

Champaign County  
Department of

**PLANNING &  
ZONING**

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To: **Champaign County Environment & Land Use Committee**

From: **John Hall, Zoning Administrator  
Susan Burgstrom, Senior Planner**

Date: **October 31, 2022**

RE: **Donato Solar – Rantoul LLC documents requiring ELUC approval  
from Zoning Case 064-S-22**

Request: **ELUC approval of a Decommissioning and Site Reclamation Plan  
including cost estimates and a noise study for the 5 MW PV solar  
array that is the subject of Zoning Case 064-S-22**

Petitioner: **Anthony Donato, d.b.a. Donato Solar – Rantoul LLC**

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## **BACKGROUND**

The petitioner, Donato Solar - Rantoul LLC, seeks Special Use Permit approval from the Champaign County Board at its November 17, 2022 meeting to construct a 5-megawatt (MW) Photovoltaic (PV) Solar Array just west of Rantoul.

There are several documents required by the Zoning Ordinance that could only be completed closer to construction time and therefore were not included in the initial Special Use Permit approval. The Zoning Board of Appeals approved special conditions as part of Case 064-S-22 to ensure that these documents would be reviewed and approved by ELUC at a later date.

- Special Condition E. states: **“A signed Decommissioning and Site Reclamation Plan that has been approved by ELUC is required at the time of application for a Zoning Use Permit that complies with Section 6.1.1 A. and Section 6.1.5 Q. of the Zoning Ordinance, including a decommissioning cost estimate prepared by an Illinois Professional Engineer.”**
- Special Condition F. states: **“The following submittals are required prior to the approval of any Zoning Use Permit for a PV SOLAR FARM:**
  - **A noise study that meets the requirements of 6.1.5 I.3. that has been approved by the Environment and Land Use Committee.”**

## **DECOMMISSIONING AND SITE RECLAMATION PLAN**

P&Z Staff reviewed the Decommissioning and Site Reclamation Plan (DSRP) received on October 28, 2022 against the Zoning Ordinance requirements in Section 6.1.5 Q. Staff found the narrative in the DSRP to be in compliance with the Zoning Ordinance.

Staff reviewed the cost estimates in the DSRP and compared them with previously approved cost estimates from Zoning Case 903-S-18. The cost estimates from 903-S-18 were approved by ELUC in 2019. Staff found that the cost estimates for the current case 064-S-22 were significantly lower than those from case 903-S-18. Staff comments were provided to the developer and some revisions were made but the estimated costs are still much lower than the costs approved in Case 903-S-18. Both cost estimates were done by Illinois Licensed Engineers, and both attribute the estimates to industry standards. To facilitate discussion, the following documents are attached to this memorandum:

- Case 064-S-22 DSRP with cost estimates for Donato Solar – Rantoul LLC (Attachment A)
- Cost estimates from Case 903-S-18 (Attachment B)
- Annotated cost estimates showing both Case 064-S-22 and Case 903-S-18 comparable line items in red text (Attachment C)

## **NOISE STUDY**

Attachment D is the noise study created by Shiner Acoustics for the Rantoul solar array and data center. The study demonstrates that anticipated noise levels from the solar farm and data center will be well below Illinois Pollution Control Board (IPCB) noise regulations for nighttime hours and therefore demonstrates compliance with the Champaign County Zoning Ordinance.

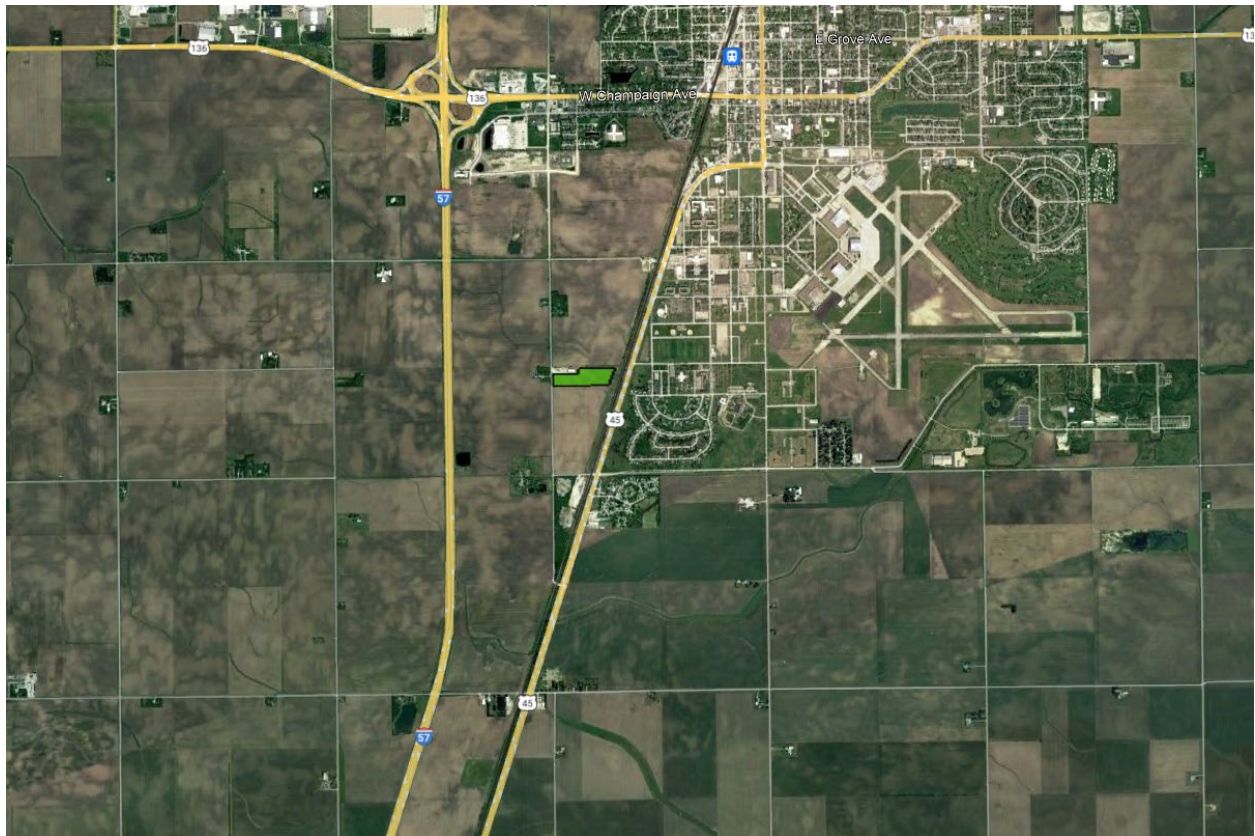
## **ATTACHMENTS**

- A Case 064-S-22 Decommissioning and Site Reclamation Plan with decommissioning cost estimate received October 28, 2022
- B Case 903-S-18 cost estimates
- C Annotated cost estimates showing both Case 064-S-22 and Case 903-S-18 line items
- D Rantoul Solar Farm Noise Study by Shiner Acoustics, LLC received October 25, 2022

# Decommissioning & Site Reclamation Plan

2950 CR 1500E, Rantoul, IL

5mw Ground Mounted Solar Project



**RECEIVED**

OCT 28, 2022

CHAMPAIGN COUNTY  
PLANNING & ZONING



Date Signed 10.28.2022  
Exp 11.30.2023

## Introduction

Donato Solar – Rantoul, LLC (“Owner”) proposes to develop a solar photovoltaic (PV) facility (the Project”) with a maximum nameplate capacity of five megawatts alternating current (5 MWac). The Project will be developed on private property located along the east side on County Road 1500 E, at approximately 2950 County Road 1500E, Rantoul, IL, (the “Property”), as shown in Figure 1.

