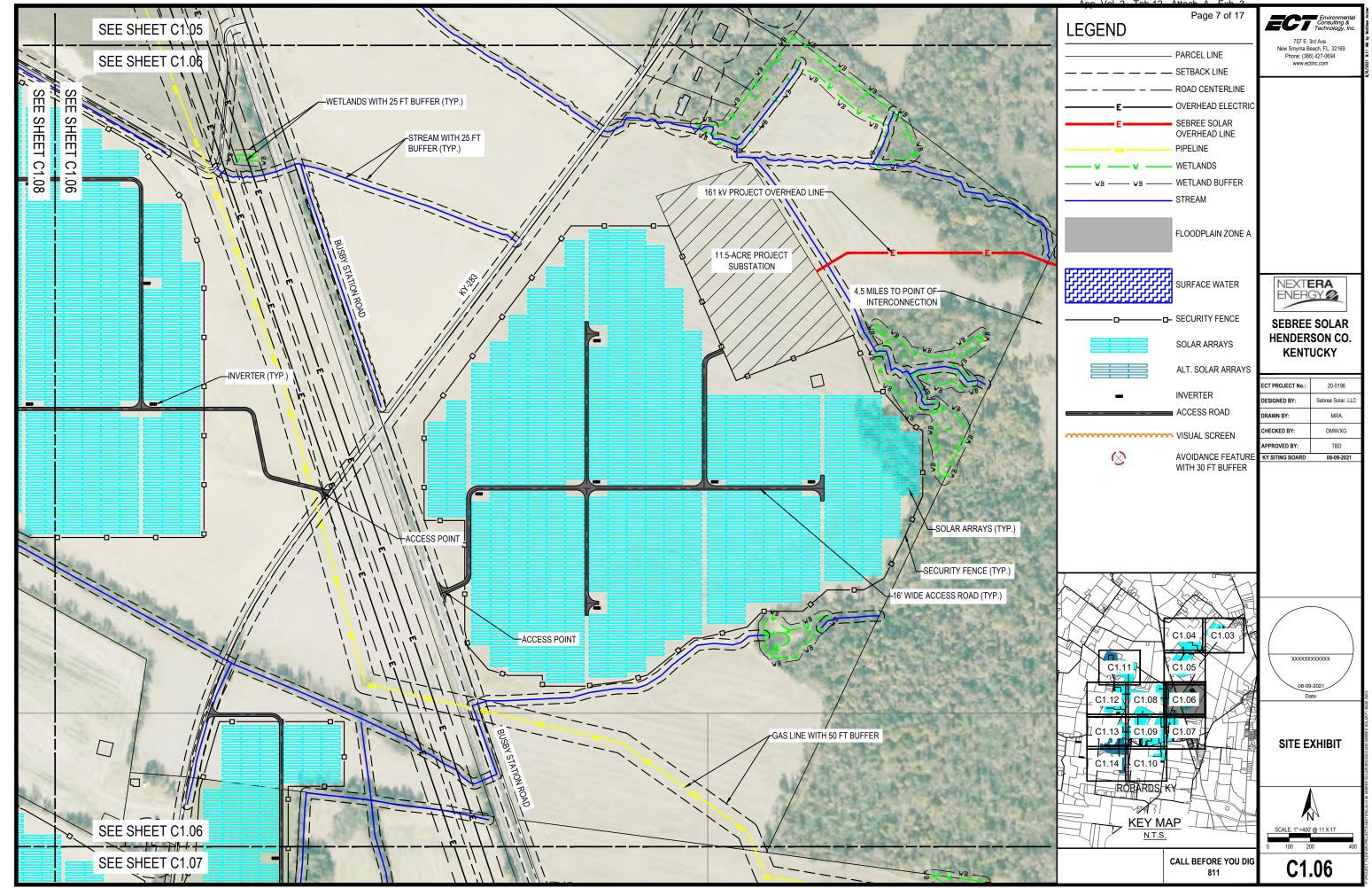


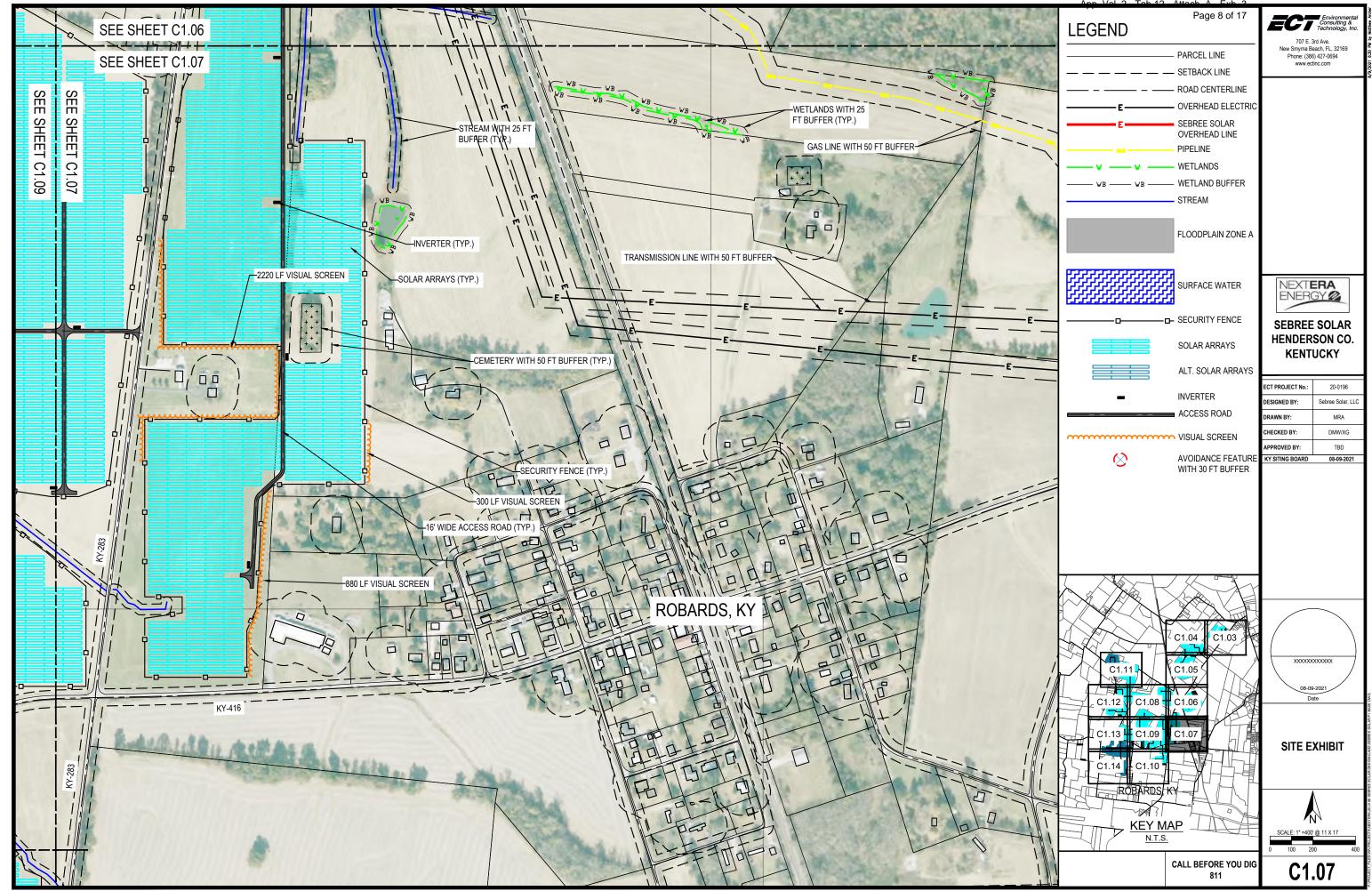


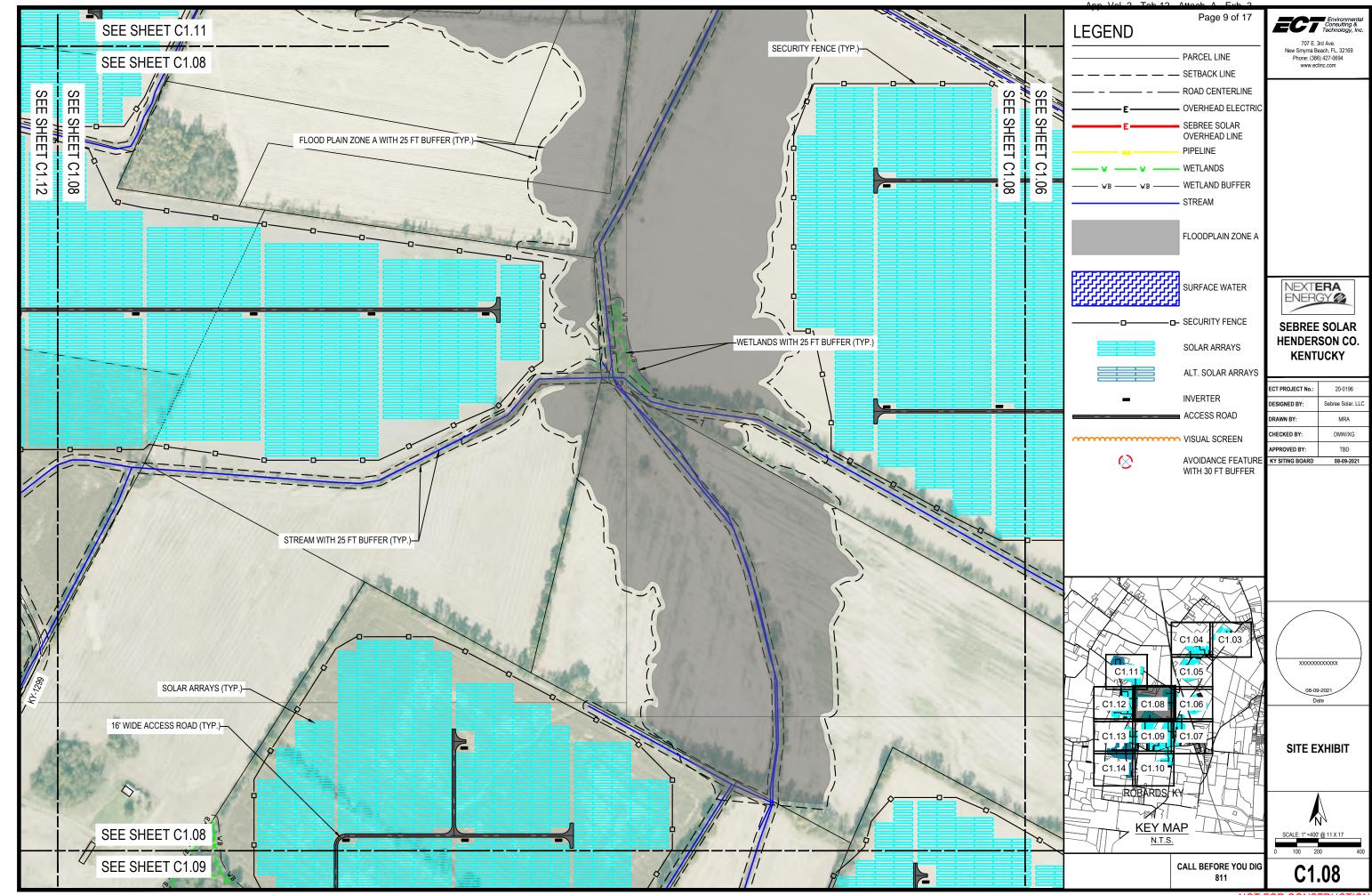


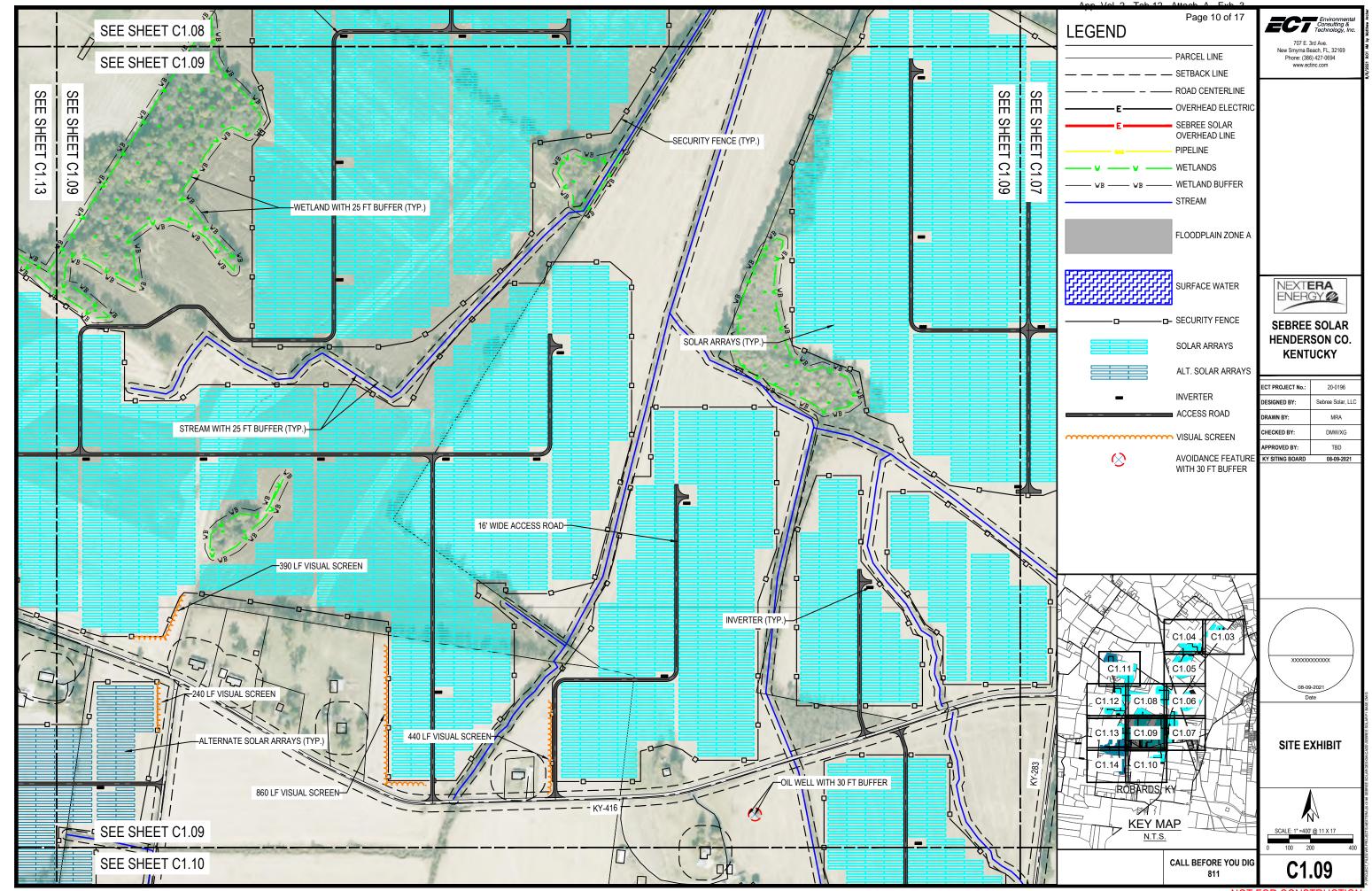


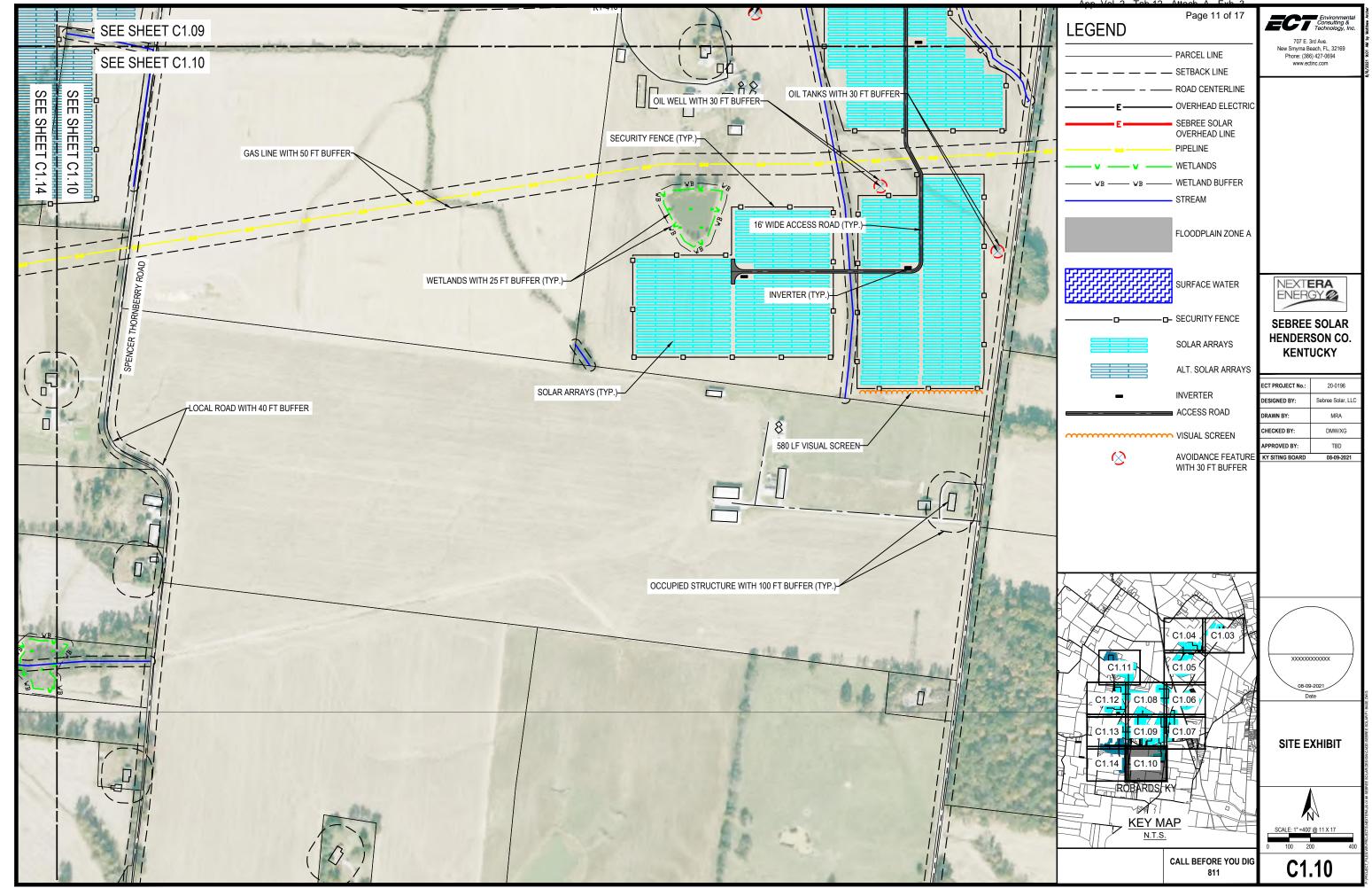


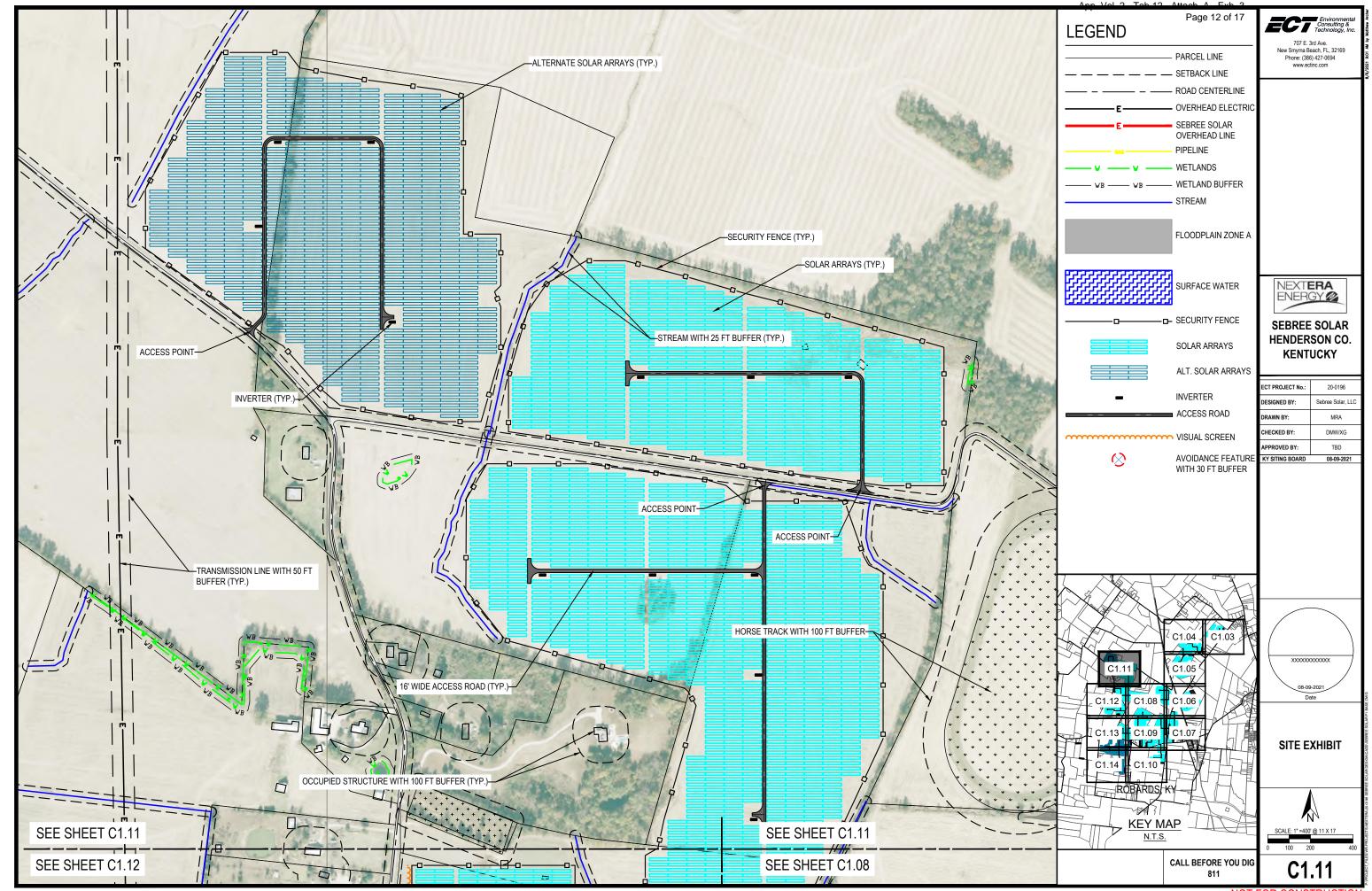


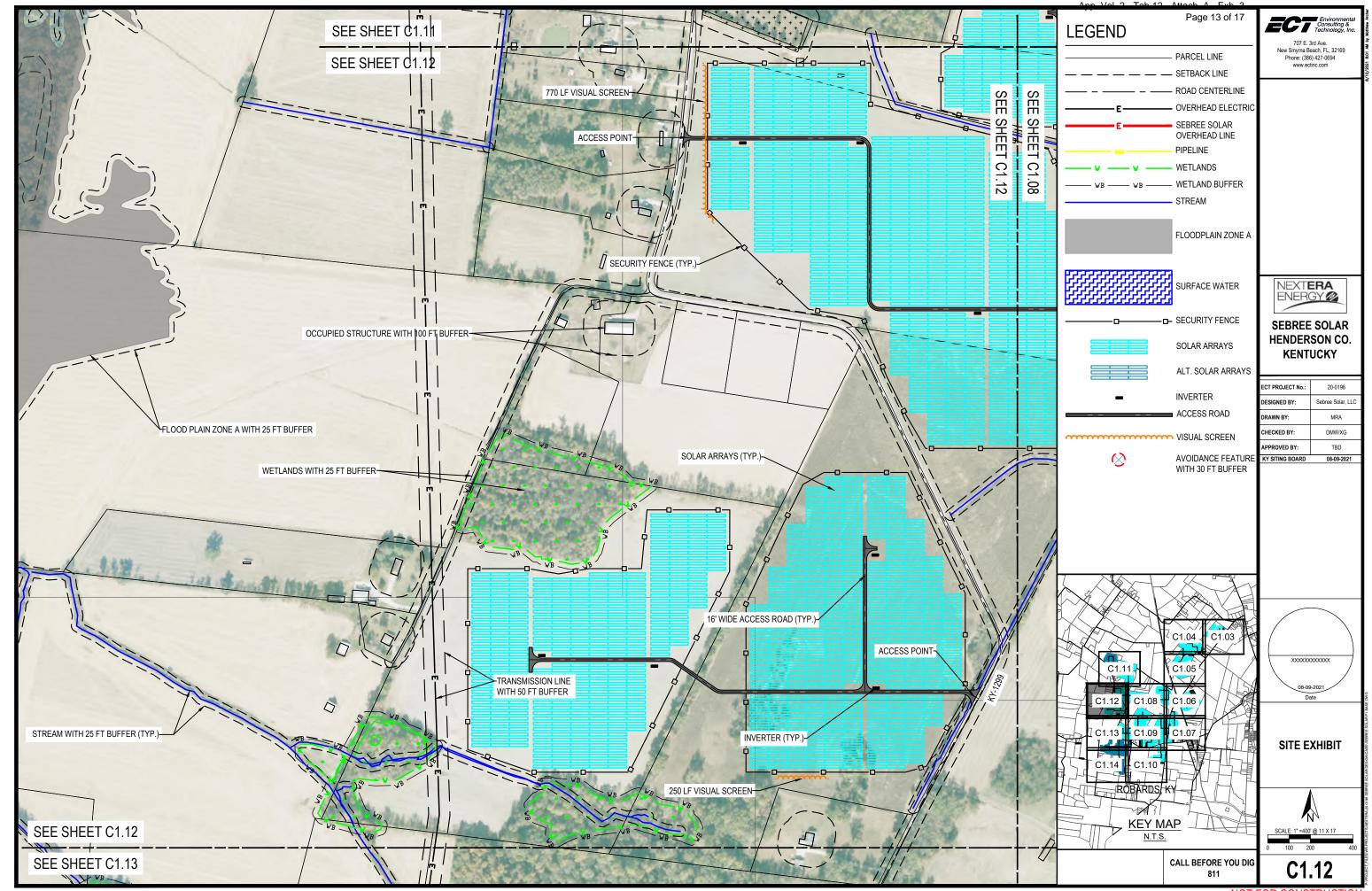


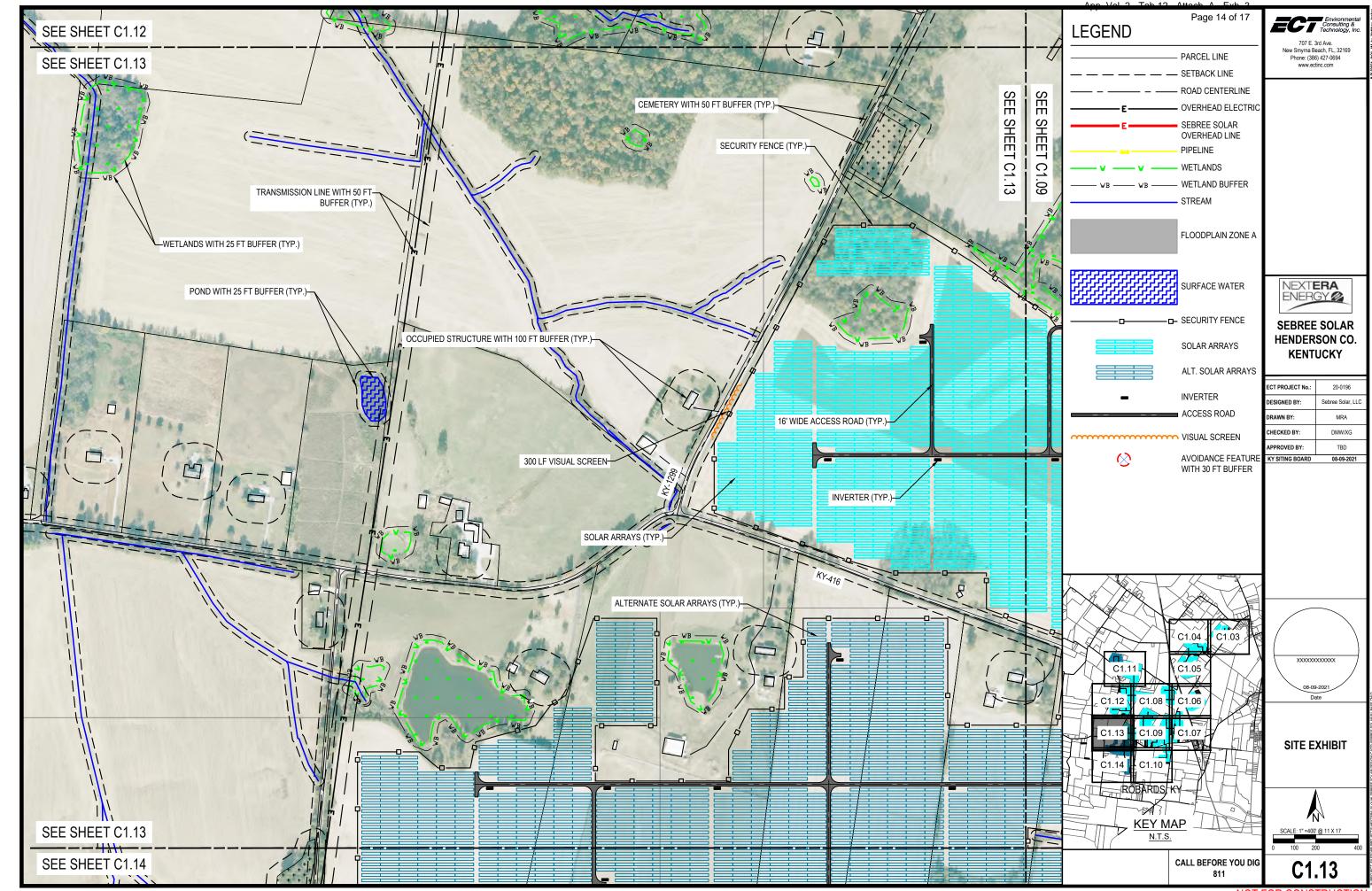


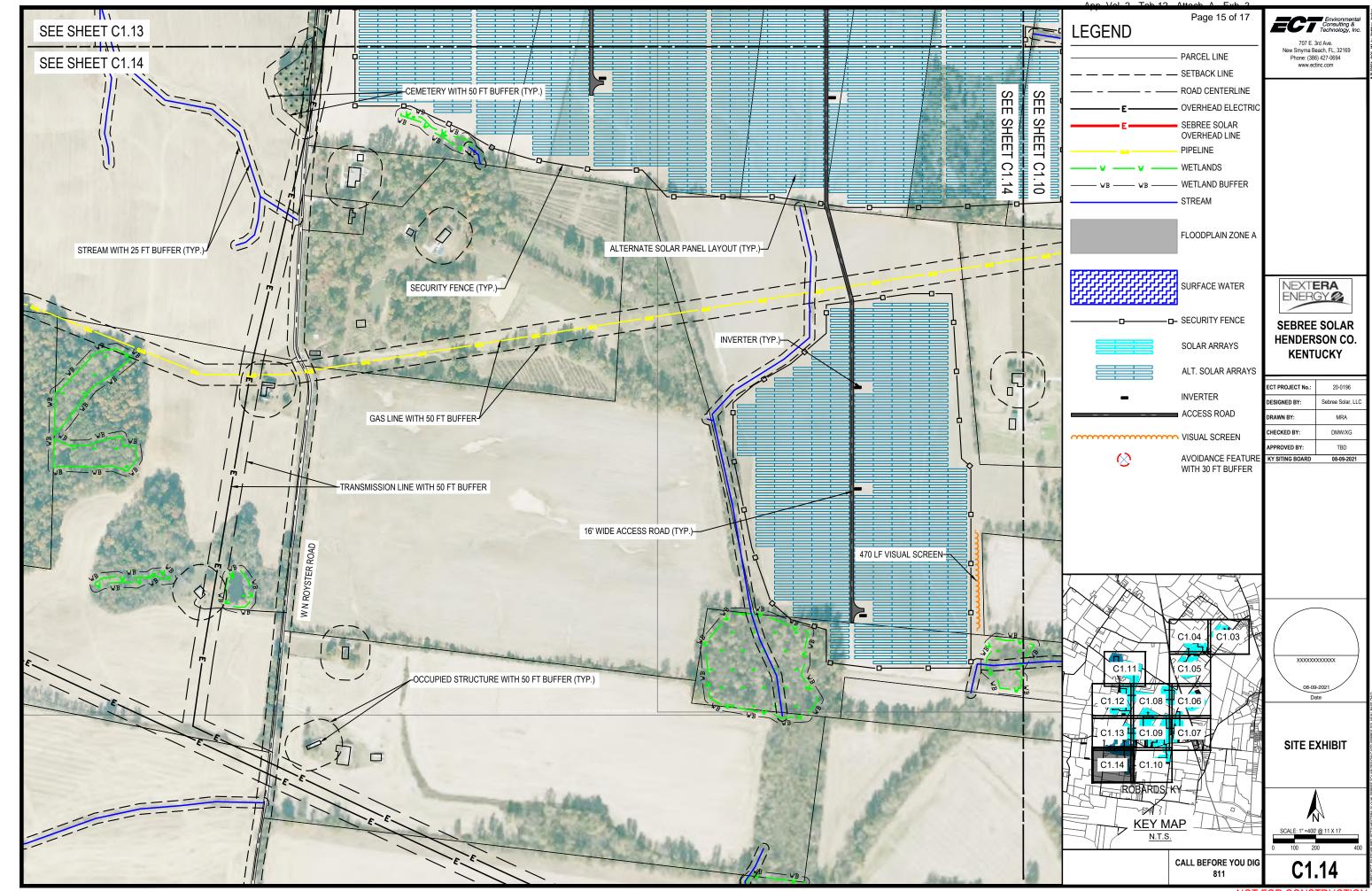












Page 16 of 17 707 E. 3rd Ave

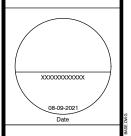
New Smyrna Beach, FL, 32169 Phone: (386) 427-0694 www.ectinc.com

### NOTE:

- DETAILS ON THIS DRAWING ARE CONCEPTUAL ONLY.
- FOUNDATION AND EQUIPMENT CONFIGURATION SUBJECT TO CHANGE DURING DETAILED DESIGN.
- PILE EMBEDMENT DEPTH VARIES ON GEOTECHNICAL STUDY RESULTS AND STRUCTURAL DESIGN.
- 4. ACTUAL OPTIMAL DIMENSIONS MAY DEPEND ON SPECIFIC CONDITIONS OF THE SITE.



