

PUBLIC HEARING LEGAL NOTICE

The Charleston Board of Zoning Appeals and Planning will conduct a Public Hearing on Thursday, November 16, 2023 at 7:00 P.M. in the City Council Chambers of City Hall, 520 Jackson Avenue, Charleston, Illinois, to consider the petition of DG Charleston BTM, LLC for:

Zoning Map Amendment (from the Manufactured Home Park District and I-1 Light Industrial District to A- Agricultural District) and a Conditional Use Permit to allow for “30 Acre Solar Garden” use.

All on a tract of land described as:

The South 1/2 of the Southeast 1/4 of Section 3, Township 12 North, Range 9 East of the Third Principal Meridian, Coles County, Illinois.

Also known as P.I.N. 02-1-00075-000.

The public hearing will also be broadcast at the following link: **[charlestonillinois.org \(agendas, packets and videos for City Council and BZAP\)](https://charlestonillinois.org/agendas,packetsandvideosforCityCouncilandBZAP)**

Interested parties can participate in any of the following 3 ways:

1. Submission of written comments before the public hearing:

- Written comments may be emailed to **City Clerk Deborah Muller at cityclerk@co.coles.il.us**
- Written comments received by 5:00 p.m. on Friday, November 10, 2023 will be included in the meeting packet sent to the Board of Zoning Appeals and Planning. This meeting packet is also posted on the City’s website: **www.charlestonillinois.org**
- Written comments received after 5:00 p.m. on November 10, 2023 through 5:00 p.m. on November 15, 2023 will be emailed directly to the Board of Zoning Appeals and Planning but will not be included in the meeting packet or posted on the City’s website.
- Written comments received after 5:00 p.m. on November 15, 2023 will be added to the case file.

2. Participation during the public hearing:

- If you wish to provide comment, testimony, questions, or cross examination on a petition, or otherwise address the BZAP on any public hearing matter before it, please email Deborah Muller, City Clerk at the following email addresses to register your participation before 5:00 p.m. on the day of the hearing: cityclerk@co.coles.il.us Alternatively, you may obtain a registration form outside the public hearing room, fill the form out, and place it in the registration form box, which will be brought to the dais prior to the meeting.

- Individuals who do not wish to speak during the public hearing may simply indicate whether they support or are opposed to the application. The individual's name and their position on the application will be read aloud into the record at the hearing. Any written comments submitted by an individual in conjunction with their position will also be read into the record, subject to compliance with the City's public comment and public hearing rules and procedures.
- Individuals who register to speak in advance will receive an email from City staff with information about how to join the meeting.
- Individuals who fail to register in advance may participate in the hearing by following the instructions provided on the meeting agenda.

3. Other methods of participation: Any individual who would like to listen to the meeting by telephone or who may require an accommodation to listen to or participate in the meeting, should contact the **City Clerk Deborah Muller at 217-345-5650 and/or email cityclerk@co.coles.il.us** as soon as possible.

To request a copy of the proposed zoning map amendment and/or conditional use permit or questions regarding the proposed zoning map amendment and/or conditional use permit, please contact the City of Charleston City Planner at 217-345-5650. Members of the public may be heard at the public hearing.

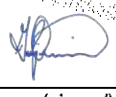
/s/ Deborah Muller
City Clerk

City of Charleston

Section 1-2

APPLICATION TO APPEAR BEFORE THE CHARLESTON BOARD OF ZONING APPEALS AND PLANNING

1. APPLICANT INFORMATION:

APPLICANT: DG Charleston BTM, LLC  (print name) (signed) DATE: 10/12/2023

ADDRESS: 700 Universe Blvd. PHONE No.: 561-323-5806

CITY / STATE / ZIP: Juno Beach, Florida 33408

2. TYPE OF APPLICATION:

(Check applicable box(es) and provide responses to corresponding exhibits attached herein. Please refer to the Charleston City Code for required information for sections that do not have specific exhibits included in this packet.)

Zoning Variance (exhibit 1)	<input type="checkbox"/>	Planned Unit Development	<input type="checkbox"/>
Conditional Use Permit (exhibit 2)	<input checked="" type="checkbox"/>	Major Subdivision	<input type="checkbox"/>
Zoning Map Amendment (exhibit 3)	<input checked="" type="checkbox"/>	Appeal of Code Official's Decision	<input type="checkbox"/>
Zoning Text Amendment (exhibit 3)	<input type="checkbox"/>		
Other (Please Describe): _____			

Brief Project Description: Approximate 28 acre solar project that will supply
renewable electricity to the Illinois Tool Works Facility Zoning Classification: M-U; I-1 RZ:AG

3. REQUIRED DOCUMENTS (TO BE PROVIDED BY THE APPLICANT):

- A. Street Address of the Subject Property: N. 5th Street, Charleston, Illinois 61920 (Parcel across from Vesuvius)
- B. Subject Property Legal Description (to be provided to the City in electronic format as a Microsoft Word Document / email the subject property's legal description to: cityplanner@co.coles.il.us) Attachment 1
- C. Letter of Intent (a one page description of the project and the why the request is necessary) Attachment 2
- D. Plans ("blueprints" or similar plan sheets showing as applicable: site plan, elevations, floor plan) Attachment 3
- E. Provide any additional information as required and detailed in the Charleston City Code or as requested by the Charleston Code Official

FOR OFFICE USE ONLY

Application Number: _____

Submitted Date:	Sent to Publish:	Published Date:	Hearing Date:	To Council Date:	Affected Zoning:

January 2015

4. OWNER INFORMATION:

A. Do you own this property fee simple (if yes, check yes and skip to #5)?

YES:

☐

NO:

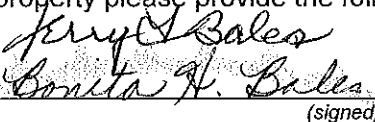
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B. If the applicant is not the owner of this property please provide the following:

OWNER *:

Jerry & Bonita Bales

(print name)



(signed)

DATE:

10/12/2023

ADDRESS:

1418 1307th Street

PHONE No.:

(217) 732-9973

CITY / STATE / ZIP:

Lincoln / Illinois / 62656

C. If the property is owned by a land trust, who has beneficial interest in this property?

TRUST NAME *:

DATE:

ADDRESS:

PHONE No.:

CITY / STATE / ZIP:

TRUST'S REPRESENTATIVE:

(print name)

(signed)

DATE:

TRUST'S REPRESENTATIVE:

(print name)

(signed)

DATE:

TRUST'S REPRESENTATIVE:

(print name)

(signed)

DATE:

* If Owner(s) is different than the Applicant, please attach a letter from the Owner(s) authorizing submittal of this Application to the Charleston Board of Zoning Appeals and Planning.

5. APPLICANT'S REPRESENTATIVE:

If the applicant is planning to be represented by a third party for purposes of this application and to appear on behalf of the applicant at the Charleston Board of Zoning Appeals and Planning meetings, please provide the Representative's contact information below:

REPRESENTATIVE:

Gary Morris - Vice President

(print name)

(signed)

DATE:

7/24/2023

REPRESENTATIVE'S FIRM NAME (IF APPLICABLE)

DG Charleston BTM, LLC (NextEra Energy subsidiary)

ADDRESS:

700 Universe Blvd. A1A/JB

PHONE No.:

561-323-5806

CITY / STATE / ZIP:

Juno Beach, Florida 33408

ITW Charleston Solar Project Description
Parcel Identification Number (PIN): 02-1-00075-000

1.1 Introduction

DG Charleston BTM, LLC (DG Charleston or Applicant) requests a Conditional Use Permit and Zoning Map Amendment approval to allow for the development of the Illinois Tool Works (ITW) Charleston Project (Project), a proposed 5-megawatt (MW) alternating current (AC) solar photovoltaic (PV) project located within the municipal jurisdiction of the City of Charleston, Illinois. The project is considered a Solar Garden, as it is a commercial solar-electric photovoltaic array that provides retail electric power for the primary purpose of electrical generation for a singular business (the Illinois Tool Works facility) located off-site from the location of the solar energy center.

The Project will be located on approximately 28 acres of the 79-acre parcel. The geographic coordinates of the center of the site are approximately 39.508553°/-88.181774°.

The contact information for the Applicant is as follows:

DG Charleston BTM, LLC
700 Universe Blvd. A1A/JB
Juno Beach, FL, 33408

The Project Developer for this application submittal is Chris Georgiadis (561-323-5806).

1.2 Brief Project Overview

The Project represents a 5.0-MW solar energy project and will improve the quality of infrastructure within the city of Charleston, by producing a source of renewable energy for the Illinois Tool Works Facility.

The request for a Conditional Use Permit (CUP) and Zoning Map Amendment (ZMA) is necessary for the items outlined below:

- CUP: Per Charleston Code 10-7-22 Section (D.1.B) Solar Gardens comprising an area greater than ten (10) acres and which meet the conditions and requirements of this section shall be allowed as a conditional use in the Agriculture or Government Districts. The project will abide by all codes local, state and federal.
- ZMA: The parcel is primarily zoned M-U and secondly, I-1. Both zones do not qualify for solar development, so we're requesting the parcel to be rezoned to AG. The rezoning to AG makes sense, as the parcel is currently being used for AG purposes and is being taxed for agricultural purposes by the existing landowner. Furthermore, the landowner (Jerry and Bonita Bales) plan on continuing their farming operation outside of the solar facility area.

EXHIBIT 2 - Conditional Use Permits

(Refer to 10-4-3 (D) of the Charleston City Code)

All conditional use permit applications follow the type 3 review process as described in subsection 10-4-1(C) of the Charleston City Code.

1. Purpose: The purpose of conditional use review is to allow the city to exercise some discretion over the extent and design of certain activities that could have a detrimental effect on the community if permitted to exist in large numbers, in certain locations or without special conditions. Therefore, these regulations enable the city to authorize a conditional use subject to conditions that mitigate the potential problems associated with the use or its location in relation to the neighboring properties. A conditional use is not a use by right.
2. Applicability: Conditional uses, as shown in Tables 5-2 and 5-3 of the Charleston City Code (subsections 10-5-3 (B) and (C)), are uses that have negative impacts upon allowed uses that can be mitigated for some sites. A conditional use, once approved, goes with the land for the approved use only, unless the permit is revoked due to violations enumerated in part 6 "Revocation" of this section. The designation of a use in a zoning district as a conditional use does not constitute an authorization or assurance that such use will be approved. Temporary uses for commercial, recreational or amusement land uses also shall be required to receive approval of a conditional use permit.
3. Application and Procedures: The applicant shall file an application with the required information listed herein and any additional information as prescribed in the Charleston City Code and as requested by the Building Code Official or City Planner.
4. Review Criteria: The following criteria shall be used when determining approval of a conditional use permit:

These items (a-g) should be addressed in the application:

- a. The proposed use at the specified location is consistent with the goals, objectives and policies of the comprehensive plan;
- b. The proposed use is consistent with the general purpose and intent of the applicable zoning district regulations and complies with requirements of this code;

- c. The proposed conditional use is not materially detrimental to the public health, safety, comfort and general welfare, and will not result in material damage or prejudice to other property in the vicinity;
- d. The proposed use is compatible with and preserves or enhances the character and integrity of adjacent development and includes improvements necessary to mitigate adverse development related impacts, such as traffic, noise, odors, visual nuisances, or other similar adverse effects to adjacent development and neighborhoods;
- e. The proposed use does not generate pedestrian and vehicular traffic that will be hazardous to the existing and anticipated traffic in the neighborhood;
- f. The proposed conditional use complies will all fire, health, building, plumbing, electrical and storm water drainage regulations of the city, county, state and federal agencies; and
- g. Adequate utilities exist to service the proposed conditional use.

If applicable to this proposed conditional use permit, the applicant should also specifically address any “Supplementary Conditions for Specific Uses” as outlined in Chapter 7 of Title 10 (Unified Development Code) of the City Code below:

5. Decision Makers:

- a. Board Of Zoning Appeals And Planning: The board of zoning appeals and planning shall conduct a public hearing, review the conditional use permit application and make its recommendation to the council for approval, denial, or conditional approval.
 - b. City Council: The council shall review the conditional use permit application and any other proposed action related to the permit and the board's recommendation, and shall approve, conditionally approve or deny the permit. The council may impose conditions and restrictions upon the establishment, location, construction, maintenance and operation of the conditional use as deemed necessary to protect the public and to ensure compliance with the provisions of this title.
6. Revocation: Any conditional use permit granted under the authority of this title is subject to revocation by the council for any or all of the following reasons:
- a. Noncompliance with any special conditions imposed by this title or by the council at the time of approval of the conditional use permit.
 - b. Violation of any provisions of this title pertaining to the use of the land, construction or uses of buildings or structures or activities conducted on the premises by the permittee or agents of the permittee.
 - c. Violation of any other applicable provisions of this title or any state or federal law or regulation by the permittee or agents of the permittee; provided, that such violations relate to the conduct or activity authorized by the conditional use permit or the qualifications of the permittee or its agents to engage in such conduct or activity.
7. Validity: The conditional use permit shall be valid for the duration of the period specified (if specified) in the ordinance approving the permit unless revoked by the council or the use is ceased or terminated for ninety (90) consecutive days. The duration of the permit may be extended if, after a public hearing, the board of zoning appeals and planning recommends and the council grants the extension of up to one hundred twenty (120) days. Conditional use permits granted prior to adoption of this title shall remain in effect under the conditions established at the time the permits were issued. Amendments to those permits shall be processed as new permits in accordance with the Charleston City Code.

EXHIBIT 3 – Text and Zoning Map Amendments ***(Refer to 10-4-3 (B) of the Charleston City Code)***

Text And Zoning Map Amendments: All amendments to the text of this title and zoning map amendments follow the type 3 review process as described in subsection 10-4-1(C) of the City Code.

1. Purpose: The council may, from time to time, on its own motion or on petition, amend, supplement, or change, by ordinance, the zoning map or development regulations in this title to better provide for the public health, safety and welfare of the city.
2. Applicability: An owner of real property within the city, or that owner's authorized representative, may apply for a change in zoning district boundaries (rezoning) for that landowner's property, or an amendment to the text of this title. The board of zoning appeals and planning, city manager or the city council also may initiate such amendments.
3. Application and Procedures: The applicant shall file an application with the required information listed in the City Code.
4. Review Criteria: Changes to the text of this title or the zoning map shall not become effective until after review and study by the board of zoning appeals and planning and the city council who shall consider the following review criteria, as applicable, to determine whether the change should be approved:

These items (a-i) should be addressed in the application:

- a. The existing zoning was in error at the time of adoption; or
- b. The proposed change is consistent with, and in furtherance of, the implementation of the goals and objectives of the comprehensive plan, other adopted plans, and the policies, intents and requirements of this title and other city regulations and guidelines; or
- c. There is a community need for and benefit from the proposed change; or

- d. The proposed change is consistent with the character of the affected area; or

- e. The proposed zoning is compatible with the zoning and uses of property nearby; or

- f. The existing zoning is suitable for the development of the uses authorized under the existing zoning classification, will be conducive to proper community planning, and is a logical extension of an existing urban area or growth center; and

- g. Public and community facilities, which may include, but are not limited to, sanitary and storm sewers, water, electrical service, police and fire protection, schools, parks and recreation facilities, roads, libraries, and solid waste collection and disposal, are available and adequate to serve uses authorized under the proposed zoning; and

- h. Authorized uses will not adversely affect the capacity or safety of the street network in the vicinity of the property; and

- i. Potential environmental impacts (e.g., excessive storm water runoff, water pollution, air pollution, noise pollution, excessive lighting, or other environmental harms) of authorized uses will be mitigated.

5. Decision Makers:

a. Board Of Zoning Appeals And Planning:

- (1) The board of zoning appeals and planning shall hold a public hearing on each proposed amendment within thirty (30) days of the date of application.
- (2) When the board of zoning appeals and planning deems it necessary or expedient, the board may consider other property for a change or amendment of zoning district in addition to the property described in the application; provided, that such additional property is included in the hearing notices.
- (3) Within thirty (30) days of the conclusion of the public hearing, the board of zoning appeals and planning shall forward to the city council a summary of all evidence taken at the hearing, together with its recommendations for any change to zoning district boundaries and/or regulations. The board may recommend approval, denial, or conditional approval. The reasons for the recommendations shall be included. A copy of the recommendations shall be given to the applicant.

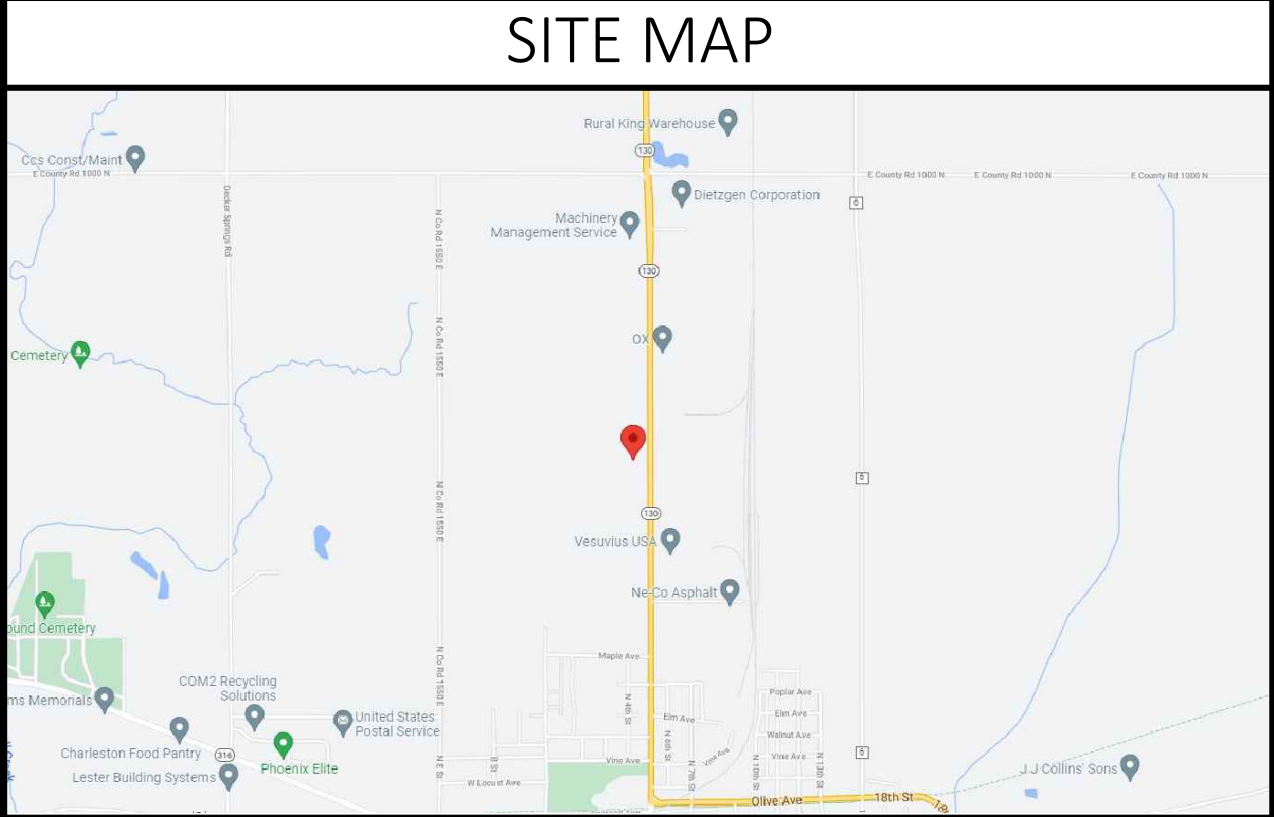
b. City Council:

- (1) Decision: The council shall consider the findings of fact and the recommendation of the board of zoning appeals and planning and the record of public input. Within thirty (30) days of conclusion of the council's initial consideration of the application, the council may, by simple majority vote, approve, deny or conditionally approve the recommendation of the board of zoning appeals and planning.
- (2) Amending Ordinance: If the council approves an application, it shall adopt an ordinance approving the change. The amending ordinance shall define the change or boundary as amended. The ordinance shall be filed with the city clerk and shall be recorded in the county recorder's office.
- (3) Protest: In case a written protest is filed with the city clerk, in conformance with 65 Illinois Compiled Statutes 5/11-13-14, a favorable vote of four-fifths ($\frac{4}{5}$) of the council membership shall be required to approve the amendment.