The Project consists of approximately 12.2 acres within a 14.4-acre parent parcel of private land located in Rantoul, IL Township, Champaign County, Illinois. The Project will produce electricity to be used onsite and connected to the local distribution grid utilizing existing overhead lines along County Road 1500 E. Interconnection to the grid will include both underground and overhead wires along with new utility poles located on the Property.

## Approval Process

As a condition to Champaign County (“County”) providing Zoning Use Permit Approval (“Approval”) of the Project on the Property, Owner shall submit a decommissioning and site reclamation plan to the County for the subject site. This Decommissioning and Site Reclamation Plan (the “DSRP”) describes the anticipated activities and process for decommissioning of the proposed facility following its useful life. The purpose of decommissioning is to restore the Property to a clean, safe and usable condition for continued use by the landowner.

The DSRP shall be binding upon all successors of title, lessees, any operator and/or owner of the Project, and all parties to the decommissioning and site reclamation plan. Prior to Approval, the landowner or Owner shall also record a covenant incorporating the provisions of the decommissioning and site reclamation plan on the deed subject to the LOT, requiring that the reclamation work be performed and that a letter of credit be provided for financial assurance (the “Security”).

The Owner agrees that the sale, assignment in fact or law, or such other transfer of owner’s financial interest in the PV SOLAR FARM shall in no way affect or change owner’s obligation to continue to comply with the terms of this plan. Any successor in interest, assignee, and all parties to the decommissioning and site reclamation plan shall assume the terms, covenants, and obligations of this plan and agrees to assume all reclamation liability and responsibility for the PV SOLAR FARM.

The Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall be obliged to perform the work in the decommissioning and site reclamation plan before abandoning the PV SOLAR FARM or prior to ceasing production of electricity from the PV SOLAR FARM, after it has begun, other than in the ordinary course of business. This obligation shall be independent of the obligation to pay financial assurance, and shall not be limited by the amount of financial assurance. The obligation to perform the reclamation work shall constitute a covenant running with the land.

Decommissioning consists of the removal of above-ground and below-ground facility components,

management of excess materials and waste as well as the restoration of the Property, as applicable. Activities are expected to take between 8-10 weeks but no longer than four-months. The Owner agrees to remove any part of the Project and all associated equipment and structures if the Project part ceases to function for six (6) consecutive months, unless the Owner is diligently working to repair that part.

Future consultation will occur with the County prior to decommissioning to discuss preferences and commitments to restore the Property to its pre-construction condition or a similar state. All decommissioning and restoration activities will adhere to the requirements set forth by Occupational Health and Safety Administration (OSHA) and will be in accordance with all applicable federal, state and local permitting requirements. As with the construction phase, an on-site manager responsible for safety will be present on-site (generally the contractor's project manager) while decommissioning activities are taking place.

Upon removal and decommissioning of the Project, the Owner shall inform the County accordingly, in writing. Upon the County's determination that the Owner has decommissioned and removed the Solar Energy Project and restored the Property as required under the Site Plan Approval, the County shall: (i) release the Owner from this Plan; (ii) issue a certificate of completion and release and (iii) return or release any unused portion of the Security to the Owner. A determination that the removal and restoration has been satisfactorily completed shall be in the reasonable discretion of the County. The Owner and its agents and consultants shall fully comply with all reasonable requests for inspections and information by the County and its agents.

If the Owner fails to complete the required removal of the Project and restoration of the Property as set forth herein, the County shall be entitled to utilize the Security provided hereunder to the extent necessary, in the County's reasonable discretion, to complete the removal and restoration process. Any portion of the Security that is not utilized as set forth herein shall be returned to the Owner, less reasonable administrative costs. In the event that the County elects to obtain the Security, in whole or in part, as described in this paragraph, it shall notify the Owner accordingly, in writing and, within fourteen (14) days of such writing, the Security shall be paid to the County.

The Plan is based on current procedures and experience. These procedures may be subject to revision based on new experiences and requirements over time. At the time of decommissioning, various options and procedures will be re-evaluated to ensure that decommissioning is safe and beneficial to the environment.

## **Financial Assurance**

To fulfill its obligations to provide the Security, the Owner shall be required to execute and file with the County a Letter of Credit ("LOC"), in an amount sufficient for the faithful performance of the terms and conditions of the Approval issued hereunder, and to provide for the aforesaid removal and restoration of the Property subsequent to removal of the Project. The Owner shall deliver, to the County, suitable evidence of the establishment of the LOC prior to the Approval of the Project.

Section 6.1.5Q.(4)a. of the Zoning Ordinance requires the amount of the LOC to be 12.5% of the decommissioning cost (including allowable salvage) at the time of Zoning Use Permit Approval, and 62.5% of the decommissioning cost (including allowable salvage) at the sixth anniversary of operation, and 125% of the decommissioning cost (including allowable salvage) at the eleventh anniversary of operation. Section 6.1.5Q.(4)d. of the Zoning Ordinance requires the amount of the financial assurance to be updated every five years for the first 25 years and every two years thereafter. Additionally, Section 6.1.5Q.(4)f. of the Zoning Ordinance requires the amount of the LOC to equal or exceed 125% of the decommissioning cost estimate at all times.

Upon County's request, per Section 6.1.5Q.(4)d. of the Zoning Ordinance, the Owner shall update the amount of the LOC every five years for the first 25 years and every two years thereafter. The Owner shall deliver to the County evidence of the new balance of the Security, as aforesaid.

The Owner shall at all times provide the County with the name of the current Owner or Owners of the Project, updated no more than forty five (45) days after transfer of title.

The Engineer's Cost Estimate for the DSRP is included in Exhibit 1.

## Further Stipulations

The Owner confirms the review of the relevant County Zoning Ordinance sections, including Sections 6.1.1.A and 6.1.5.Q, and confirms the additional stipulations and requirements contained therein:

- 1) Owner or successor shall notify the County by certified mail of the commencement of voluntary or involuntary bankruptcy proceeding within 10 days if commencement of the proceeding.
- 2) The County and its authorized representatives are authorized by the Owner for right of entry onto the Project premises for the purpose of inspecting the methods of reclamation or for performing actual reclamation if necessary.
- 3) At such time as decommissioning takes place the Owner, its successors in interest, and all parties to the DSRP are required to enter into a Roadway Use and Repair Agreement with the relevant highway authority.
- 4) The Owner, its successors in interest, and all parties to the DSRP shall provide evidence of any new, additional, or substitute financing or security agreement to the Zoning Administrator throughout the operating lifetime of the project.
- 5) Should the DSRP be deemed invalid by a court of competent jurisdiction the Project SPECIAL USE permit shall be deemed void.
- 6) The Owner's obligation to complete the DSRP and to pay all associated costs shall be independent of the Owner's obligation to provide the Security.
- 7) The liability of the Owner's failure to complete the DSRP or any breach of the DSRP requirement shall not be capped by the amount of the Security, and the Owner will provide for payment of any associated costs that Champaign County may incur in the event that decommissioning is actually required to be carried out by Champaign County.