Sebree Solar, LLC
MRA
DMW/XG
TBD
08-09-2021



**CIVIL DETAILS** 

C2.01

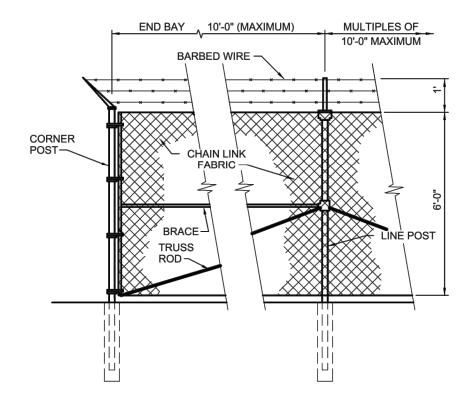
GATE OPENING BETWEEN POSTS, WIDTH PER PLAN BARBED WIRE **GATE POST GATE POST** GATE FRAME-LINK BRACE BRACE -LATCH TO ACCOMMODATE PLUNGER ROD CATCH CONCRETE\_ (TYPICAL)

POST DEPTH VARIES

PV MODULE

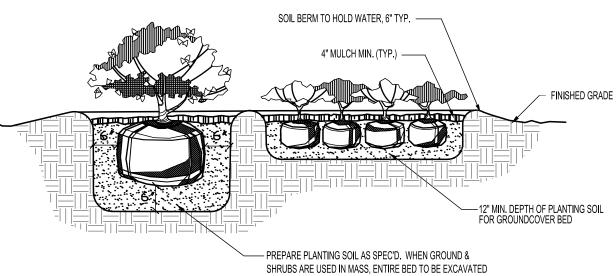
+/- 20' ROW SPACING MAY VARY

**DOUBLE SWING GATE DETAIL NOT TO SCALE** 



**SECURITY FENCE DETAIL NOT TO SCALE** 

707 E. 3rd Ave. New Smyrna Beach, FL, 32169 Phone: (386) 427-0694 www.ectinc.com



NOTE: CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS / BEDS PRIOR TO INSTALLATION

TO RECEIVE PLTG, SOIL & PLANT MATERIAL, AS SPEC'D.

# SHRUB AND GROUNDCOVER DETAIL

## Table 1. Potential Evergreen and Deciduous Species Utilized by the Proposed Project

Туре	Species	Scientific Name
Coniferous Trees and Shrubs	White Pine	Pinus strobus
	Virginia Pine	
	Red Cedar	Juniperus virginiana
	Common Juniper*	Juniperus communis
	Eastern Hemlock	Tsunga canadensis
Broadleaf Small Trees and Shrubs	Serviceberry	Amelanchier spp.
	Dogwood	Cornus spp.
	Winterberry	llex spp.
	Chokecherry	Prunus virginiana
	Ninebark	Physocarpus opulifolius
	Sumac	Rhus spp.
	Viburnum	Viburnum spp.
	Redbud	Cercis canadensis

\* an upright growing habitat cultivar



**SEBREE SOLAR** HENDERSON CO. **KENTUCKY** 

ECT PROJECT No.:	20-0196
DESIGNED BY:	Sebree Solar, LLC
DRAWN BY:	MRA
CHECKED BY:	DMW/XG
APPROVED BY:	TBD
KY SITING BOARD	08-09-2021



LANDSCAPE ILLUSTRATION

C2.02

	CUT CORDS AROUND TRUNK
	SET ROOTBALL ON SCARIFIED COMPACTED SUBGRADE
	TAMP SOIL AROUND BASE  NOTES:
<del>  X      </del>	DO NOT OVER COMPACT BACKFILL. CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOTBALL. REMOVE ALL WIRE BASKET
<del>1 1</del>	STAKING AND GUYING TO BE AT THE DISCRETION OF THE CONTRACTOR. TREES SHALL NOT SWAY EXCESSIVELY

**EVERGREEN PLANTING DETAIL** 

DO NOT CUT LEADER ON EVERGREEN

HARDWOOD SHREDDED MULCH

EXCAVATED MATERIAL.

- SET ROOTBALL APPROXIMATELY 3" HIGHER THAN FINISHED GRADE

PREPARE A 3" MIN. SAUCER AROUND PIT. DISCARD EXCESS

BACKFILL PIT WITH SOIL PER SPECIFICATIONS

LANDSCAPE ILLUSTRATION

# Sebree Solar, LLC

Case No. 2021-00072

Application - Volume 2
Tab 12
Attachment A
Exhibit 4

Noise Impact Assessment (33 Pages)



#### SEBREE SOLAR PROJECT

# **Noise Impact Assessment**

**Environmental Consulting & Technology, Inc.** 

**Document No.:** 10287539-HOU-R-02

Issue: B, Status: FINAL Date: 6 August 2021





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Project name: Sebree Solar Project
Report title: Noise Impact Assessment

Customer: Environmental Consulting & Technology, Inc.

3399 Veterans Dr

Traverse City, MI 49684

Contact person: Xiomara Gerlach
Date of issue: 6 August 2021
Project No.: 10287539

Proposal Reference: 210113-HOU-P-01-B Document No.: 10287539-HOU-R-02

Issue/Status: B/FINAL

DNV Energy USA Inc.

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Tel: +1 619 340 1800

Enterprise No.: 23-2625724

Task and objective:

This report presents the results of a noise impact assessment conducted by DNV on behalf of Environmental Consulting & Technology, Inc..

Prepared by:

Justin Puggioni

Siting and Acoustics Engineer, Environment and Permitting Services Verified by:

Aren Nercessian

Project Siting Engineer, Environment

and Permitting Services

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Gabriel Constantin

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Issue	Date	Reason for Issue	Prepared by	Verified by	Approved by
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В	6 August 2021	Final	J. Puggioni	A. Nercessian	G. Constantin



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APPENDIX B – RECEPTOR LOCATIONS AND ASSOCIATED SOUND LEVELS

APPENDIX C – SOUND SPECTRA OF CONSTRUCTION EQUIPMENT

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#### **EXECUTIVE SUMMARY**

DNV Energy USA Inc. ("DNV") has conducted a noise impact assessment for the construction and operation of Phase 1 of the Sebree Solar Project (the "Project") located in Henderson County, Kentucky.

The Project layout consists of a total of 93 solar inverters (including 15 alternates) and a substation with one step-up transformer. There are no neighboring energy projects near the Project site.

Construction activities were calculated by logarithmically adding the sound pressure level (SPL) of the construction equipment and using the geometric divergence equation to calculate the sound level at the closest receptor distance. The closest receptor was at a distance of 350 ft from the Project property boundary. As a result of construction activities, sound pressure levels at nearby receptors are expected to be less than 78.0 dBA in the A-weighting scale and 84.8 dB unweighted.

Typical farming equipment such as a tractor can emit sound levels at approximately 80 dBA at 50 ft. The calculated construction sound pressure levels are expected to be similar or lower than typical farming equipment at all receptors. Sound emitted from construction equipment is expected to be comparable in character to internal combustion engine sound associated with farming equipment. Considering farming activity occurs during the day when construction is scheduled, sound emitted by construction equipment should be familiar to what the community currently experiences in the existing sound environment.

A list of receptors located up to 1 mile from the Project boundary was provided to DNV. Of these receptors, DNV has included a total of 356 total receptors (including 7 participants) within 1 mile of a solar inverter or transformer in this analysis. The SPLs at each receptor resulting from the operation of the Project for the aggregate of all solar inverters and the transformer were calculated based on the ISO 9613-2 method. Modeled cumulative SPLs range from 27.7 dBA to 51.0 dBA at the receptors calculated in the A-weighting scale and from 61.0 dB to 82.0 dB unweighted.

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#### 1 INTRODUCTION

Environmental Consulting & Technology, Inc. ("ECT" or the "Customer") requested that DNV Energy USA Inc. ("DNV") perform a noise impact assessment for construction and operation of Phase 1 of the Sebree Solar Project (the "Project") located in Henderson County, Kentucky. The total nameplate capacity of the Project is 250 MW.

The duration of the construction period is scheduled to last for at least 1.5 years and includes pile driving for the solar array foundations

The layout considered for the noise impact operational assessment consists of 93 solar inverters (including 15 alternates) and one step-up transformer at the Project substation.

The objective of this assessment is to calculate the expected sound levels generated by machinery during the construction of the Project and to predict the sound levels from the Project's solar inverters and substation transformer during operation.

The construction sound levels were calculated at specified distances using the geometrical divergence equation. The sound levels during operation of the Project were calculated at receptors closest to the Project's sound emitting equipment using the ISO 9613-2 sound propagation model [1].

#### 2 ENVIRONMENTAL SOUND BACKGROUND

Sound levels are expressed in the decibel unit and are quantified on a logarithmic scale to account for the large range of acoustic pressures to which the human ear is exposed. A decibel (dB) is used to quantify sound levels relative to a 0 dB reference. The reference level of 0 dB is defined as a sound pressure level of 20 micropascals (µPa), which is the typical lower threshold of hearing for humans.

Sound levels can be presented both in broadband (sound energy summed across the entire audible frequency spectrum) and in octave band spectra (audible frequency spectrum divided into bands). Frequency is expressed in the Hertz unit (Hz), measuring the cycles per second of the sound pressure waves. The audible range of humans spans from 20 to 20,000 Hz. Since the human ear does not perceive every frequency with equal loudness, spectrally varying sounds are often adjusted with a weighting filter. The A-weighting filter is applied to closely approximate the human ear's response to sound. This scale is commonly used in environmental and industrial sound. Sound expressed in the A-weighted scale is denoted dBA. Comparative sound pressure levels are shown in Table 2-1 [2] and are based on comparable examples rather than specific measurements or calculations.

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Table 2-1 Examples of Common A-weighted Sound Levels

Sound Pressure Level [dBA]	Sound Source Example
0-10	Threshold of hearing
10-20	Recording studio background sound
20-40	Quiet bedroom background sound
40-50	Quiet rural
50-60	Quiet urban
60-70	Commercial area, normal conversation at 3 ft
70-80	Tractor at 50 ft
80-90	Diesel truck at 150 ft
90-100	Gas lawn mower at 3 ft
100-110	Car horn at 3 ft

A sound source has a certain sound power level rating which describes the amount of sound energy per unit of time. This is a basic measure of how much acoustical energy it can produce and is independent of its surroundings. Sound pressure is created as sound energy flows away from the source. The measured sound pressure level (SPL) at a given point depends not only on the power rating of the source and the distance between the source and the measurement point (geometric divergence), but also on the amount of sound energy absorbed by environmental elements between the source and the measurement point (attenuation). Sound attenuation factors include meteorological conditions such as wind direction, temperature, and humidity, sound interaction with the ground, atmospheric absorption, terrain effects, diffraction of sound around objects and topographical features, and foliage.

#### 3 APPLICABLE REGULATIONS

The Sebree Solar Project is located in Henderson County, Kentucky. No applicable sound regulations relating to solar energy projects were found for this county or in the state of Kentucky. Although there are no specific noise regulations, some nearby projects have been subject to unweighted decibels limits [3], as requested by the Kentucky Electric Generation and Transmission Siting Board (KYSB). Therefore, the results of this assessment are presented in both the more commonly used A-weighting scale (dBA) as well as unweighted decibels (dB).

## **DESCRIPTION OF THE PROJECT SITE**

#### 4.1 Site description

The Project is situated in relatively simple terrain, consisting of flat and occasionally elevated farmland, with project equipment base elevations ranging from approximately 404 feet to 466 feet above sea level. The ground cover on and near the site is primarily composed of farmland or open fields. Dwellings are interspersed throughout the Project site.

The Project is located in Henderson County, west of the town of Robards. A map of the approximate Project area is shown in Figure 4-1.

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Page 3



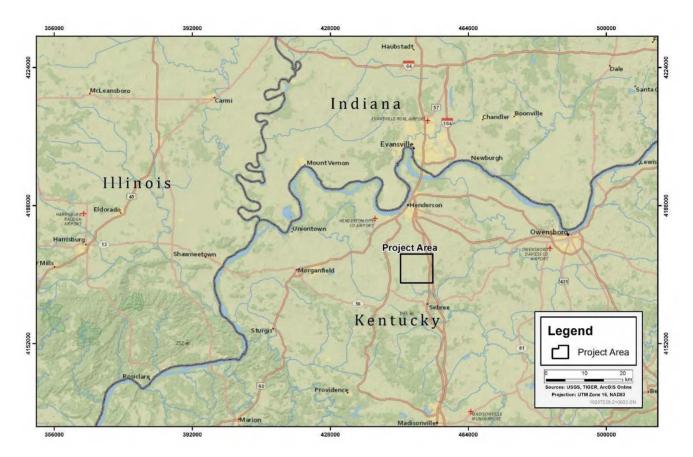


Figure 4-1 Approximate Project area

# 4.2 Project layout

The Project layout used in this analysis consists of 93 solar inverters (including 15 alternates) located throughout the Project site, as well as one step-up transformer at the substation. The project also includes an approximately 4.85-mile long transmission line. However, it is not anticipated to significantly contribute to the surrounding acoustic environment during operation. The transmission line was therefore not included as a sound source in this analysis.

The coordinates of the Project equipment are presented in Appendix A. The solar inverter locations and substation transformer location were provided by the Customer [4].

# 4.3 Neighboring projects

There are no neighboring operational wind or solar farms near the Project.

# 4.4 Receptor locations

A list of receptors located within 1 mile of the Project boundary was provided by the Customer [5]. The receptor list has not been reviewed in detail by DNV. Of these receptors, DNV has included a total of 356 total receptors (including 7 participants) within 1 mile of a solar inverter or transformer in this analysis. All provided receptors are confirmed by the Customer as being occupied residences. Coordinates of each receptor point are presented in Appendix B.

All receptors have been modeled at a height of 5 ft (1.5 m) above ground level and represent one story residential structures.



#### 5 SOUND ASSESSMENT OF PROJECT CONSTRUCTION

# 5.1 Description of the sound sources

The sources of sound considered in this analysis include the construction equipment specified by phase. The construction equipment list was provided by the Customer [6] and source noise levels were referenced from the Federal Highway Administration Construction Noise Handbook [7].