SCALE: NONE

N



DESIGN VARIABLES			
Total DC Capacity (kW)	6,977.75	Total AC Capacity (kW)	5,000
Latitude (°)	39.511108	Longitude (°)	-88.177863
Wind Exposure Category	C	Risk Category	I
Design Wind Speed (mph)	100	Design Snow Load (psf)	20
Min. Ambient Temp (°C)	-20	Max Ambient Temp (°C)	35
Interconnection Voltage (kV)	15		

- GROUND-MOUNT DESIGN ASSUMPTIONS**
- Assumed commercial operation date: 10/31/2024
 - Assumed point of interconnection is at 15kV
 - 1500V DC collection voltage

PV SYSTEM SUMMARY			
SINGLE AXIS TRACKER		1inPortrait - (3) Strings Per Frame	
DC:AC Ratio (%)	1.397	Ground Coverage Ratio (%)	33
PV Modules	(10,752)	Canadian Solar, CS7N-650MB-AG (650W) or Equivalent	
Inverters	(40)	DELTA #M125HV String Inverters or Equivalent	
DC Capacity (kW)	6,988.8	AC Capacity (kW)	5,000
Tilt/Azimuth (°)	+/-60 / 180	String Count/Mods Per String	384/ 28

TRACKER FRAME BREAKDOWN
4 STRINGS: N/A
3 STRINGS: 384
2 STRINGS: N/A
1 STRING: N/A

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEERING STAMP	COMPANY ADDRESS	CUSTOMER NAME	SHEET NAME
0	5MWac_33%GCR_1inP_Tracker_BTMPOI	12/3/2021	AESCRUCERIA		NextEra Energy Resources 700 Universal Blvd. Juno Beach, FL 33408	Illinois Tool Works	SITE PLAN
1	5MWac_33%GCR_1inP_Tracker_BTMPOI	11/29/2022	AE			Charleston	
						Charleston, IL 61920	
							SCALE 1 : 100
							SHEET TITLE WI4001
							SHEET SIZE ANSI D - 34" x 22"
							SHEETS 1
							ISSUE
							SHEET NUMBER 1





SITE MAP

DESIGN VARIABLES

GROUND-MOUNT DESIGN ASSUMPTIONS

PV SYSTEM SUMMARY

SCALE: NONE

N

15kV BTM POI

0.25 MILE GEN-TIE

1INP SINGLE AXIS TRACKER

STRING INVERTER RACK

PAD MOUNT - SKIDDED TRANSFORMER & SWGR

SITE ACCESS

Plantings Setback 30 - 40 feet from panels

Plantings set at approx 12ft O.C

TRACKER FRAME BREAKDOWN

Total DC Capacity (kW)	6,977.75	Total AC Capacity (kW)	5,000
Latitude (°)	39.511108	Longitude (°)	-88.177863
Wind Exposure Category	C	Risk Category	I
Design Wind Speed (mph)	100	Design Snow Load (psf)	20
Min. Ambient Temp (°C)	-20	Max Ambient Temp (°C)	35
Interconnection Voltage (kV)	15		

1. Assumed commercial operation date: 10/31/2024

2. Assumed point of interconnection is at 15kV

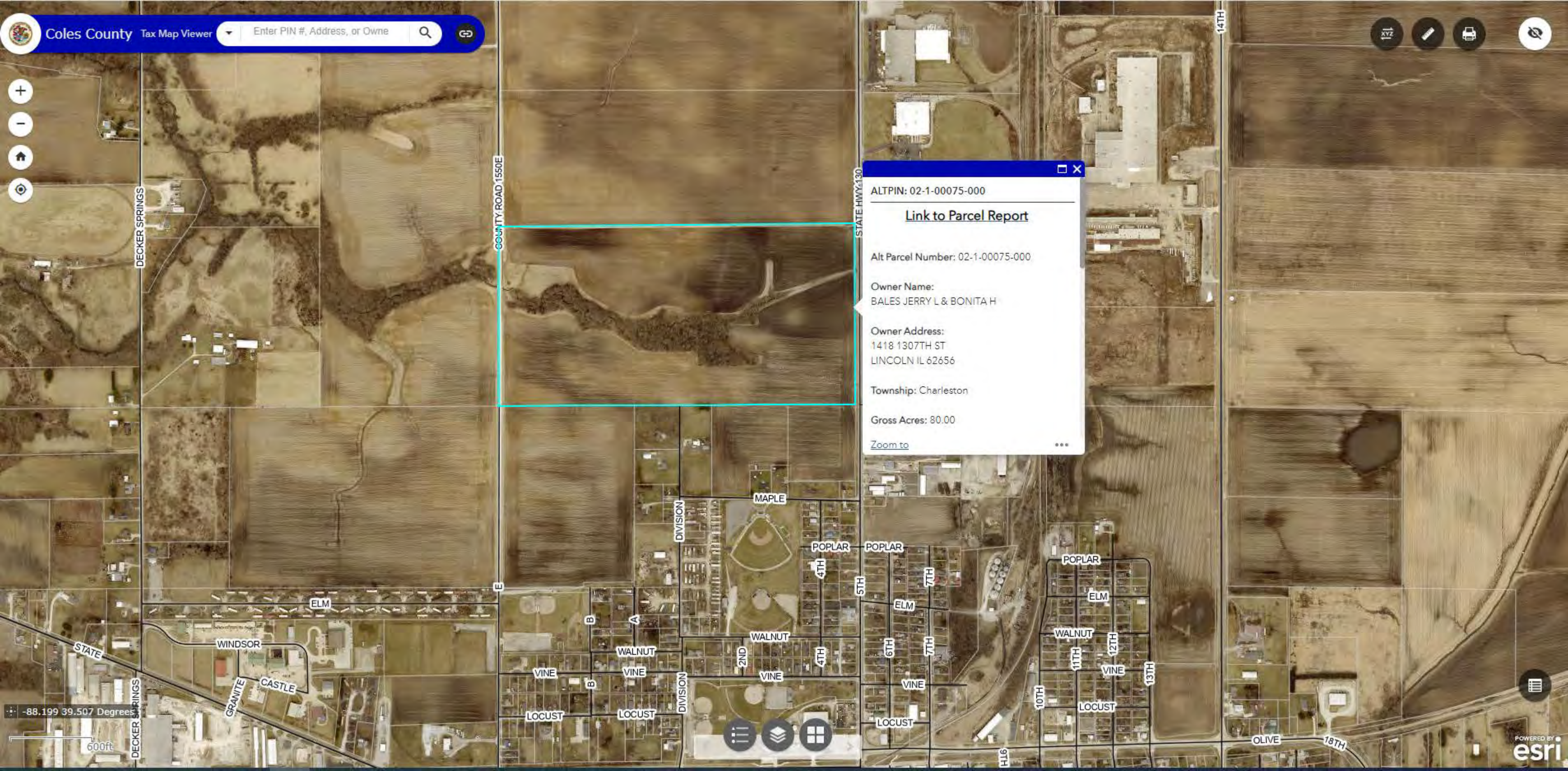
3. 1500V DC collection voltage



SINGLE AXIS TRACKER		1inPortrait - (3) Strings Per Frame	
DC:AC Ratio (%)	1.397	Ground Coverage Ratio (%)	33
PV Modules	(10,752)	Canadian Solar, CS7N-650MB-AG (650W) or Equivalent	
Inverters	(40)	DELTA #M125HV String Inverters or Equivalent	
DC Capacity (kW)	6,988.8	AC Capacity (kW)	5,000
Tilt/Azimuth (°)	+/-60 / 180	String Count/Mods Per String	384/ 28

REV	DESCRIPTION	DATE	DRAWN BY	ENGINEERING STAMP	COMPANY ADDRESS	CUSTOMER NAME	SHEET NAME
0	5MWac_33%GCR_1inP_Tracker_BTMPOI	12/3/2021	AESCRUCERIA			Illinois Tool Works	
1	5MWac_33%GCR_1inP_Tracker_BTMPOI	11/29/2022	AE			Charleston	
						Charleston, IL 61920	

NextEra Energy Resources 700 Universal Blvd. Juno Beach, FL 33408		NEXTERA ENERGY RESOURCES	
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CUSTOMER NAME Illinois Tool Works		SHEET NAME	
PROJECT NAME Charleston		SITE PLAN	
PROJECT LOCATION Charleston, IL 61920		SCALE 1 : 100	
		SHEET TITLE WI4001	
		SHEET SIZE ANSI D - 34" x 22"	
		SHEETS 1	
		ISSUE	
		SHEET NUMBER 1	





ALTPIN: 02-1-00075-000

[Link to Parcel Report](#)


Alt Parcel Number: 02-1-00075-000

Owner Name:
BALES JERRY L & BONITA H

Owner Address:
1418 1307TH ST
LINCOLN IL 62656

Township: Charleston

Gross Acres: 80.00

[Zoom to](#) 

-88.199 39.507 Degrees

600ft



ITW Charleston Solar Code Compliance
Parcel Identification Number (PIN): 02-1-00075-000

As it Pertains to the 10-7-22 Commercial Solar Energy System Code

Code: The system will fall into the Solar Garden: A commercial solar-electric (photovoltaic) array that provides retail electric power (or a financial proxy for retail power) for the primary purpose of generating electricity for multiple households or businesses residing or located on-site or off-site from the location of the solar energy system. Solar garden shall include community solar projects.

- Compliance: The Charleston Solar Project (“Project”) will supply retail electric power for the purpose of generating electricity for a local business. The Project is contracted into a long-term Power Purchase Agreement with the Illinois Tool Works Facility. DG Charleston BTM, LLC (“Applicant”) will sell the solar generation electricity to the Illinois Tool Works facility at an agreed upon rate between the two parties. This is not a wholesale deal, as the power is being generated from the solar project and sold (for dollars) directly to a business.

Code: Solar Gardens Comprising an area greater than ten (10) acres and which meet the conditions and requirements of this section shall be allowed as a conditional use in the Agriculture or Governmental Districts

- Compliance: Per Attachment 0_BZAP Application, the Applicant has provided a request for a zoning classification as AG in order to fall within the approved zoning classification area.

Code: Height, Ground or pole-mounted solar energy systems shall not exceed twenty feet (20’) at maximum tilt.

- Compliance: The Applicant anticipates the panel max height no more than 15 feet.

Code: Solar Gardens may be no smaller than two (2) acres

- Compliance: The Applicant anticipates a Project size of around 30 acres.

Code: Signs, Suitable warning signs containing a telephone number for emergency calls shall face all access approaches to the facility. All signs shall comply with chapter 10 of this title.

- Compliance: A sign will be provided with a telephone number for emergency calls (as called out on site plan). The Applicant’s sign will comply with chapter 10 of the title.

Code: Lot Coverage, No more than twenty five percent (25%) of the gross site area shall be occupied with enclosed buildings.

- Compliance: None of the site area will be occupied with enclosed buildings.

Code: Plan Approval Required, All commercial solar energy systems allowed as a permitted uses shall require administrative plan approval by the building official via the review of the application for a building permit. Commercial solar energy systems allowed as conditional uses shall include such plans with the application for a conditional use permit.

- Compliance: The general site design and layout will not materially differ from what is shown in Attachment 3_Site Plan. The site will follow all code and requirements from the time of site plan approval, through building permit submittals, and all the way through the construction timeframe. Given that the City of Charleston may not be involved in the Building Permit process, the Applicant requests that a conditional approval is made with the attachments provided in the application. Following the conditional approval, the Applicant will in the coming months, provide more detailed engineering drawings that should not materially differ from what is shown in Attachment 3_Site Plan.

Code: Commercial solar energy system components must have a UL listing or approved equivalent.

- Compliance: The Commercial solar energy system will contain UL listed approved equipment. See panel and inverter information in example Attachment 9 and Attachment 10.

Code: Compliance with State And National Electric Code: All photovoltaic systems shall comply with the Illinois State and National Electric Code.

- Compliance: The site will be designed and certified by a PE (Professional Engineer) and the Applicant will ensure all state and electric codes are met through the design and building process.

Code: Utility Notification.

- Compliance: Utility Notification is Attachment 7

Code: Principal Uses: The City encourages the development of commercial or utility scale solar energy systems where such systems present few land use conflicts with current and future development patterns. The owner or operator of a commercial solar energy system shall be solely responsible for preserving all solar access and acquiring all solar energy easements designed to protect and preserve the solar energy resource used to operate the system.

- Compliance: Refer to BZAP application for details about zoning and comprehensive plan alignment.

Code: Conditional Use: For solar gardens located within five hundred feet (500') of an airport, the solar garden must apply for and receive a conditional use permit in the manner described in chapter 4 of this title.

- Compliance: Project is not located within 500 ft of an airport.

Code: Stormwater And NPDES: Solar gardens are subject to the City's stormwater management and erosion and sediment control provisions and NPDES permit requirements.

- Compliance: As mentioned prior, a SWPPP shall be provided with the completion of detailed engineering drawings.

Code: Ground Cover And Buffer Areas: Top soils shall not be exported during development, unless part of a remediation effort. When solar gardens are constructed on formerly agricultural land, the developer shall comply with the Illinois Department of Agriculture Water and Sewer Line Construction Standards and Policies related to topsoil management and replacement regardless of the width of the trench. Soils shall be planted to and maintained in perennial vegetation to prevent erosion, manage runoff and build soil. Seeds should include a mix of grasses and wildflowers native to the region of the project site.

- Compliance: Top soils shall not be exported during development unless part of a remediation effort. When solar gardens are constructed on formerly AG land, the developer shall comply with the Illinois Department of Agriculture and Sewer Line Construction Standards and Policies related to top soil management and replacement regardless of the width of the trench. Soils shall be planted to and maintained in perennial vegetation to prevent erosion, manage runoff, and build soil. Seeds should include a mix of grasses and wildflowers native to the region of the project site.

Code: Foundations: A qualified engineer shall certify that the foundation and design of the solar mounting devices are within accepted development standards, given local soil and climate conditions.

- Compliance: A qualified engineer will certify the foundation and design of the solar mounting devices.

Code: Other Standards And Codes: All solar gardens shall be in compliance with all applicable local, State and Federal regulatory codes, including title 9 of this Code.

- Compliance: As mentioned before, the Applicant will follow all applicable local, State and Federal regulatory codes, including title 9 of this Code.

Code: Visibility: Commercial solar energy systems shall be designed to be screened from routine view from public rights-of-way and residential uses on adjacent parcels. The commercial solar energy system shall be set back from the screening device or landscaping so as to not affect the operation of the system. The property shall comply with fencing, landscaping and screening requirements described in section 10-8-5 of this title.

- Refer to site plans Attachment_3 Site Plan. Site will be enclosed by an approximate 7ft high tall chain link fence per NFPA (National Fire Protection Agency) code. The purpose of the vegetation is to screen the project along the roadway. That being said, the panels should be of minimal visual impact, standing around 15 feet tall.

Planting Summary Table	Tree Type	Quantity	Size at Planting	Root	Growth Per Year	Mature Height
Emerald Green (or similar)	Arborvitae	Approx 95	Approx 4 - 6 feet	B&B	1' - 2'	10' - 15'
Thuja Baby / Junior Green Giant (or similar)	Arborvitae	Approx 94	Approx 4 - 6 feet	B&B	3' - 5'	14' - 20'

Code: Glare; Reflection: All commercial solar energy systems shall be designed and installed to prohibit light reflection towards adjacent rights-of-way and any habitable portion of nearby structures that are not integrated into the system. Measures to minimize glare include selective placement of the system, screening, modifying the orientation of the system, reducing use of the reflector system, or other remedies that limit glare.

- All structures and devices used to support the Project shall be nonreflective and/or painted a subtle or earth-tone color. The Project is designed to utilize neutral paint colors to be compatible with the surrounding area.

Code: Lighting: Lighting may be installed for safety and security purposes. Except with respect to lighting required by Federal law, all other lighting shall be required to comply with section 10-8-6 of this title.

- Construction is planned for daylight hours only; lighting should not be needed.

Code: Power And Communication Lines: Power and communication lines running between banks of solar panels shall be buried underground. Power and communication lines running to nearby electric substation interconnections with buildings shall be buried underground to the extent practicable, subject to utility requirements. Exemptions may be granted by the City in instances where shallow bedrock, water courses, or other elements of the natural landscape interfere with the ability to bury lines, or distance makes undergrounding infeasible, at the discretion of the building official.

- Standard procedure is to bury communication and power lines underground, unless subjected to a utility requirement. If the Project faces shallow bedrock, water courses, or other elements of nature that interfere with the ability to bury lines, the City of Charleston shall be consulted with.

Code: Site Plan Required: A detailed site plan for both existing and proposed conditions must be submitted, showing location of all solar arrays, other structures, property lines, zoning and uses of adjacent property, rights-of-way, service roads, floodplains, wetlands and other protected natural resources, topography, electric equipment, and all other characteristics requested by the City. The site plan should also show all zoning districts and overlay districts.

- Standard procedure is to bury communication and power lines underground, unless subjected to a utility requirement. If the Project faces shallow bedrock, water courses, or other elements of nature that interfere with the ability to bury lines, the City of Charleston shall be consulted with.

Code: Aviation Protection: For solar gardens located within five hundred feet (500') of an airport or within approach zones of an airport, the applicant must complete and provide the results of the Solar Glare Hazard Analysis Tool (SGHAT) and receive the written verification of the airport operator that the tool demonstrates the system will operate in a manner that will not result in unsafe conditions for aviation.

- Compliance: Project is not located within 500 ft of an airport.

Code: Wildlife Passage: In areas identified as containing important wildlife habitat, the facility shall be designed, to the maximum extent feasible, to allow continued use of the site for wildlife habitat and migration across the site.