- 8) If the Owner desires to remove equipment or property credited to the estimated salvage value without the concurrent replacement of the property with property of equal or greater salvage value, or if the Owner installs equipment or property increasing the cost of decommissioning after the Project begins to produce electricity, at any point, the Owner shall first obtain the consent of the Zoning Administrator. If the Owner's lien holders remove equipment or property credited to the salvage value, the Owner shall promptly notify the Zoning Administrator. In either of these events, the total financial assurance shall be adjusted to reflect any change in total salvage value and total decommissioning costs resulting from any such removal or installation.
- 9) The Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall provide proof of compliance with paragraph 6.1.5. Q.(4)b.(a) prior to issuance of any Zoning Use Permit and upon every renewal of the Security and at any other time upon the request of the Zoning Administrator.
- 10) The Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall provide in the decommissioning and site reclamation plan for legal transfer of the Project to the demolisher to pay the costs of reclamation work, should the reclamation work be performed by Champaign County.
- 11) The net estimated salvage value that is deducted from the estimated decommissioning costs shall be the salvage value that results after all related costs for demolition and any required preparation for transportation for reuse or recycling or for simple disposal and other similar costs including but not limited to the decommissioning of the Project, equipment, and access roads.
- 12) Estimated salvage value shall be based on the average salvage price of the past five years as published in a reputable source for salvage values and shall reflect sound engineering judgment as to anticipated changes in salvage prices prior to the next update of estimated net salvage value.
- 13) The deduction from the estimated decommissioning costs for net estimated salvage value shall be capped at 70% of the total net estimated salvage value even though the total actual salvage value shall be available in the event that decommissioning is actually required.
- 14) The total amount of the Security after deduction of the net estimated salvage value shall not be less than \$1,000 per acre.
- 15) The credit for net estimated salvage value attributable to the Project may not exceed the estimated cost of removal of the above-ground portion of the Project on the subject site.
- 16) Net salvage value may be deducted from decommissioning costs as follows:
  - (a) One of the following standards shall be met:
    - i) The Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall maintain the Project free and clear of liens and encumbrances, including financing liens and shall provide proof of the same prior to issuance of the SPECIAL USE Permit; or
    - ii) The Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall deduct from the salvage value credit the amount of any lien or encumbrance on the Project; or
    - iii) Any and all financing and/or financial security agreements entered into by the Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall expressly provide that the agreements are subject to the covenant required by Section 6.1.1 A.2 that the reclamation work be done.
- 17) The County has the right to require multiple letters of credit based on the regulations governing federal insurance for deposits.

- 18) The Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall adjust the amount of the financial assurance to ensure that it reflects current and accurate information as follows:
- a) At least once every three years for the first 12 years of the financial assurance and at least once every two years thereafter or, if the SOLAR PV modules have an unlimited warranty of at least 10 years and also have a limited power warranty to provide not less not than 80% nominal power output up to 25 years and proof of that warranty is provided at the time of Zoning Use Permit approval, then at least once every five years for the first 25 years of the financial assurance and at least once every two years thereafter, the Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall use an independent Illinois Licensed Professional Engineer to provide updated estimates of decommissioning costs and salvage value, by including any changes due to inflation and/or change in salvage price. The Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan shall, upon receipt, provide a copy of the adjusted Professional Engineer's report to the Zoning Administrator.
  - b) At all times, the value of the irrevocable letter of credit shall equal or exceed the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation based on the Consumer Price Index since the Project was approved.
- 19) The long term corporate debt (credit) rating of the letter of credit issuing financial institution by both Standard & Poor's Financial Services LLC (S&P) and Moody's Investors Service (Moody's) shall be equal to or greater than the minimum acceptable long term corporate debt (credit) rating, as follows:
- a) The Zoning Administrator shall verify the long term corporate debt (credit) rating of the proposed financial institution by both Standard & Poor's Financial Services LLC (S&P) and Moody's Investors Service (Moody's).
  - b) The minimum acceptable long term corporate debt (credit) rating of the proposed financial institution shall be a rating of "A" by S&P or a rating of "A2" by Moody's.
  - c) Whenever the most current long term corporate debt (credit) rating of the proposed financial institution by either S&P or Moody's is lower than the minimum acceptable long term corporate debt (credit) rating, the letter of credit shall be replaced with a new irrevocable letter of credit from an issuing financial institution whose most current long term corporate debt (credit) rating by either S&P or Moody's meets or exceeds the minimum acceptable long term corporate debt (credit) rating.
- 20) At all times the value of the irrevocable letter of credit shall be increased annually as necessary to reflect actual rates of inflation over the life span of the Project and the amount shall be equal to or exceed 125% of the amount of the independent engineer's cost estimate as increased by known and documented rates of inflation since the Project was approved.
- 21) Should the salvage value of components be adjusted downward or the decommissioning costs adjusted upward pursuant to paragraph 6.1.5 Q.(4)d., the amount of the irrevocable letter of credit pursuant to this paragraph 6.1.5 Q.(4) shall be increased to reflect the adjustment, as if the adjusted estimate were the initial estimate.
- 22) Any financial assurance required per the Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture as required by paragraph 6.1.5 R. shall count towards the total financial assurance required for compliance with paragraph 6.1.1 A.5.
- 23) Unless the Governing Body approves otherwise, the Champaign County State's Attorney's Office shall review and approve every Letter of Credit prior to acceptance by the Zoning Administrator.
- 24) In addition to the conditions listed in subparagraph 6.1.1 A.9. the Zoning Administrator may also draw on the funds for the following reasons:



- a) In the event that any Project or component thereof ceases to be functional for more than six consecutive months after it starts producing electricity and the Owner is not diligently repairing such Project or component.
  - b) In the event that the Owner declares the Project or any Project component to be functionally obsolete for tax purposes.
  - c) There is a delay in the construction of any Project of more than 6 months after construction on that Project begins.
  - d) Any Project or component thereof that appears in a state of disrepair or imminent collapse and/or creates an imminent threat to the health or safety of the public or any person.
  - e) Any Project or component thereof that is otherwise derelict for a period of 6 months.
  - f) The Project is in violation of the terms of the Project SPECIAL USE permit for a period exceeding ninety (90) days.
  - g) The Owner, its successors in interest, and all parties to the decommissioning and site reclamation plan has failed to maintain financial assurance in the form and amount required by the special use permit or compromised the County's interest in the decommissioning and site reclamation plan.
  - h) The County discovers any material misstatement of fact or misleading omission of fact made by the Owner in the course of the special use permit zoning case.
- 25) The Zoning Administrator may, but is not required to, deem the Project abandoned, or the standards set forth in Section 6.1.5 Q.(5) met, with respect to some, but not all, of the Project, to the extent that such portion of the Project otherwise meets the standards of abandonment or the standards set forth in Section 6.1.5 Q.(5). In that event, the Zoning Administrator may draw upon the Security to perform the reclamation work as to that portion of the Project only. Upon completion of that reclamation work, the salvage value and reclamation costs shall be recalculated as to the remaining Project.

## Permitting & Approvals

Prior to the initiation of decommissioning activities, local code will be reviewed for applicability with decommissioning activities. The County will be consulted to confirm and applications made for appropriate permits and approvals. At a minimum, it is anticipated that a new storm water pollution prevention plan (SWPPP) will be required along with a building permit. It is assumed that neither a new or revised site plan or special use permit would be necessary because decommissioning activities are associated with the originally issued approvals.