The source noise levels were specified as maximum sound pressure levels at 50 feet. A usage factor has been applied to calculate the equivalent energy average sound levels (L<sub>eq</sub>) using the maximum sound pressure levels (L<sub>max</sub>). The L<sub>eq</sub> is a commonly used metric to specify energy averaged sound levels over time whereas the L<sub>max</sub> is an instantaneous sound level. Usage factor is defined as the time-averaging equipment usage factor, expressed in percent [7]. It is intended to reflect the percentage of time during a construction activity where the specified equipment is operating at full capacity. The frequency spectra assumed for the equipment were referenced from the U.K. Department for Environment construction noise prediction document [8] and are shown in Appendix C. A summary of the source levels of the construction equipment for the loudest identified construction phases are shown in Table 5-1.

L<sub>max</sub> at 50 ft [dBA] Usage Calculated Leg at 50 ft **Phase** Equipment Quantity Individual **Total** Factor [%] dBA dB 2 85.0 Grader 88.0 40 84.0 90.0 4 **Dump Truck** 84.0 90.0 40 86.0 93.8 Demolition/Site Water Truck 1 85.0 85.0 50 82.0 87.1 Preparation Generator 4 82.0 0.88 50 85.0 90.3 Semi-trailer 1 84.0 84.0 40 0.08 84.1 Pile Driver 4 95.0 101.0 20 94.0 101.1 Water Truck 1 85.0 85.0 50 82.0 87.1 Pile Driving Generator 4 82.0 88.0 50 85.0 90.3 Semi-trailer 84.0 84.0 40 0.08 84.1 1 Concrete Truck 2 85.0 0.88 40 84.0 89.0 Water Truck 1 Foundation 85.0 85.0 50 82.0 87.1 Installation Generator 4 82.0 88.0 50 85.0 90.3 40 Semi-trailer 1 84.0 84.0 80.0 84.1

Table 5-1 Construction equipment sound sources

# 5.2 Assessment methodology

Sound pressure levels were calculated using the source sound levels and usage factors in Table 5-1 for varying distances using the geometrical divergence equation below.

$$SPL_{d1} = SPL_{ref} - 20\log_{10}\frac{d_1}{d_{ref}}$$

Where:

 $SPL_{equip}$  is the equipment sound pressure level at the distance  $d_1$ 

 $SPL_{ref}$  is the reference sound pressure level at the reference distance,  $d_{ref}$  equal to 50 feet



The resulting sound levels at each specified distance were added logarithmically to represent the total sound pressure level. The approach of determining sound pressure levels at specified distances from the construction activities was used because the construction equipment is spread out over a large area. Therefore, any fixed equipment layout would inherently be inaccurate due to the mobile nature of the sound sources.

This approach is conservative in nature as it assumes all equipment is operating at the same time and from the same source location. Practically, construction equipment will be spread out around the Project site and not likely to be operating simultaneously. As a result, on-site measurements are expected to be lower than the calculation results presented in Section 5.3.

Sound pressure levels were calculated in decibels using the A-weighting scale (dBA) as this scale is commonly utilized to represent the frequency sensitivities of a healthy human ear. The A-weighting scale discounts low and high frequencies and results in lower broadband sound levels than the unweighted scale during measurement of construction noise sources. In addition to the A-weighting scale, sound pressure levels were calculated in the unweighted decibel scale (dB) to allow for comparison of any sound levels presented in this weighting scale.

#### 5.3 Results

The resulting sound pressure levels at varying distances from the construction equipment are shown in Table 5-2. The 50-ft distance was chosen for consistency with the sound levels referenced in Table 5-1. The 350-ft distance represents the distance of the closest occupied structure to the site boundary and the 1000-ft distance is shown to demonstrate the effect of sound propagation at greater distances.

Phase	A-wei	ghted SPL	(dBA)	Unweighted SPL (dB)		
Distance (ft)	50	350	1000	50	350	1000
Demolition and Site Preparation	90.9	74.0	64.9	97.2	80.3	71.2
Pile Driving	94.9	78.0	68.9	101.7	84.8	75.7
Foundation Installation	89.2	72.3	63.2	94.2	77.3	68.2

Table 5-2 Calculated sound levels from construction equipment

The closest structure is located at least 350 ft from the Project property boundary; therefore, SPLs at nearby receptors due to construction activities are expected to be less than 78.0 dBA in the A-weighting scale and 84.8 dB unweighted. It is important to note that this analysis assumes the construction equipment associated with each phase is operating simultaneously at the specified distance. This assumption is conservative as the equipment will likely be more spread out around the site and not likely to be operating at the same time. Other noise attenuation effects such as atmospheric absorption, ground effect, reflection and shielding by topographical features or objects were not considered in the analysis. Measured sound pressure levels during construction activities are expected to be lower than shown in Table 5-2.

Typical farming equipment such as a tractor can emit sound levels at approximately 80 dBA at 50 ft as shown in Table 2-1. The calculated construction sound pressure levels are expected to be similar or lower than typical farming equipment at most receptors. Sound emitted from construction equipment is expected to be comparable in character to internal combustion engine sound associated with farming equipment. Considering farming activity occurs during the day when construction is scheduled, sound emitted by construction equipment should be familiar to what the community currently experiences in the existing sound environment. Due to the conservative nature of the assessment, it is expected that sound levels will be less than the referenced tractor sound level at 50 ft.



### 5.4 Additional recommendations

To ensure that the noise impact during construction activities are minimized, the following best practice recommendations may be followed to the extent practicable:

- 1. Keep all equipment in good repair with all worn, loose and unbalanced machine parts to be replaced. Machine parts should be kept well lubricated to reduce friction.
- 2. Unnecessary idling of internal combustion engines should be avoided when practicable.
- 3. Utilize newer models of construction equipment where possible to provide the quietest performance.
- 4. Internal combustion engines are to be fitted with a suitable muffler in good repair.
- 5. Locate stationary noise-generating equipment such as air compressors or portable power generators as far as practicable from neighboring houses.
- 6. Develop a construction and traffic management plan which includes informing the local community of the construction schedule and activities to minimize impacts.
- 7. Construction to be scheduled during daytime hours as defined by local regulations.
- 8. Provide and make available contact information for concerns regarding construction activities prior to and during construction.
- 9. All vehicular movements to and from the site must only be made during the scheduled normal working hours. This includes off-site noise that is associated with a specific project such as staging of concrete trucks.
- 10. Vehicle speeds on access roads should be limited to 25 mph (40 km/hr).

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#### SOUND ASSESSMENT OF PROJECT OPERATION

#### 6.1 **Description of the sound sources**

The sources of sound considered for the operations phase are the solar inverters and substation transformer. Sound associated with other sources in the vicinity of the Project, such as construction activities, have not been considered in this section. The smaller transformers associated with each inverter were not included in the analysis as the sound source data showed their contribution to have a negligible impact on overall sound pressure levels.

#### 611 Solar Inverters

The solar inverter is a Power Electronics HEM FS3350 with a maximum permissible voltage of 1500 Vdc. Sound power levels were calculated according to ISO standard 3744:2010 [9], based on a rated sound pressure level of 79 dBA at 1 meter [10]. The spectrum used for the solar inverter was based on octave band sound levels of similar equipment from DNV's internal database. The octave band sound power levels used for the solar inverter are shown in Table 6-1.

Frequency [Hz] Equipment Total 250 1000 4000 8000 31.5 63 125 500 2000 Power Electronics 86.1 86.1 87.5 89.9 72.7 95.3 95.3 82.4 72.7 99.7 **HEM FS3350** 

Table 6-1 Solar Inverter equipment sound power levels [dBA]

#### 6.1.2 Substation transformer

There is one transformer planned at the Project substation. While the final equipment has not been procured for the Project, the Customer has provided a conservative transformer rating for use in this report. The proposed transformer is rated at 280 MVA with a voltage of 161 kV on the high voltage side.

A total broadband sound power level of 106.1 dBA was estimated according to IEEE standard C57.12.90-2015 [11], based on an audible sound level of 75 dBA and representative transformer dimensions, both provided by the Customer [12]. A tonality penalty of 5 dB is included in this value in accordance with ISO-1996-2 [13]. An additional penalty of 1 dB and an additional surface area of 50 m<sup>2</sup> were included in the calculation to account for a greater capacity of this transformer compared to the provided sound specification and technical drawings.

A typical transformer octave band distribution [14] was used. The octave band sound power levels of the Project transformer are shown in Table 6-2.

Table 6-2 Transformer sound power levels [dBA]

Equipment	Frequency [Hz]							Total		
Equipment	31.5	63	125	250	500	1000	2000	4000	8000	Total
Main Transformer	63.3	82.5	94.6	97.1	102.5	99.7	95.9	90.7	81.6	106.1

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# 6.2 Assessment methodology

The sound pressure level at each receptor for the aggregate of all solar inverters and the main transformer associated with the Project were calculated using CadnaA acoustic modeling software based on the ISO 9613-2 method [1]. The simulation was performed using the maximum sound power level of the solar inverters and transformer. Based on the physical dimensions provided, the solar inverters were modeled at a height of 2.2 m (7.2 ft) above ground level (agl) and the substation transformer was modeled at a height of 5.5 m (18.0 ft) agl.

The receptors were modeled at a height of 1.5 m (5 ft) agl.

The ISO 9613-2 standard provides a prediction of the equivalent continuous SPL at a distance from one or more point sources. The method consists of octave-band algorithms (i.e., with nominal mid band frequencies from 31.5 Hz to 8 kHz) for calculating the attenuation of the emitted sound. The algorithm takes into account the following physical effects:

- Geometrical divergence attenuation due to spherical spreading from the sound source
- Atmospheric absorption attenuation due to absorption by the atmosphere
- Ground absorption attenuation due to the acoustical properties of the ground

The ISO 9613-2 standard calculates attenuation "under meteorological conditions favorable to propagation from sources of sound emission." These meteorological conditions are for "downwind propagation or, equivalently, propagation under a well-developed moderate ground-based temperature inversion, such as commonly occurs at night". In other words, though a physical impracticality, the ISO 9613-2 standard treats every receptor as being downwind from every source of sound emission (in this case, inverters and the transformer).

The ISO 9613-2 standard accounts for ground absorption by assigning a numerical coefficient (G) with a value ranging from 0 to 1. A value of G = 0 represents hard ground (paving, water, ice, concrete, tamped ground, and other ground surfaces with a low porosity), while a G = 1 value represents porous ground (ground covered by grass, trees, or other vegetation, and other ground surfaces suitable for the growth of vegetation such as farming land). Though the ground use on and around the site is farming, a mixed (semi-reflective) global ground factor of G = 0.5 was used in this assessment.

Additionally, temperature, barometric pressure, and humidity parameters were selected to represent typical local annual averages, and topographical information to accurately represent terrain in three-dimensions was included in this assessment.

Specifically, the ISO 9613-2 parameters were set as follows:

Ambient air temperature: 50° F (10° C)¹
 Ambient barometric pressure: 101.32 kPa

Humidity: 70%

Overall ground factor: 0.5

Topography included (5 m elevation intervals)

Additional attenuation from foliage was not considered in this assessment, implying that lower sound levels are expected in areas where there is foliage present in the line of sight between the project facilities and a sound receptor. Similarly, because the model assumes every receptor is downwind of every sound source at all times, lower sound levels are expected at times when a receptor is upwind of any sound source.

<sup>1</sup> Average temperatures are expected to be higher than 50° F however, this temperature was used conservatively to represent the project area.



#### 6.3 Results

Detailed maps illustrating predicted sound pressure levels at receptors located in the vicinity of the Project are presented in Figure 6-1 to Figure 6-4.

The predicted sound levels at each of the 356 receptors (including 7 participants) are presented in Appendix B.

For each receptor, the following information is provided:

- . 10
- Coordinates in UTM projection and NAD83 Datum
- Closest noise generating equipment
- Distance to the closest noise generating equipment
- Sound pressure levels (SPL) in dBA and dB at the receptor location

The highest modelled results throughout the Project area for A-weighted sound pressure levels and unweighted sound pressure levels respectively are 51.0 dBA and 82.0 dB at participating receptor 105. The A-weighted (dBA) sound level can be considered similar to sound levels in a quiet rural environment (see Table 2-1).

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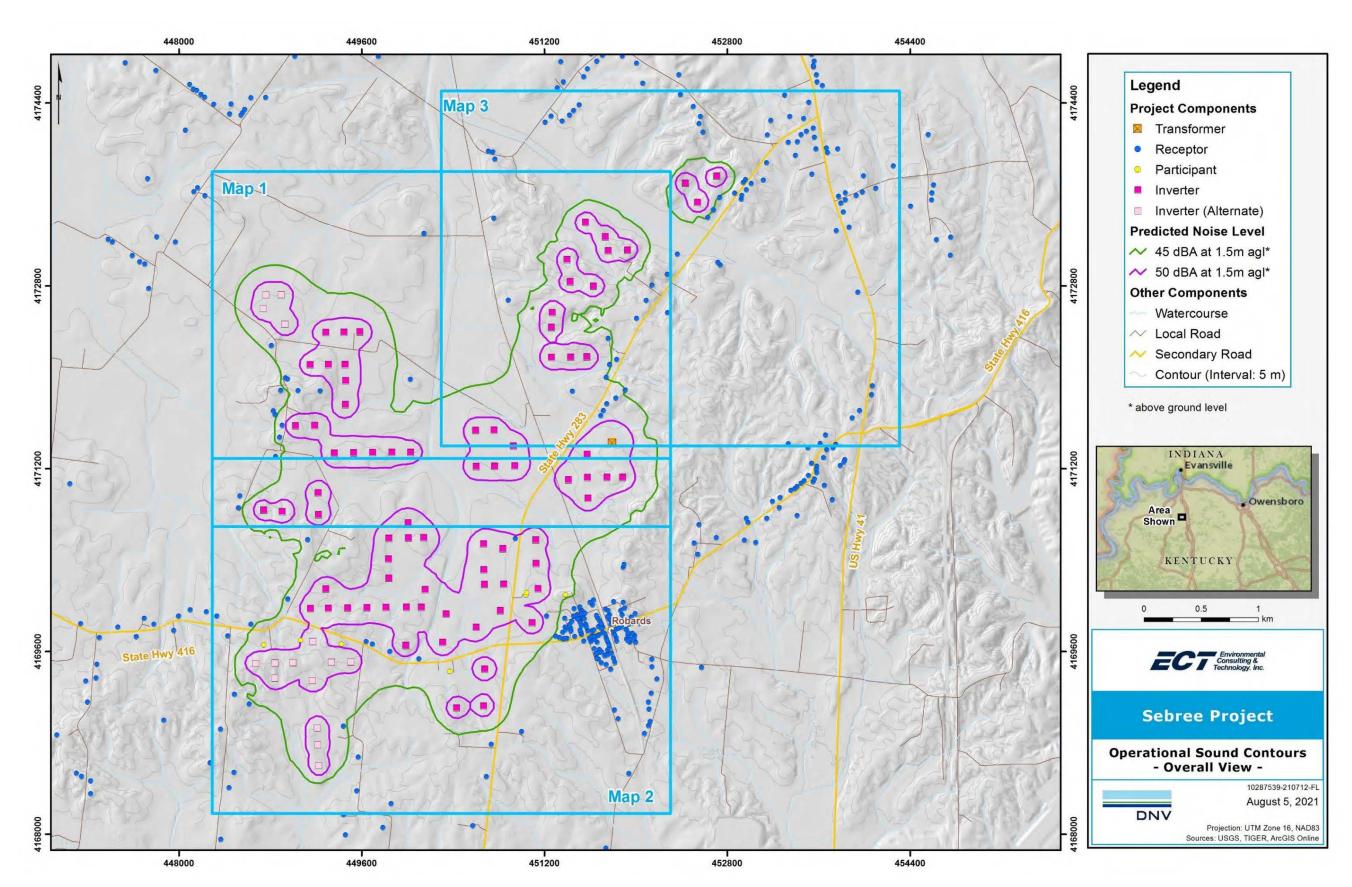