- Compliance: Refer to Attachment 11_Environmental Reviews. The Illinois Natural Heritage Database contains no record of State-Listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered land and water reserves within or in the vicinity of the Project location. Further, the USFWS IPaC review for the Project determined that while the Project is within the range of the Indiana Bat, Northern Long-Eared Bat, Tricolored Bat, Whooping Crane, and Monarch Butterfly, no critical habitat for these species is known to exist within the Project location. These determinations were confirmed during the on-site waterbodies' delineation conducted by WSP on August 8, 2023. Due to the lack of suitable habitat on site, the limited amount of tree clearing planned to occur in support of the Project, and the developer's plans to adhere to the seasonal tree clearing window (October 1 through March 31 per guidance from the USFWS), no impacts to threatened or endangered species or their preferred habitat are anticipated to occur as a result of the Project.

Decommissioning: A decommissioning plan shall be required to ensure that facilities are properly removed after their useful life. Decommissioning of solar panels must occur in the event they are abandoned, which shall mean not in use for twelve (12) consecutive months for reasons other than repair and replacement. The plan shall include provisions for removal of all structures and foundations, restoration of soil and vegetation and a plan ensuring financial resources will be available to fully decommission the site. Decommissioning and removal of the facilities must be complete within one hundred eighty (180) days after they are abandoned, or the owner delivers notice of cessation of use, provided the building official may grant extensions for force majeure events. The city may require the posting of a bond, letter of credit or the establishment of an escrow account to ensure proper decommissioning. (Ord. 18-O-4, 2-6-2018)

- Compliance: Prior to the submittal of building permits, a decommissioning bond no less than the full value of \$300,000 will be submitted to the County of Coles. Typically, the Applicant has seen approximately \$300,000 for decommissioning costs for projects throughout the state. A more detailed decommissioning plan that includes cost break outs will be submitted to both the town and county prior to the submittal of building permits.

When recorded return to:
Orin Shakerdge
NextEra Energy Resources, LLC
700 Universe Blvd., LAW/JB
Juno Beach, FL 33408
(561) 694-4678

THIS SPACE FOR RECORDER'S USE ONLY

MEMORANDUM OF OPTION AND SOLAR LEASE AND EASEMENT AGREEMENT

THIS MEMORANDUM OF OPTION AND SOLAR LEASE AND EASEMENT AGREEMENT ("**Memorandum**") is dated this 01 day of may, 2023 ("**Effective Date**"), by and between Jerry L. Bales and Bonita Heléne Bales, husband and wife ("**Owner**") and DG Charleston BTM, LLC, a Delaware limited liability company ("**Operator**"). Each of Owner and Operator shall hereinafter be referred to individually as a "**Party**" and collectively as the "**Parties**".

RECITALS

WHEREAS, the Parties entered into an Option and Solar Lease and Easement Agreement dated as of the Effective Date ("**Agreement**"), by which Owner granted to Operator an exclusive option ("**Option**") for a Lease and Easements over and across certain real property located in Coles County, Illinois, described on the attached **Exhibit A** as the "**Owner's Property**".

WHEREAS, the Parties desire to execute, deliver and record this Memorandum for the purpose of putting all persons on notice of Operator's right, title and interest in Owner's Property.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties do hereby state, declare and establish as follows:

1. **Defined Terms.** All capitalized terms used herein and not otherwise defined shall have the meaning given such terms in the Agreement and the terms, covenants and conditions of the Agreement are incorporated herein by reference with the same force and effect as though fully set forth herein.

2. **Option.** The period during which Operator may exercise the Option shall be for a term of two (2) years, commencing on the Effective Date ("**Option Term**"). Operator may exercise the Option by giving written notice to Owner ("**Option Notice**") at any time during the Option Term. Operator shall specify in the Option Notice the commencement date ("**Commencement Date**"). On the Commencement Date, the Lease and Easements in the

Agreement shall automatically become effective, and the Parties shall be subject to all of the terms and conditions of the Agreement with respect to such Lease Rights, Easements and all rights and obligations relating thereto.

3. **Lease Rights.** The Agreement between the Parties leases the Owner Property to Operator to construct, operate and maintain the Improvements for a solar-powered electrical power generation and transmission project ("**Project**") and leases other rights including but not limited to, ingress and egress over Owner's Property to and from the Improvements, installing energy storage facilities, and for the purpose of surveying, testing and installing monitoring devices on Owner's Property, all in accordance with and subject to the terms of the Agreement.

4. **Term.** The initial term of the Lease and Easements shall end twenty-five (25) years after the Commercial Operations Date. Operator has the right to extend the Term of the Agreement for two (2) consecutive terms of five (5) years each. The "**Commercial Operations Date**" shall mean the date when the Project has achieved the status of a commercially operable solar-powered electrical generation and transmission facility.

5. **Sun Non-Obstruction Easement.** The Agreement between the Parties grants to Operator an irrevocable, exclusive easement for the right and privilege to use, maintain and capture the free and unobstructed sunlight over and across the Owner's Property. Owner shall not engage in any activity on Owner's Property or any other neighboring property owned by Owner that might interfere with the sunlight direction over any portion of Owner's Property; cause a decrease in the output or efficiency of any Solar Panel or Weather Instrument; or otherwise interfere with Operator's operation of the Project or exercise of any rights granted in this Agreement.

6. **Effects Easement.** The Agreement between the Parties grants to Operator a non-exclusive easement over Owner's Property for audio, visual, view, light, flicker, noise, shadow, vibration, electromagnetic, electrical and radio frequency interference, and any other effects attributable to the Project located on the Owner's Property.

7. **Exclusive Rights.** The Agreement between the Parties provides Operator shall have the exclusive right (i) to use and possess the Owner Property in connection with the Project and other similar sun-powered electrical power generation projects; (ii) to use and convert all of the sunlight resources on the Owner's Property; and (iii) to undertake such other activities on the Owner's Property that may be related to the Project, including, without limitation, the storage of Solar Panels, materials and equipment during the installation and construction of the Improvements; development and operation of communications systems; and site tours of the Project for visitors and other interested parties.

8. **Memorandum Interpretation.** This Memorandum is not a complete summary of the Agreement and the statements contained in this Memorandum shall not be used in interpreting the actual provisions of the Agreement. In the event of conflict between this Memorandum and the Agreement, the terms and provisions of the Agreement shall control.

[Signatures on Next Pages]

EXECUTED on the date set forth below.

Owner:

Jerry L. Bales
Jerry L. Bales

Bonita Helène Bales
Bonita Helène Bales

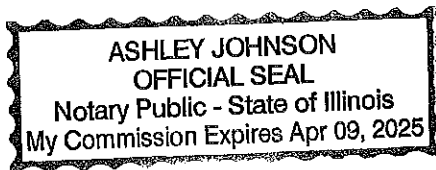
ACKNOWLEDGEMENT

STATE OF ILLINOIS)
) ss:
COUNTY OF LOGAN)

On this 4 day of March, 2023, before me, the undersigned notary public, personally appeared Jerry L. Bales and Bonita Helène Bales as husband and wife, personally known to me to be the persons who subscribed to the foregoing instrument.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

(notary seal)




Ashley Johnson
NOTARY PUBLIC, STATE OF ILLINOIS

My commission expires: 04/09/2025

EXECUTED on the date set forth below.

Operator:

DG Charleston BTM, LLC
a Delaware limited liability company

By: 
Matthew G. Ulman
Vice President

ACKNOWLEDGEMENT

STATE OF FLORIDA)
) ss:
COUNTY OF PALM BEACH)

The foregoing instrument was acknowledged before me **by means of ☒ physical presence** or ☐ online notarization, this 01 day of May, 2023 by Matthew G. Ulman, as Vice President of DG Charleston BTM, LLC, a Delaware limited liability company, on behalf of the company, who is personally known to me or has produced a driver's license as identification.

(notary seal)


NOTARY PUBLIC, STATE OF FLORIDA

My commission expires: Aug 4, 2024

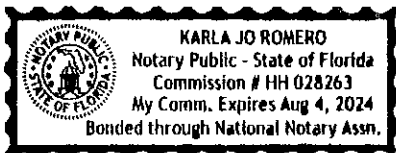


EXHIBIT A

Legal Description of Owner's Property

South Half of the Southeast Quarter (S½ SE¼) of Section 3, Township 12 North, Range 9 East
of the Third Principal Meridian, Coles County, Illinois.

PIN: 02-1-00075-000

QLA ID: 17842

**STANDARD AGREEMENT FOR INTERCONNECTION
OF DISTRIBUTED GENERATION FACILITIES WITH A
CAPACITY LESS THAN OR EQUAL TO 10 MVA**

This agreement (together with all attachments, the “Agreement”) is made and entered into this 22 day of June 2023, by and between Illinois Tool Works Inc. (“interconnection customer”), as a Corporation organized and existing under the laws of the State of Delaware and Ameren Illinois Company, (“Electric Distribution Company” or “EDC”), a corporation existing under the laws of the State of Illinois. Interconnection customer and EDC each may be referred to as a “Party”, or collectively as the “Parties”.

Recitals:

Whereas, interconnection customer is proposing to install or direct the installation of a distributed generation facility, or is proposing a generating capacity addition to an existing distributed generation facility, consistent with the interconnection request application form completed by interconnection customer on 9/16/2022; and

Whereas, the interconnection customer will operate and maintain, or cause the operation and maintenance of, the distributed generation facility; and

Whereas, interconnection customer desires to interconnect the distributed generation facility with EDC's electric distribution system.

Now, therefore, in consideration of the premises and mutual covenants set forth in this Agreement, and other good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, the Parties covenant and agree as follows:

Article 1. Scope and Limitations of Agreement

- 1.1 This Agreement shall be used for all approved interconnection requests for distributed generation facilities that fall under Levels 2, 3 and 4 according to the procedures set forth in Part 466 of the Commission's rules (83 Ill. Adm. Code 466) (referred to as the Illinois Distributed Generation Interconnection Standard).
- 1.2 This Agreement governs the terms and conditions under which the distributed generation facility will interconnect to, and operate in parallel with, the EDC's electric distribution system.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the interconnection customer's power.

- 1.4 Nothing in this Agreement is intended to affect any other agreement between the EDC and the interconnection customer.
- 1.5 Terms used in this agreement are defined as in Section 466.30 of the Illinois Distributed Generation Interconnection Standard unless otherwise noted.
- 1.6 Responsibilities of the Parties
 - 1.6.1 The Parties shall perform all obligations of this Agreement in accordance with all applicable laws and regulations.
 - 1.6.2 The EDC shall construct, own, operate, and maintain its interconnection facilities in accordance with this Agreement.
 - 1.6.3 The interconnection customer shall construct, own, operate, and maintain its distributed generation facility and interconnection facilities in accordance with this Agreement.
 - 1.6.4 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facilities that it now or subsequently may own unless otherwise specified in the attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of its respective lines and appurtenances on its respective sides of the point of interconnection.
 - 1.6.5 The interconnection customer agrees to design, install, maintain and operate its distributed generation facility so as to minimize the likelihood of causing an adverse system impact on the electric distribution system or any other electric system that is not owned or operated by the EDC.
- 1.7 Parallel Operation Obligations

Once the distributed generation facility has been authorized to commence parallel operation, the interconnection customer shall abide by all operating procedures established in IEEE Standard 1547 and any other applicable laws, statutes or guidelines, including those specified in Attachment 4 of this Agreement.
- 1.8 Metering

The interconnection customer shall be responsible for the cost to purchase, install, operate, maintain, test, repair, and replace metering and data acquisition equipment specified in Attachments 5 and 6 of this Agreement.
- 1.9 Reactive Power
 - 1.9.1 Interconnection customers with a distributed generation facility larger than or equal to 1 MVA shall design their distributed generation facilities to maintain a power factor at the point of interconnection between .95 lagging and .95 leading

at all times. Interconnection customers with a distributed generation facility smaller than 1 MVA shall design their distributed generation facility to maintain a power factor at the point of interconnection between .90 lagging and .90 leading at all times.

1.9.2 Any EDC requirements for meeting a specific voltage or specific reactive power schedule as a condition for interconnection shall be clearly specified in Attachment 4. Under no circumstance shall the EDC's additional requirements for voltage or reactive power schedules exceed the normal operating capabilities of the distributed generation facility.

1.9.3 If the interconnection customer does not operate the distributed generation facility within the power factor range specified in Attachment 4, or does not operate the distributed generation facility in accordance with a voltage or reactive power schedule specified in Attachment 4, the interconnection customer is in default, and the terms of Article 6.5 apply.

1.10 Standards of Operations

The interconnection customer must obtain all certifications, permits, licenses and approvals necessary to construct, operate and maintain the facility and to perform its obligations under this Agreement. The interconnection customer is responsible for coordinating and synchronizing the distributed generation facility with the EDC's system. The interconnection customer is responsible for any damage that is caused by the interconnection customer's failure to coordinate or synchronize the distributed generation facility with the electric distribution system. The interconnection customer agrees to be primarily liable for any damages resulting from the continued operation of the distributed generation facility after the EDC ceases to energize the line section to which the distributed generation facility is connected. In Attachment 4, the EDC shall specify the shortest reclose time setting for its protection equipment that could affect the distributed generation facility. The EDC shall notify the interconnection customer at least 10 business days prior to adopting a faster reclose time on any automatic protective equipment, such as a circuit breaker or line recloser, that might affect the distributed generation facility.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

The interconnection customer shall test and inspect its distributed generation facility including the interconnection equipment prior to interconnection in accordance with IEEE Standard 1547 (2003) and IEEE Standard 1547.1 (2005). The interconnection customer shall not operate its distributed generation facility in parallel with the EDC's electric distribution system without prior written authorization by the EDC as provided for in Articles 2.1.1-2.1.3.

2.1.1 The EDC shall perform a witness test after construction of the distributed generation facility is completed, but before parallel operation, unless the EDC specifically waives the witness test. The interconnection customer shall provide the EDC at least 15 business day notice of the planned commissioning test for the distributed generation facility. If the EDC performs a witness test at a time that is not concurrent with the commissioning test, it shall contact the interconnection customer to schedule the witness test at a mutually agreeable time within 10 business days after the scheduled commissioning test designated on the application. If the EDC does not perform the witness test within 10 business days after the commissioning test, the witness test is deemed waived unless the Parties mutually agree to extend the date for scheduling the witness test, or unless the EDC cannot do so for good cause, in which case, the Parties shall agree to another date for scheduling the test within 10 business days after the original scheduled date. If the witness test is not acceptable to the EDC, the interconnection customer has 30 business days to address and resolve any deficiencies. This time period may be extended upon agreement between the EDC and the interconnection customer. If the interconnection customer fails to address and resolve the deficiencies to the satisfaction of the EDC, the applicable cure provisions of Article 6.5 shall apply. The interconnection customer shall, if requested by the EDC, provide a copy of all documentation in its possession regarding testing conducted pursuant to IEEE Standard 1547.1.

2.1.2 If the interconnection customer conducts interim testing of the distributed generation facility prior to the witness test, the interconnection customer shall obtain permission from the EDC before each occurrence of operating the distributed generation facility in parallel with the electric distribution system. The EDC may, at its own expense, send qualified personnel to the distributed generation facility to observe such interim testing, but it cannot mandate that these tests be considered in the final witness test. The EDC is not required to observe the interim testing or precluded from requiring the tests be repeated at the final witness test.

2.1.3 After the distributed generation facility passes the witness test, the EDC shall affix an authorized signature to the certificate of completion and return it to the interconnection customer approving the interconnection and authorizing parallel operation. The authorization shall not be conditioned or delayed.

2.2 Commercial Operation

The interconnection customer shall not operate the distributed generation facility, except for interim testing as provided in Article 2.1, until such time as the certificate of completion is signed by all Parties.

2.3 Right of Access

The EDC must have access to the disconnect switch and metering equipment of the distributed generation facility at all times. When practical, the EDC shall provide notice to the interconnection customer prior to using its right of access.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by all Parties.

3.2 Term of Agreement

This Agreement shall become effective on the effective date and shall remain in effect unless terminated in accordance with Article 3.3 of this Agreement.

3.3 Termination

3.3.1 The interconnection customer may terminate this Agreement at any time by giving the EDC 30 calendar days prior written notice.

3.3.2 Either Party may terminate this Agreement after default pursuant to Article 6.5.

3.3.3 The EDC may terminate, upon 60 calendar days' prior written notice, for failure of the interconnection customer to complete construction of the distributed generation facility within 12 months after the in-service date as specified by the Parties in Attachment 2, which may be extended by agreement between the Parties.

3.3.4 The EDC may terminate this Agreement, upon 60 calendar days' prior written notice, if the interconnection customer has abandoned, cancelled, permanently disconnected or stopped development, construction, or operation of the distributed generation facility, or if the interconnection customer fails to operate the distributed generation facility in parallel with the EDC's electric system for three consecutive years.

3.3.5 Upon termination of this Agreement, the distributed generation facility will be disconnected from the EDC's electric distribution system. Terminating this Agreement does not relieve either Party of its liabilities and obligations that are owed or continuing when the Agreement is terminated.

3.3.6 If the Agreement is terminated, the interconnection customer loses its position in the interconnection queue.

3.4 Temporary Disconnection

A Party may temporarily disconnect the distributed generation facility from the electric distribution system in the event one or more of the following conditions or events occurs:

- 3.4.1 Emergency conditions – shall mean any condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that the EDC determines is likely to cause an adverse system impact, or is likely to have a material adverse effect on the EDC's electric distribution system, interconnection facilities or other facilities, or is likely to interrupt or materially interfere with the provision of electric utility service to other customers; or (3) that is likely to cause a material adverse effect on the distributed generation facility or the interconnection equipment. Under emergency conditions, the EDC or the interconnection customer may suspend interconnection service and temporarily disconnect the distributed generation facility from the electric distribution system. The EDC must notify the interconnection customer when it becomes aware of any conditions that might affect the interconnection customer's operation of the distributed generation facility. The interconnection customer shall notify the EDC when it becomes aware of any condition that might affect the EDC's electric distribution system. To the extent information is known, the notification shall describe the condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.
- 3.4.2 Scheduled maintenance, construction, or repair – the EDC may interrupt interconnection service or curtail the output of the distributed generation facility and temporarily disconnect the distributed generation facility from the EDC's electric distribution system when necessary for scheduled maintenance, construction, or repairs on EDC's electric distribution system. To the extent possible, the EDC shall provide the interconnection customer with notice five business days before an interruption. The EDC shall coordinate the reduction or temporary disconnection with the interconnection customer; however, the interconnection customer is responsible for out-of-pocket costs incurred by the EDC for deferring or rescheduling maintenance, construction or repair at the interconnection customer's request.
- 3.4.3 Forced outages – The EDC may suspend interconnection service to repair the EDC's electric distribution system. The EDC shall provide the interconnection customer with prior notice, if possible. If prior notice is not possible, the EDC shall, upon written request, provide the interconnection customer with written documentation, after the fact, explaining the circumstances of the disconnection.