Potential negative environmental effects from decommissioning of the facility will be mitigated through use of erosion and sediment control measures, limiting the use of heavy machinery (where possible), and maintaining a buffer from natural features. These control measures, as well as other mitigation measures used during construction will be re-implemented during the decommissioning phase and until the site is stabilized.

Throughout the decommissioning process, the County will be provided with regular updates and notice upon completing the restoration activities.

## Facility Description

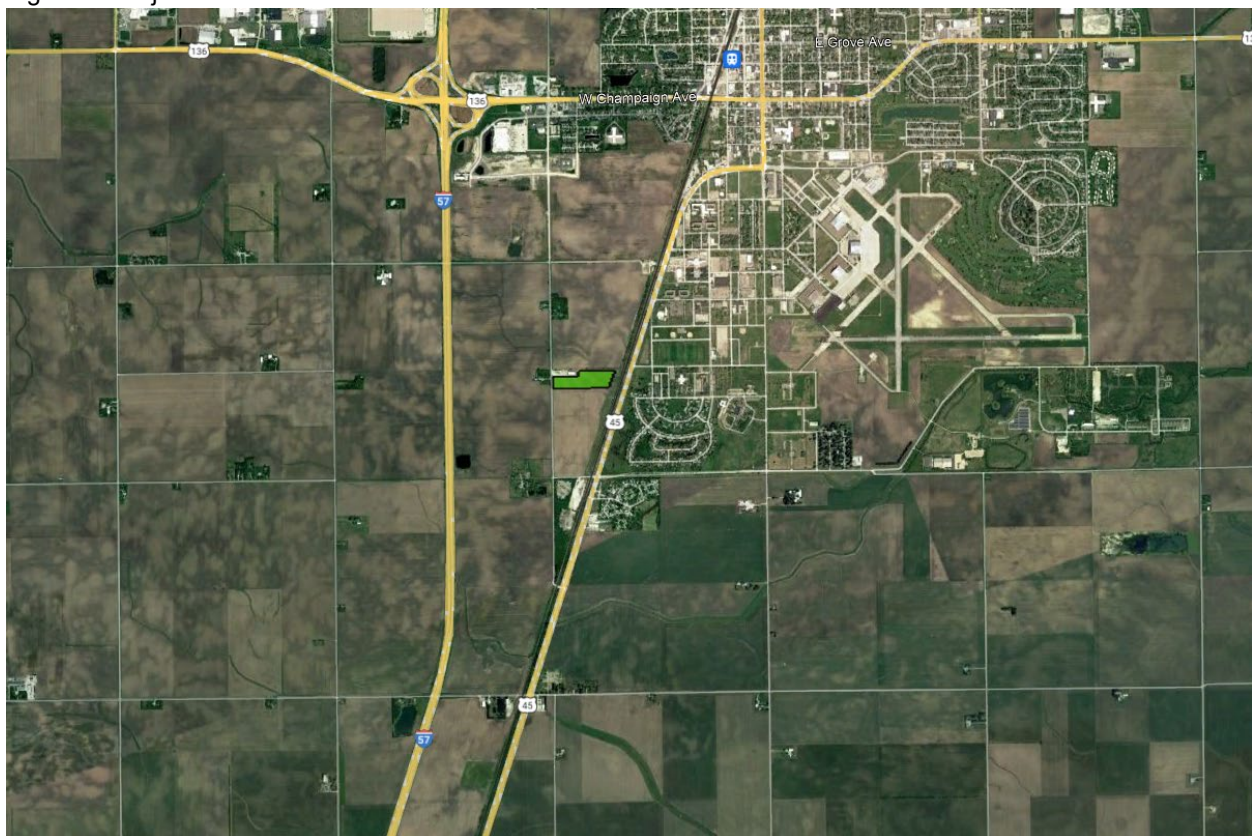
The solar PV modules will be installed on metal racking structures with a fixed tilt and secured to the ground utilizing direct push or technology. Direct Current (DC) wiring with the Project will be secured behind the modules, collected at a common point and transition underground to the inverters. From the inverter/transformer pad, AC wiring will run underground until a point before County Road 1500E where it will surface and connect to a series of utility poles on the Property before connecting to National Grid's Project.

Access to the Project will be from County Road 1500 E utilizing a 20' wide crushed stone road constructed for access to the facility. The access road would be up to approximately 1,000-feet in length.

The transformer skid will be mounted on a concrete pad located within the array. The pad used for the skid will be approximately 15' x 6'.

The site will be secured with a seven-foot perimeter fence.

Figure 1: Project Location



## Decommissioning

A significant amount of the components of the Project will include recyclable or re-saleable components, including copper, aluminum, galvanized steel, and modules. Due to their resale monetary value, these components will be dismantled and disassembled rather than being demolished and disposed of.

Following coordination with the local utility company regarding timing and required procedures for disconnecting the Facility from the private utility, all electrical connections to the Project will be disconnected and all connections will be tested locally to confirm that no electric current is running through them before proceeding. All electrical connections to the panels will be cut at the panel and then removed from their framework by cutting or dismantling the connections to the supports. Inverters, transformers, and switchgear will be lifted, secured onto flat beds, and transported off-site for processing.

Modules will be detached from the racking system and stacked for removal. However, in the event of a total fracture, the broken module will be recycled at a PV recycling facility.

The metal piling systems used to secure the PV Project in the ground will be removed entirely and if full removal is not possible, then terminated at a depth greater than five feet from grade or at bedrock whichever is shallower. The piling materials will be collected and recycled. Additionally, all associated metal mounting structures along with the metal perimeter fencing and gates will be removed and either reused or sent for recycling.

Grade slabs will be broken, removed, and recycled. Unless requested by the landowner for the access road to remain, materials from road construction will be removed, shipped off-site for either re-use or disposal. If necessary, the former road bed will be backfilled and graded with material native to the region to blend it with the immediately adjacent and existing topography.

Aboveground utility poles owned by the Project will be completely removed and disposed of off-site in accordance with utility best practices. Overhead wires will be removed from the area of the solar modules and terminated at the point of interconnection. Underground wiring at depths of less than five feet will be removed and recycled.

Prior to final demobilization, a final walkthrough of the Project area and the Property is completed to police for and ensure all debris is collected and removed.

## Site Restoration

Those areas disturbed during decommissioning activities will be graded as necessary to ensure a uniform slope for proper storm water management, prevent the ponding of waters and address any rutting or other depressions caused by removal equipment. The disturbed areas will then be seeded either by hand or via hydro seeding to reestablish vegetation compatible with the Property and region. It is

anticipated that a seed mix native to the area will be used by the decommissioning contractor, unless the landowner instructs that they will begin using the property for agricultural purposes and will reestablish the area with agricultural vegetation.

The DSRP and cost estimate includes provisions for the removal and restoration of the access driveways. The construction, operation, and decommissioning of the project will not require alterations to any public streets, therefore no repairs to public streets are anticipated.