Figure 6-1 Key map of modeled sound pressure levels within the Project area

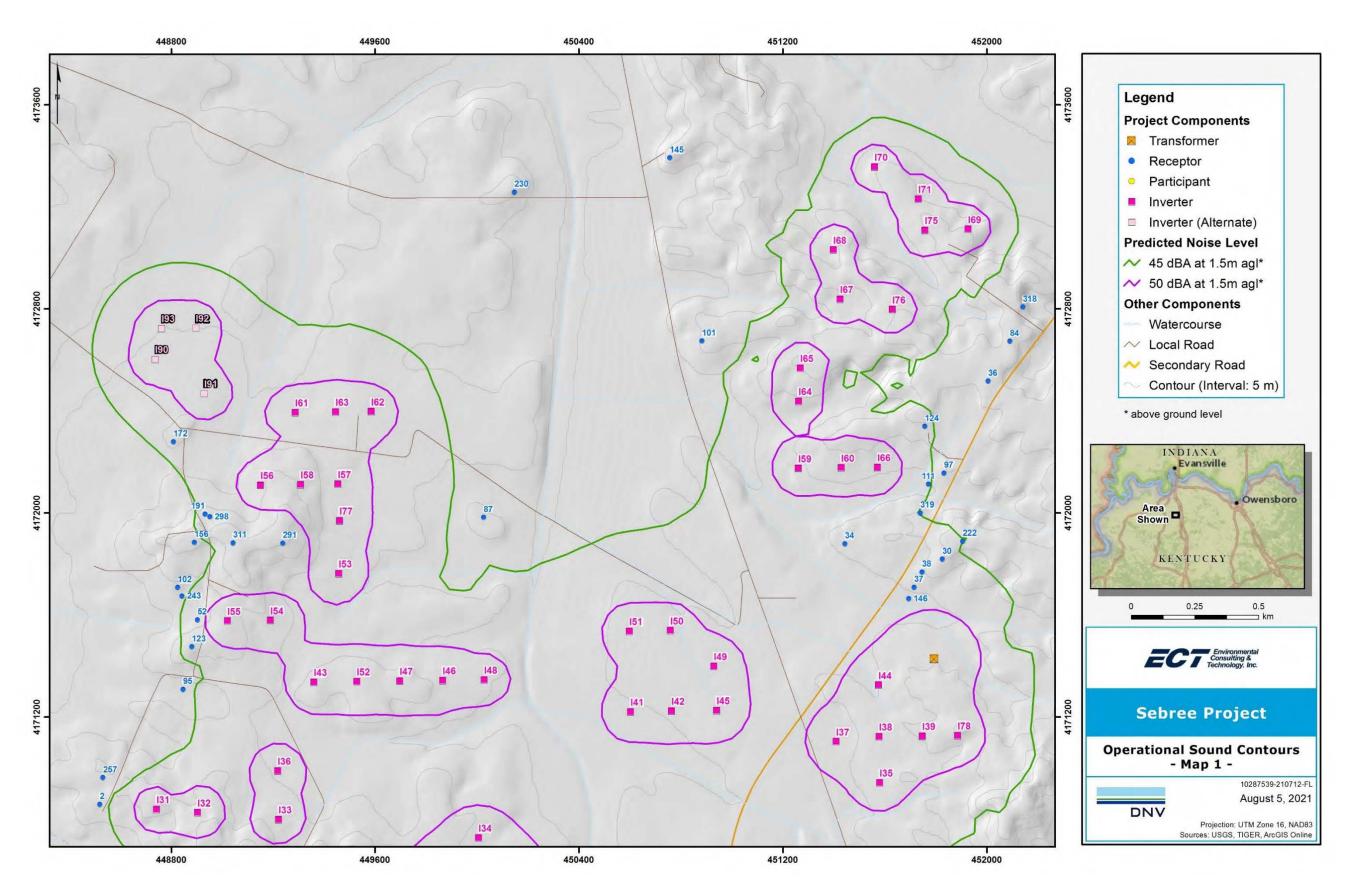


Figure 6-2 Modeled sound pressure levels within the Project area (1 of 3)

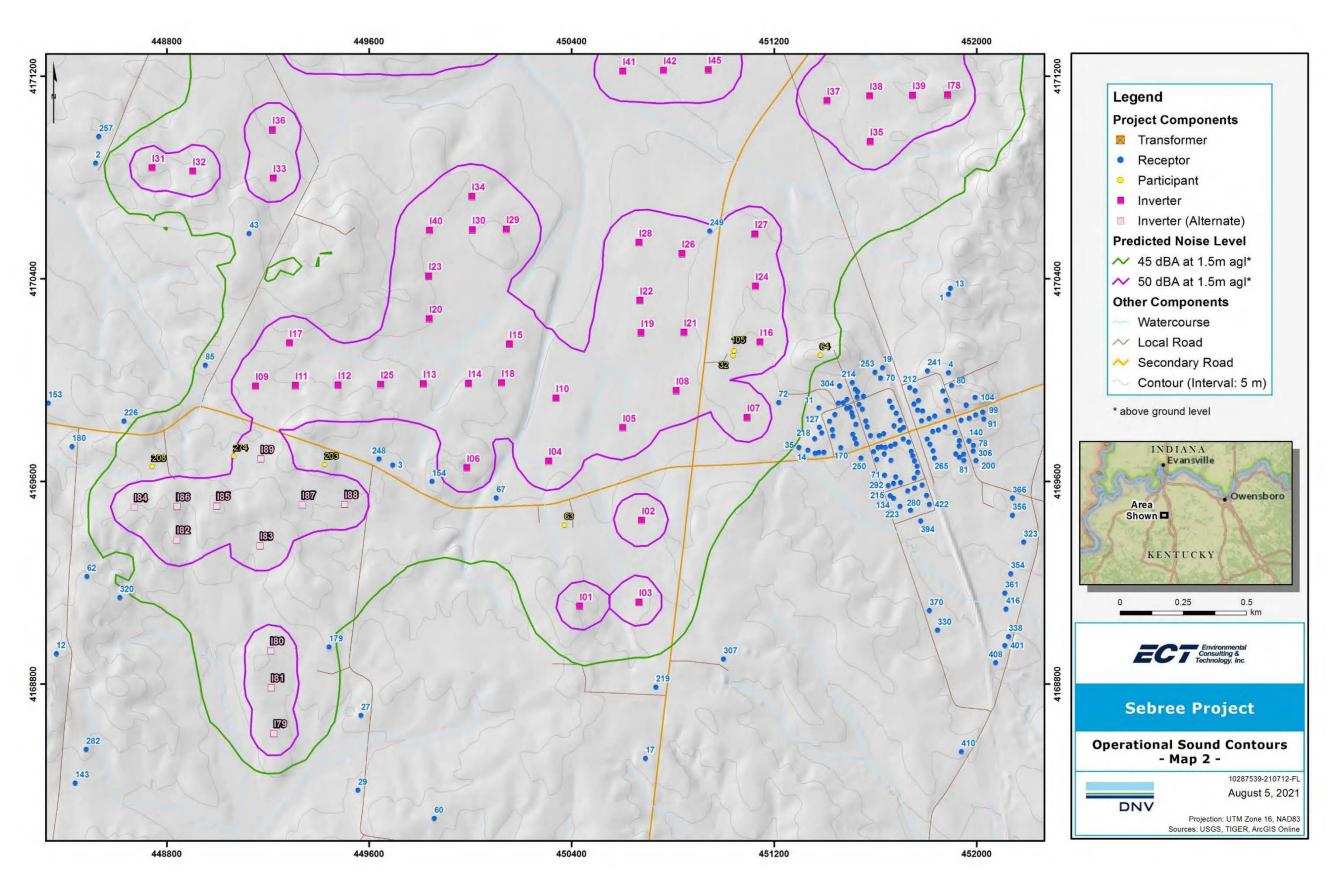


Figure 6-3 Modeled sound pressure levels within the Project area (2 of 3)

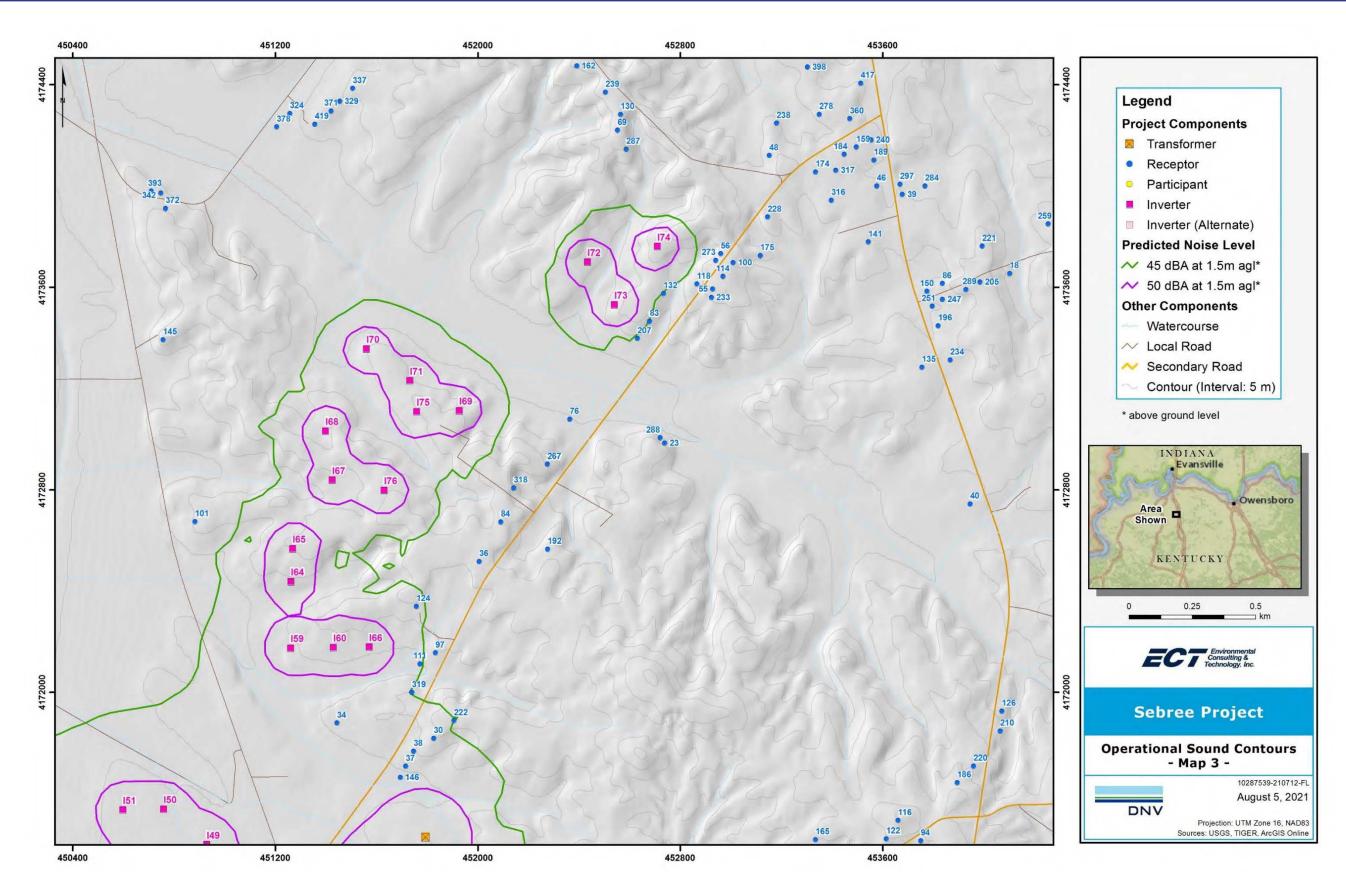


Figure 6-4 Modeled sound pressure levels within the Project area (3 of 3)



#### 7 CONCLUSION

DNV has conducted a noise impact assessment to determine the maximum predicted sound levels at receptors in the vicinity of Sebree Solar Project located in Henderson County, Kentucky. The Project equipment considered in the analysis of the operational phase were 93 solar inverters (including 15 alternates) and one step-up transformer within the Project substation. For the construction phase, typical construction equipment including graders, dump trucks, water trucks, generators, semi-trailers, pile drivers and concrete trucks were considered in the analysis.

As a result of construction activities, sound pressure levels at nearby receptors are expected to be less than 78.0 dBA in the A-weighting scale and 84.8 dB unweighted.

Typical farming equipment such as a tractor can emit sound levels at approximately 80 dBA at 50 ft as shown in Table 2-1. The calculated construction sound pressure levels are expected to be similar or less than typical farming equipment at most receptors. Sound emitted from construction equipment is expected to be comparable in character to internal combustion engine sound associated with farming equipment. Considering farming activity occurs during the day when construction is scheduled, sound emitted by construction equipment should be familiar to what the community currently experiences in the existing sound environment.

Modeled cumulative SPLs for the operational phase range from 27.7 dBA to 51.0 dBA at the receptors calculated in the A-weighting scale and from 61.0 dB to 82.0 dB unweighted. This range is approximately equivalent to sound levels ranging from a quiet rural bedroom to a quiet rural outdoor area.

The assumptions made in both the construction and operation assessment methodology can be considered conservative as actual measured sound levels from the Project's activities are expected to be generally lower.

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# APPENDIX A – SEBREE SOLAR CENTER SOUND SOURCE LOCATIONS

			e 14, NAD 83 atum
ID	Description	Easting [m]	Northing [m]
I01		450432	4169107
102		450678	4169446
103		450667	4169123
104		450311	4169681
105		450603	4169812
106		449987	4169653
107		451094	4169853
108		450814	4169959
109		449152	4169977
I10		450339	4169929
l11		449309	4169979
l12		449478	4169981
I13		449814	4169985
l14		449993	4169988
l15		450155	4170142
I16		451145	4170150
l17		449286	4170147
I18	Power	450124	4169989
l19	Electronics	450675	4170186
120	HEM3350M	449838	4170243
I21	Inverter	450844	4170189
122		450671	4170315
123		449836	4170411
124		451128	4170371
125		449646	4169983
126		450837	4170500
127		451125	4170577
128		450668	4170543
129		450143	4170596
130		450009	4170594
I31		448743	4170838
132		448904	4170825
133		449222	4170798
134		450006	4170726
135		451581	4170942
136		449219	4170988
137		451410	4171103
138		451578	4171123

	B		14, NAD 83 itum
ID	Description	Easting [m]	Northing [m]
139		451748	4171125
140		449839	4170592
I41		450603	4171220
142		450764	4171223
143		449361	4171337
144		451576	4171325
145		450941	4171226
146		449866	4171344
147		449697	4171341
148		450029	4171346
149		450930	4171399
150		450760	4171539
I51		450599	4171536
152		449529	4171339
153		449458	4171763
154		449189	4171579
155		449021	4171577
156	Power	449151	4172109
157	Electronics	449455	4172113
158	HEM3350M	449308	4172111
159	Inverter	451261	4172175
160		451430	4172177
l61		449288	4172394
162		449585	4172398
163		449445	4172396
164		451263	4172438
165		451269	4172568
166		451572	4172179
167		451426	4172838
168		451398	4173032
169		451927	4173113
170		451560	4173357
l71		451733	4173231
172		452434	4173700
173		452541	4173531
174		452710	4173761
175		451759	4173109
176		451630	4172798



		UTM Zone 14, NAD 83 Datum			
ID	Description	Easting [m]	Northing [m]		
177		449462	4171970		
178		451886	4171127		
179		449224	4168605		
180		449212	4168932		
I81	Power	449214	4168787		
182	Electronics HEM3350M	448840	4169370		
183	Inverter	449170	4169347		
184		448674	4169499		
185		449000	4169504		
186		448842	4169502		
187		449336	4169508		

		UTM Zone 14, NAD 83 Datum			
ID	Description	Easting [m]	Northing [m]		
188		449505	4169510		
189	Power Electronics	449173	4169690		
190		448737	4172603		
I91	HEM3350M	448930	4172469		
192	Inverter	448897	4172726		
193		448763	4172724		
T1	Solar substation transformer	451796	4171430		

Transformer and inverter IDs have been arbitrarily added for the purpose of this report.