- 3.4.4 Adverse system impact – the EDC must provide the interconnection customer with written notice of its intention to disconnect the distributed generation facility, if the EDC determines that operation of the distributed generation facility creates an adverse system impact. The documentation that supports the EDC's decision to disconnect must be provided to the interconnection customer. The EDC may disconnect the distributed generation facility if, after receipt of the notice, the interconnection customer fails to remedy the adverse system impact, unless emergency conditions exist, in which case, the provisions of Article 3.4.1 apply. The EDC may continue to leave the generating facility disconnected until the adverse system impact is corrected.
- 3.4.5 Modification of the distributed generation facility – The interconnection customer must receive written authorization from the EDC prior to making any change to the distributed generation facility, other than a minor equipment modification. If the interconnection customer modifies its facility without the EDC's prior written authorization, the EDC has the right to disconnect the distributed generation facility until such time as the EDC concludes the modification poses no threat to the safety or reliability of its electric distribution system.
- 3.4.6 The EDC is not responsible for any lost opportunity or other costs incurred by the interconnection customer as a result of an interruption of service under Article 3.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

- 4.1.1 The interconnection customer shall pay for the cost of the interconnection facilities itemized in Attachment 3. The EDC shall identify the additional interconnection facilities necessary to interconnect the distributed generation facility with the EDC's electric distribution system, the cost of those facilities, and the time required to build and install those facilities, as well as an estimated date of completion of the building or installation of those facilities.
- 4.1.2 The interconnection customer is responsible for its expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its interconnection equipment.

4.2 Distribution Upgrades

The EDC shall design, procure, construct, install, and own any distribution upgrades. The actual cost of the distribution upgrades, including overheads, shall be directly assigned to the interconnection customer whose distributed generation facility caused the need for the distribution upgrades.

Article 5. Billing, Payment, Milestones, and Financial Security

5.1 Billing and Payment Procedures and Final Accounting (Applies to additional reviews conducted under a Level 2 review and Level 4 reviews)

- 5.1.1 The EDC shall bill the interconnection customer for the design, engineering, construction, and procurement costs of EDC-provided interconnection facilities and distribution upgrades contemplated by this Agreement as set forth in Attachment 3. The billing shall occur on a monthly basis, or as otherwise agreed to between the Parties. The interconnection customer shall pay each bill within 30 calendar days after receipt, or as otherwise agreed to between the Parties.
- 5.1.2 Within 90 calendar days after completing the construction and installation of the EDC's interconnection facilities and distribution upgrades described in Attachments 2 and 3 to this Agreement, the EDC shall provide the interconnection customer with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation of the EDC's interconnection facilities and distribution upgrades; and (2) the interconnection customer's previous deposit and aggregate payments to the EDC for the interconnection facilities and distribution upgrades. If the interconnection customer's cost responsibility exceeds its previous deposit and aggregate payments, the EDC shall invoice the interconnection customer for the amount due and the interconnection customer shall make payment to the EDC within 30 calendar days. If the interconnection customer's previous deposit and aggregate payments exceed its cost responsibility under this Agreement, the EDC shall refund to the interconnection customer an amount equal to the difference within 30 calendar days after the final accounting report. Upon request from the interconnection customer, if the difference between the budget estimate and the actual cost exceeds 20%, the EDC will provide a written explanation for the difference.
- 5.1.3 If a Party disputes any portion of its payment obligation pursuant to this Article 5, the Party shall pay in a timely manner all non-disputed portions of its invoice, and the disputed amount shall be resolved pursuant to the dispute resolution provisions contained in Article 8. A Party disputing a portion of an Article 5 payment shall not be considered to be in default of its obligations under this Article.

5.2 Interconnection Customer Deposit

Within 15 business days after signing and returning the interconnection agreement to the EDC, the interconnection customer shall provide the EDC with a deposit equal to 100% of the estimated, non-binding cost to procure, install, or construct any such facilities (the "Security Deposit"). However, when the estimated date of completion of the building or installation of facilities exceeds three months from the date of notification, pursuant to Article 4.1.1 of this Agreement, this deposit may be held in escrow by a mutually agreed-upon third-party, with any interest to inure to the benefit of the interconnection customer.

To the extent that this interconnection agreement is terminated for any reason, the EDC shall return all deposits provided by the interconnection customer, less any actual costs incurred by the EDC.

Article 6. Assignment, Limitation on Damages, Indemnity, Force Majeure, and Default

6.1 Assignment

This Agreement may be assigned by either Party. If the interconnection customer attempts to assign this Agreement, the assignee must agree to the terms of this Agreement in writing and such writing must be provided to the EDC. Any attempted assignment that violates this Article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason of the assignment. An assignee is responsible for meeting the same obligations as the assignor.

6.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate (including mergers, consolidations, or transfers, or a sale of a substantial portion of the Party's assets, between the Party and another entity), of the assigning Party that has an equal or greater credit rating and the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement.

6.1.2 The interconnection customer can assign this Agreement, without the consent of the EDC, for collateral security purposes to aid in providing financing for the distributed generation facility.

6.2 Limitation on Damages

Except for cases of gross negligence or willful misconduct, the liability of any Party to this Agreement shall be limited to direct actual damages and reasonable attorney's fees, and all other damages at law are waived. Under no circumstances, except for cases of gross negligence or willful misconduct, shall any Party or its directors, officers, employees and agents, or any of them, be liable to another Party, whether in tort, contract or other basis in law or equity for any special, indirect, punitive, exemplary or consequential damages, including lost profits, lost revenues, replacement power, cost of capital or replacement equipment. This limitation on damages shall not affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement. The provisions of this Article 6.2 shall survive the termination or expiration of the Agreement.

6.3 Indemnity

6.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 6.2.

- 6.3.2 The interconnection customer shall indemnify and defend the EDC and the EDC's directors, officers, employees, and agents, from all damages and expenses resulting from a third party claim arising out of or based upon the interconnection customer's (a) negligence or willful misconduct or (b) breach of this Agreement.
- 6.3.3 The EDC shall indemnify and defend the interconnection customer and the interconnection customer's directors, officers, employees, and agents from all damages and expenses resulting from a third party claim arising out of or based upon the EDC's (a) negligence or willful misconduct or (b) breach of this Agreement.
- 6.3.4 Within 5 business days after receipt by an indemnified Party of any claim or notice that an action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply has commenced, the indemnified Party shall notify the indemnifying Party of such fact. The failure to notify, or a delay in notification, shall not affect a Party's indemnification obligation unless that failure or delay is materially prejudicial to the indemnifying Party.
- 6.3.5 If an indemnified Party is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, that indemnified Party may, at the expense of the indemnifying Party, contest, settle or consent to the entry of any judgment with respect to, or pay in full, the claim.
- 6.3.6 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this Article, the amount owing to the indemnified person shall be the amount of the indemnified Party's actual loss, net of any insurance or other recovery.

6.4 Force Majeure

- 6.4.1 As used in this Article, a force majeure event shall mean any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A force majeure event does not include an act of gross negligence or intentional wrongdoing by the Party claiming force majeure.
- 6.4.2 If a force majeure event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the force majeure event ("Affected Party") shall notify the other Party of the existence of the force majeure event within one

business day. The notification must specify the circumstances of the force majeure event, its expected duration, and the steps that the Affected Party is taking and will take to mitigate the effects of the event on its performance. If the initial notification is verbal, it must be followed up with a written notification within one business day. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the force majeure event until the event ends. The Affected Party may suspend or modify its obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the force majeure event cannot be otherwise mitigated.

6.5 Default

- 6.5.1 No default shall exist when the failure to discharge an obligation (other than the payment of money) results from a force majeure event as defined in this Agreement, or the result of an act or omission of the other Party.
- 6.5.2 A Party shall be in default ("Default") of this Agreement if it fails in any material respect to comply with, observe or perform, or defaults in the performance of, any covenant or obligation under this Agreement and fails to cure the failure within 60 calendar days after receiving written notice from the other Party. Upon a default of this Agreement, the non-defaulting Party shall give written notice of the default to the defaulting Party. Except as provided in Article 6.5.3, the defaulting Party has 60 calendar days after receipt of the default notice to cure the default; provided, however, if the default cannot be cured within 60 calendar days, the defaulting Party shall commence the cure within 20 calendar days after original notice and complete the cure within six months from receipt of the default notice; and, if cured within that time, the default specified in the notice shall cease to exist.
- 6.5.3 If a Party has assigned this Agreement in a manner that is not specifically authorized by Article 6.1, fails to provide reasonable access pursuant to Article 2.3, and is in default of its obligations pursuant to Article 7, or if a Party is in default of its payment obligations pursuant to Article 5 of this Agreement, the defaulting Party has 30 days from receipt of the default notice to cure the default.
- 6.5.4 If a default is not cured as provided for in this Article, or if a default is not capable of being cured within the period provided for in this Article, the non-defaulting Party shall have the right to terminate this Agreement by written notice, and be relieved of any further obligation under this Agreement and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due under this Agreement, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article shall survive termination of this Agreement.

Article 7. Insurance

For distributed generation facilities with a nameplate capacity of 1 MVA or above, the interconnection customer shall carry sufficient insurance coverage so that the maximum comprehensive/general liability coverage that is continuously maintained by the interconnection customer during the term shall be not less than \$2,000,000 for each occurrence, and an aggregate, if any, of at least \$4,000,000. The EDC, its officers, employees and agents shall be added as an additional insured on this policy. The interconnection customer agrees to provide the EDC with at least 30 calendar days advance written notice of cancellation, reduction in limits, or non-renewal of any insurance policy required by this Article.

Article 8. Dispute Resolution

- 8.1 Parties shall attempt to resolve all disputes regarding interconnection as provided in this Article in a good faith manner.
- 8.2 If there is a dispute between the Parties about an interpretation of the Agreement, the aggrieved Party shall issue a written notice to the other Party to the agreement that specifies the dispute and the Agreement articles that are disputed.
- 8.3 A meeting between the Parties shall be held within ten days after receipt of the written notice. Persons with decision-making authority from each Party shall attend the meeting. If the dispute involves technical issues, persons with sufficient technical expertise and familiarity with the issue in dispute from each Party shall also attend the meeting. The meeting may be conducted by teleconference.
- 8.4 After the first meeting, each Party may seek resolution through complaint or mediation procedures available at the Commission. The Commission may designate an engineer from the Commission's Energy Division to assist in resolving the dispute. Dispute resolution shall be conducted in a manner designed to minimize costs and delay. Dispute resolution may be conducted by phone.
- 8.5 Pursuit of dispute resolution may not affect an interconnection request or an interconnection applicant's position in the EDC's interconnection queue.
- 8.6 If the Parties fail to resolve their dispute under the dispute resolution provisions of this Article, nothing in this Article shall affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement.

Article 9. Miscellaneous

9.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of Illinois, without regard to its conflicts of law principles. This Agreement is subject to all applicable laws and regulations. Each Party expressly reserves the right to seek change in, appeal, or otherwise contest any laws, orders or regulations of a governmental authority. The language in all parts of this Agreement shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against the EDC or interconnection customer, regardless of the involvement of either Party in drafting this Agreement.

9.2 Amendment

Modification of this Agreement shall be only by a written instrument duly executed by both Parties.

9.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations in this Agreement assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

9.4 Waiver

9.4.1 Except as otherwise provided in this Agreement, a Party's compliance with any obligation, covenant, agreement, or condition in this Agreement may be waived by the Party entitled to the benefits thereof only by a written instrument signed by the Party granting the waiver, but the waiver or failure to insist upon strict compliance with the obligation, covenant, agreement, or condition shall not operate as a waiver of, or estoppel with respect to, any subsequent or other failure.

9.4.2. Failure of any Party to enforce or insist upon compliance with any of the terms or conditions of this Agreement, or to give notice or declare this Agreement or the rights under this Agreement terminated, shall not constitute a waiver or relinquishment of any rights set out in this Agreement, but the same shall be and remain at all times in full force and effect, unless and only to the extent expressly set forth in a written document signed by that Party granting the waiver or relinquishing any such rights. Any waiver granted, or relinquishment of any right, by a Party shall not operate as a relinquishment of any other rights or a waiver of any other failure of the Party granted the waiver to comply with any obligation, covenant, agreement, or condition of this Agreement.

9.5 Entire Agreement

Except as provided in Article 9.1, this Agreement, including all attachments, constitutes the entire Agreement between the Parties with reference to the subject matter of this Agreement, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants that constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

9.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original, but all constitute one and the same instrument.

9.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties, or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

9.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other governmental authority, (1) that portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by the ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

9.9 Environmental Releases

Each Party shall notify the other Party of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the distributed generation facility or the interconnection facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided that Party makes a good faith effort to provide the notice no later than 24 hours after that Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

9.10 Subcontractors

Nothing in this Agreement shall prevent a Party from using the services of any subcontractor it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing services and each Party shall remain primarily liable to the other Party for the performance of the subcontractor.

- 9.10.1 A subcontract relationship does not relieve any Party of any of its obligations under this Agreement. The hiring Party remains responsible to the other Party for the acts or omissions of its subcontractor. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of the hiring Party.
- 9.10.2 The obligations under this Article cannot be limited in any way by any limitation of subcontractor's insurance.

Article 10. Notices

10.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to Interconnection Customer:

Interconnection Customer: Illinois Tool Works Inc.
Attention: Director, Strategic Sourcing
Address: 155 Harlem Ave.
City: Glenview State: IL Zip: 60025
Phone: 224-661-7631 Fax: _____ E-Mail: mcolwell@itw.com

If to EDC:

EDC: Ameren Illinois Company
Attention: Ameren Illinois Net Metering Coordinator
Address: 10 Richard Mark Way – Mail Code 910
City: Collinsville State: IL Zip: 62234
Phone: _____ Fax: _____ E-Mail: RenewablesIllinois@ameren.com

Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other Party and not required by this Agreement to be in writing may be given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out above.

10.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

If to Interconnection Customer:

Interconnection Customer: Illinois Tool Works Inc.
Attention: Director, Strategic Sourcing
Address: 155 Harlem Ave.
City: Glenview State: IL Zip: 60025

If to EDC:

EDC: Ameren Illinois
Attention: Ameren Net Metering Coordinator
Address: 10 Richard Mark Way – Mail Code 910
City: Collinsville State: IL Zip: 62234

10.3 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications that may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative: DG Charleston BTM, LLC
Attention: DG Business Management
Address: 700 Universe Blvd. A1A/JB
City: Juno Beach State: FL Zip: 33408

EDC's Operating Representative: Ameren Illinois
Attention: Ameren Illinois Net Metering Coordinator
Address: 10 Richard Mark Way – Mail Code 910
City: Collinsville State: IL Zip: 62234

10.4 Changes to the Notice Information

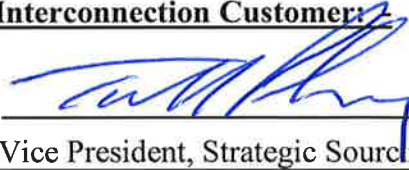
Either Party may change this notice information by giving five business days written notice before the effective date of the change.

Article 11. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Interconnection Customer:

Name:



Title: Vice President, Strategic Sourcing

Date: 8/23/2023

For EDC:

Name:

Elizabeth Barrows

Title: Sr. Distribution Design Specialist

Date: 08/29/2023

Attachment 1

Definitions

Adverse system impact – A negative effect that compromises the safety or reliability of the electric distribution system or materially affects the quality of electric service provided by the electric distribution company (EDC) to other customers.

Applicable laws and regulations – All duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any governmental authority, having jurisdiction over the Parties.

Commissioning test – Tests applied to a distributed generation facility by the applicant after construction is completed to verify that the facility does not create adverse system impacts. At a minimum, the scope of the commissioning tests performed shall include the commissioning test specified IEEE Standard 1547 Section 5.4 "Commissioning tests."

Distributed generation facility – The equipment used by an interconnection customer to generate or store electricity that operates in parallel with the electric distribution system. A distributed generation facility typically includes an electric generator, prime mover, and the interconnection equipment required to safely interconnect with the electric distribution system or a local electric power system.

Distribution upgrades – A required addition or modification to the EDC's electric distribution system at or beyond the point of interconnection to accommodate the interconnection of a distributed generation facility. Distribution upgrades do not include interconnection facilities.

Electric distribution company or EDC – Any electric utility entity subject to the jurisdiction of the Illinois Commerce Commission.

Electric distribution system – The facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries from interchanges with higher voltage transmission networks that transport bulk power over longer distances. The voltage levels at which electric distribution systems operate differ among areas but generally carry less than 100 kilovolts of electricity. Electric distribution system has the same meaning as the term Area EPS, as defined in 3.1.6.1 of IEEE Standard 1547.

Facilities study – An engineering study conducted by the EDC to determine the required modifications to the EDC's electric distribution system, including the cost and the time required to build and install the modifications, as necessary to accommodate an interconnection request.

Force majeure event – Any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any

other cause beyond a Party's control. A force majeure event does not include an act of gross negligence or intentional wrongdoing.

Governmental authority – Any federal, State, local or other governmental regulatory or administrative agency, court, commission, department, board, other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that this term does not include the interconnection customer, EDC or any affiliate of either.

IEEE Standard 1547 – The Institute of Electrical and Electronics Engineers, Inc. (IEEE), 3 Park Avenue, New York NY 10016-5997, Standard 1547 (2003), "Standard for Interconnecting Distributed Resources with Electric Power Systems."

IEEE Standard 1547.1 – The IEEE Standard 1547.1 (2005), "Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems."

Interconnection agreement or Agreement – The agreement between the interconnection customer and the EDC. The interconnection agreement governs the connection of the distributed generation facility to the EDC's electric distribution system and the ongoing operation of the distributed generation facility after it is connected to the EDC's electric distribution system.

Interconnection customer – The entity entering into this Agreement for the purpose of interconnecting a distributed generation facility to the EDC's electric distribution system.

Interconnection equipment – A group of components or an integrated system connecting an electric generator with a local electric power system or an electric distribution system that includes all interface equipment, including switchgear, protective devices, inverters or other interface devices. Interconnection equipment may be installed as part of an integrated equipment package that includes a generator or other electric source.

Interconnection facilities – Facilities and equipment required by the EDC to accommodate the interconnection of a distributed generation facility. Collectively, interconnection facilities include all facilities, and equipment between the distributed generation facility and the point of interconnection, including modification, additions, or upgrades that are necessary to physically and electrically interconnect the distributed generation facility to the electric distribution system. Interconnection facilities are sole use facilities and do not include distribution upgrades.

Interconnection request – An interconnection customer's request, on the required form, for the interconnection of a new distributed generation facility, or to increase the capacity or change the operating characteristics of an existing distributed generation facility that is interconnected with the EDC's electric distribution system.

Interconnection study – Any of the following studies, as determined to be appropriate by the EDC: the interconnection feasibility study, the interconnection system impact study, and the interconnection facilities study.

Illinois standard distributed generation interconnection rules – The most current version of the procedures for interconnecting distributed generation facilities adopted by the Illinois Commerce Commission. See 83 Ill. Adm. Code 466.

Parallel operation or Parallel – The state of operation that occurs when a distributed generation facility is connected electrically to the electric distribution system.

Point of interconnection – The point where the distributed generation facility is electrically connected to the electric distribution system. Point of interconnection has the same meaning as the term "point of common coupling" defined in 3.1.13 of IEEE Standard 1547.