**Donato Solar - Rantoul, LLC****Estimated Decommissioning Costs**

**Project Name:** Donato Solar - Rantoul  
**Date:** 10/10/2022  
**By:** AFG/LAG

<b>Project Size</b>	6.2 MW-DC	5 MW-AC		
	<b>Quantity</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Total Cost</b>
Mobilization/Demobilization	1		\$10,000	\$10,000
<b>Permitting</b>				
State Permits	1		\$10,000	\$10,000
<b>Subtotal</b>				\$10,000
SWPPP and SPCC plan. Cost is an estimate based on current market rate.				
<b>Civil Infrastructure</b>				
Removal of Security Fence	3800	Feet	\$2.85	\$10,830
<b>Subtotal</b>				\$10,830
<b>Structural Infrastructure</b>				
Removal of Racking	400	Hours	\$64.78	\$25,912
Removal of Steel Posts	1423	Posts	\$9.76	\$13,888
Haul Steel Racking and Posts.	267	Ton	\$10.00	\$2,670
<b>Subtotal</b>				\$42,470
<b>Electrical Collection/Transmission System</b>				
Removal of PV Modules	12844	Units	\$7.75	\$99,541
Haul PV Modules	404.586	Ton	\$10.00	\$4,046
Removal of Combiner Boxes	40	Units	\$35.00	\$1,400
Removal of Inverters	40	Units	\$35.00	\$1,400
Removal of Panelboard and Transformers	1		\$2,500.00	\$2,500
Removal of DC wiring	540000	Feet	\$0.15	\$81,000
Removal of Underground of AC wiring	50000	Feet	\$2.25	\$112,500
Haul Wiring	21.815	Ton	\$10.00	\$218
<b>Subtotal</b>				\$302,605

Electrical removal costs were based on industry standard installation time for a 3 man crew. Pad mounted and underground wiring/equipment were based on 2 man crew with necessary equipment.

**Site Restoration**

Permanent Seeding on damaged area	7 Acres	\$250	\$1,750
<b>Subtotal</b>			<b>\$1,750</b>

Assumed pollinator habitat/native plant.

<b>Subtotal of Construction Activities</b>			\$377,655
<b>County Administration Cost (2.5%)</b>	0.025		\$9,441
<b>Total Demolition Costs</b>			<b>\$387,097</b>

**Salvage**

Fencing	7.98 Ton	\$127.00	\$1,013
Steel Posts and Racking	267 Ton	\$127.00	\$33,909
PV Modules	12844 Units	\$18.00	\$231,192
Inverters and Transformers	40 Units	\$500.00	\$20,000
Copper Wiring	30780 LBS	\$1.05	\$32,319
Aluminum Wiring	12850 LBS	\$0.08	\$1,028
<b>Subtotal Net Salvage</b>			<b>\$319,461</b>

<b>70% of Salvage Value</b>	\$223,623.02
<b>Demolition Minus Salvage</b>	<b>\$163,473.86</b>

Scrap values are based on 5yr averages from Mack's Recycling. Data available upon request.



10-27-22

To Whom it may concern:

I have reviewed the site decommissioning and site reclamation plan that the Donato Solar – Rantoul had prepared. The wiring quantity estimates are based on preliminary site plans and electrical drawings as well as past experience for solar arrays. We provided time estimates for removal based on our experience in building an identical array, materially speaking.

Additionally in our solar experience we have found that the used panel market is growing constantly. Currently on the market panels that are half the capacity of these are selling for greater than \$75 per panel. We believe that the demand will continue to grow but the estimates provided are conservative and should have no issue being met.

A handwritten signature in black ink, appearing to read "Will Boeckmann". The signature is fluid and cursive, with a long horizontal stroke at the end.

William Boeckmann



10-27-22

Dear Sir or Madam,

I met with a representative from Donato Solar – Rantoul. We spoke about the materials used for the proposed solar array. We reviewed the site plan as well as the proposed decommissioning plan and cost estimates. We provided 5 year historical pricing that would allow Donato Solar – Rantoul to present realistic scrap pricing for our local area for the cost estimates page. Additionally we spoke about resale value of solar panels. While our facility does not currently resell panels we would be interested in the panels at a price of ~\$29/panel because of the high resale value and the quantity available.

Mr. Grilo indicated he has already discussed trucking but we would also provide transport for scrap material at a rate of \$8.75 per ton from the Rantoul location.

A handwritten signature in blue ink, appearing to read "C. Arndt", is written over a light blue rectangular background.

Calvin Arndt





**Westwood**

**RECEIVED**

**CASE 903-S-18**

Project Name: Sidney Site 1 Solar Project  
 Date: September 24, 2019  
 WPS Project Number: 0014797.00  
 By: BWV/JTW

SEP 24 2019

CHAMPAIGN CO. P & Z DEPARTMENT

Project Size	2.88	MW-DC	2.00	MW-AC
	Quantity	Unit	Unit Cost	Total Cost
<b>Mobilization/Demobilization</b>	1	Lump Sum	\$19,000.00	\$19,000
Mobilization was estimated to be approximately 7% of total cost of other items. This number was developed from communications with contractors and reviewing various agency guidelines.				

<b>Permitting</b>				
State Permits	1	Lump Sum	\$10,000.00	\$10,000
<b>Subtotal Permitting</b>				<u>\$10,000</u>
Decommissioning will require a SWPPP and SPCC plan, cost is an estimate of the permit preparation cost				

<b>Civil Infrastructure</b>				
Removal Gravel Surfacing from Road	222	Cubic Yards (BV)	\$4.06	\$902
Haul Gravel Removed from Road	278	Cubic Yards (LV)	\$8.06	\$2,240
Disposal of Gravel Removal from Road	413	Tons	\$0.00	\$0
Grade Road Corridor (Re-spread Topsoil)	600	Linear Feet	\$79.16	\$47,498
Erosion and Sediment Control for Road Restoration	400	Linear Feet	\$1.87	\$748
Vegetation Establishment on Removed Road Area	0.39	Acres	\$11,712.80	\$4,517
Removal of Security Fence	2,900	Linear Feet	\$6.00	\$17,400
<b>Subtotal Civil Infrastructure</b>				<u>\$73,305</u>

Civil removal costs are a combination of IDOT unit costs where applicable, RS Means cost for Champaign, IL industry standards provided to Westwood.

<b>Structural Infrastructure</b>				
Removal Tracker Steel Foundation Posts	1,144	Each	\$13.00	\$14,872
Haul Tracker Steel Post	62	Tons	\$4.86	\$300
Removal Drive Motor Posts	104	Each	\$15.00	\$1,560
Haul Drive Motor Posts	10	Ton	\$4.86	\$49
Removal Tracker Racking	104	Each	\$120.00	\$12,480
Haul Tracker Racking	85	Ton	\$4.86	\$411
<b>Subtotal Structural Infrastructure</b>				<u>\$29,672</u>

Steel removal costs were calculated by using information from array manufacturers for installation rates and using the same rates to calculate total days to remove equipment. Hauling calculations are based on the locations of metals recyclers.