# APPENDIX B – RECEPTOR LOCATIONS AND ASSOCIATED SOUND LEVELS

# **Participant Receptors**

Receptor	UTM Coordinates Zone 14, NAD 83 Datum		Nearest Sound Source	Distance to Nearest Sound Source	Sound Pressure Level at Receptor	Sound Pressure Level at
טו	Easting [m]	Northing [m]	[ID]	[feet]	[dBA]	Receptor [dB]
32	451039	4170098	I16	389	50.7	81.8
63	450372	4169429	104	850	47.5	79.5
64	451383	4170100	I16	798	45.8	77.9
105	451043	4170117	I16	352	51.0	82.0
203	449425	4169668	188	579	49.6	81.0
208	448743	4169660	184	575	48.2	79.4
274	449065	4169701	189	355	49.9	80.5

Non-Participant Receptors								
Receptor ID		ordinates AD 83 Datum	Nearest Sound Source	Distance to Nearest Sound Source	Sound Pressure Level at Receptor	Sound Pressure Level at		
טו	Easting [m]	Northing [m]	[ID]	[feet]	[dBA]	Receptor [dB]		
1	451890	4170339	135	2222	42.7	75.3		
2	448521	4170858	I31	731	44.0	75.6		
3	449694	4169665	188	801	48.0	79.8		
4	451890	4170030	I16	2477	41.3	74.2		
5	451771	4169920	I16	2190	39.7	72.2		
6	451507	4169872	107	1357	41.8	74.0		
8	451919	4169709	107	2748	37.8	70.5		
9	448914	4167725	179	3060	35.3	68.5		
10	451363	4169711	107	999	43.3	75.4		
11	451377	4169891	107	938	43.7	75.5		
12	448365	4168920	182	2149	39.5	72.1		
13	451898	4170364	135	2164	42.7	75.3		
14	451334	4169724	107	894	43.8	75.8		
15	451932	4169740	107	2775	37.9	70.5		
16	451768	4169882	107	2215	39.4	71.9		
17	450693	4168506	103	2024	38.2	70.9		
18	454102	4173655	174	4580	28.9	62.2		
19	451629	4170049	I16	1623	41.0	73.1		
20	451828	4169798	107	2415	38.7	71.3		
21	449524	4167645	179	3300	33.3	66.3		
22	451431	4169805	107	1119	42.3	74.3		
23	452739	4172985	173	1903	38.2	70.6		
25	451662	4169684	107	1946	38.4	70.5		
26	451712	4169813	107	2032	39.4	71.8		
27	449569	4168676	179	1155	43.2	75.1		
28	451625	4169737	107	1783	38.8	70.8		
29	449557	4168381	179	1316	41.0	73.2		
30	451826	4171819	T1	1281	46.1	76.3		
31	447697	4169893	184	3454	36.0	69.0		
34	451445	4171880	160	977	46.7	78.1		
35	451299	4169734	107	778	44.6	76.5		
36	452006	4172518	176	1538	41.6	73.7		
37	451716	4171709	T1	952	47.6	76.6		
38	451747	4171769	T1	1123	46.9	76.7		
39	453678	4173968	174	3248	30.8	63.7		
40	453946	4172745	174	5250	30.6	63.9		
41	452553	4170711	178	2579	36.7	68.7		
43	449127	4170579	133	783	46.1	77.9		
44	451829	4169722	107	2448	38.4	71.0		
45	451537	4169904	107	1462	41.5	73.7		
46	453576	4174001	174	2950	31.3	64.1		
48	453152	4174121	174	1871	33.9	66.1		
49	451681	4169618	107	2075	38.0	70.2		
50	451835	4169859	107	2433	39.1	71.7		

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Receptor		ordinates AD 83 Datum	Nearest Sound Source	Distance to Nearest Sound Source	Sound Pressure Level at Receptor	Sound Pressure Level at
טו	Easting [m]	Northing [m]	[ID]	[feet]	[dBA]	Receptor [dB]
51	448560	4174319	193	5276	33.8	67.9
52	448904	4171581	155	383	47.6	78.1
53	451434	4169780	107	1139	42.2	74.3
54	451606	4169687	107	1767	38.8	70.8
55	452929	4173593	174	904	42.0	73.8
56	452960	4173733	174	826	41.8	73.4
58	451880	4169921	I16	2526	39.9	72.8
59	451501	4169892	107	1343	42.1	74.3
60	449858	4168270	179	2355	38.8	71.7
61	448131	4173624	193	3609	34.1	67.5
62	448486	4169225	184	1091	42.8	74.6
65	451805	4169768	107	2350	38.7	71.2
67	450103	4169536	106	542	48.0	79.5
68	451742	4169719	107	2172	38.8	71.3
69	452552	4174221	174	1595	38.9	71.6
70	451622	4170008	I16	1633	40.9	73.0
71	451637	4169625	107	1932	38.3	70.4
72	451219	4169912	107	453	48.3	79.7
73	451729	4169563	107	2289	37.5	69.8
74	452543	4170451	178	3093	36.0	68.2
76	452365	4173080	169	1440	41.5	73.5
77	451594	4169719	107	1698	39.0	70.9
78	451989	4169742	107	2958	37.5	70.3
79	451488	4169925	107	1315	42.6	74.7
80	451902	4169980	I16	2545	40.9	73.9
81	451951	4169683	107	2867	37.5	70.2
82	451850	4169803	107	2485	38.6	71.2
83	452680	4173466	173	502	44.2	74.9
84	452091	4172674	169	1538	41.2	73.3
85	448954	4170059	109	704	45.7	77.0
86	453836	4173616	174	3725	31.8	65.0
87	450027	4171983	177	1854	44.4	76.9
88	447281	4169489	184	4569	33.8	67.3
89	447467	4169815	184	4091	34.9	68.2
90	451875	4169816	107	2565	38.7	71.4
91	452029	4169847	116	3068	37.9	70.7
95	448847	4171309	155	1048	43.1	74.8
96 97	447382	4173208	193	4800 861	32.0	65.7 75.4
99	451833 452026	4172157 4169874	I66 I16	3029	43.9 37.8	70.5
	452020			1005	41.0	73.0
100 101	450883	4173698 4172675	174 165	1315	43.0	75.5
101	448826	4171708	155	771	43.9	75.4
102	448439	4167790	179	3712	32.6	65.7
103	451995	4169932	116	2880	37.6	70.1
107	451522	4169965	116	1380	42.3	74.5
107	451684	4169870	107	1937	39.6	71.8
100	447781	4169840	184	3135	36.4	69.4
110	449786	4168061	179	2568	37.8	70.8
111	451772	4172113	166	691	45.3	76.8
112	451817	4169747	107	2396	38.6	71.1
113	451915	4169794	107	2700	38.4	71.2
114	452969	4173643	174	935	41.6	73.5
118	452866	4173613	174	706	43.2	74.5
119	451531	4169955	116	1421	42.1	74.3
120	451582	4169781	107	1618	40.4	72.6
121	451512	4169856	107	1371	41.6	73.7
123	448882	4171476	155	564	46.5	78.1
124	451758	4172340	166	809	45.5	77.2
. – .	.000	4169820	107	1908	39.7	72.0



Receptor		ordinates AD 83 Datum	Nearest Sound Source	Distance to Nearest Sound Source	Sound Pressure Level at Receptor	Sound Pressure Level at
ID	Easting [m]	Northing [m]	[ID]	[feet]	[dBA]	Receptor [dB]
127	451380	4169815	107	947	43.2	75.0
128	451804	4169545	107	2538	37.5	69.9
129	451756	4169574	107	2356	37.4	69.7
130	452565	4174283	174	1779	35.6	67.9
131	451698	4169803	107	1989	39.5	71.9
132	452735	4173576	174	611	44.7	75.5
133	449401	4167650	179	3186	35.3	68.6
134	451673	4169534	107	2168	37.7	69.9
135	453755	4173285	174	3769	32.7	66.1
136	451785	4169586	107	2431	37.3	69.6
137	451637	4169709	107	1842	38.6	70.7
138	451526	4169749	107	1457	40.9	73.0
139	451679	4169748	107	1950	39.2	71.4
140	451971	4169761	107	2893	37.8	70.6
141	453543	4173780	174	2735	32.2	65.0
142	447185	4169344	184	4910	32.6	66.1
143	448439	4168409	179	2654	36.2	68.8
145	450757	4173393	168	2416	39.1	72.3
146	451694	4171665	T1	839	48.4	76.9
147	451754	4169614	107	2304	37.6	69.8
148	451768	4169636	107	2322	37.6	69.8
149	451667	4169893	107	1884	39.2	71.3
150	453775	4173585	174	3542	31.3	64.4
151	452704	4170597	178	3197	35.3	67.8
152	448543	4174295	193	5204	33.8	67.9
153	448333	4169910	184	1751	40.2	72.5
154	449849	4169600	106	486	48.7	80.2
155	451712	4169768	107	2046	39.3	71.6
156	448892	4171886	155	1098	44.5	76.4
157	451934	4169761	107	2771	38.0	70.8
158	449358	4167641	179	3193	35.2	68.4
159	453496	4174155	174	2884	31.4	64.1
161	451972	4169850	107	2882	38.5	71.3
162	452392	4174475	172	2548	36.1	69.3
163	447628	4169731	184	3512	35.7	68.9
164	451397	4169716	107	1092	42.5	74.5
165	453335	4171420	178	4851	34.4	66.8
166	447273	4169369	184	4613	33.7	67.3
167	451520	4169770	107 193	1423 4665	41.0	73.2
169	447418	4173186	193	1278	32.2	65.8
170 171	451465 448228	4169733 4173590	193	3340	41.6 36.3	73.8 69.9
171	448809	4173390	193	737	46.1	77.7
172	448788	4167739	179	3183	35.0	68.2
173	453335	4174057	179	2270	32.8	65.2
174	453333	4174037	174	1340	36.1	67.9
176	447998	4169912	184	2598	37.5	70.1
177	451563	4169839	107	1539	40.8	73.0
178	451889	4169879	I16	2599	39.0	71.8
179	449442	4168947	180	756	45.6	77.1
180	448427	4169738	184	1127	42.0	73.8
181	451998	4169864	I16	2952	38.4	71.2
182	447702	4172991	193	3589	33.8	67.0
183	448505	4167778	179	3597	32.9	66.0
184	453448	4174125	174	2701	31.8	64.4
187	451420	4169838	107	1070	42.6	74.5
188	449628	4167707	179	3231	35.9	69.2
189	453566	4174103	174	3024	31.1	63.9
190	447971	4173186	193	3007	34.0	66.8
					<b>.</b>	



Receptor		ordinates AD 83 Datum	Nearest Sound Source	Distance to Nearest Sound Source	Sound Pressure Level at Receptor	Sound Pressure Level at
ID	Easting [m]	Northing [m]	[ID]	[feet]	[dBA]	Receptor [dB]
192	452277	4172567	169	2128	39.4	71.7
193	448099	4169967	184	2429	38.1	70.7
194	451455	4169910	107	1200	42.9	75.0
195	451949	4169708	107	2846	37.7	70.4
196	453819	4173448	174	3781	32.5	65.9
198	451673	4169593	107	2082	38.0	70.1
199	451756	4169682	107	2243	38.4	70.8
200	451999	4169683	107	3021	37.3	70.0
201	451528	4169933	I16	1445	42.2	74.4
202	451783	4169840	107	2262	39.1	71.6
204	451474	4169911	107	1261	42.7	74.8
205	453985	4173622	174	4210	31.1	64.6
206	451939	4169842	107	2774	38.7	71.5
207	452631	4173398	173	526	43.0	73.6
211	447869	4169000	184	3108	36.1	69.1
212	451736	4169971	I16	2028	40.9	73.4
214	451510	4169991	I16	1306	42.0	74.1
215	451659	4169544	107	2112	37.8	70.0
216	451699	4169842	107	1984	39.6	71.8
217	452510	4170549	178	2791	36.4	68.5
218	451361	4169769	107	920	43.8	75.8
219	450734	4168788	103	1121	42.8	75.3
221	453994	4173763	174	4212	30.4	63.7
222	451907	4171890	166	1452	45.1	76.0
223	451698	4169502	107	2292	37.5	69.7
225	447727	4173740	193	4760	33.0	66.9
226	448632	4169839	184	1124	44.5	76.6
227	451657	4169917	I16	1846	39.2	71.2
228	453146	4173878	174	1481	35.4	67.3
230	450147	4173259	162	3373	39.5	72.9
231	451959	4169902	I16	2794	38.8	71.6
232	447200	4169160	184	4962	33.5	67.2
233	452924	4173561	174	960	41.8	73.6
234	453867	4173314	174	4070	32.1	65.5
235	447658	4173011	193	3744	33.5	66.8
236	448368	4167957	179	3523	33.2	66.1
237	451753	4169906	I16	2151	39.5	71.9
238	453181	4174248	174	2224	32.6	65.3
239	452505	4174371	174	2113	37.4	70.4
240	453554	4174183	174	3097	30.9	63.7
241	451806	4170037	I16	2201	41.4	74.1
243	448843	4171675	155	666	44.5	75.8
244	451612	4169735	107	1743	38.9	70.9
246	451616	4169781	107	1730	40.0	72.2
247	453837	4173553	174	3759	32.0	65.3
248	449640	4169689	188	736	48.1	79.8
249	450946	4170589	126	465	50.4	81.7
250	451544	4169693	107	1567	39.3	71.2
251	453797	4173526	174	3648	31.6	64.8
253	451600	4170032	I16	1542	41.1	73.1
254	451524	4169826	107	1413	41.2	73.3
255	447592	4173067	193	4004	33.1	66.6
256	447807	4173231	193	3550	33.3	66.4
257	448533	4170962	I31	799	43.2	74.8
258	451813	4169849	107	2360	39.1	71.7
259	454255	4173850	174	5076	28.8	62.2
262	451378	4169714	107	1036	43.0	75.1
263	451487	4169889	107	1296	42.5	74.7
264	451701	4169596	107	2163	37.8	70.0
265	451834	4169693	107	2484	38.2	70.8
				-		



Receptor	Zone 14, NA	ordinates AD 83 Datum	Nearest Sound Source	Distance to Nearest Sound Source	Sound Pressure Level at Receptor	Sound Pressure Level at
10	Easting [m]	Northing [m]	[ID]	[feet]	[dBA]	Receptor [dB]
266	451512	4169787	107	1388	41.2	73.4
267	452275	4172902	169	1337	40.0	71.9
268	448242	4169948	184	2042	38.7	71.0
269	447305	4169722	184	4548	34.1	67.5
270	447955	4169785	184	2538	37.2	69.9
271	451758	4169959	I16	2108	40.1	72.7
272	451388	4169793	107	986	43.0	74.9
273	452941	4173707	174	778	42.6	74.2
275	448273	4168626	182	3070	37.5	70.4
276	451732	4169756	107	2119	39.1	71.5
277	451788	4169878	107	2278	39.3	71.8
278	453349	4174284	174	2710	31.7	64.4
279	448165	4173659	193	3641	32.8	65.9
280	451740	4169486	107	2438	37.2	69.5
281	451749	4169701	107	2207	38.7	71.1
282	448483	4168542	179	2441	36.5	68.8
283	449443	4168171 4174001	179	1594	39.6	72.2 63.1
284	453768		174	3559	30.2	
285	451441	4169865	107	1140	42.6	74.6
287	452587	4174146	174 173	1326	39.7 38.3	71.9
288	452721	4173006		1820		70.8
289	453930	4173592	174	4040	31.4	64.8
291 292	449238 451651	4171882	158 107	786 2030	47.2 38.0	78.6 70.2
		4169584 4169661	107	2292	38.2	70.2
293 294	451766 451661		107	1898	38.6	70.6
294	451569	4169740 4169817	107	1562	40.7	70.6
290	451569	4174008	174	3249	30.7	63.6
298	448952	4174006	156	766	45.9	77.5
299	451554	4169936	I16	1515	40.5	72.4
300	451868	4169957	I16	2456	40.0	72.9
301	451640	4169734	107	1834	38.7	70.7
302	451634	4169789	107	1783	39.9	72.2
303	451550	4169886	107	1499	40.8	72.8
304	451460	4169977	I16	1179	43.0	75.0
305	451934	4169696	107	2802	37.7	70.4
306	451988	4169720	107	2964	37.5	70.3
307	451001	4168899	103	1318	40.3	72.9
310	448058	4174164	193	5259	31.9	66.0
311	449043	4171883	156	821	46.1	77.7
313	448360	4167793	179	3891	32.4	65.6
314	449458	4167997	179	2138	37.8	70.6
316	453397	4173944	174	2333	32.8	65.2
317	453415	4174063	174	2518	32.2	64.8
318	452142	4172808	169	1225	41.3	73.2
319	451740	4172001	166	805	44.8	76.1
320	448616	4169142	182	1052	44.5	76.4
321	447139	4169845	184	5160	33.5	67.1
323	452186	4169361	107	3931	35.0	67.9
324	451259	4174286	170	3206	35.6	68.7
325	453588	4174587	174	3955	29.1	62.1
326	451659	4174769	172	4334	32.3	65.7
327	449890	4167226	179	5026	32.0	65.6
328	453359	4171013	178	4846	32.9	65.8
329	451455	4174335	170	3228	35.6	68.7
330	451846	4169013	107	3700	35.4	68.2
331	452967	4174979	174	4084	29.5	62.6
334	452576	4169462	107	5029	33.8	66.9
335	452061	4174575	172	3123	35.5	69.0
337	451506	4174386	170	3381	35.5	68.6