Witness test – For lab-certified equipment, verification (either by an on-site observation or review of documents) by the EDC that the interconnection installation evaluation required by IEEE Standard 1547 Section 5.3 and the commissioning test required by IEEE Standard 1547 Section 5.4 have been adequately performed. For interconnection equipment that has not been lab-certified, the witness test shall also include verification by the EDC of the on-site design tests required by IEEE Standard 1547 Section 5.1 and verification by the EDC of production tests required by IEEE Standard 1547 Section 5.2. All tests verified by the EDC are to be performed in accordance with the test procedures specified by IEEE Standard 1547.1.

Attachment 2

Construction Schedule, Proposed Equipment & Settings

This attachment is to be completed by the interconnection customer and shall include the following:

1. The construction schedule for the distributed generation facility.
2. A one-line diagram indicating the distributed generation facility, interconnection equipment, interconnection facilities, metering equipment, and distribution upgrades.
3. Component specifications for equipment identified in the one-line diagram.
4. Component settings.
5. Proposed sequence of operations.
6. A three line diagram showing current potential circuits for protective relays.
7. Relay tripping and control schematic diagram.

Attachment 3

Description, Costs and Time Required to Build and Install the EDC's Interconnection Facilities

This attachment is to be completed by the EDC and shall include the following:

1. Required interconnection facilities, including any required metering.

Per the prior studies - EDC shall build the substation facilities as required to support the interconnection of the interconnection customer proposed facility up to the point of disconnect. The interconnection would consist of installing primary metering, poles, Intellirupter, Viper Intellinode, upgrade voltage regulator in substation, upgrade substation reclosers to Viper with RTU. The interconnection customer would be responsible for construction to the point of disconnect. All costs shall be paid for and/or reimbursed by the interconnection customer pursuant to Article 5 of this agreement. The interconnection customer is required to construct all facilities which connect to EDC's facilities or otherwise interface with EDC's facilities, all as determined by EDC's final, detailed engineering, in accordance with EDC's published standards.

Additional required interconnection facilities and system upgrades may be identified while completing Detailed Engineering.

2. An estimate of itemized costs charged by the EDC for interconnection, including overheads, based on results from prior studies.

Hi-Cone Division of ITW: 1155 N 5th St, Charleston, IL- 5000 KW

(PowerClerk DER-12911)

Queue Position: 1

NOTE: THE COST ESTIMATE PROVIDED FOR YOUR PROJECT IN THE NEXT SECTION IS CONTINGENT UPON CONSTRUCTION COMPLETION OF ALL SYSTEM UPGRADES REQUIRED OF PROJECT(S) AHEAD OF YOUR PROJECT IN THE QUEUE THAT HAVE AN IMPACT ON THE CONNECTION OF YOUR PROJECT. SHOULD ANY ONE OR MORE OF SUCH PROJECTS WITHDRAW FOR ANY REASON, THE COSTS ASSOCIATED WITH YOUR PROJECT MAY CHANGE TO REFLECT THE COST IMPACT OF SYSTEM UPGRADES THAT NOW MAY BE REQUIRED TO CONNECT YOUR PROJECT AS A RESULT OF THE WITHDRAWAL OF SUCH HIGHER QUEUED PROJECTS.

An estimate of itemized costs charged by the EDC for interconnection, including overheads.



\$1,448,460.25 for installing primary metering, poles, Intellirupter, Viper Intellinode, upgrade voltage regulator in substation, upgrade substation reclosers to Viper with RTU. This will be subject to a true-up process at the end of the project.

Ameren Illinois reserves the right to revise this estimate prior to and during construction based on the requirements of Good Utility practices not foreseen at the time of the original estimate. The revisions to the estimate may include, but are not limited to, changes in the cost of materials and required labor.

3. An estimate for the time required to build and install the EDC's interconnection facilities based on results from prior studies and an estimate of the date upon which the facilities will be completed.

Attachment 4

Operating Requirements for Distributed Generation Facilities Operating in Parallel

The EDC shall list specific operating practices that apply to this distributed generation interconnection and the conditions under which each listed specific operating practice applies.

Attachment 5

Monitoring and Control Requirements

This attachment is to be completed by the EDC and shall include the following:

1. The EDC's monitoring and control requirements must be specified, along with a reference to the EDC's written requirements documents from which these requirements are derived.
2. An internet link to the requirements documents.

<https://www.ameren.com/service-manual>

<http://standards.ieee.org>

Attachment 6

Metering Requirements

This attachment is to be completed by the EDC and shall include the following:

1. The metering requirements for the distributed generation facility.

The specific metering requirements and equipment will be specified as part of the Detailed Engineering.
2. Identification of the appropriate tariffs that establish these requirements.
3. An internet link to these tariffs.

<https://www.ameren.com/illinois/business/rates/>

<https://www.ameren.com/illinois/electric-choice/renewables>

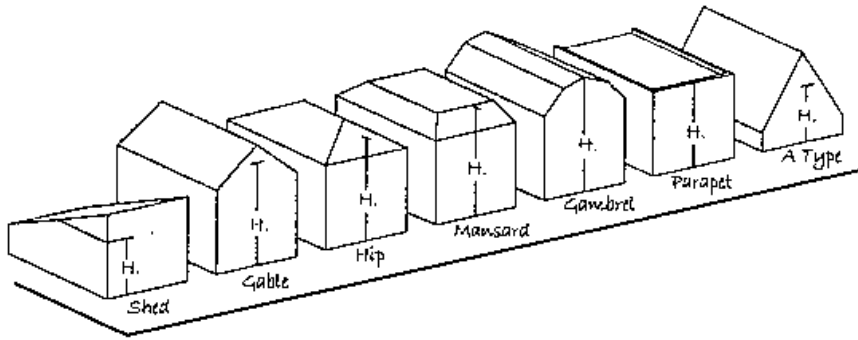
Attachment 7

As Built Documents

This attachment is to be completed by the interconnection customer and shall include the following:

When it returns the certificate of completion to the EDC, the interconnection customer shall provide the EDC with documents detailing the as-built status of the following:

1. A one-line diagram indicating the distributed generation facility, interconnection equipment, interconnection facilities, and metering equipment.
2. Component specifications for equipment identified in the one-line diagram.
3. Component settings.
4. Proposed sequence of operations.
5. A three-line diagram showing current potential circuits for protective relays.
6. Relay tripping and control schematic diagram.



b. Exceptions: Public or quasi-public service buildings, hospitals, institutions or schools, where permitted, may be erected to a height not exceeding sixty feet (60'), and churches and temples may be erected to a height not exceeding seventy five feet (75') when the required front, side and rear yards are each increased by one foot (1') for each foot of additional building height above the height regulations for the district in which the building is located.

7. Buildings Per Lot: There may be two (2) or more related multi-family, commercial, industrial or institutional buildings on a lot; provided, that the required yards are maintained around the group of buildings.

8. Access Requirements:

a. Uses other than detached single-family and duplex residences that are located on a collector or major thoroughfare as designated in the comprehensive plan shall not have more than one 26-foot wide entrance for the parcel on which said use is located; except, that a parcel having more than two hundred feet (200') of frontage may have an additional twenty six foot (26') wide entrance. Driveways for detached single-family and duplex residences shall not be wider than twenty feet (20') and shall access the least intensive abutting street. No new residential lot that requires access to an arterial street shall be created.

b. Any new entrance to a public street shall require a driveway permit in accordance with city standards. (Ord. 03-O-9, 3-18-2003)

c. For all nonresidential uses in the C-2 and I districts, there shall be a clearly marked fire/emergency lane, not less than twelve feet (12') in width, located within twenty five feet (25') of the building and surrounding the perimeter of the building. (Ord. 10-O-5, 3-16-2010)

9. Location Of Multi-Family Buildings: Multi-family buildings shall be separated by a minimum of fifteen feet (15'). No multi-family building shall be located within fifty feet (50') of the front or rear building wall of another single-family dwelling unit that is located in the single-family residence district as measured perpendicular from that wall. (Ord. 08-O-28, 10-7-2008)

C. Table 8-1:

TABLE 8-1: DENSITY AND DIMENSIONAL STANDARDS

Districts	Minimum Lot Size (Square Feet)	Minimum Lot Width (Feet)	Minimum Setbacks			Maximum Building Coverage (Percent)	Maximum Height
			Front	Side	Rear		
Districts	Minimum Lot Size (Square Feet)	Minimum Lot Width (Feet)	Front	Side	Rear	Maximum Building Coverage (Percent)	Maximum Height
Residential:							
A	43,560 ¹	100	50	10	35	25	35 feet or 2 ¹ / ₂ stories
RE	20,000	100	50	15	30	30	35 feet or 2 ¹ / ₂ stories
R-1	9,600	75	25	6/15 ^{2,3,8}	25	35	35 feet or 2 ¹ / ₂ stories
R-2 and R-2U	7,200	60	25	6/15 ^{2,3,8}	25	40	35 feet or 2 ¹ / ₂ stories

	R-3 and R-3U	7,200 ⁴	60	15 ⁵	6/15 ^{2,3,11}	25	40	35 feet or 3 stories ¹²
	Nonresidential:							
	C-1	None	None	25	5 ^{6,8}	None ⁷	35	25 feet or 2 stories
	C-2	None	None	25	5 ^{6,8}	None ⁷	35	45 feet or 3 stories ¹²
	C-3	None	None	25 ¹⁰	5 ^{6,8,10}	None ⁷	None	45 feet or 3 stories ¹²
	I-1	None	None	25	None ^{6,8}	None ⁹	35	35 feet or 2 stories
	I-2	None	None	25	None ^{6,8}	None ⁹	35	None

Notes:

1. Minimum lot size shall be 10 acres unless part of a conservation subdivision. Minimum lot size in a subdivision shall be 1 acre when not served by public sewer.
2. Minimum distance from lot line is 6 feet, provided that the combined side setbacks on each lot must total at least 15 feet.
3. Side lot lines may be reduced pursuant to subsection 10-8-2E of this chapter.
4. An additional 1,800 square feet is required per dwelling unit in excess of 1.
5. At least 25 feet is required between any garage entrance and the abutting right of way.
6. 5 foot side yard required except on the side of a lot adjoining a residence district, in which case a side yard of not less than 10 feet shall be provided in any C district and of not less than 25 feet in any I district.
7. No rear yard required except on the rear of a lot adjoining a residence district, in which case a rear yard of not less than 15 feet shall be provided.
8. The minimum side yard adjoining a street shall be 25 feet, or the average setback.
9. No rear yard required except on the rear of a lot adjoining a residence district, in which case a rear yard of not less than 25 feet shall be provided.
10. No setbacks shall be required, unless notes 6, 7, and 8 are required, for the C-3 district area known as the "Courthouse Square". The "Courthouse Square" shall be defined as the area from the center of 5th Street to the center of 8th Street and from the center of Van Buren Avenue to the center of Madison Avenue.
11. The minimum side yard adjoining a street shall be 15 feet or the average setback.
12. The maximum height in the residential transition area shall be 35 feet or 2 1/2 stories.

(Ord. 14-O-41, 10-7-2014)

100/125 kW, 1500 Vdc String Inverters for North America

For Example Purposes
ONLY
Actual Inverter will be UL
certified (like these ones)
This is an example of a
inverter datasheet.



CPS SCH100/125KTL-DO/US-600

The 100 and 125 kW high power CPS three-phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.1% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125 kW products ship with the Standard or Centralized Wire-box, each fully integrated and separable with AC and DC disconnect switches. The Standard Wire-box includes touch-safe fusing for up to 20 strings. The CPS FlexOM Gateway enables communication, controls and remote product upgrades.

Key Features

- NFPA 70 and NEC compliant
- Touch-safe DC Fuse holders add convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC and DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper- and Aluminum-compatible AC connections
- NEMA Type 4X outdoor rated enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- kVA headroom yields 100 kW @ 0.9 PF and 125 kW @ 0.95 PF
- Generous 1.87 (100 kW) and 1.5 (125 kW) DC/AC inverter load ratios
- Separable wire-box design for fast service
- Standard 5-year warranty with extensions to 20 years



100/125KTL Standard Wire-box



100/125KTL Centralized Wire-box



Model Name	CPS SCH100KTL-DO/US-600	CPS SCH125KTL-DO/US-600
DC Input		
Max. PV power	187.5 kW	
Max. DC input voltage	1500 V	
Operating DC input voltage range	860-1450 Vdc	
Start-up DC input voltage / power	900 V / 250 W	
Number of MPP trackers	1	
MPPT voltage range ¹	870-1300 Vdc	
Max. PV input current (Isc x 1.25)	275 A	
Number of DC inputs	Standard Wire-box: 20 PV source circuits, pos. and neg. fused Centralized Wire-box: 1 input circuit, 1-2 terminations per pole, non-fused	
DC disconnection type	Load-rated DC switch	
DC surge protection	Type II MOV (with indicator/remote signaling)	
AC Output		
Rated AC output power	100 kW	125 kW
Max. AC output power ²	100 kVA (111 kVA @ PF>0.9)	125 kVA (132 kVA @ PF>0.95)
Rated output voltage	600 Vac	
Output voltage range ³	528-660 Vac	
Grid connection type ⁴	3Φ / PE / N (neutral optional)	
Max. AC output current @ 600 Vac	96.2 / 106.8 A	120.3 / 127.0 A
Rated output frequency	60 Hz	
Output frequency range ³	57-63 Hz	
Power factor	>0.99 (±0.8 adjustable)	>0.99 (±0.8 adjustable)
Current THD	<3%	
Max. fault current contribution (1-cycle RMS)	41.47 A	
Max. OCPD rating	200 A	
AC disconnection type	Load-rated AC switch	
AC surge protection	Type II MOV (with indicator/remote signaling)	
System		
Topology	Transformerless	
Max. efficiency	99.1%	
CEC efficiency	98.5%	
Stand-by / night consumption	<4 W	
Environment		
Enclosure protection degree	NEMA Type 4X	
Cooling method	Variable speed cooling fans	
Operating temperature range	-22°F to +140°F / -30°C to +60°C (derating from +108°F / +42°C)	
Non-operating temperature range ⁵	-40°F to +158°F / -40°C to +70°C maximum	
Operating humidity	0-100%	
Operating altitude	8202 ft / 2500 m (no derating)	
Audible noise	<65 dBA @ 1 m and 25°C	
Display and Communication		
User interface and display	LED indicators, WiFi + APP	
Inverter monitoring	Modbus RS485	
Site-level monitoring	CPS FlexOM Gateway (1 per 32 inverters)	
Modbus data mapping	SunSpec / CPS	
Remote diagnostics / firmware upgrade functions	Standard / (with FlexOM Gateway)	
Mechanical		
Dimensions (W x H x D)	Standard Wire-box: 45.28 x 24.25 x 9.84 in (1150 x 616 x 250 mm) Centralized Wire-box: 39.37 x 24.25 x 9.84 in (1000 x 616 x 250 mm)	
Weight	Inverter: 121 lbs (55 kg) Standard Wire-box: 55 lbs (25 kg) Centralized Wire-box: 33 lbs (15 kg)	
Mounting / installation angle	15 - 90 degrees from horizontal (vertical or angled)	
AC termination	M10 stud type terminal [3Φ] (wire range: 1/0 AWG - 500 kcmil CU/AL; lugs not supplied) Screw clamp terminal block [N] (#12 - 1/0 AWG CU/AL)	
DC termination	Standard Wire-box: Screw clamp fuse holder (wire range: #12 - #6 AWG CU) Centralized Wire-box: Busbar, M10 bolts (wire range: #1AWG - 500kcmil CU/AL [1 termination per pole], #1 AWG - 300 kcmil CU/AL [2 terminations per pole]; lugs not supplied)	
Fused string inputs	20 A fuses provided (fuse values up to 30 A acceptable)	
Safety		
Certifications and standards	UL 1741-SA/SB Ed. 3, CSA-C22.2 NO.107.1-01, IEEE 1547-2018, FCC PART15	
Selectable grid standard	IEEE 1547a-2014, IEEE 1547-2018 ⁶ , CA Rule 21, ISO-NE	
Smart-grid features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt	
Warranty		
Standard ⁷	5 years	
Extended terms	10, 15 and 20 years	

1) See user manual for further information regarding MPPT voltage range when operating at non-unity PF.

2) "Max AC apparent power" rating valid within MPPT voltage range and temperature range of -30°C to +40°C (-22°F to +104°F) for 100 kW PF≥0.9, and 125 kW PF≥0.95.

3) The "output voltage range" and "output frequency range" may differ according to the specific grid standard.

4) Wye neutral-grounded; delta may not be corner-grounded.

5) See user manual for further requirements regarding non-operating conditions.

6) Firmware version 12.0 or later required.

7) 5-year warranty effective for units purchased after October 1, 2019.

For Example Purposes
ONLY
Actual Panels will be UL
certified (like these ones)
This is an example of a
panel datasheet.