<b>Electrical Collection/Transmission System</b>				
Removal of PV Modules	8,484	Each	\$12.50	\$106,050
Haul PV Modules	243	Ton	\$43.20	\$10,500
Removal of Combiner Boxes	16	Each	\$60.00	\$960
Removal of PCU Station (Inverters/Panelboard/Transformer)	1	Each	\$4,000.00	\$4,000
Removal of Scada Equipment	1	Each	\$5,000.00	\$5,000
Removal of DC Collector System Cables (copper)	2.9	Per MW	\$3,000.00	\$8,652
Removal of Underground (AC) Collector System Cables	2.9	Per MW	\$5,000.00	\$14,420
Load and Haul Cables for Recycling	15.0	Ton	\$4.86	\$73
Removal of Fiber Optic Cable	2.9	Per MW	\$1,000.00	\$2,884
<b>Subtotal Electrical Collection/Transmission System</b>				<u>\$152,539</u>



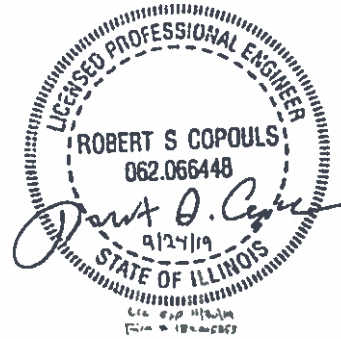
Electrical removal costs of PV Panels and Combiner Boxes were based industry standards on installation rates of a two man work crew. PCU Station, MV Equipment and Scada Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and contractor provided information on installation rates.

	Quantity	Unit	Unit Cost	Total Cost
<b>Site Restoration</b>				
Stabilized Construction Entrance	1	Each	\$2,000.00	\$2,000
Perimeter Controls	2,175	Linear Feet	\$1.87	\$4,067
Permanent Seeding on area within Removed Array	12	Acres	\$930.38	\$11,090
Public Road Restoration Costs	10	Miles	\$0.00	\$0
<b>Subtotal Site Restoration</b>				<b>\$17,157</b>
Site restoration costs are based on past solar project experience. Less than 50 truck loads of materials are required to be removed.				
<b>Subtotal Construction Activities</b>				<b>\$272,674</b>
<b>Total Demolition/Removals/Mobilization/Demobilization</b>				<b>\$301,674</b>
County Administration Costs (2.5%)				\$7,542
<b>Gross Demolition Costs</b>				<b>\$309,216</b>
<b>Total Demolition/Removals per MW</b>				<b>\$154,608</b>
<b>Total of Above Ground Removal Costs</b>				<b>\$182,212</b>
<b>Salvage</b>				
Fencing	15	Tons	\$240.00	\$3,480
Steel Foundation Posts	72	Tons	\$240.00	\$17,222
Module Racking	85	Tons	\$240.00	\$20,319
PV Modules	8,484	Each	\$23.09	\$195,862
Inverters and Transformers	1	Each	\$1,664.86	\$1,665
Substation	0	Each	\$75,000.00	\$0
Scada Equipment	1	Each	\$1,000.00	\$1,000
DC Collection Lines	22,500	Pounds	\$1.15	\$25,974
AC Collection Lines	7,500	Pounds	\$0.22	\$1,669
Steel Scrap values are based on the average historical five price as published by SteelBenchmarker for #1 Heavy Melting Steel.				
Copper wire scrap values are based on the average historical five price as published by Macro Trends multiplied by the ratio of the spot #1 Insulated Copper Wire Scrap price published by scrapmetalprices.biz and the spot copper price.				
Aluminum wire scrap values are based on the average historical five price as published by Investmentmine multiplied by the ratio of the spot Insulated Aluminum Wire Scrap price published by scrapmonster.com and the spot aluminum price.				
For solar panelmodule recycling, discussions with national companies that specialize in recycling and reselling electrical transformers and inverters, and the assumption that care is taken to prevent any damage or breakage of equipment.				
<b>Subtotal Net Salvage</b>				<b>\$267,191</b>
<b>70% of Net Salvage Value</b>				<b>\$187,033</b>
<b>Total Demolition Minus Salvage</b>				<b>\$114,640</b>
<b>Net Value per Acre</b>				<b>\$9,618</b>

# Westwood

## Scrap Metal Value Calculations

	High	Low	Average	Spot (9-23-19)
Scrap Steel	\$350	\$130	\$240.00	#1 Heavy Melting from Steel Benchmarker
Copper	\$3.30	\$1.94	\$2.62	\$2.61 Macro Trends
Scrap Copper Wire				\$1.15 #1 Insulated Copper Wire - scrapmetalprices.biz
Percent Spot Copper Wire Scrap to Spot Copper price				44%
Calculated Average Copper Wire Scrap Price			\$2.62	\$1.15
Aluminum	\$1.12	\$0.66	\$0.89	\$0.80 Investment Mine
Insulated Aluminum Wire Scrap				\$0.20 Scrapmonster
Percent Spot Aluminum Wire Scrap to Spot Aluminum price				25%
Calculated Average Aluminum Wire Scrap Price			\$0.89	\$0.22



**Donato Solar - Rantoul, LLC****Estimated Decommissioning Costs**

*Red text costs are those from approved  
Special Use Permit Case 903-S-18 for  
comparison purposes*

**Project Name:** Donato Solar - Rantoul  
**Date:** 10/10/2022  
**By:** AFG/LAG

<b>Project Size</b>	6.2 MW-DC	5 MW-AC
	<b>Quantity</b>	<b>Unit</b>
Mobilization/Demobilization	1	Unit Cost
		Total Cost
		\$10,000
		\$10,000

**Permitting**

State Permits	1	\$10,000	<i>\$19,000</i>	\$10,000	<i>\$19,000</i>
<b>Subtotal</b>				\$10,000	<i>\$19,000</i>

SWPPP and SPCC plan. Cost is an estimate based on current market rate.

**Civil Infrastructure**

Removal of Security Fence	3800 Feet	\$2.85	<i>\$6.00</i>	\$10,830	<i>\$22,800</i>
<b>Subtotal</b>				\$10,830	<i>\$22,800</i>

**Structural Infrastructure**

Removal of Racking	400 Hours	\$64.78		\$25,912	
Removal of Steel Posts	1423 Posts	\$9.76	<i>\$13.00</i>	\$13,888	<i>\$18,499</i>
Haul Steel Racking and Posts.	267 Ton	\$10.00		\$2,670	
<b>Subtotal</b>				\$42,470	<i>\$47,081</i>

**Electrical Collection/Transmission System**

Removal of PV Modules	12844 Units	\$7.75	<i>\$12.50</i>	\$99,541	<i>\$160,550</i>
Haul PV Modules	404.586 Ton	\$10.00	<i>\$43.20</i>	\$4,046	<i>\$17,478</i>
Removal of Combiner Boxes	40 Units	\$35.00	<i>\$60.00</i>	\$1,400	<i>\$2,400</i>
Removal of Inverters	40 Units	\$35.00		\$1,400	
Removal of Panelboard and Transformers	1	\$2,500.00		\$2,500	
Removal of DC wiring	540000 Feet	\$0.15		\$81,000	
Removal of Underground of AC wiring	50000 Feet	\$2.25		\$112,500	
Haul Wiring	21.815 Ton	\$10.00		\$218	
<b>Subtotal</b>				\$302,605	<i>\$378,046</i>

Electrical removal costs were based on industry standard installation time for a 3 man crew. Pad mounted and underground wiring/equipment were based on 2 man crew with necessary equipment.

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OCT 28, 2022  
CHAMPAIGN COUNTY  
PLANNING & ZONING

**Site Restoration**

Permanent Seeding on damaged area	7 Acres	\$250	<b>\$930</b>	\$1,750	<b>\$11,346</b>
<b>Subtotal</b>	<b>12.2 acres</b>			\$1,750	<b>\$11,346</b>

Assumed pollinator habitat/native plant.