Receptor	Zone 14, NA	ordinates AD 83 Datum	Nearest Sound Source	Distance to Nearest Sound Source	Sound Pressure Level at Receptor	Sound Pressure Level at
	Easting [m]	Northing [m]	[ID]	[feet]	[dBA]	Receptor [dB]
338	452127	4168988	107	4421	34.2	67.2
339	453581	4174649	174	4083	28.9	61.9
342	450749	4173973	170	3343	35.7	68.8
345	452006	4174751	172	3723	34.4	68.0
346	453265	4170946	178	4561	33.2	66.0
350	453540	4174828	174	4435	28.2	61.4
351	453240	4175185	174	4985	27.7	61.0
352	451544	4174631	170	4181	32.5	65.6
353	451781	4174874	172	4408	32.2	65.8
354	452136	4169236	107	3971	34.6	67.4
356	452142	4169467	107	3665	35.5	68.3
357	451840	4174964	172	4584	32.3	66.1
358	447738	4172779	190	3329	34.3	67.3
359	450605	4167675	I01	4732	33.1	66.4
360	453470	4174266	174	2996	31.1	63.8
361	452112	4169160	107	4041	34.5	67.3
363	453558	4174718	174	4195	28.6	61.7
366	452142	4169535	107	3594	35.7	68.4
367	450005	4167276	179	5056	32.1	65.6
368	453476	4171096	178	5218	32.5	65.5
369	453414	4170791	178	5131	32.4	65.5
370	451814	4169090	107	3442	35.8	68.5
371	451421	4174297	170	3117	35.8	68.8
372	450767	4173912	170	3178	36.1	69.1
373	452969	4170766	178	3746	34.4	66.9
374	451883	4174813	172	4078	32.5	66.0
375	449856	4167155	179	5191	31.0	64.4
376	449946	4167260	179	5009	32.2	65.7
377	452982	4170732	178	3823	34.3	66.9
378	451206	4174234	170	3104	35.8	68.9
379	453051	4170556	178	4256	33.7	66.5
380	451367	4174586	170	4082	34.2	67.6
381	453147	4170766	178	4302	33.6	66.3
383	453449	4171073	178	5130	32.5	65.5
384	449756	4167135	179	5128	31.9	65.6
385	450575	4168076	I01	3415	35.6	68.8
386	451709	4174821	172	4381	32.2	65.7
387	451577	4174701	172	4323	32.2	65.3
388	453412	4171045	178	5014	32.7	65.7
389	452951	4170574	178	3938	34.2	66.8
390	453635	4174554	174	3997	29.0	62.1
392	452378	4174649	174	3109	35.1	68.6
393	450711	4173980	170	3457	36.3	69.8
394	451780	4169444	107	2621	37.3	69.7
398	453303	4174470	174	3033	31.0	63.8
400	453555	4174728	174	4213	28.6	61.7
401	452113	4168952	107	4462	34.1	67.2
402	453392	4171028	178	4953	32.7	65.7
403	451610	4174831	172	4594	32.2	65.8
404	449776	4167605	179	3748	35.0	68.4
405	453198	4170915	178	4359	33.5	66.2
406	452026	4174881	172	4100	33.5	67.3
407	453240	4174861	174	4007	29.3	62.4
408	452076	4168884	107	4526	34.1	67.1
410	451941	4168533	103	4605	33.1	66.2
411	451966	4174917	172	4280	33.3	67.0
412	449729	4167112	179	5173	32.1	65.8
414	453561	4174769	174	4330	28.4	61.5
415	451315	4174535	170	3947	34.3	67.6
416	452117	4169096	107	4175	34.3	67.2



Receptor	UTM Coordinates Zone 14, NAD 83 Datum		Nearest Sound Source	Distance to Nearest Sound Source	Sound Pressure Level at Receptor	Sound Pressure Level at	
טו	Easting [m]	Northing [m]	[ID]	[feet]	[dBA]	Receptor [dB]	
417	453514	4174407	174	3383	30.2	63.1	
418	451343	4174764	170	4671	34.1	67.9	
419	451357	4174245	170	2988	36.1	69.0	
422	451815	4169510	107	2619	37.3	69.8	
424	453258	4170860	178	4584	33.2	66.0	

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# APPENDIX C - SOUND SPECTRA OF CONSTRUCTION EQUIPMENT

Faurinanant	Frequency [Hz]							Total	Total	
Equipment	63	125	250	500	1000	2000	4000	8000	[dB]	[dBA]
Grader	88	87	83	79	84	78	74	65	92	87
Dump Truck	85	74	78	73	73	74	67	63	87	79
Water Truck	70	65	66	64	64	63	56	46	74	69
Generator	75	72	67	68	70	66	62	60	79	73
Flat Bed	73	78	78	78	74	73	68	66	84	80
Impact Pile Driver	87	93	85	87	83	80	75	72	96	89

Sound Spectra referenced from DEFRA [8] and adjusted to match overall FHWA [7] construction sound levels at 50 ft.

DNV – Document No.: 10287539-HOU-R-02, Issue: B, Status: FINAL www.dnv.com



# APPENDIX D - DNV QUALIFICATIONS

#### Name and Title

#### **Brief Biography**

#### **Siting and Acoustics** Engineer

Justin Puggioni

Mr. Puggioni has over 10 years of consulting experience working in acoustic engineering acquiring an in-depth understanding of the discipline. His project history covers the modeling, measurement and analysis of acoustic impacts. He has conducted acoustic field measurements across the country and defended his work in public forums. His project portfolio includes offshore wind, onshore wind, IEC measurements, construction noise assessment, traffic noise assessments, horizontal directional drilling and compressor stations. He has a B.S degree in Mechanical Engineering from The University of Melbourne, Australia.

#### **Project Siting Engineer**

Aren Nercessian

Mr. Nercessian has over 13 years of experience running acoustic models for renewable energy projects, has prepared over 50 reports on noise modelling of wind farms and has analyzed measured acoustic noise levels at more than 15 sites. Mr. Nercessian has also performed layout optimizations, shadow flicker assessments, visual simulations and electromagnetic interference risk assessments on over 150 different projects under development. He is very familiar with the noise regulations in jurisdictions including Illinois, Michigan, Minnesota, Alberta, Ontario, and Quebec. Mr. Nercessian has a bachelor's degree in mechanical engineering from McGill University in Montreal, Canada.

## Team Leader. **Environmental and Permitting Services**

**Gabriel Constantin** 

Since joining DNV GL, in mid-2012, Gabriel Constantin has been involved in more than a dozen renewable energy mandates in the U.S., Canada, and abroad. He has quickly focused his field of expertise around the environmental and permitting aspect of renewable energy projects as well as the relevant regulations and energy policies in different jurisdictions. More precisely, Gabriel has significantly contributed in the procurement of Renewable Energy Approvals for multiple wind and solar projects in Ontario by coordinating with agencies at all levels and stakeholders, participating in public open house, managing subcontractors, and writing the mandatory EIA reports. His experiences also include project management, environmental impact assessments, due diligence, permitting at different government levels and an array of consultation activities. Gabriel holds a B.Sc. in Geomatics applied to the Environment and an M. Sc. in Geographical Sciences.

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# **About DNV**

We are the independent expert in assurance and risk management. Driven by our purpose, to safeguard life, property and the environment, we empower our customers and their stakeholders with facts and reliable insights so that critical decisions can be made with confidence. As a trusted voice for many of the world's most successful organizations, we use our knowledge to advance safety and performance, set industry benchmarks, and inspire and invent solutions to tackle global transformations.

# Sebree Solar, LLC

Case No. 2021-00072

Application - Volume 2
Tab 12
Attachment A
Exhibit 5

Traffic and Dust Study (15 Pages)

# Traffic Study and Dust Study for the Sebree Solar, LLC Electric Generation Facility

August 06, 2021

# Prepared for:

Kentucky State Board on Electric Generation and Transmission Siting

Kentucky Public Service Commission

Prepared by:

Integrated Engineering/PRIME AE

166 Prosperous Place, Suite 220 Lexington, KY 40509

On Behalf of:

and

& Technology, Inc. 3399 Veterans Drive Traverse City, MI 49684 Sebree Solar, LLC 700 Universe Blvd Juno Beach, FL 33408

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2.	Traffic Study	<i>(</i>	
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3.	Fugitive Dus	t Impacts	5
4.	Impacts on I	Existing Railways	6
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# **Attachments**

Site Exhibit – 1A

Site Exhibit – 1B

Site Exhibit – 2A

Site Exhibit – 2B

Site Exhibit – 2C

Site Exhibit – 2D

#### 1.0 Introduction

Sebree Solar, LLC proposes to construct a solar electric generating facility in Henderson County, Kentucky and an approximately 4.85-mile nonregulated electric transmission line to a nearby substation located in Webster County, Kentucky (the *Sebree Solar Project*). The Sebree Solar Project will be capable of generating approximately 250 megawatts of electricity from a solar array covering approximately 1,200 acres. The proposed project includes photovoltaic solar panels, associated racking, inverters, and a substation transformer that will connect via a 161-kilovolt transmission line to the existing Reid EHV Substation owned by Big Rivers Electric Corporation in Webster County, Kentucky.

A Site Assessment report must be prepared for the Sebree Solar Project as part of an application for a construction certificate from the Kentucky State Board on Electric Generation and Transmission Siting (Siting Board). The Site Assessment Report requires a traffic study and a dust study for the proposed facility. IE/PRIME AE was hired to perform the studies and evaluate multiple private access roads that will be necessary for construction and operations for the solar farm. This site assessment includes a comprehensive traffic study evaluating the existing roadway network and traffic conditions, traffic safety, dust study, and railroad assessment.

#### 2.0 Sebree Solar Project Traffic Study

#### 2.1 Existing Roadway Network and Traffic Conditions

Two major roadways are present in the Sebree Solar Project's vicinity. Kentucky Highway 416 (KY 416) runs east-west through the project site connecting to the west the city of Robards, US Highway 41, and Interstate 69. Kentucky Highway 283 (KY 283) runs north-south through the project site connecting to US 41 to the north and the city of Dixon to the south.

On the southwestern part of the project, proposed site entrances #1 alt., 4, 5, 6, and 7 are located on minor collector KY 416. Site entrance #17 is located on local road Spencer Thornberry Road which connects to KY 416. Site entrances #2, 3, and 18 are on minor collector KY 1299 which connects to KY 416. On the northern side of the project, site entrances #8, 9, 10 and 14 are on local road KY 283. Site entrance #11 is located on local road Busby Station Road which connects to KY 283. Site entrances #12 and 13 are located on CR 1156 which connects to KY 283 via Dick Smith Road. Site entrances #15 and 16 are located on local Ed Otey Road which connects to Busby Station Road. An exhibit showing the proposed sites, entrances, and transmission line is attached with this report as Exhibit 1 Sheets 1A and 1B. The summary of the entrance roadways can be found in the following table:

Site Entrance #	Adjoining Road Name	Highway Functional	Lane Width (Feet)	Paved	Shoulder
Entrance #		Classification	(Feet)		
1 alt.	KY 416	Minor Collector	24	Yes	No
2, 3, 18	KY 1299	Minor Collector	18	Yes	No
4, 5, 6, 7	KY 416	Minor Collector	24	Yes	No
8, 9, 10	KY 283	Local Road	20	Yes	Yes
11	Busby Station Rd	Local Road	18	Yes	No
12	Cr 1156	Local Road	11	No	No
13	Dick Smith Rd	Local Road	16	No	No
14	KY 283	Local Road	20	Yes	No
15, 16	Ed Otey Road	Local Road	16	Yes	No
17	Spencer Thornberry Rd	Local Road	20	Yes	No

The Kentucky Transportation Cabinet (KYTC) collects traffic information and publishes various roadways' annual average daily traffic (AADT). For a given roadway location, AADT shows the mean traffic volume across all days for a year. Located in the project vicinity, and listed below, are three KYTC AADT monitoring stations:

- Station ID 507 located on KY 416
- Station ID 256 located on KY 416
- Station ID 295 located on KY 283

A summary of the AADT in the project vicinity is given below:

Proposed Site Entrance	Site Entrance's Adjoining Roadway	Nearest AADT Monitoring Station ID	Distance (feet) from Monitoring Station to Proposed Site	Annual Average Daily Traffic (AADT)	Year Assessed
Entrance #1 alt.	KY 416	Sta 507 on KY 416	290	416	2019
Entrance #2	KY 1299	Sta 507 on KY 416	7,100	416	2019
Entrance #3	KY 1299	Sta 507 on KY 416	9,100	416	2019
Entrance #4	KY 416	Sta 256 on KY 416	1,130	490	2019
Entrance #5	KY 416	Sta 256 on KY 416	1,700	490	2019
Entrance #6	KY 416	Sta 256 on KY 416	3,210	490	2019
Entrance #7	KY 416	Sta 256 on KY 416	3,360	490	2019

Entrance #8	KY 283	Sta 256 on KY 416	5,850	490	2019
Entrance #9	KY 283	Sta 295 on KY 283	4,970	404	2018
Entrance #10	KY 283	Sta 295 on KY 283	4,100	404	2018
Entrance #11	Busby Station Rd	Sta 295 on KY 283	4,220	404	2018
Entrance #12	Cr 1156	Sta 295 on KY 283	4,450	404	2018
Entrance #13	Dick Smith Rd	Sta 295 on KY 283	3,800	404	2018
Entrance #14	KY 283	Sta 295 on KY 283	4,830	404	2018
Entrance #15	Ed Otey Rd	Sta 295 on KY 283	12,000	404	2018
Entrance #16	Ed Otey Rd	Sta 295 on KY 283	12,000	404	2018
Entrance #17	Spencer Thornberry Rd	Sta 256 on KY 416	700	490	2019
Entrance #18	KY 1299	Sta 507 on KY 416	13,720	416	2019

Traffic collision data in the project area has been collected from the Kentucky State Police website. From June 1, 2018 to June 1, 2021, the collision data reports 5 property damage only on KY 283. In the same time period, KY 416 had 7 property damages, 3 injury crash. The collision locations are shown in the attached Exhibit 1.

The expected crash frequency for the segment of KY 283 and KY 416 in the project vicinity is slightly higher than predicted for roads with similar characteristics. To address any traffic safety concerns during the construction of the proposed sites, Sebree Solar, LLC will ensure that a traffic management plan will be developed by the contractor. Several of the traffic safety techniques to be used are described below.

#### **2.2 Sebree Solar Project Construction Traffic**

#### 2.2.1. Traffic During Construction of Proposed Sites and Transmission Line

The Sebree Solar Project site entrances will provide ingress and egress during construction for each solar site. Access to place the transmission-line utility poles will be gained through land contracts with property owners or permitted through State and local road authorities. The construction activities are expected to take eighteen to twenty-four months. During this time, a temporary increase in traffic is anticipated near the vicinity of the proposed sites. The increased

traffic is associated with travel of construction workers, deliveries of construction equipment and material, and delivery of solar panel components and equipment. The construction workers will create trips along the roadways in the morning and evening as they come and go from work. Up to 300 workers will be employed during the construction phase of the project. At the beginning of construction, heavy machinery will be delivered to the sites. Throughout the construction process, deliveries of equipment and materials will occur on trailers, flatbeds, or other large vehicles at various times of day. Sebree Solar, LLC will inform and obtain permits from State and local road authorities as needed for Class 21 vehicle transport to the sites. Road officials will help identify any special transportation requirements for heavy trucks during construction (e.g., the need to avoid existing bridges, the need to reinforce or ramp over existing bridges for which there is no detour, detours of highway traffic, or temporary closures). Sebree Solar, LLC will comply with all permit requirements and will coordinate with proper road officials as needed.

#### 2.2.2. Traffic Safety Precautions during Site Construction

Appropriate signage and traffic guidance will be utilized to increase driver safety and reduce the risk of any vehicle accidents. Long term lane closures are not anticipated during the construction of the solar facilities. However, when construction work nears the roadways or when the larger deliveries arrive, temporary lane or shoulder closures may be used for the safety of the traveling public and the construction workers. For example, flaggers may temporarily stop highway traffic to allow a delivery truck and trailer to safely turn into the site. Another instance might be the use of a shoulder closure as workers place transmission-line utility poles near a roadway. *Construction Work* signs will be placed along the roadside to alert motorist that construction traffic may be present on the highway.

#### 2.2.3. Physical Impact on Existing Road Infrastructure

The construction traffic needed for the proposed project should not significantly degrade the existing roadways. The increase in localized traffic and use of heavy trucks may wear the existing roadway around the project sites but significant damage is not expected. Sebree Solar, LLC will adhere to all local and state requirements related to repair of road infrastructures following construction.

Access drives and internal roads will be constructed or improved as needed to accommodate vehicles and equipment. Internal roads will be compacted gravel, which may result in an increase in airborne dust particles. During construction, water may be applied to internal road system to reduce dust generation.

Intersection sight distances were considered at the proposed project entrances. The sites were generally free of sight obstructions that might limit a driver's visibility. Additionally, the land topography in the project area is flat to gently rolling. Therefore, length of roadway visible to drivers is adequate for safe turning movements.

#### 2.3. Sebree Solar Facility Operation and Maintenance Traffic

The operation of the Sebree Solar facility will mostly be un-manned with 2 to 3 employees making site visits a few times a week to inspect the site, ensure proper equipment operation, and note any maintenance needs. Vehicular traffic on the project site will be limited to typical weekday work hours. Employees will drive mid or full-sized trucks and will contribute less to existing traffic than a typical single-family home; operation of this solar facility will not significantly increase traffic in the project vicinity.

#### 2.4. Sebree Solar Project Traffic Summary and Conclusion

Traffic operation on two-lane rural highways is unique based upon the geometric and traffic characteristics of each road. Therefore, roadway level of service is derived through investigating travel speed, delay (vehicles following slower vehicles), and capacity utilization. However, the primary roadways in the Sebree Solar project area – KY 416 and KY 283 – have very low daily traffic numbers. In fact, the capacity for a two-lane rural highway will be around 2,800 passenger cars per hour, both directions, under ideal conditions<sup>1</sup>. The existing average daily traffic on these roads is far less than the capacity. Even though the traffic in the project vicinity is predicted to increase during the construction phase of the project, there is so much excess capacity that this roadway system will continue to perform at a very high level of service. This includes morning and evening peaks as construction workers enter and exit the project site and periodic delivery of construction materials and equipment. Also, Sebree Solar, LLC will ensure that a traffic management plan will be developed by the contractor. This plan will describe measures to address highway traffic impacts due to construction activities.

During construction, appropriate signage and traffic guidance will be used as necessary to ensure driver safety. Significant damages to existing roadway infrastructure are not expected.

Solar farms are not highway-traffic generators. Therefore, during the operational phase of this solar facility, there will be no significant increase in traffic and there will be very little, if any, impact to the existing road system.

#### 3.0 Sebree Solar Project Fugitive Dust Impacts

Land disturbing activities associated with the proposed project may temporarily contribute to airborne materials. To reduce wind erosion of disturbed areas, appropriate revegetation measures, application of water, or covering of spoil piles may occur. In addition, any open-bodied truck transporting dirt will be covered when the vehicle is in motion. The size of the project site, distance to nearby structures and roadways, combined with vegetative buffers along the

5

<sup>&</sup>lt;sup>1</sup> NCHRP 825 method for highway capacity

property boundaries and fencerows will aid in managing off sites dust impacts. Internal roads will be compacted gravel, which may result in an increase in airborne dust particles during dry conditions and when internal road traffic is heavy. During construction activities, water may be applied to the internal road system to reduce dust generation. Water used for dust control is authorized under the Kentucky Pollutant Discharge Elimination System (KYDES) as a non-stormwater discharge activity, which will be required for the proposed project.

#### 4.0 Impacts on Existing Railways

One CSX rail line passes through the project corridor. The information collected from CSX shows that eleven (11) freight train passes from 6 a.m. to 6 p.m. and another nine (9) passes from 6 p.m. to 6 a.m. every day. The rail track consists of one main line and no siding. The typical speed over crossing ranged from 40 mph to 60 mph. The construction of this solar site will not be using railways for any construction or operation activities.

Additional roadway traffic created during the proposed construction will not have any impact to the CSX Railway. Railway impacts to construction traffic are anticipated to be very minimal with only sporadic delays when the railway is active. Likewise, there will be no railway impact during the operational phase of this solar site. There are not anticipated damages to existing railroad infrastructure.

# **Signatures of Professionals**



Eddie Mesta, P.E.

**Director- Business Development** 

Integrated Engineering, PLLC, operating as PRIME AE Group, Inc.

20181 CENSED CHANGE

Jeff Jasper, P.E.

**Engineer Director** 

Professional Engineer License Kentucky PE#20181

JK4 Consulting, LLC

K:\|KY01SD-21347-02 - Sebree Phase 1 Soalr Site assessment\CADD\Current Drawings\21347-02 Sebree Solar Site Assessmer Day & Time: Aug 06, 2021 - 2:29pm

ISD-21347-02 - Sebree Phase 1 Soalr Site assessment\CADD\Current Drawings\21347-02 Sebree Solar Site Assessment.dwg Time: Jul 12, 2021 - 1:22pm mme: ihart Case No. 2021-00072 App. Vol. 2 - Tab 12 - Attach. A - Exh. 5

SITE ENTRANCE # 1 alt. A

KY 416 (Possible future entrance evaluated for flexibility in design.)



SITE ENTRANCE # 1 alt. B

KY 416 (Possible future entrance evaluated for flexibility in design.)



SITE ENTRANCE # 2A KY 1299



SITE ENTRANCE # 2B KY 1299



SITE ENTRANCE # 3A KY 1299



SITE ENTRANCE # 3B KY 1299



Proposed Transmission Line Crossing on KY 1299



Proposed Transmission Line Crossing on KY 1299



SITE ENTRANCE # 4A KY 416



SITE ENTRANCE # 4B KY 416



RR Crossing at Ed Otey Road-1



RR Crossing at Ed Otey Road-2

| a PRIME | a PRIME | | I SOMPANY | 166 PROSPEROUS PLACE, SUITE 220 | LEXINGTON, KY 40509 | P (859) 368-0145 ~ F (859) 904-1538

SOLAR SITE ASSESSMENT
ROBARDS, KY
KENTLICKY
ECT, INC.
3399 VETERANS DRIVE
TRAVERSE CITY, MI 49684

DATE:
JULY 2021
DRAWN BY:
NHC
CHECKED BY:
EHM

DESCRIPTION OF REVISION

EXHIBIT 2

2A

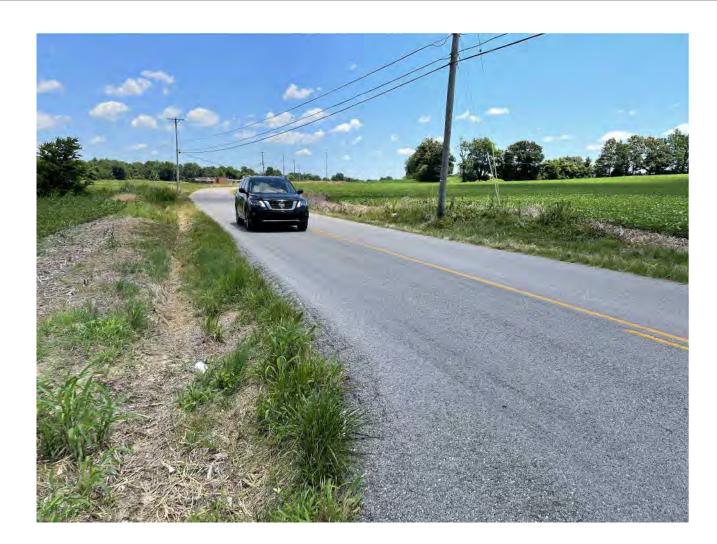
SITE ENTRANCE # 5A KY 416



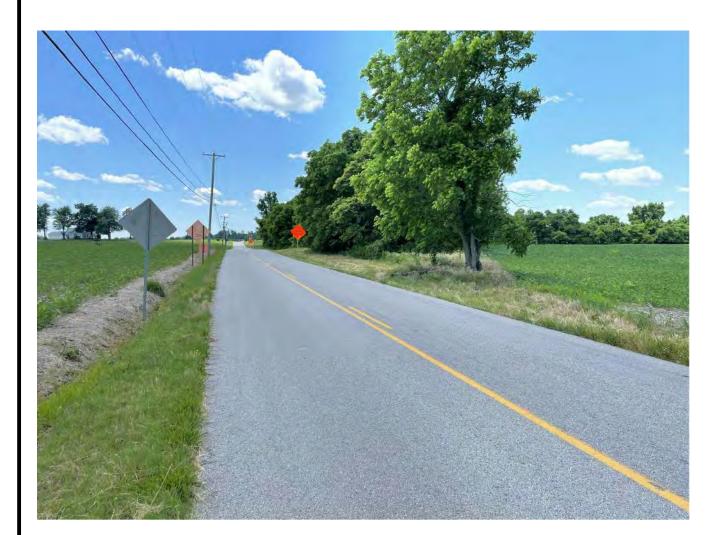
SITE ENTRANCE # 5B KY 416



SITE ENTRANCE # 6A KY 416



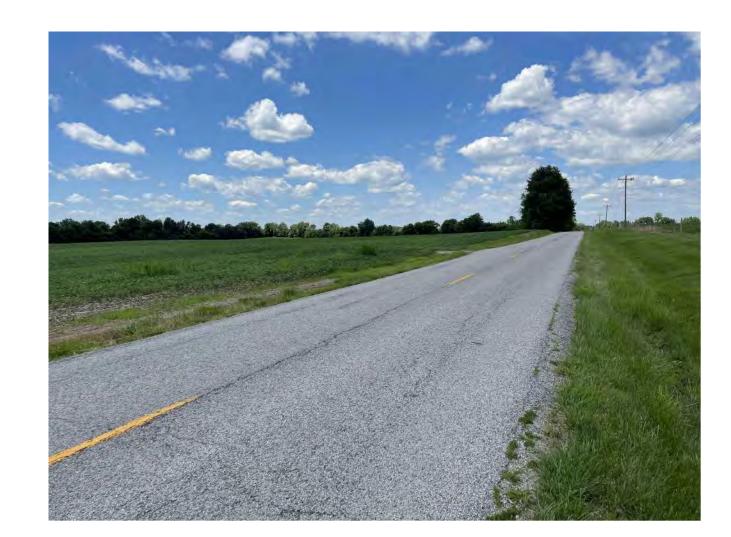
SITE ENTRANCE # 6B - KY 416 and Proposed Transmission Line Crossing



SITE ENTRANCE # 7A KY 416



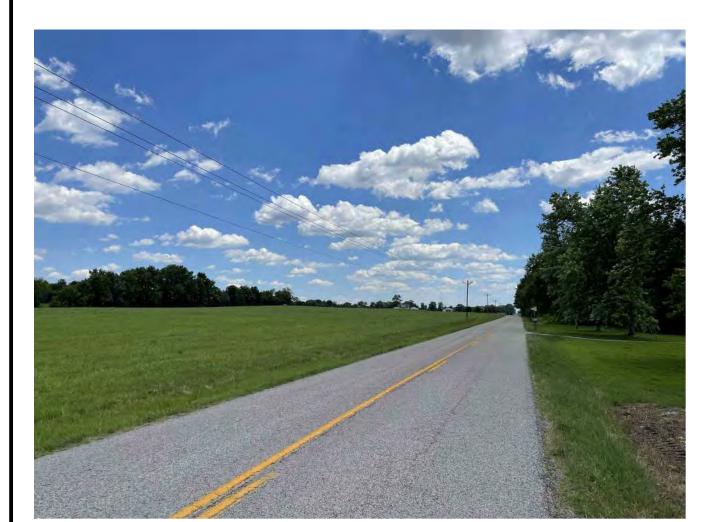
SITE ENTRANCE # 7B- KY 416 and Proposed Transmission Line Crossing



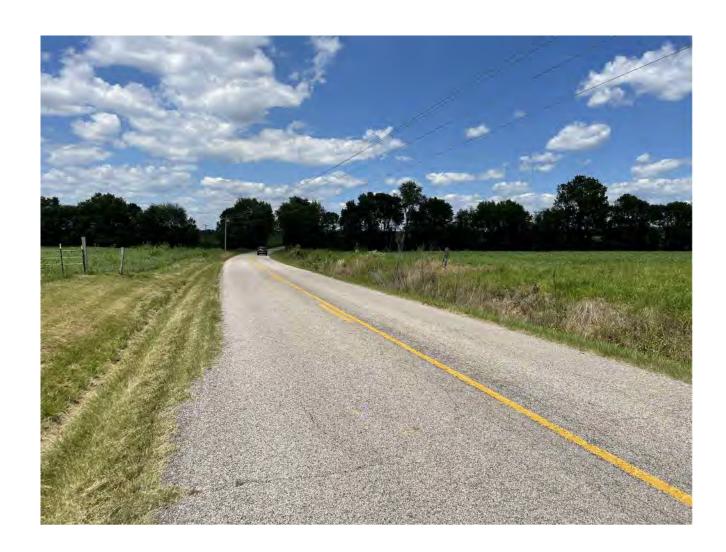
SITE ENTRANCE # 8A KY 283



SITE ENTRANCE # 8B KY 283



Proposed Transmission Line
Crossing on KY 283 Between Site
Entrance 8 and 9



Proposed Transmission Line
Crossing on KY 283 Between Site
Entrance 8 and 9



Proposed Transmission Line Crossing
Busby Station and Railroad



Proposed Transmission Line Crossing Busby Station and Railroad

TED ENGINEERING | APRIME | COMPANY | SPEROUS PLACE, SUITE 220 | ON, KY 40509 | 368-0145 ~ F (859) 904-1538

166 PROSPEROUS PLA LEXINGTON, KY 4050 P (859) 368-0145 ~ I

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DESCRIPTION OF REVISION

EXHIBIT 2

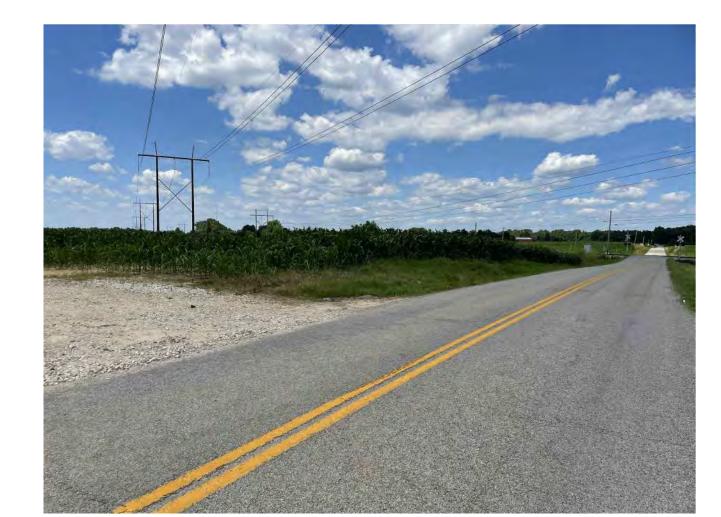
2B



SITE ENTRANCE # 9A **KY 283** 



SITE ENTRANCE # 9B **KY 283** 



**SITE ENTRANCE # 10A KY 283** 



**SITE ENTRANCE # 10B KY 283 and Railroad Crossing** 



SITE ENTRANCE # 10C- KY 283 Railroad and Proposed Transmission **Line Crossing** 



**SITE ENTRANCE # 11A Busby Station Road** 



SITE ENTRANCE # 11B **Busby Station Road** 



SITE ENTRANCE # 12A Dick Smith Road on KY 283



**SITE ENTRANCE # 12B** Dick Smith Road on KY 283



SITE ENTRANCE # 13A
Dick Smith Road



SITE ENTRANCE # 13B Dick Smith Road



SITE ENTRANCE # 14A **KY 283** 

2C

SITE ENTRANCE # 14B KY 283



SITE ENTRANCE # 15A
Ed Otey Road



SITE ENTRANCE # 15B Ed Otey Road



SITE ENTRANCE # 16A
Ed Otey Road



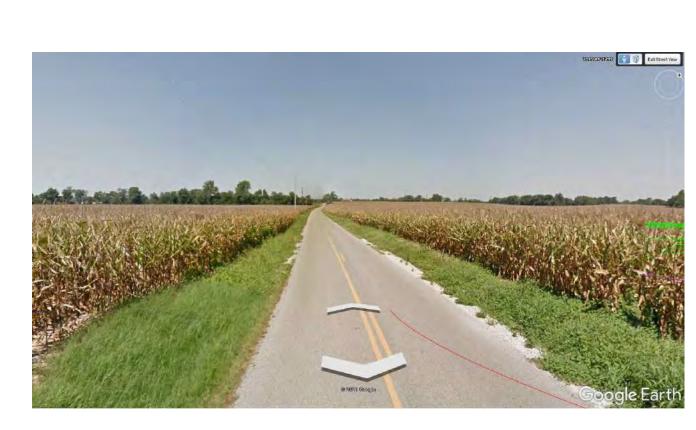
SITE ENTRANCE # 16B
Ed Otey Road



SITE ENTRANCE # 17A
Spencer Thornberry Road



SITE ENTRANCE # 17B Spencer Thornberry Road



SITE ENTRANCE # 18A KY 1299



SITE ENTRANCE # 18B KY 1299

FXHIRIT O

2D