MLTK-36

520-545W

Mono Bifacial Half Cell Module

Key Product Features



Higher Output Power

Module power up to 545W
Average cell efficiency up to 22.6 %



Reliability for output performance

Positive power tolerance 0-5W,
reliable output performance
Excellent optical performance



Lower LCOE

(Levelized Cost Of Energy)
Significantly decrease BOS costs and
operation and maintenance costs



Superior adaptability

3600 Pa for positive(downward) and
1600 Pa for negative (upward)
Safety factors Ym:1.5
Corresponding to maximum snow and ice
load 5400Pa,maximum wind load 2400Pa

Comprehensive product certification

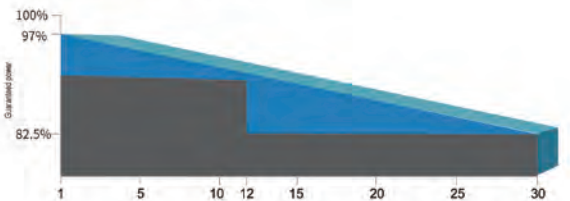
- IEC61215-1(ed.1)
- IEC61215-1-1(ed.1)
- IEC61215-2(ed.1)
- IEC61730-1(ed.2)
- IEC61730-2(ed.1)
- UL 61730-1 1st Edition
- UL 61730-2 1st Edition



Industry-leading Quality Assurance



■ Linear power warranty
■ Industry Standard



• Please refer to the warranty letter for details



Solar Power



TEL:
+86-755-89888888
Add: No.3009 BYD Road, Pingshan District, Shenzhen
bydpv@byd.com

Electrical Data(STC*)

Module Type: MLTK-36	520	525	530	535	540	545
Rate Maximum Power(Pmax)(W)	520	525	530	535	540	545
Open Circuit Voltage(Voc) (V)	48.52	48.82	49.12	49.42	49.72	50.02
Short Circuit Current(Isc) (A)	13.37	13.41	13.45	13.49	13.53	13.57
Maximum Power Voltage(Vmp)(V)	41.17	41.39	41.61	41.83	42.05	42.27
Maximum Power Current (Imp) (A)	12.64	12.69	12.74	12.79	12.84	12.89
Module Efficiency (%)	20.13	20.32	20.52	20.71	20.90	21.10

* Standard Test Conditions (STC) : irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

Electrical Data(NMOT*)

Module Type: MLTK-36	520	525	530	535	540	545
Rate Maximum Power(Pmax)(W)	392.0	395.9	399.5	403.1	406.69	406.2
Open Circuit Voltage(Voc) (V)	45.70	46.00	46.30	46.60	46.86	46.7
Short Circuit Current(Isc) (A)	10.77	10.81	10.84	10.87	10.91	10.96
Maximum Power Voltage(Vmp)(V)	38.30	38.50	38.80	39.00	39.23	39.1
Maximum Power Current (Imp) (A)	10.24	10.27	10.30	10.33	10.36	10.38

* Nominal Module Operating Temperature (NMOT): irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

Operational Parameter

Operating Temperature	-40°C~+85°C				
NOCT*(Nominal operating cell temperature)	45°C±2°C				
Maximum System Voltage(V)	1500 (VDC)				
Maximum Fuse Current Rating(A)	25A				
Fire Safety	Class C				
Power Tolerance	0-5W				
Bifacial Factor	70%				
PG. 530W	5%	10%	15%	20%	25%
Rate Maximum Power(Pmax)(W)	557	583	610	636	663
Open Circuit Voltage(Voc) (V)	49.12	49.12	49.12	49.12	49.12
Short Circuit Current (Isc) (A)	14.12	14.80	15.47	16.14	16.81
Maximum Power Voltage(Vmp)(V)	41.61	41.61	41.61	41.61	41.61
Maximum Power Current(Imp) (A)	13.377	14.014	14.651	15.288	15.925

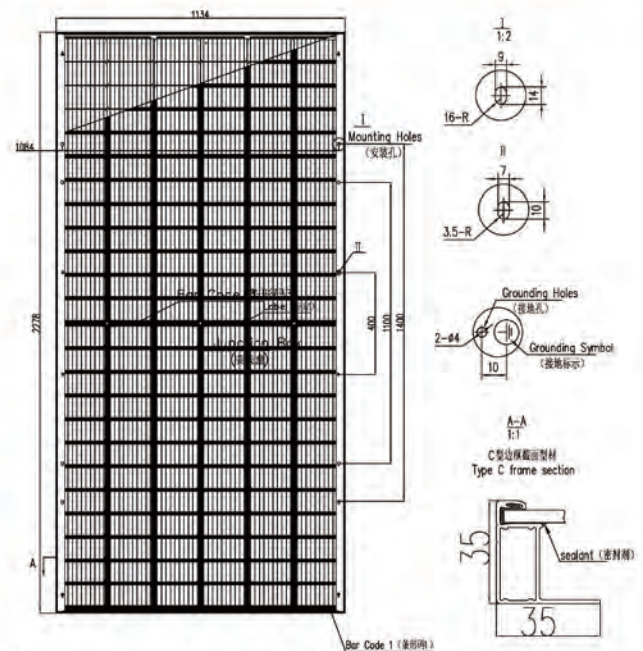
Mechanical Properties

Cell Type	182mm*91mm
Number of Cells	144
Dimension of Module	2278*1134*35mm
Weight	29.3kg ± 5%
Front Glass	3.2mm tempered glass with AR Coating
Frame	Anodized aluminum alloy
Junction Box	IP68(3 Diodes)
Cable Length	+320mm, -260mm(4.0mm²)
Connector	MC4 Compatible
Packing Information	620(31*20)pcs per 40'HQ

Temperature Coefficient

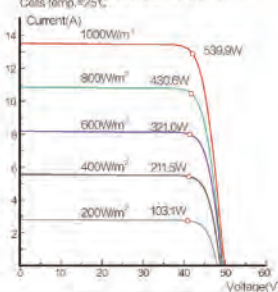
Peak Power Temperature Coefficient	-0.328%/°C
Open-Circuit Voltage Temperature Coefficient	-0.254%/°C
Short-Circuit Current Temperature Coefficient	0.041%/°C

Drawing

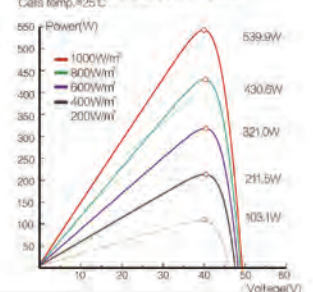


I-V curve

Current-Voltage Curve (540W)



Power-Voltage Curve (540W)



Solar Power

TEL
+86-755-89888888

Add: No.3009 BYD Road, Pingshan District, Shenzhen
bydpv@byd.com

Declaration: With the technical progress and product updates, there exists a deviation between the technical parameter of the BYD Solar's future products and the technical parameter in this specification. The BYD Solar reserves the right to adjust the technical parameter at any time without notifying the customers. BYD Solar reserves the final right of interpretation.
(V202112)



Memorandum

To: Kaitlyn Toebe – Senior Environmental Specialist; DG Charleston BTM, LLC

From: Michael Merten, WSP USA (WSP)

Date: October 10, 2023

Re: Wetlands and Waterbodies Delineation and Threatened and Endangered
Species Habitat Summary
ITW Charleston Solar Project
DG Charleston BTM, LLC

cc: Christopher Georgiadis (NextEra), Scott Cooper (WSP)

WSP USA (WSP), on behalf of DG Charleston BTM, LLC, completed a wetlands and waterbodies delineation and threatened and endangered (T/E) species habitat consultation in support of the ITW Charleston Solar Project (Project) on August 8, 2023. The Project is located north of Charleston in Coles County, Illinois. The Project proposes the installation of solar panels and inverters, a pad-mounted transformer, an interconnection area, perimeter security fencing, and an access road. The Project area is shown on **Figure 1**.

To prepare for the delineation, WSP conducted a desktop review of the Project area for the potential presence of wetlands and waterbodies. As part of this review, WSP examined current and historical high-resolution aerial photographs, topographic maps, U.S. Fish and Wildlife Service's National Wetland Inventory (NWI) data, U.S. Geological Survey's National Hydrography Dataset (NHD) data and U.S. Department of Agriculture (USDA) Soil Survey data. The soil survey data can be viewed on **Figure 2** and the NHD and NWI data can be viewed on **Figure 3**.

Prior to the initial field investigation, WSP reviewed federal and state lists of T/E species within the vicinity of the Project. The United States Fish and Wildlife Service (USFWS) IPaC screening tool was used to evaluate federally listed T/E species near and within the Project area. The Indiana Bat (*Myotis sodalis*), Northern Long-eared Bat (*Myotis septentrionalis*), Tricolored Bat (*Perimyotis subavus*), and Monarch Butterfly (*Danaus plexippus*) are listed in the IPaC as being potentially affected by the Project. The IPaC report for the Project is included with this report in **Attachment 1**.

To initiate consultation with Illinois Department of Natural resources (IDNR) under Title 17 Ill. Admin. Code Part 1075, WSP submitted an Ecological Compliance Assessment Tool (EcoCAT) request to evaluate state-listed species within the Project area. The EcoCAT request is valid for 2 years. The EcoCAT report listed no record of State-listed T/E species, Illinois Natural Area Inventory Sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the Project area. The IDNR EcoCAT report for the Project is included with this report in **Attachment 1**.

WSP field biologists conducted a wetlands and waterbodies delineation of the Project area on August 8, 2023. WSP's wetland and waterbodies delineation was conducted by a qualified team of wetland biologists. Qualified wetland biologists have taken one or more courses in wetland delineation methods and have extensive knowledge of and experience in delineating wetlands and waterbodies throughout the Midwest.

To identify potential wetlands that could qualify as Waters of the U.S. (WOTUS) or Waters of the State (WOTS), the delineation was conducted in accordance with the methodologies outlined in the *1987 USACE Wetlands Delineation Manual* and the *Regional Supplement to the USACE Wetland Delineation Manual: Midwest (Version 2.0)*. Potential wetlands found within the Project area were assessed to determine whether they met the three components of a wetland established by the USACE, including hydric soils, wetland hydrology, and hydrophytic vegetation. Features meeting the definition of a wetland were photographed and mapped using a Global Positioning System (GPS) with sub-meter accuracy. All wetland field indicators were recorded on approved USACE wetland data forms, and wetlands were classified as palustrine emergent (PEM), palustrine forested (PFO), or palustrine scrub-shrub (PSS), as described in *Cowardin et al. (1979)*.

The wetland delineation survey identified one wetland within the Project area, totaling 0.256 acres. Location, acreage with the Project area, and Cowardin class are noted below in **Table 1**. The location of the delineated resource is shown on **Figure 4**. Copies of completed wetland data forms for the wetland can be found in **Attachment 3**, and photographs are presented in **Attachment 2**.

Table 1. Delineated Wetlands: ITW Charleston Solar Project

Wetland ID	Wetland Centroid Latitude	Wetland Centroid Longitude	Cowardin Class	Wetland within Project area (acres)
W-01	39.50827993	-88.18596408	PEM	0.256

Key:
 PEM = Palustrine Emergent

Wetland W-01 is a PEM wetland situated on the western end of the Project alongside Stream 01. Wetland W-01 is dominated by reed canary grass (*Phalaris arundinacea*) and spotted touch-me-not (*impatiens capensis*).

WSP determined the presence/absence of streams and other water resources within the Project area using guidelines in *33 CFR 328.4(c)*, which states that the limits of jurisdiction for non-tidal WOTUS in the absence of adjacent wetlands is the ordinary high-water mark (OHWM). The OHWM is established by observations of water fluctuation, physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the soil character, destruction of terrestrial vegetation, presence of litter and debris, or other appropriate indicators that consider the characteristics of the surrounding areas.

The delineation survey identified two streams within the Project area. A summary of the streams identified in the Project area is provided in **Table 2**. The locations of the streams are shown on **Figure 4** and photographs of the streams can be found in **Attachment 2**.

Table 2. Delineated Streams: ITW Charleston Solar Project

Stream ID	Flow Type	Stream Name	Linear Feet in Project area	Total Acreage in Project area
S-01	Intermittent	UNT	2,956	0.543
S-02	Intermittent	UNT	581	0.093
Total			3,537	0.636

Key:
UNT = Unnamed Tributary

Five upland ditch/drain features were identified in the Project area. Drains convey surface water but do not have a bed and bank and/or an OHWM and therefore do not qualify as streams. A summary of the drains identified in the Project area is provided below in **Table 3** and can be viewed on **Figure 4**. Photographs of the delineated drains are presented in **Attachment 2**.

**Table Error! No text of specified style in document.. Delineated Drains:
ITW Charlestown Solar Project**

Drain ID	Flow Type	Total Length in Project area (linear feet)
D-01	Ephemeral	421.99
D-02	Ephemeral	544.91
D-03	Ephemeral	270.11
D-04	Ephemeral	150.31
D-05	Ephemeral	859.64
D-06	Ephemeral	187.01
Total		2,433.97

Additionally, three culverts were identified in the Project area. Culverts are man-made structures which in this case, are purposed for the conveyance of surface waters beneath roadways. A summary of the culverts identified in the Project area is provided below in **Table 4** and can be viewed on **Figure 4**. Digital photographs of culverts are presented in **Attachment 2**.

Table 4. Delineated Culverts: NextEra ITW Charleston Solar Project

Culvert ID	Total Length in Project area (linear feet)
C-01	38.40
C-02	39.35
C-03	39.87
C-04	33.87
C-05	32.98
Total	184.47

The Project area consists of active agricultural fields and woodlands. During the wetland delineation, WSP biologists scanned the woodlands for potential habitat for T/E species. No critical habitats, such as eagle nests or potential bat roosting trees, were identified during the delineation. Further, the IDNR EcoCAT report concluded that no record of

state-listed T/E species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves exist within the Project area. Both the IPaC and EcoCAT reports can be found in **Attachment 1**.

WSP USA

A handwritten signature in dark ink, appearing to read 'M. Merten', with a long, sweeping horizontal line extending to the right.

Michael Merten
WSP Project Manager

Enclosure:

Figure 1: Project Location

Figure 2: Soils

Figure 3: NWI and NHD Hydrology

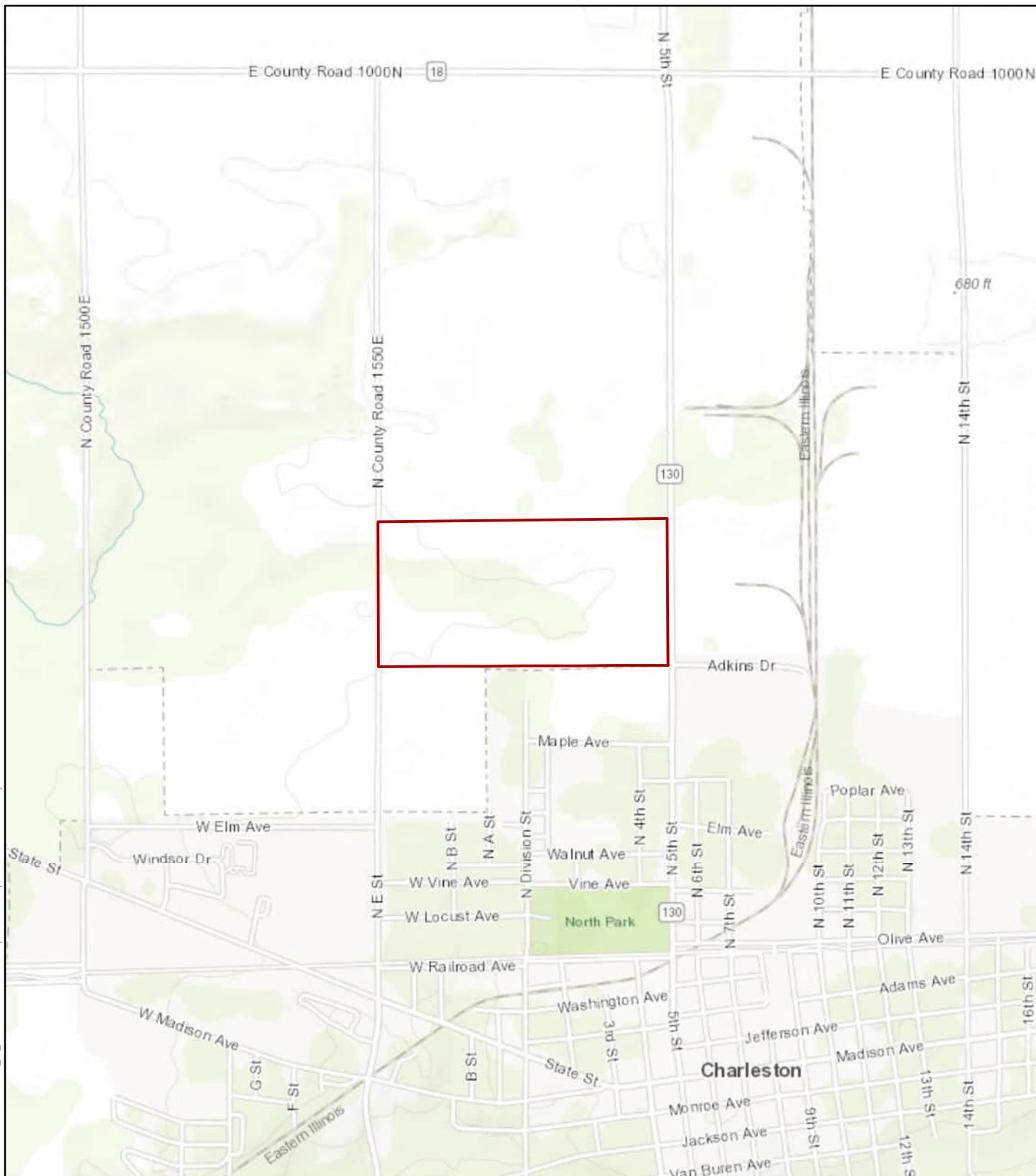
Figure 4: Field Delineated Features

Attachment 1: IPaC and EcoCAT Reports

Attachment 2: Photo log

Attachment 3: Wetland datasheets

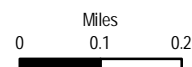
Figures



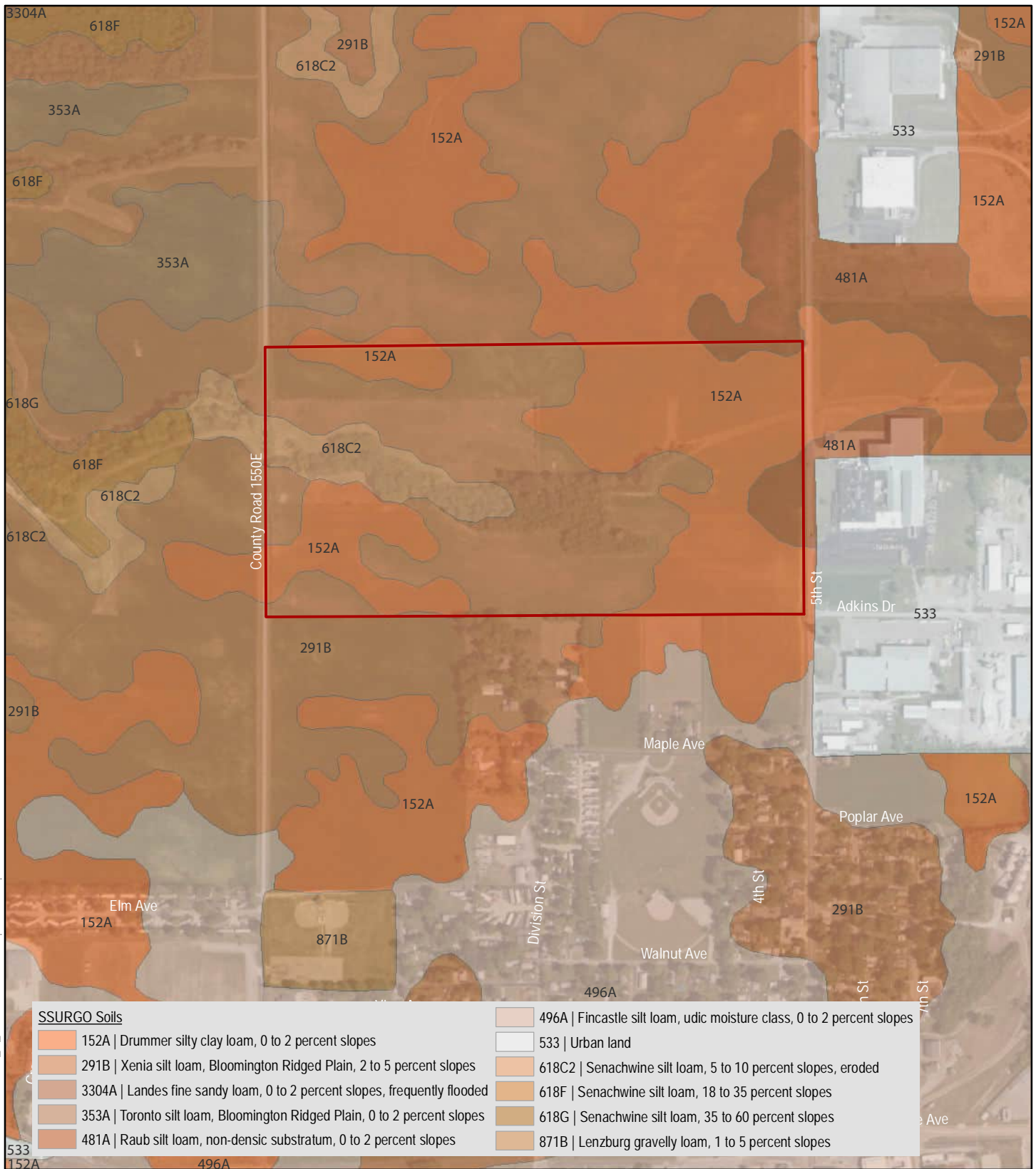
 Project Boundary



Figure 1
Project Location
Charleston Solar Project
Coles County, Illinois



L:\PROJECTS\NextEra_IL\Solar\Charleston\maps\MXD\Report\Welland2 - SSURGO Soils.mxd 8/17/2023



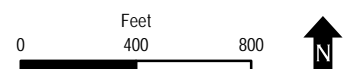
SSURGO Soils

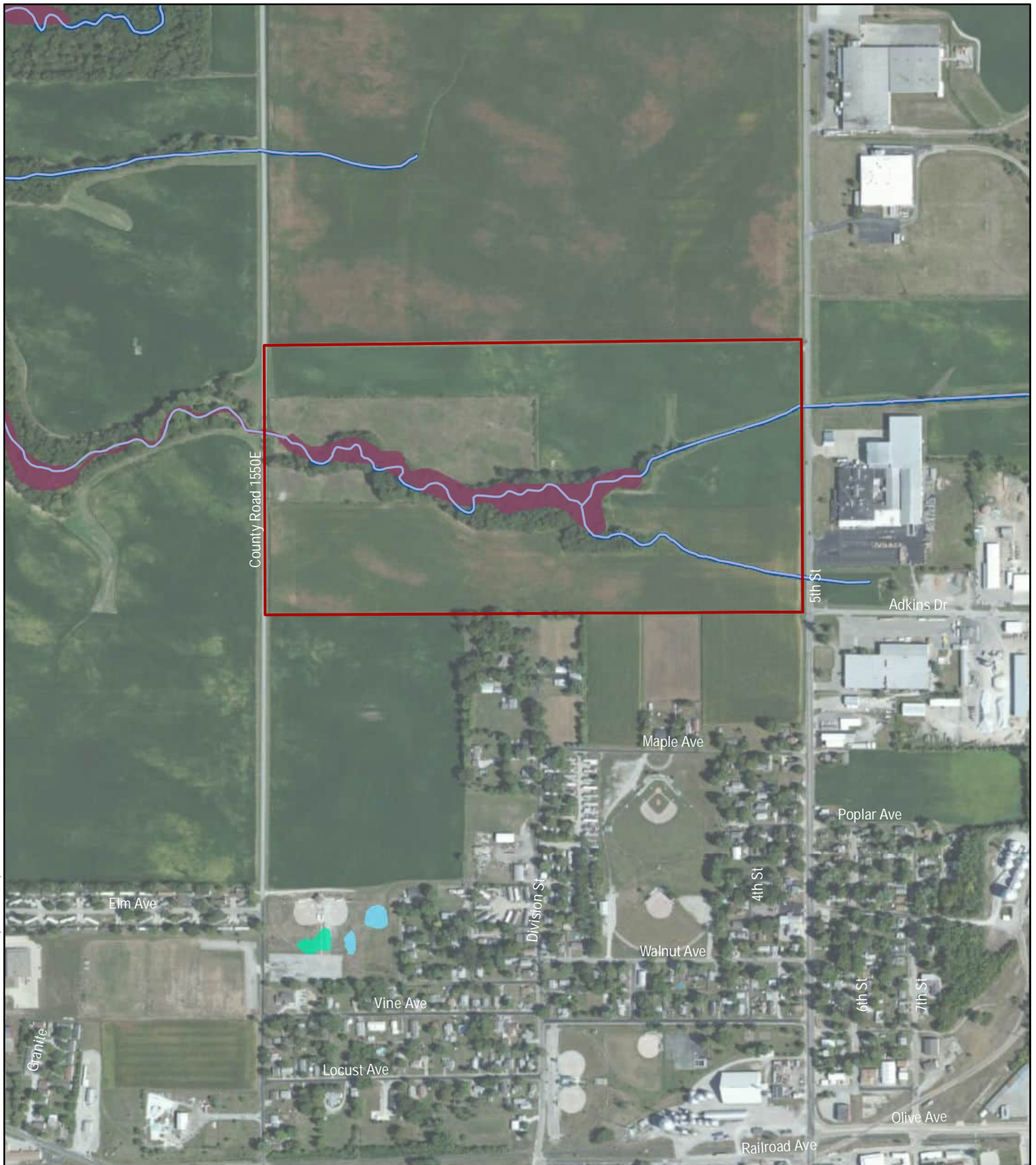
- | | |
|---|--|
| 152A Drummer silty clay loam, 0 to 2 percent slopes | 496A Fincastle silt loam, udic moisture class, 0 to 2 percent slopes |
| 291B Xenia silt loam, Bloomington Ridged Plain, 2 to 5 percent slopes | 533 Urban land |
| 3304A Landes fine sandy loam, 0 to 2 percent slopes, frequently flooded | 618C2 Senachwine silt loam, 5 to 10 percent slopes, eroded |
| 353A Toronto silt loam, Bloomington Ridged Plain, 0 to 2 percent slopes | 618F Senachwine silt loam, 18 to 35 percent slopes |
| 481A Raub silt loam, non-densic substratum, 0 to 2 percent slopes | 618G Senachwine silt loam, 35 to 60 percent slopes |
| | 871B Lenzburg gravelly loam, 1 to 5 percent slopes |

 Project Boundary



Figure 2
SSURGO Soils
Charleston Solar Project
Coles County, Illinois











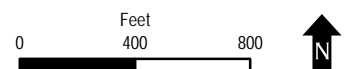
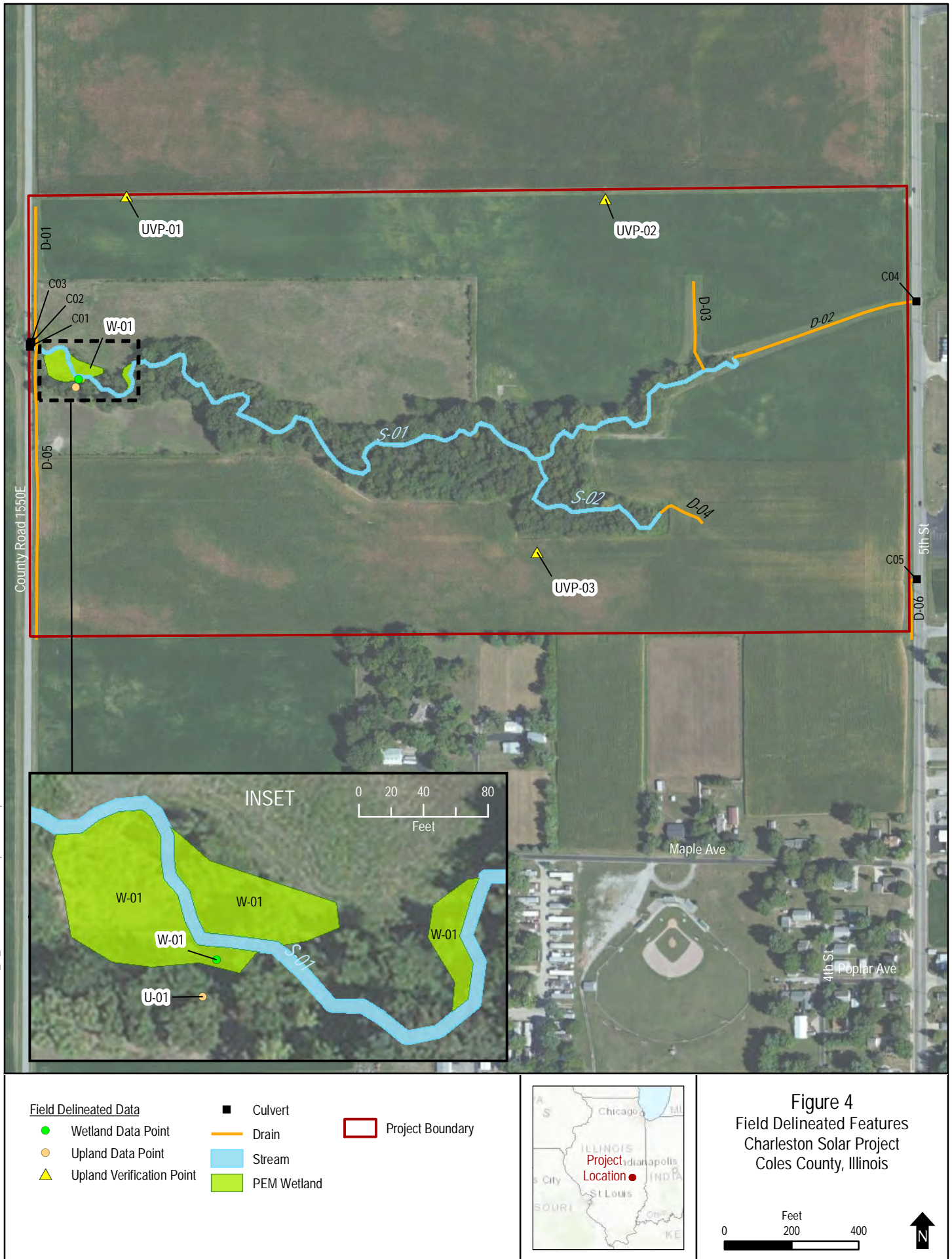
- | | |
|--|---|
|  Project Boundary | NWI Wetlands |
|  NHD Stream / River |  Freshwater Emergent Wetland |
| |  Freshwater Forested/Shrub Wetland |
| |  Freshwater Pond or Lake |
| |  Riverine |



Figure 3
NHD Waterbodies and
NWI Wetlands
Charleston Solar Project
Coles County, Illinois





Attachment 1

IPac and EcoCAT

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Coles County, Illinois



Local office

Southern Illinois Sub-Office

☎ (618) 998-5945

✉ Marion@fws.gov

MAILING ADDRESS

Southern Illinois Sub-office
8588 Route 148
Marion, IL 62959-5822

PHYSICAL ADDRESS

6987 Headquarters Road
Marion, IL 62959

<https://www.fws.gov/office/illinois-iowa-ecological-services>

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Birds

NAME	STATUS
Whooping Crane <i>Grus americana</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/758	EXPN

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Oct 15 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

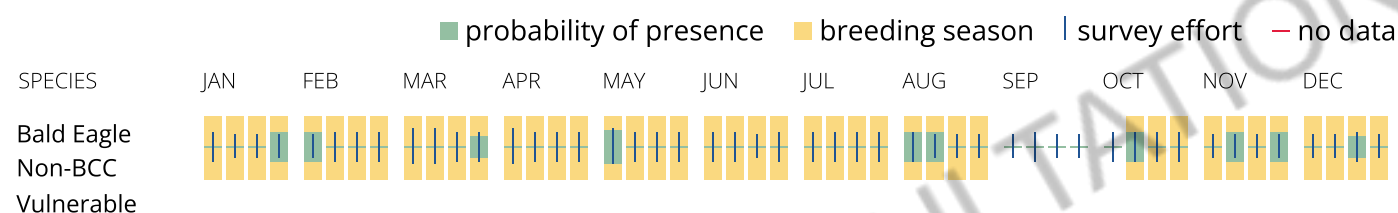
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your **project location**. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

American Golden-plover *Pluvialis dominica*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Bald Eagle *Haliaeetus leucocephalus*

Breeds Oct 15 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Black-billed Cuckoo *Coccyzus erythrophthalmus*

Breeds May 15 to Oct 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9399>

Bobolink *Dolichonyx oryzivorus*

Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cerulean Warbler *Dendroica cerulea*

Breeds Apr 21 to Jul 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/2974>

Chimney Swift *Chaetura pelagica*

Breeds Mar 15 to Aug 25

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Henslow's Sparrow *Ammodramus henslowii*

Breeds May 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3941>

Kentucky Warbler *Oporornis formosus*

Breeds Apr 20 to Aug 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs *Tringa flavipes*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9679>

Prothonotary Warbler *Protonotaria citrea*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker *Melanerpes erythrocephalus*

Breeds May 10 to Sep 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rusty Blackbird *Euphagus carolinus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Short-billed Dowitcher *Limnodromus griseus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9480>

Wood Thrush *Hylocichla mustelina*

Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

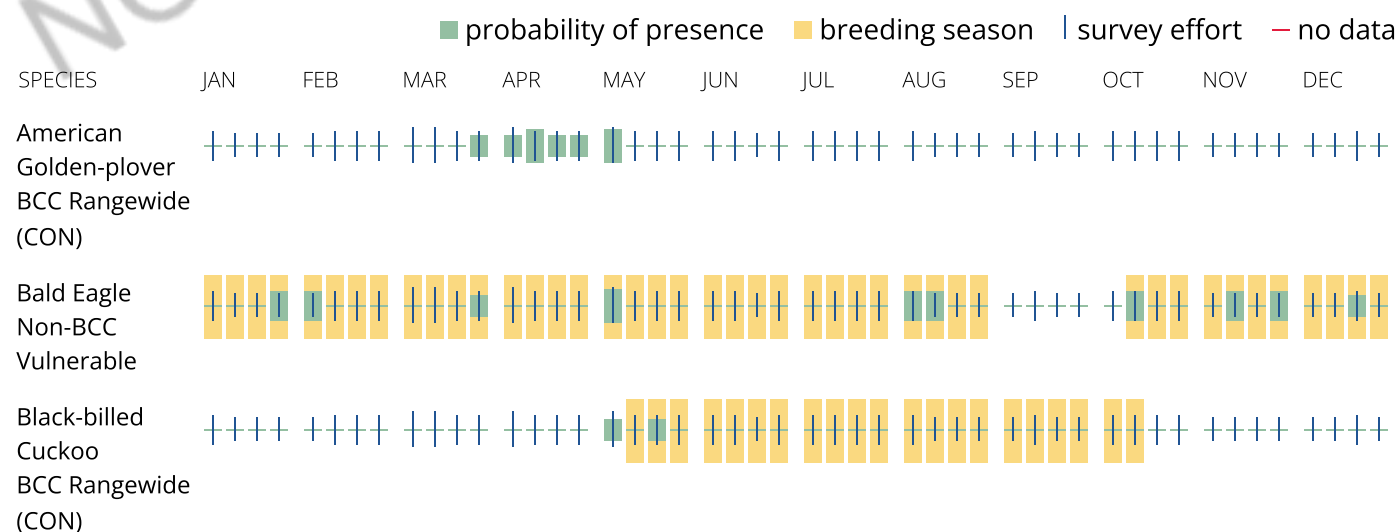
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

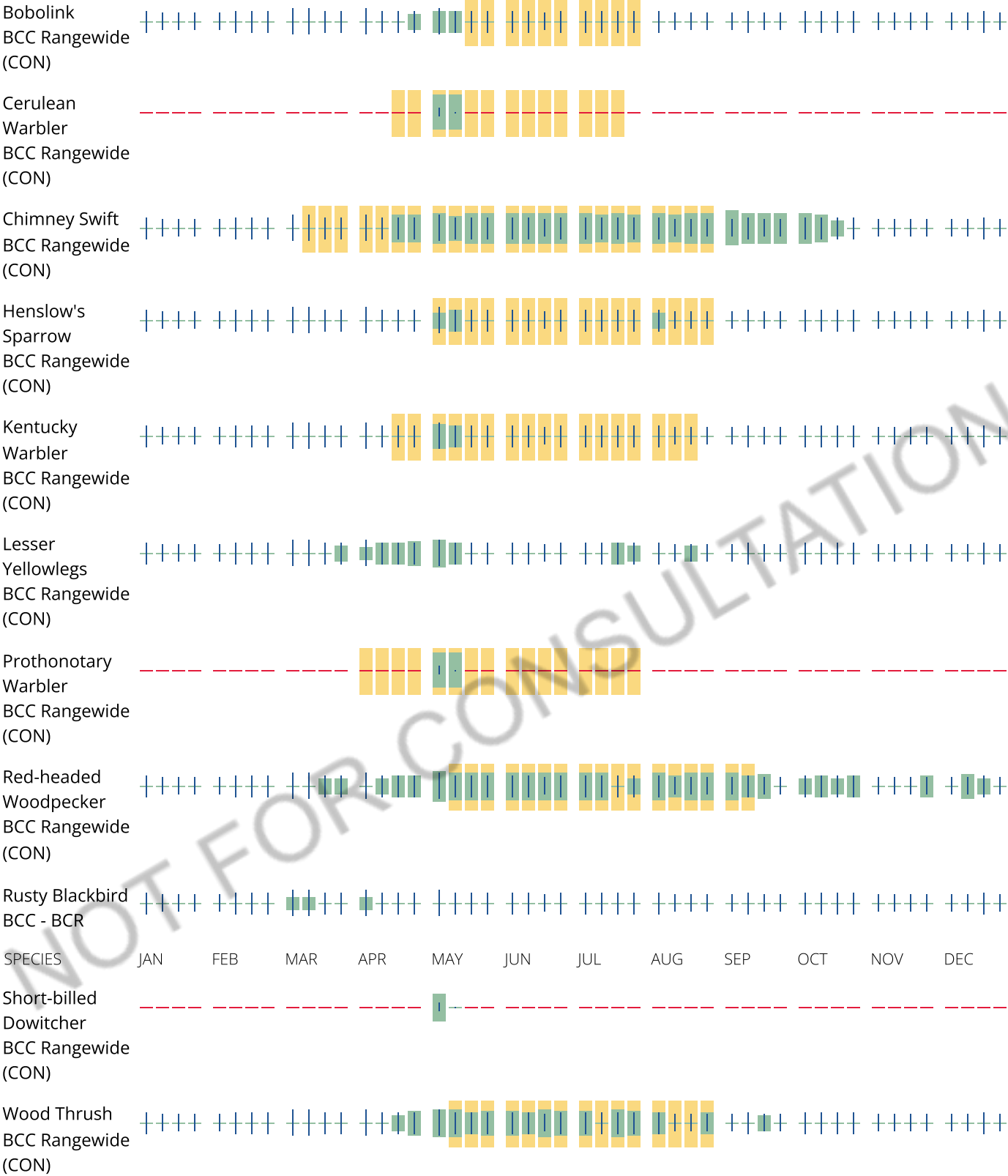
No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure.

To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in

offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Applicant: Mike Merten
Contact: Mike Merten
Address: 115 W Washington St
Suite 1270S
Indianapolis, IN 46204

IDNR Project Number: 2405341
Date: 10/02/2023

Project: Bales Solar
Address: Parel Number 02-1-00075-000, Charleston

Description: Solar array located in Cole's County, IL

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

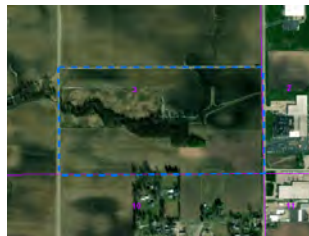
Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Coles

Township, Range, Section:

12N, 9E, 2
12N, 9E, 3
12N, 9E, 10



IL Department of Natural Resources

Contact

Bradley Hayes
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction

Coles County
Alex Winkler
520 Jackson Avenue
Charleston, Illinois 61920

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.