<b>Subtotal of Construction Activities</b>				\$377,655	<b>\$488,273</b>
<b>County Administration Cost (2.5%)</b>	0.025			\$9,441	<b>\$12,207</b>
<b>Total Demolition Costs</b>				\$387,097	<b>\$500,480</b>

**Salvage**

Fencing	7.98 Ton	\$127.00		\$1,013	
Steel Posts and Racking	267 Ton	\$127.00		\$33,909	
PV Modules	12844 Units	\$18.00		\$231,192	
Inverters and Transformers	40 Units	\$500.00		\$20,000	<b>\$1,665</b>
Copper Wiring	30780 LBS	\$1.05		\$32,319	
Aluminum Wiring	12850 LBS	\$0.08		\$1,028	
<b>Subtotal Net Salvage</b>				\$319,461	<b>\$301,126</b>

<b>70% of Salvage Value</b>				\$223,623.02	<b>\$210,788</b>
<b>Demolition Minus Salvage</b>				<b>\$163,473.86</b>	<b>\$289,692</b>

Scrap values are based on 5yr averages from Mack's Recycling. Data available upon request.

**RECEIVED**

OCT 25, 2022

CHAMPAIGN COUNTY  
PLANNING & ZONING

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BTB Energies  
26413 W. South St.  
Ingleside, IL 60041

October 25, 2022

Attn: Mr. Tony Grilo

Re: Rantoul Solar Farm Noise Study  
Rantoul, IL

Dear Mr. Grilo:

The purpose of this report is to evaluate the noise impact of a proposed solar farm located at approximately 2849 Murray Road in Rantoul, IL. The solar farm will occupy roughly 584,000 sqft, which will primarily be occupied by solar panels. The site is located adjacent to two equipment storage barns and across the street from a residential property approximately 700 feet to the west (of the noise generating equipment). There will be a data center and storage building located on the northwest corner of the lot as well as a dry cooler to the east of the data center and two banks of inverters to the south of the storage building which will have screen walls. The expected noise from the site will be from the dry cooler and the inverter banks.

To evaluate the noise impact of the solar farm, we conducted a sound survey on the site to establish existing sound levels. We then created an acoustic model to predict the solar farm's sound levels at the nearby residential properties based on sound emanating from the equipment.

### **Criteria**

The village of Rantoul does not have a noise ordinance with numeric limits, but defers to state regulations. Our analysis and recommendations will be based on meeting the Illinois Pollution Control Board (IPCB) Noise Regulations for sound emitting from Class C land to Class A land during evening hours (10pm to 7am), which are the most stringent.

As part of our evaluation, we used data from the sound study to compare against the IPCB noise regulations to set a design goal for octave band sound levels. The design goal is set as the IPCB noise regulations or ambient sound levels, whichever is higher. The octave band levels of the noise regulations, ambient sound levels, and design goal are shown in Table 2 below.

### **Sound Survey**

Long term acoustical measurements were conducted at the northwest corner of approximately 2849 Murray Road. The measurements ran from the afternoon of Monday 10/17/22 to the morning of Thursday 10/20/22. An aerial photograph showing the approximate location of the sound level meter is shown in Figure 1.

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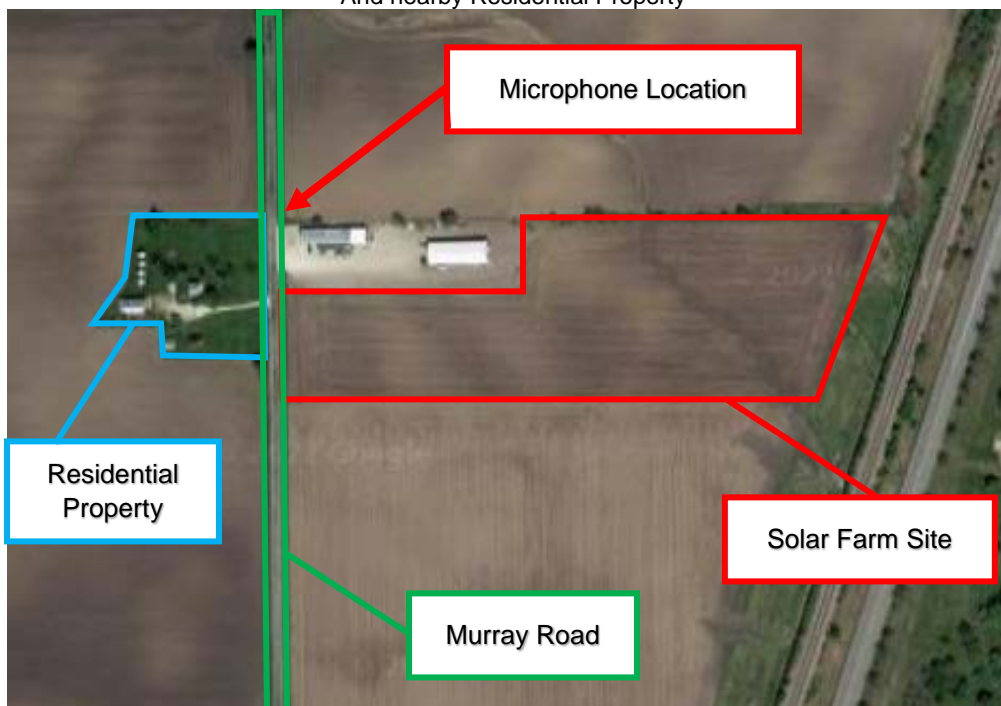
October 25, 2022

The following instrumentation was used:

- Norsonic 140 sound analyzer
- Norsonic Nor 1209 preamplifier
- Norsonic Nor 1225 ½" condenser microphone
- Norsonic 1251 sound calibrator
- Microphone extension cable
- Microphone windscreen
- Tripod

The exterior microphone and preamplifier were connected to the analyzer. The microphone was protected with a windscreen and attached to the tripod, which was secured to a utility pole. The analyzer and battery were contained in a weathertight case.

**Figure 1**  
Aerial Photo Showing Microphone Location, Murray Road, the Solar Farm Site,  
And nearby Residential Property



The analyzer measured A-weighted and one-third octave band sound pressure levels. Data were sampled continuously. The  $L_{eq}$  (time-average) spectrum and other statistics were stored for each hour and one-minute intervals. We used the data to calculate the average sound level ( $L_{eq}$ ) for the entire measurement as well as for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours. The average sound level for the whole measurement period was 65 dBA. The day/night sound level results are summarized in Table 1 below.

The primary source contributing to the measured sound levels at the site was traffic from Murray Road (County Road 1500 E). A graph of the sound pressure levels over the duration of the study is shown in Figure 2.