EcoCAT Receipt

Project Code 2405341

APPLICANT	DATE
Mike Merten Mike Merten 115 W Washington St Suite 1270S Indianapolis, IN 46204	10/2/2023

DESCRIPTION	FEE	CONVENIENCE FEE	TOTAL PAID
EcoCAT Consultation	\$ 125.00	\$ 2.81	\$ 127.81
TOTAL PAID			\$ 127.81

Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
217-785-5500
dnr.ecocat@illinois.gov

Attachment 2

Photo Log



Date: August 8, 2023
Direction: North
Feature: Wetland 01 (W-01)



Date: August 8, 2023
Direction: South
Feature: Upland 01 (U-01)



Date: August 8, 2023

Direction: East

Feature: Upland Verification Point 01 (UVP-01)



Date: August 8, 2023

Direction: North

Photo 4: Upland Verification Point 02 (UVP-02) (North)



Date: August 8, 2023

Direction: West

Feature: Upland Verification Point 03 (UVP-03)



Date August 8, 2023

Direction: North

Feature: Stream 01 (S-01) Across



Date: August 8, 2023
Direction: West
Feature: Stream 01 (S-01) Downstream



Date: August 8, 2023
Direction: East
Feature: Stream 01 (S-01) Upstream



Date: August 8, 2023
Direction: South
Feature: Stream 02 (S-02) Across



Date: August 8, 2023
Direction: West
Feature: Stream 02 (S-02) Downstream



Date: August 8, 2023
Direction: East
Feature: Stream 02 (S-02) Upstream



Date: August 8, 2023
Direction: East
Feature: Culvert 02



Date: August 8, 2023

Direction: East

Feature: Culvert 03



Date: August 8, 2023

Direction: North

Feature: Drain 01



Date: August 8, 2023
Direc on: Northeast
Feature: Drain 02



Date: August 8, 2023
Direc on: North
Feature: Drain 03



Date: August 8, 2023

Direction: Southeast

Feature: Drain 04



Date: August 8, 2023

Direction: South

Feature: Photo 19: Drain 05



Date: August 8, 2023

Direction: North

Feature: Drain 06

Attachment 3

Datasheets

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Charleston Solar City/County: Charleston/ Coles Co Sampling Date: 8-8-23
Applicant/Owner: NextEra Energy State: IL Sampling Point: W01
Investigator(s): Bryan McHenry, Brian Belrose Section, Township, Range: _____
Landform (hillside, terrace, etc.): Riparian corridor Local relief (concave, convex, none): concave
Slope (%): 1 Lat: _____ Long: _____ Datum: NAD 83
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Salix nigra</u>		<u>20</u>	<u>Yes</u>	<u>OBL</u>
2. _____				
3. _____				
4. _____				
5. _____				
		<u>20</u> =Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15</u>)			
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		_____ =Total Cover		
Herb Stratum	(Plot size: <u>5</u>)			
1. <u>Phalaris arundinacea</u>		<u>30</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Impatiens capensis</u>		<u>30</u>	<u>Yes</u>	<u>FACW</u>
3. <u>Persicaria pensylvanica</u>		<u>25</u>	<u>Yes</u>	<u>FACW</u>
4. <u>Elymus virginicus</u>		<u>15</u>	<u>No</u>	<u>FACW</u>
5. <u>Solidago canadensis</u>		<u>5</u>	<u>No</u>	<u>FACU</u>
6. <u>Fallopia convolvulus</u>		<u>5</u>	<u>No</u>	<u>FACU</u>
7. _____				
8. _____				
9. _____				
10. _____				
		<u>110</u> =Total Cover		
Woody Vine Stratum	(Plot size: _____)			
1. _____				
2. _____				
		_____ =Total Cover		

Dominance Test worksheet:

Number of Dominant Species That
Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species
Across All Strata: 4 (B)

Percent of Dominant Species That
Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>20</u>	x 1 = <u>20</u>
FACW species <u>100</u>	x 2 = <u>200</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>130</u> (A)	<u>260</u> (B)
Prevalence Index = B/A = <u>2.00</u>	

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0¹
4 - Morphological Adaptations¹ (Provide supporting
data in Remarks or on a separate sheet)
_____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must
be present, unless disturbed or problematic.

**Hydrophytic
Vegetation
Present?** Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/1	100					Loamy/Clayey	
2-16	10YR 3/1	95	7.5YR 4/6	5	C	PL	Loamy/Clayey	Prominent redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

Field Observations: Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Charleston Solar City/County: Charleston/ Coles Co Sampling Date: 8-8-23
Applicant/Owner: NextEra Energy State: IL Sampling Point: U01
Investigator(s): Bryan McHenry, Brian Belrose Section, Township, Range: _____
Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): none
Slope (%): 5 Lat: _____ Long: _____ Datum: NAD 83
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carya ovata</u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Ulmus pumila</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	<u>65</u> =Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera maackii</u>	<u>40</u>	<u>Yes</u>	<u>UPL</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	<u>40</u> =Total Cover		
Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera maackii</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>
2. <u>Bromus inermis</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Ageratina altissima</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
	<u>35</u> =Total Cover		
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
	_____ =Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>70</u>	x 4 = <u>280</u>
UPL species <u>70</u>	x 5 = <u>350</u>
Column Totals: <u>140</u> (A)	<u>630</u> (B)
Prevalence Index = B/A = <u>4.50</u>	

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0¹
____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: U01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches): _____
(includes capillary fringe)			

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Charleston Solar City/County: Charleston/ Coles Co Sampling Date: 8-8-23
Applicant/Owner: NextEra Energy State: IL Sampling Point: UVP01
Investigator(s): Bryan McHenry, Brian Belrose Section, Township, Range: _____
Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None
Slope (%): 0-1 Lat: _____ Long: _____ Datum: NAD 83
Soil Map Unit Name: _____ NWI classification: _____
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		_____	=Total Cover	
Sapling/Shrub Stratum	(Plot size: <u>15</u>)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		_____	=Total Cover	
Herb Stratum	(Plot size: <u>5</u>)			
1.	<u>Phalaris arundinacea</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Xanthium strumarium</u>	<u>10</u>	<u>No</u>	<u>FAC</u>
3.	<u>Glycine max</u>	<u>10</u>	<u>No</u>	<u>UPL</u>
4.	<u>Asclepias syriaca</u>	<u>10</u>	<u>No</u>	<u>FACU</u>
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>90</u>	=Total Cover	
Woody Vine Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		_____	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>60</u>	x 2 = <u>120</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>90</u> (A)	<u>240</u> (B)
Prevalence Index = B/A = <u>2.67</u>	

Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
3 - Prevalence Index is ≤3.0¹
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UVP01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Geomorphic Position (D2)
<input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches): _____
(includes capillary fringe)			

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Charleston Solar City/County: Charleston/ Coles Co Sampling Date: 8-8-23
Applicant/Owner: NextEra Energy State: IL Sampling Point: UVP02
Investigator(s): Bryan McHenry, Brian Belrose Section, Township, Range: _____
Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None
Slope (%): 1 Lat: _____ Long: _____ Datum: NAD 83
Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Small mark on aerial imagery so investigated to determine if wetland. Significantly disturbed due to being a planted and tilled farm field	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15</u>)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Herb Stratum	(Plot size: <u>5</u>)			
1. <u>Glycine max</u>		90	Yes	UPL
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		90 =Total Cover		
Woody Vine Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>90</u>	x 5 = <u>450</u>
Column Totals: <u>90</u> (A)	<u>450</u> (B)
Prevalence Index = B/A = <u>5.00</u>	

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0¹
____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UVP02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR 3/2	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**
 Type: _____
 Depth (inches): _____
Hydric Soil Present? Yes _____ No _____**Remarks:**

Soil disturbed due to farming activity

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No <input checked="" type="checkbox"/> _____	Depth (inches): _____
Water Table Present?	Yes _____	No <input checked="" type="checkbox"/> _____	Depth (inches): _____
Saturation Present?	Yes _____	No <input checked="" type="checkbox"/> _____	Depth (inches): _____

 (includes capillary fringe)
Wetland Hydrology Present? Yes _____ No ☒ _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Charleston Solar City/County: Charleston/ Coles Co Sampling Date: 8-8-23
Applicant/Owner: NextEra Energy State: IL Sampling Point: UVP03
Investigator(s): Bryan McHenry, Brian Belrose Section, Township, Range: _____
Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None
Slope (%): 1-2 Lat: _____ Long: _____ Datum: NAD 83
Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
Are Vegetation X, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No _____ Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: investigated due to stressed and stunted corn. Amaranthus retroflexus dominates the ground level, according to the table on page 110 in the midwest manual, retroflexus is a plant that is typically found in farmed uplands, so this was determined to not be a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Sapling/Shrub Stratum	(Plot size: <u>15</u>)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		=Total Cover		
Herb Stratum	(Plot size: <u>5</u>)			
1. <u>Zea mays</u>		30	Yes	UPL
2. <u>Amaranthus retroflexus</u>		25	Yes	FACU
3. <u>Xanthium strumarium</u>		5	No	FAC
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		60 =Total Cover		
Woody Vine Stratum	(Plot size: _____)			
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		=Total Cover		

Dominance Test worksheet:
Number of Dominant Species That
Are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species
Across All Strata: 2 (B)
Percent of Dominant Species That
Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>60</u> (A)	<u>265</u> (B)
Prevalence Index = B/A = <u>4.42</u>	

Hydrophytic Vegetation Indicators:
____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0¹
____ 4 - Morphological Adaptations¹ (Provide supporting
data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must
be present, unless disturbed or problematic.

**Hydrophytic
Vegetation
Present?** Yes _____ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UVP03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 4/3	100					Loamy/Clayey	Rock Refusal at 5

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	<input type="checkbox"/> Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (F22)
<input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**Restrictive Layer (if observed):**
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Water Table Present?	Yes _____	No <u>X</u>	Depth (inches): _____
Saturation Present?	Yes _____	No <u>X</u>	Depth (inches): _____

 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



October 25, 2023

State Historic Preservation Office
Attn: Review and Compliance
1 Old State Capitol Plaza
Springfield, IL 62701

Submitted via e-mail: SHPO.Review@Illinois.gov

Re: Request for Comments on the ITW Charleston Solar Project located near Charleston in Coles County, Illinois

To whom it may concern:

This letter is to inform the State Historic Preservation Office of a proposed solar facility, the Charleston ITW Solar Project (Project). The Project is located immediately north of the city of Charleston, on the west side of Illinois State Road 130 (also known as N CR 1600 E and N 5th St.) in Charleston Township, Coles County. The Project location is further defined as on Parcel Number 02-1-00075-000, with approximate central coordinates of 39.508123°, -88.181785°. The location of the Project is depicted in Attachments 1 and 2.

WSP USA, Inc. (WSP) is assisting DG Charleston BTM, LLC with obtaining environmental permits and approvals for construction of the Project. Our client, therefore, would like to consider the State Historic Preservation Office's (SHPO) comments for the Project. WSP is contacting you on their behalf to obtain your comments on the potential impacts/effects that the Project may have on cultural resources and/or historic properties within and in the vicinity of the Project location.

The Project consists of a 5,000-kilowatt (kW) alternating current (AC) solar photovoltaic (PV) facility designed to encompass approximately 28.2 acres of the 80-acre leased property (Attachment 3). The Project location is within an area presently purposed for the cultivation of row-crops such as corn, wheat, and soybeans. The Project proposes the installation of solar panels and inverters, a pad-mounted transformer, an interconnection line, perimeter security fencing, and an access road.

The PV panels will be secured on a tracking system supported by steel piers driven or screwed into the ground by a pile-driving machine to a depth of approximately 6 to 8 feet unless soil conditions require deeper posts or the use of a ballasted system. As the Project site is relatively flat, minimal earthwork is anticipated. Where required, earthwork may include site grading as necessary to create finished grade slopes suitable for racking installation and stormwater management improvements. No buildings nor structures are presently located within the Project area.

The Project will require an Illinois National Pollutant Discharge Elimination System (NPDES) permit and the development of a Stormwater Pollution Prevention Plan (SWPPP). The Project will also require a special use permit from Coles County. A wetlands and waterbodies delineation has been conducted, and regulated waterbodies are not anticipated to be impacted by the Project; therefore, Clean Water Act Section 404 and/or 401 permitting will not be required from the United States Army Corps of Engineers and Illinois Environmental Protection Agency.

WSP has conducted a preliminary review of publicly available information on resource potential and previously recorded resources and surveys within the National Park Service National Register of Historic Places map (last updated September, 2020), the Historic and Architectural Resources Geographic

WSP USA
30 NORTH LASALLE
SUITE 4200
CHICAGO, IL 60602

wsp.com

October 25, 2023

Page 2

Information System (HARGIS), and the Illinois Archaeological Predictive Model (IAPM). Per review of IAPM, the Project location appears to be within an area of low probability for encountering an archeological site.

If you have any questions regarding this correspondence, please feel free to contact me at (812) 604-7208 or at michael.merten@wsp.com.

We thank you in advance for your consideration of the Project.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Merten', with a long horizontal flourish extending to the right.

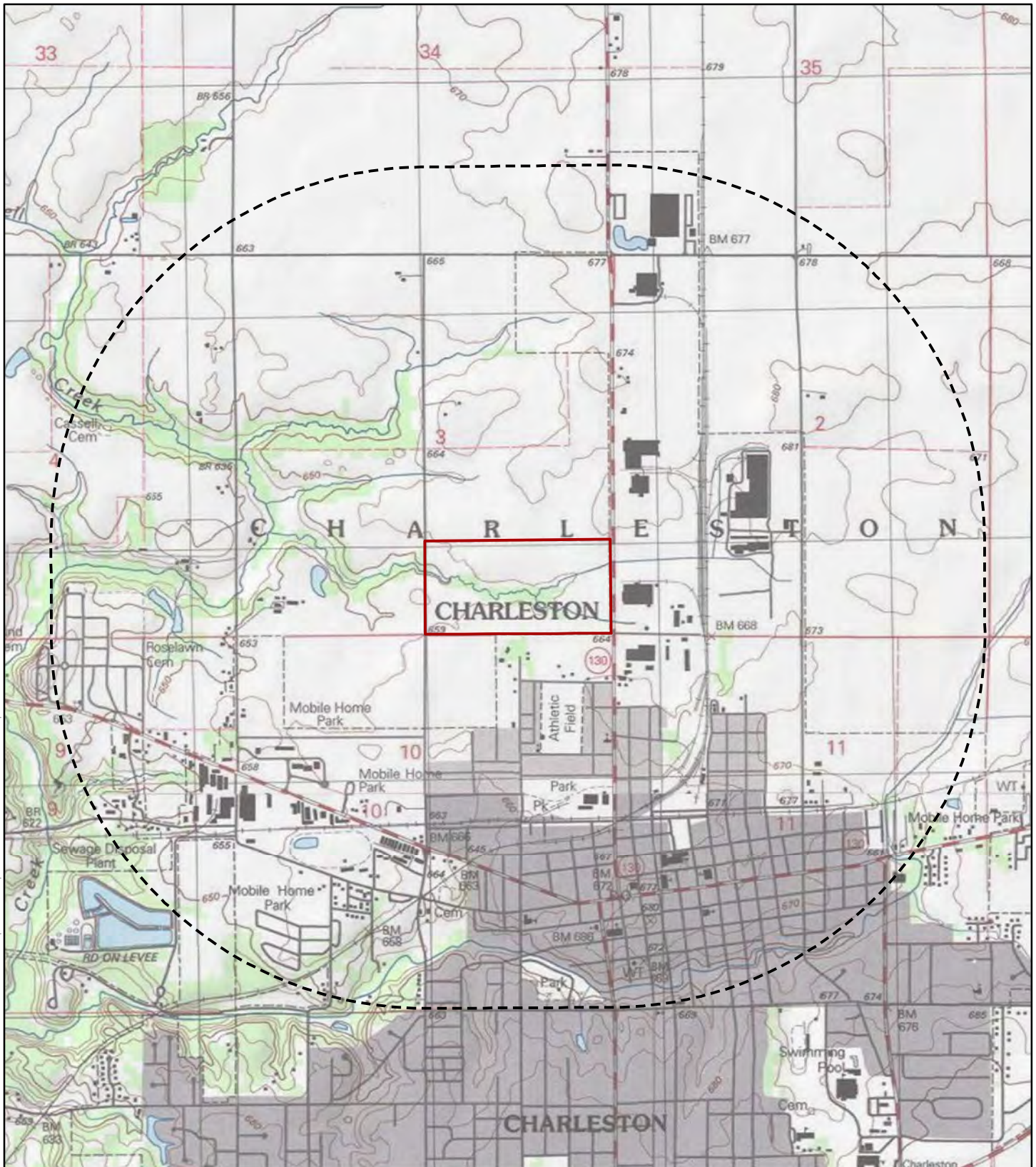
Michael Merten
Project Manager
WSP USA, Inc.



Attachments – 1. USGS 7.5 Minute Topo Map, Charleston ITW Solar Project
2. Aerial Map, Charleston ITW Solar Project
3. Site Plan & General Notes

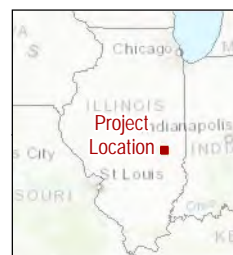
© 2023 WSP USA Inc.

Attachments

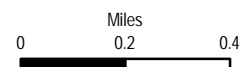
L:\PROJECTS\NextEra_IL_Solar\Charleston\maps\WDX\Report\SHPO\Charleston - USGS Topo.mxd 10/25/2023



-  Project Parcel
-  1 Mile From Project Parcel



USGS Topographic Map
7.5 minute series
Charleston ITW Solar Project
Coles County, Illinois

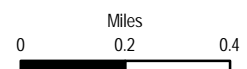




-  Project Parcel
-  1 Mile From Project Parcel



Aerial Imagery
Charleston ITW Solar Project
Coles County, Illinois





10/23/2023

Jerry & Bonita Bales
1418 1307th Street
Lincoln, IL 62656

RE: Zoning Reclassification

Hello Mr. and Mrs. Bales,

DG Charleston BTM, LLC ("Applicant") is formally requesting a parcel re-zone for your property identified as PIN: 02-1-00075-000 in the City of Charleston, Coles County, IL.

As mentioned in the Applicant's permitting application, *"The parcel is primarily zoned M-U and secondly, I-1. Both zones do not qualify for solar development, so we're requesting the parcel to be rezoned to AG. The rezoning to AG makes sense, as the parcel is currently being used for AG purposes and is being taxed for agricultural purposes by the existing landowner...."*

To comply with the City of Charleston zoning regulations, we must receive your signature and an attestation from you below.

Written Attestation: "I approve of the Applicant's change from mixed use M-U (primary) and I-1 (secondary) to AG - Agriculture"

Attested: *I approve of The Applicant's change from mixed use M-U (primary) and I-1 (secondary) to AG - Agriculture.*

Signed:

Jerry L Bales: *Jerry L Bales*

Bonita H Bales: *Bonita H. Bales*