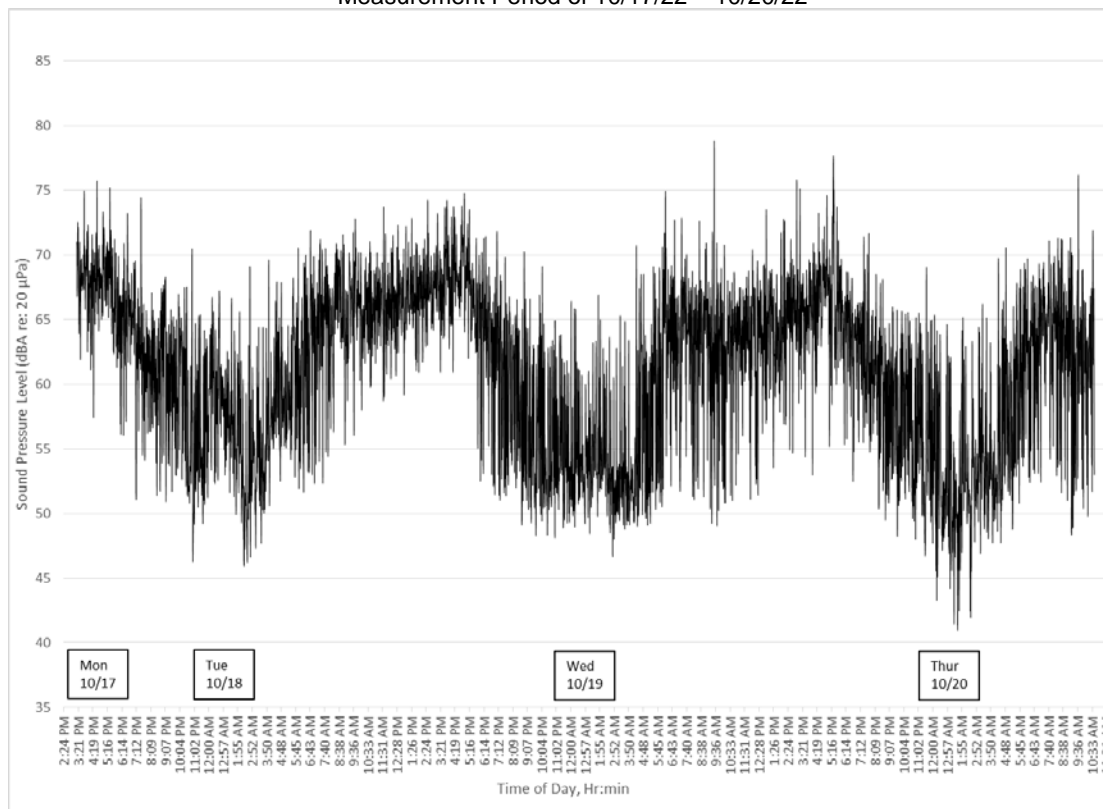


**Table 1**  
Results of October 17-20, 2022 Acoustical Study  
Day/Night Average Sound Levels, dB re 20µPa, A-weighted

Date	Day	Daytime Leq, dBA	Nighttime Leq, dBA
10/17/22*	Mon	67	
10/17/22 – 10/18/22	Mon – Tue		61
10/18/22	Tue	67	
10/18/22 – 10/19/22	Tue – Wed		60
10/19/22	Wed	66	
10/19/22 – 10/20/22	Wed – Thur		60
10/20/22*	Thur	65	
Average	Mon – Thur	66	60

\*Measurements did not include the full extent of “daytime” hours.

**Figure 2**  
Measured Sound Levels (Leq) during  
Measurement Period of 10/17/22 – 10/20/22



**Table 2**  
 IPCB Noise Regulations, Measured Ambient Sound Pressure Levels, and  
 Sound Level Design Goal, dB re 20µPa

	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	dBA
IPCB Nighttime Class C to Class A Land	69	67	62	54	47	41	36	32	32	51
Site Ambient	62	62	59	53	56	57	51	38	31	60
Design Goal	69	67	62	54	56	57	51	38	32	60

The nighttime measurement period of 10/19/22 – 10/20/22 was used for the site ambient levels in Table 2 because they were the lowest measured nighttime sound levels.

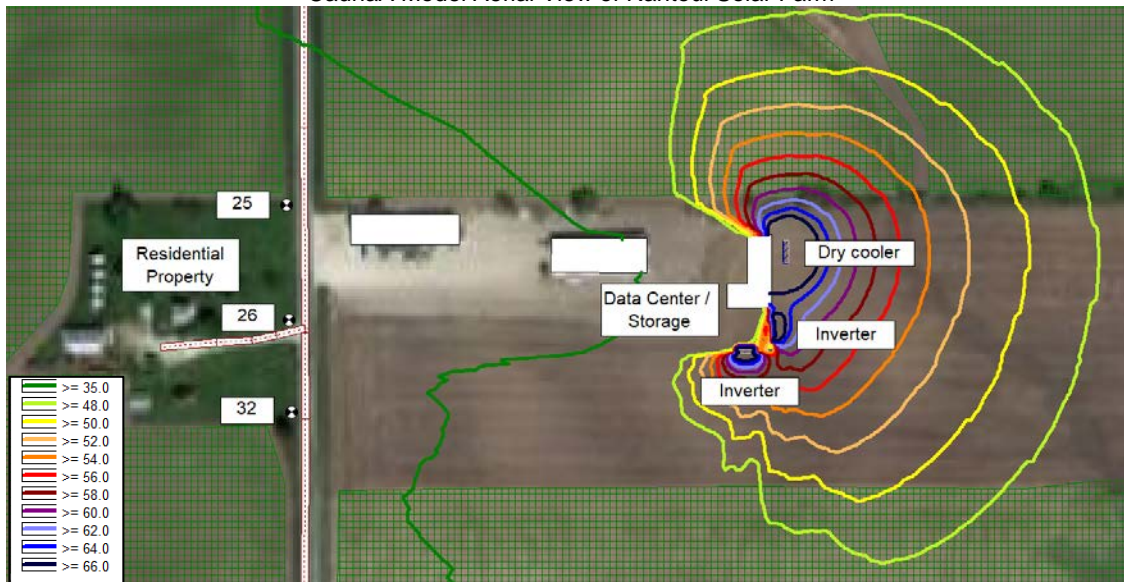
**Modeling**

We used CadnaA from DataKustik GmbH for our acoustic model. CadnaA is industry-accepted software used to calculate sound levels of multiple sources and propagation paths at multiple receiver points. The software considers the factors that influence sound propagation, such as distance, shielding by buildings, ground effect and atmospheric absorption, and source directivity.

The manufacturer of the proposed equipment was not able to provide octave band sound level data for their dry cooler. They were only able to provide an overall sound pressure level of 74 dBA when measured at 1 meter from the equipment while it was running at full speed. To evaluate octave band sound levels in our model for the dry cooler, we extrapolated the sound levels from data that we had for a comparable piece of equipment.

Figure 3 presents sound level contours superimposed on an aerial photograph of the site. The graphics show the predicted sound levels of the equipment of the solar farm. Sound levels at the residential property line, at 5 feet above ground level are shown. The predicted sound levels at the residential properties are also summarized in Table 3 below.

**Figure 3**  
 CadnaA Model Aerial View of Rantoul Solar Farm



BTB Energy

October 25, 2022

**Table 3**  
Design Goal and Calculated Sound Levels at Adjacent Residential Property  
From Solar Farm Noise Sources, dB re 20µPa

	31.5 Hz	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	dBA
IPCB Nighttime Class C to Class A Land	69	67	62	54	47	41	36	32	32	51
Design Goal	69	67	62	54	56	57	51	38	32	60
Calculated Adjacent Residential Property Line	28	38	40	23	20	29	25	18	10	32

**Comments and Recommendations**

Based on our model and calculations, the proposed solar farm would be expected to meet IPCB noise regulations at the nearby residential property.

Note that if the dry cooler location is changed and the equipment has a direct line of site to the residential property, the solar farm may no longer meet the noise ordinance.

If you have questions concerning this report, please do not hesitate to contact us.

Respectfully submitted,

Shiner Acoustics, LLC



Ryan M Garner  
RMG: