LIVINGSTON COUNTY REGIONAL PLANNING COMMISSION
LIVINGSTON COUNTY HISTORIC COURTHOUSE,
112 W. Madison St., Pontiac, Illinois 61764

APPLICANT FILING PROCEDURES FOR SPECIAL USES

1. Complete the original application and any required attachments. Attachments are considered a part of the application.

2. File the application in the office of the Livingston County Regional Planning Commission, accompanied with the required fee. The Commission shall assign a case number to the application.

3. All fees shall be payable to the General Fund of Livingston County. (The required fee is $175.00).

4. The Livingston County Regional Planning Commission will transmit one copy of the application with the assigned case number noted on same to the Livingston County Soil and Water Conservation, Route 1, Box 199, Pontiac, IL 61764.

5. The Livingston County Soil & Water Conservation District shall forward the NOTICE OF TRANSMITTAL, as provided, to the Zoning Administrator, Livingston County Historic Courthouse, 112 W. Madison St., Pontiac, IL 61764.

6. The Livingston County Regional Planning Commission shall advertise the notice of public hearing for each case to be held before the Board of Appeals.

7. The Livingston County Regional Planning Commission shall serve notice to the applicant and owners or occupants of property abutting the affected area not less than five (5) days prior to the hearing advising the location and nature of the subject matter contained in the application and the date, time and place of the hearing.

8. The applicant shall be billed by the Livingston County Regional Planning Commission for the cost of the required notice of public hearing. No final action shall be taken on any case until the cost of advertising the required notice of public hearing has been paid.

You may refer to the sheet that is part of the application package that refers to the example of fees that provides you with more information on the potential costs of proceeding with this property development.

----------DETACH HERE----------

NOTICE OF TRANSMITTAL

Forward to:

Zoning Administrator
Livingston County Historic Courthouse
112 W. Madison St.
Pontiac, Illinois 61764

A copy of the application and attachments for a (zoning map amendment, special use) Case No. was transmitted to the Livingston County Soil and Water Conservation District on _____.

_____
Signature of Receiver

LIVINGSTON COUNTY REGIONAL PLANNING COMMISSION
LIVINGSTON COUNTY HISTORIC COURTHOUSE, 112 W. MADISON ST., PONTIAC, IL 61764

APPLICATION FOR SPECIAL USE – LIVINGSTON COUNTY ZONING ORDINANCE

Applicant

Name: USS CEK2 Solar LLC
Address: 875 N. Michigan Ave., Fl 31
Chicago, IL 60610

Phone: (874) 400-7156

Property Owner(s)

Name: Carol and Stephen Kurtenbach
Address: 416 E Hickory St.
Chatsworth, IL 60921

Phone: 815-674-3007

(attach list if necessary)

For Office Use Only

Filed Date Case No. SU-
Fee $ 175.00
Receipt No.
Publication Cost
Receipt No.
Hearing Date
Decision Date File Date
Approved Denied

For Office Use Only

Legal description of property: The South Half of the Southeast Quarter of Section 21, Township 27 North, Range 6 East of the Third Principal Meridian, in Livingston County, Illinois.

Street address: N 2100 E RD, FAIRBURY, IL 61739

Property interest of applicant: Proposing to develop, construct, and operate a community solar garden

Present Use: Agriculture Zoning District: _____

A special use is requested to allow the property described above to be used as: Develop, construct, and operate a community solar garden

[Yes] No A previous special use has not been requested with respect to the described property.

Yes [No] A previous special use was requested with respect to the described property. Such previous special use request was made on _____ (Date), _____ (Year) and _____ (Granted or Denied)

Attachment No. 1 – Submit a map drawn to scale (as required by the Zoning Administrator) of the area included in the application and the abutting area within 200 feet (additional area may be required by the Zoning Administrator) showing the zoning classification; dimensions and use of all buildings and/or structures (existing and proposed); driveways; parking areas; right-of-way lines for streets and roads; easements; provision for surface drainage; proposals for sewage disposal systems; distance of building(s) and/or structure(s) from front, side and rear property lines; and distance of building(s) and/or structure(s) from center of public access road(s).

Additional Attachments – Submit additional attachments as required by the Zoning Administrator.

I (we) certify that all of the information presented above is true to the best of my (our) knowledge and belief.

August 24, 2023

Applicant(s) Signature Date

Additional Attachment

STATEMENT OF APPLICANT – OWNER STATUS

APPLICANT USS CEK2 Solar LLC

OWNERS - Carol and Stephen Kurtenbach

Individual (s)

Alter ego or representative of individual (s)
(List the name (s) and address (es) of the actual and true principal)

Corporation
(List the names and addresses of all officers and directors and identify by title; also list the names and addresses of all stockholders and shareholders owning an interest in excess of 20% of all outstanding stock)

Business or entity doing business under an assumed name
(List the names and addresses of all true and actual owners)

Partnership
(List the names and addresses of all partners)

Joint Venture
(List the names and addresses of all joint venturers)

Syndicate
(List the names and addresses of all syndicate members)

Unincorporated Voluntary Association
(List the names and addresses of all members)

LIST OF NAMES AND ADDRESSES REQUIRED ABOVE

Form 14

APPLICATION EXPLANATION

Project Name: USS CEK2 Solar LLC

Requested Zoning: Agriculture

Explanation and description of request or project:

USS CEK2 Solar LLC is requesting a Special Use Permit (SUP) to develop, construct and operate a community solar garden located in Livingston County, Illinois on parcel 22-22-21-400-002.

USS CEK2 SOLAR LLC

SPECIAL USE PERMIT APPLICATION

AUGUST 18, 2023

COVER LETTER

August 18, 2023
Livingston County Planning Advisory Commission
112 W. Madison Street
Pontiac, IL 61764

RE: Application by USS CEK2 Solar LLC for a Special Use Permit to Construct and Operate a Community Solar Garden

Dear Livingston County Planning Advisory Commission,

Attached, please find an application for a Special Use Permit ("SUP") to construct and operate a community solar garden within Livingston County. Pursuant to the Livingston County Ordinance Article VIII-B, the request is being made by USS CEK2 Solar LLC, a subsidiary of United States Solar Corporation ("US Solar"). US Solar, a developer/owner/operator based in the Midwest, seeks to make the benefits of solar more accessible. We coordinate all Project details— site acquisition, development, interconnection, permitting, finance, construction, operations, and maintenance.

USS CEK2 Solar LLC plans to develop and construct a 4.995-megawatt (MWac) community solar garden (the "Solar Garden") in Livingston County on approximately 32.21 acres of parcel 22-22-21-400-002, at approximately N 2100 E Road, Fairbury, IL 61739 (the "Property"), through Livingston County County's SUP process. Our application includes information about the site and provides detailed analysis of the applicable land use permitting considerations. You will also find information about the residents, schools, cities, and businesses who subscribe to these Solar Gardens and the local benefits to the economy and environment.

The US Solar team appreciates the coordination and insights already provided by the Livingston County staff and neighboring residents. Together, we will ensure that this Solar Garden will operate safely and efficiently over its lifespan, while providing environmental, financial, and social benefits to the surrounding area.

Please contact us with any questions, comments, or points for clarification. We look forward to working with the Commission on this Solar Garden.

Sincerely,

Ryan Magnoni – Project Developer

USS CEK2 Solar LLC
100 N 6th St., Suite 410B
Minneapolis, MN 55403
W: (847) 400.7156
E: ryan.magnoni@us-solar.com

CONTENTS

SOLAR GARDEN SUMMARY

USS CEK2 Solar LLC respectfully submits this SUP application to construct, own, and operate a community solar garden (the “Solar Garden”).

Parcel Identification Number	22-22-21-400-002
Site Address	N. 2100 E Rd, Fairbury, IL 61739
Project Capacity	4.995 Mwac
Project Acreage	32.21
Site Control Status	Memorandum recorded, see Appendix II
Landowner	Carol E. Kurtenbach & Stephen P. Kurtenbach
County	Livingston
Proposed County Date	8/21/2023
Current Use of Property	Agriculture

SELECTING THIS PROPERTY

The Property was selected because of its solar resources, physical characteristics, proximity to sufficient distribution facilities, ability to meet all local permitting requirements, and of course, landowner support.

- Solar Resource
  - Relatively large, flat, and open to provide unobstructed access to natural sunlight
- Physical Characteristics
  - Limited grading, if any, maintaining natural topsoil and existing drainage patterns
  - Not in Agricultural Preserve
  - No impact to wetlands or neighboring properties
  - Adequate space for setbacks or landscape screening
  - Soils capable of supporting facility and equipment
  - No water improvements needed
  - Limited infrastructure improvements needed
- Proximity to Sufficient Distribution Facilities
  - Existing distribution line on E. 1200 N. Rd.
  - Adequate capacity for the Solar Garden on existing distribution line and other infrastructure
  - Supplies electricity throughout the local community
  - Existing substation in relatively close proximity with adequate available capacity for the Solar Garden, according to Capacity Screens provided by Commonwealth Edison
- Ability to meet all local permitting requirements
- Landowner support

LOCAL IMPACT

ENVIRONMENTAL

The area underneath the modules and between rows will be transformed into a diverse mix of pollinator-friendly, low-lying, deep-rooted plants. This enhances soil, water, and air quality. A study has shown that these seed mixes reduce stormwater runoff by 23 percent for the 2-year storm event (3.1 inches of rain) and 8 percent for the 100-year storm event (7.4 inches of rain). These native plantings also expand habitat for pollinators and other species that increase crop yields and improve the local environment.

Beyond the local environment, there is also a measurable impact to the global environment by producing clean energy. The Solar Garden would provide decades of pollution-free and greenhouse-gas-free electrical generation.

ECONOMIC

US Solar is a leading provider of community solar solutions to residents, businesses, and public entities across the nation, in states such as Illinois, Minnesota, Colorado, Connecticut, Delaware, Maine, New Mexico, New York, etc. We are proud to work with over 100 commercial customers and ~3,000 residential customers across the United States. Our subscribers get the opportunity to save money on their monthly electric bill through Commonwealth Edison's community solar program. Commonwealth Edison customers in Livingston County may subscribe to a portion of the electricity generated and receive bill credits on their Commonwealth Edison bills. In this way, local residents and businesses receive a direct economic benefit from the Solar Garden.

In addition to the subscriptions, here are some local economic impacts:

Already Spent

- ~$500 on travel, meals, legal fees, and county recordings
- ~$15,000 on engineering, legal, and environmental consulting services

During Construction

- ~$10,000,000 on capital infrastructure investment
- ~$5,000 on local spending
- 30+ temporary construction and related service jobs, equivalent to ~10 full-time job years

During Operation

- ~$32,000 - $40,000 on increased property tax payments during operation

ELECTRICAL

The Solar Garden will generate enough clean electricity to power approximately 1,125 homes annually. Because the Solar Garden will interconnect to the existing distribution system of Commonwealth Edison, the clean energy will be used by nearby electric customers. This Solar Garden will also contribute to energy independence, decreasing our reliance on importing energy. USS CEK2 Solar LLC is contracted to deliver electricity for a minimum period of 20 years, commencing on the date of commercial operation, which is expected to occur by Q4 2025.

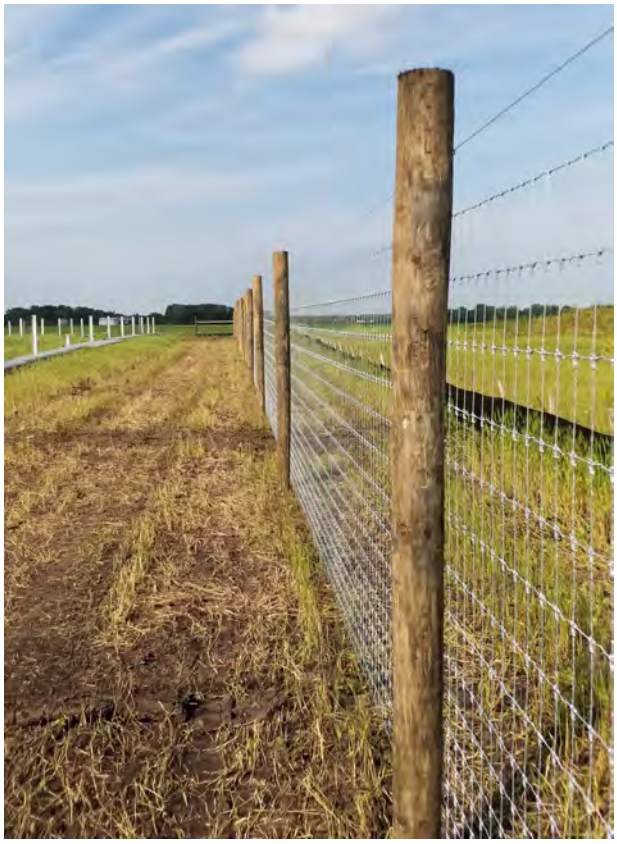
VISUAL IMPACT

OVERVIEW

The surrounding land use is majority agricultural, with some farmsteads within a mile of the Solar Garden. Currently, the relevant area of the parcel is 100% row crop agriculture. The Solar Garden is composed of single-axis trackers, which means the panels rotate from east to west as the sun rises and sets. The panels are about 6'-8' tall, depending on the tilt angle which varies throughout the day. Each row of solar panels is approximately 20' apart, and the entire Solar Garden area is planted in a mix of native grasses and pollinator-friendly habitat. There are no permanent structures or buildings.

FENCE

Our Solar Garden will include a security fence around the entire perimeter, as required by the National Electric Code. The security fencing will be located entirely on the Property. The fence will be no less than 6 feet and will not exceed 8 feet in height. It will be a farm-field style fence, see the image below for a representative photo taken of a Solar Garden under construction.



VEGETATIVE SEEDING PLAN & LIVING BUFFER

As mentioned in the LOCAL IMPACT section, the area underneath the modules and between rows will be transformed into a diverse mix of pollinator-friendly, low-lying, deep-rooted plants. USS CEK2 Solar LLC will control noxious weeds throughout the life of the Solar Garden. FEMA Flood maps, NWI Maps and any other necessary materials are included in Appendix I. The EcoCat consultation is included in Appendix III. The Results from the US Fish and Wildlife Service is included in Appendix VI. The Illinois State Historic Preservation submittal is included in Appendix VII. All these items, as well as from feedback by the county and community show how USS Man Solar LLC has worked on creating a development to best avoid protected areas.

Per the Livingston County Ordinance, USS CEK2 Solar LLC is agreeing that the commercial solar energy facility will obtain and maintain the designation of being a Pollinator Friendly Solar Site.

- Pollinator-friendly habitat must be designed, installed, and maintained under and around the solar panels in all areas within the perimeter fencing.
- Pollinator-friendly habitat will be installed as a buffer outside of the perimeter fencing of the commercial solar energy facility. Buffer width will be a minimum of 36' measured from the perimeter fencing.
- Pollinator-friendly habitat will be installed on properly prepared soils, and Facility Owners will employ Integrated Vegetation Management and/or Conservation Grazing best practices to maintain and maximize operational savings.
- Pollinator friendly habitat will be developed, implemented, and maintained in accordance with IDNR's Solar Site Pollinator Scorecard Guidelines and will consist of only native grasses, forbs, and legume species. Native seed mixes must be approved by the Livingston County Soil and Water office prior to implementation.
- The Facility Owner must complete the Illinois Planned Habitat on Solar Sites Scorecard with a minimum score of 85 to achieve preliminary recognition as a "Pollinator Friendly Solar Site". This preliminary recognition is good for 3 years and must be recertified at least once every 5 years thereafter. The county shall be provided documentation within the time periods set forth herein showing compliance.
- Noxious weeds will be controlled in accordance with all state and local laws, regulations and ordinances.

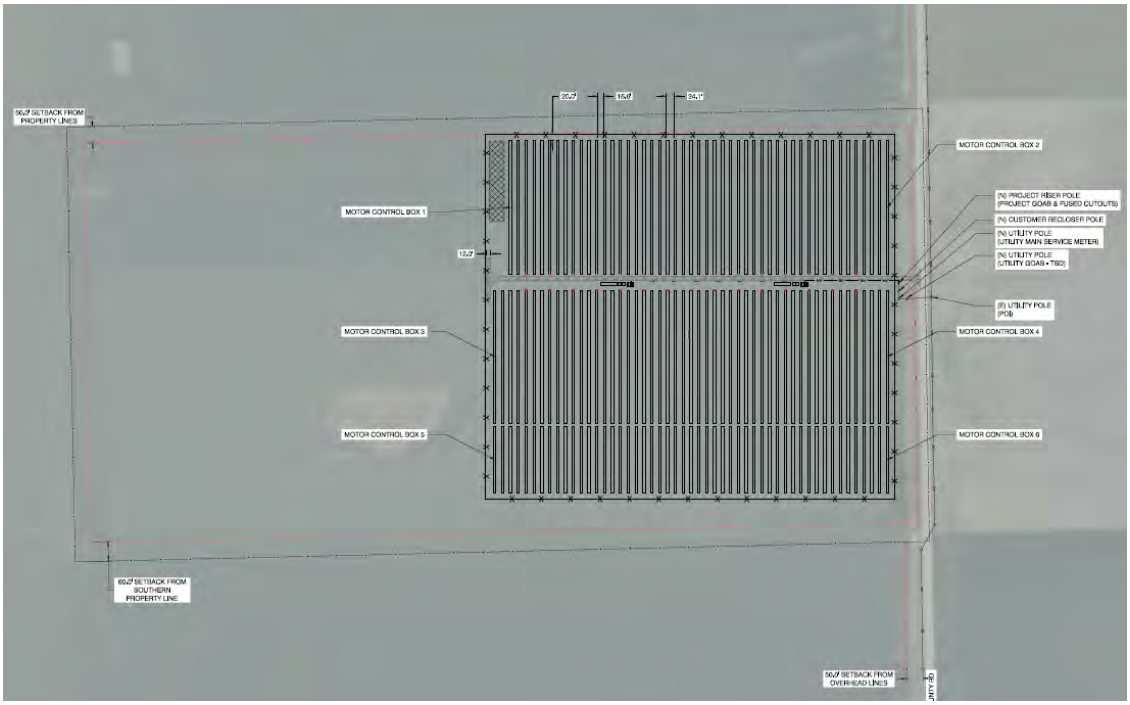
The landowner is not aware of any existing drain tiles being located on the property. Further exploration will be completed prior to construction.

Due to the rural nature of USS CEK2 Solar LLC, and the distance and visibility to any residential structures, we are not proposing any living buffer. In conjunction with the Special Use Permit, USS CEK2 Solar will be submitting for a Variance Request to the living buffer requirement as outlined in Sec. 56-646. Design standards for Commercial Solar Energy Facilities. Due to the rural nature and more than 3,650 feet from the nearest residential structure, we believe that an additional living buffer around the solar garden is not warranted. An additional living buffer would further remove productive tillable land from the area. Carol and Steve Kurtenbach (landowners) also are concerned about having to remove all the trees and roots once the project is decommissioned. For dozens of years this cropland has been sprayed for weeds and trees to not grow. If we now plant trees there is a good change, a handful of them will not survive, even with a good maintenance plan. Ultimately, an additional living buffer will put further financial burden on USS CEK2 Solar LLC to procure financing to construct this renewable energy project.

SITE PLAN

Enclosed in Appendix I you will find our proposed site plan. Located below and in more detail in Appendix I, you can see that we have not only met county setback requirements but exceeded them. The residential setback requirement for Livingston County is 150 feet from a nonparticipating resident. The setback of this project is more than 3,650 feet from the nearest residential structure to the closest edge of our fence.

USS CEK2 Solar LLC sent out letters to those nearby residences, and had no concerns, ensuring that the location of the Solar Garden is optimal for all parties. The Livingston County staff have been very helpful in assisting us to ensure we present the least impactful project possible, while trying to deliver a renewable source of energy, a native habitat, and increase the tax base to the community. The site plan, along with the narrative and other associated figures in Appendices, addresses all requirements listed in the Livingston County Ordinance.



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SOLAR ON AGRICULTURAL LAND

Harvesting solar to generate energy is widely viewed as an agricultural business opportunity for farmers across the United States, including those in Illinois. This is evidenced by many agricultural groups that have gone on record to support the expansion of community solar.

There are three primary reasons why community solar gardens contribute to the preservation and improvement of agricultural land:

1. The Solar Garden area is converted to native grasses and pollinator-friendly habitat. As mentioned in the *LOCAL IMPACT* section, this makes a tremendous impact on the local environment, including but not limited to soil quality, water quality, and crop yields.

2. Decommissioning of community solar gardens is simple and does not disrupt the land. We remove the solar panels, racking, concrete inverter pads, and any other equipment and restore the land. Because we use piles as foundation, system removal involves almost no disruption to the land. After the Solar Garden's life, what is left is an undisturbed field of native grasses atop immaculate soils. This is one of the only ways for a landowner to increase and diversify income while preserving and protecting farmland for future generations, when crop prices and agricultural practices may be more viable than they are today.

3. Landowners can convert a small portion of farmland to a community solar garden, which provides them with guaranteed, increased, and diversified income. This financial stability allows landowners to keep their remaining land for farming and in the family. This sort of financial stability is traditionally only offered by residential, commercial, or industrial development. Of these options, the community solar garden will be the best steward of the soils and natural resources of the agricultural land.

CONSTRUCTION

OVERVIEW

The construction of a Solar Garden is simpler than many people realize. Galvanized steel I-beams are driven into the ground to the appropriate depth to ensure long-term stability, according to detailed structural and geotechnical analysis. Racking sits on top of the steel I-beams. Solar panels clip into the racks. Inverters are set up in between sections of solar panels. Electrical line is buried 4' deep in an electrical conduit. There are no concrete footings and no permanent structures or buildings, which makes the eventual decommissioning process easy at the end of the Solar Garden life. We use Tier 1 solar panels to achieve high efficiency and conform to high quality control and safety standards.

The bulk of the construction will occur in approximately 7 weeks, followed by testing, inspections, and commissioning work. The most noticeable phase of the construction is the pile driving, which is often completed in 2 days or less. In total, the construction period is expected to last about 4 months. The hours of construction will be 7:00am to 7:00pm Monday-Saturday. No work will be done on Sundays and nationally observed holidays.

PARKING

During our construction phase, a temporary parking area, adjacent to the Project, will be used for installation crews, delivery trucks (as needed), and construction and supervision personnel.

VEHICLES/CONSTRUCTION TRIPS

Trucks for maintenance activities will be standard, with minimal tooling and parts for activities as described above.

- Most deliveries will be in the first month and most electrical testing will be in the later stages of construction.
- Modules will come on 40-foot flatbed trucks or in 40-foot containers.
- We expect no more than 30 deliveries for all solar modules.
- We expect no more than 20 container trucks to deliver racking material.

- We expect no more than 5 deliveries of inverters, switchgears, transformers, and battery storage components.
- We expect 4 trips for Balance of Plant equipment in containers that are 40 feet or smaller.
- Note: We expect no more than 4 deliveries per day.

STRUCTURES

All monitoring is done remotely. No permanent structures will be built onsite.

STORAGE DURING OPERATION

As referenced above, there will be no equipment or materials storage onsite.

SIGNAGE

There will be no external signage of the facility. To provide safety and support good practices, labeling of electrical equipment requires internal signage. All signage will be in compliance with local and state regulations.

WATER, SEWAGE, AND WASTE

No water, sewage, or waste management services are required onsite. Portable waste facilities will be provided during the construction period. Delivery routes will be designed to pose the smallest traffic impact in the local community. We will coordinate with local authorities as to preferred times and routes prior to construction mobilization. Construction employees will park within the Project premises. There will be no permanent storage on-site. Employees will be provided with mobile waste management options sourced from the local area. USS CEK2 Solar LLC takes responsibility for maintenance or replacement or new installation of any drain tile servicing this site, if USS CEK2 Solar LLC and landowner determine it necessary.

SITE ACCESS

An unpaved access road will be built from the public road to the Project. This provides necessary access for construction, regular mowing and maintenance activities, and decommissioning of the Project, while minimizing impact to adjacent land uses. The road also provides access in the unlikely event that emergency crews are needed onsite. We utilize the following simple process for construction of the access road:

(1) Remove topsoil from a 12-foot wide area and spread it thinly in adjacent areas,
(2) Lay down geotextile fabric over compacted subgrades, if necessary, to prevent vegetative growth, and
(3) Install and compact approximately 8-10” of aggregate material/gravel to level with surrounding grade.

This Project will be accessed from a 12-foot-wide access road directly off N. 2100 E. Rd via the new field access. USS CEK2 Solar LLC will work with the road authority (Avoca Township), for approval. See the Site Plan in Appendix I for a depiction of the access road.

OPERATIONS AND MAINTENANCE

As a long-term owner and operator, US Solar’s operations team analyzes Solar Garden performance remotely 24/7 through our data acquisition system. This real-time monitoring aids in detecting

and diagnosing any production anomalies, identifying, and addressing underperformance issues, managing service teams and technicians, and contacting landowners and the utility if necessary.

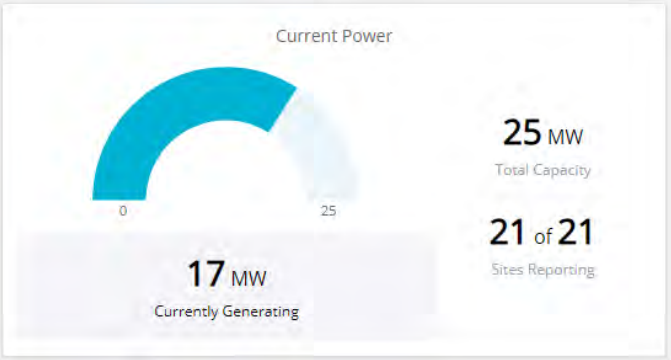


Figure: Snapshot of instantaneous generation for an operating portfolio

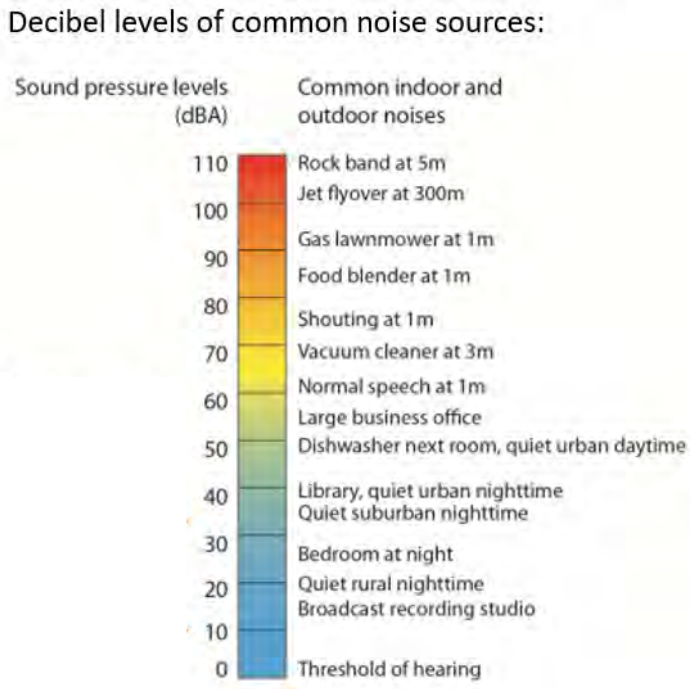
Approximately 4-6 times per year, authorized and insured technicians will be sent out to perform routine maintenance on the site, in addition to any unplanned maintenance. During the first few years, maintenance personnel will visit the site a few extra times per year to ensure the health of vegetation and landscaping.

Maintenance and Operations questions can be directed to the USS CEK2 Solar LLC Operations Team at 612-260-2230. A Knox Box and keys will be provided at the locked gate for emergency personnel access only. The Operations Team will be able to address any issues related to drainage, weed control, screening, general maintenance, and operation. Emergency contact details to be provided prior to construction.

In addition, Commonwealth Edison personnel will have an easement and will perform any maintenance activities of their interconnection facilities, if needed.

NOISE

The noise levels of all equipment to be installed for USS CEK2 Solar LLC will comply with all state and local sound limitations set by the Illinois Pollution Control Board under 35 Ill. Adm. Code Parts 900, 901, and 910. For our standard Solis 185kW invertor, the decibels at 3 feet are measured at ≤65. For our standard Maddox Transformer, the decibels at 3 feet are measured at ≤62. Well below the sound level limitations of Parts 900, 901, and 910. The closest inverter or transformer is nearly 4,000 from any residential lot.



PARKING

After construction is completed, there will be approximately two parking spots within the boundaries of the perimeter fence. Our vehicles will park there to avoid disrupting traffic or adjacent land use.

OTHER

There will be:

- No daily traffic
- No equipment or materials storage onsite
- No marketing/advertising signage
- No water/sewer/trash utilities required onsite

GRADING AND STORMWATER POLLUTION PREVENTION

GRADING

Grading and filling will be limited to the extent practical. Our solar racking can accommodate the current terrain, a primary reason we selected this location. This will maintain the original grading on the site and sustain the existing drainage and runoff patterns, minimizing impact to surrounding lands.

STORMWATER AND POLLUTION PREVENTION PLAN (SWPPP)

The SWPPP will include the following:

- Storm water mitigation and management resources
- Wetland impacts (if any)
- Temporary erosion prevention measures
- Temporary sediment control measures
- Permanent erosion and sediment control measures, if needed
- Best management practices (BMPs) regarding erosion control
- Inspection and maintenance
- Pollution prevention measures
- Final stabilization plan for long-term soil stability

EROSION AND SEDIMENT CONTROL PLAN

USS CEK2 Solar LLC will comply with the requirements outlined above, including obtaining a stormwater permit prior to construction. Our racking equipment is very accommodating of various terrain types and topography. Please refer to Appendix I for the erosion and sediment control site plan.

NO HAZARDOUS MATERIALS INVOLVED

We exclusively use Tier 1 solar panels. The materials that comprise Tier 1 solar panels are the same materials that comprise a cell phone: glass, silicon, silver, aluminum. All the materials used in the Solar Garden are stable and fully contained. There is no pollution of the air, groundwater, or surface area of the site on which they sit.

DECOMMISSIONING

The Solar Garden consists of many recyclable materials, including glass, semiconductor material, steel, aluminum, copper, and plastics. When the Solar Garden reaches the end of its operational life, the component parts will be dismantled and recycled as described below. We have a lease contract with the property owner, which requires us to decommission and restore the site at our expense. The decommissioning plan would commence at the end of the lease term or in the event of twelve (12) months of non-operation. At the time of decommissioning, the Solar Garden components will be dismantled and removed using minimal impact construction equipment, and materials will be safely recycled or disposed. USS CEK2 Solar LLC will be responsible for all the decommissioning costs. Furthermore, an Agricultural Impact Mitigation Agreement ("AIMA") will be entered into by and between USS CEK2 Solar LLC and the Illinois Department of Agriculture pursuant to Illinois law prior to the commencement of construction of the facility. The AIMA addresses standards for decommissioning of solar facilities that all commercial solar energy systems in the State of Illinois must abide by.

REMOVAL PROCESS

The decommissioning of the Solar Garden proceeds in the following reverse order of the installation:

1. The solar system will be disconnected from the utility power grid
2. PV modules will be disconnected and removed
3. Electrical cables will be removed and recycled off-site
4. PV module racking will be removed and recycled off-site
5. PV module support posts will be removed and recycled off-site
6. Electrical devices, including transformers and inverters, will be removed and recycled off-site
7. Concrete pads will be removed and recycled off-site
8. Fencing will be removed and recycled off-site
9. Reclaim soils in the access driveway and equipment pad areas by removing imported aggregate material and concrete foundations; replace with soils as needed

The Solar Garden site may be converted to other uses in accordance with applicable land use regulations at the time of decommissioning. There are no permanent changes to the site, and it will be returned in terrific condition. This is one of the many great things about community solar gardens. If desired, the site can return to productive farmland after the system is removed.

DECOMMISSIONING CONSIDERATIONS

We ask that Livingston County take note of 2 important considerations: 1) a community solar garden is not a public nuisance and 2) the resale and recycle value are expected to exceed the cost of decommissioning.

1) Our modules do not contain hazardous materials and the Solar Garden is not connected to government utilities (water, sewer, etc.). The Solar Garden is required to be fenced and almost all the land is permanent vegetation which improves erosion control, soil quality, and water quality. For these reasons, the Solar Garden, whether operational or non-operational, is not a public nuisance threat that would require government involvement in decommissioning or removal of the Solar Garden. Compare this to an abandoned home, barn, etc. that may regularly include hazardous materials and/or become a public nuisance.

2) Upon the end of the Solar Garden's life, the component parts may be resold and recycled. The aggregate value of the equipment is expected to exceed the cost of decommissioning and removal. Solar modules, for example, have power output warranties guaranteeing a minimum power output in Year 20 of at least 80% of Year 1. Since the value of solar panels is measured by their production of watts and the value of electricity, it is easy to calculate expected resale value. Even using extremely conservative assumptions, the value of the solar modules alone greatly exceeds the cost of decommissioning. This does not factor in the recycle value of other raw materials like steel, copper, etc. So, decommissioning is seen as a process that results in a net profit, incentivizing the Solar Garden owner to do it.

DECOMMISSIONING FINANCIAL SURETIES

Despite the considerations of 1) the Solar Garden is not a public nuisance, 2) the resale and recycle value is expected to exceed the cost of decommissioning, and 3) Livingston County and taxpayers are not at risk; we propose posting with Livingston County decommissioning financial surety that will be phased in over the first 11 years of the project's life pursuant to terms in the completed Agricultural Impact Mitigation Agreement (AIMA). See Appendix V. The surety would be in the form of a cash deposit, a letter of credit, or some other form approved by the Livingston County. This financial surety provides an extra layer of security that the Solar Garden site will be returned to the appropriate condition at the end of the Solar Garden's useful life or earlier, should the Solar Garden cease operations for a twelve-month period. Livingston County will be the designated beneficiary of the fund and the landowner will be provided with a copy of the document, thereby establishing the obligation before construction commences.

INSURANCE INFORMATION

USS CEK2 Solar LLC will be required to meet insurance requirements under long-term contracts with several parties, including the site landowner, Commonwealth Edison and its Solar Garden lenders and investors. USS CEK2 Solar LLC will be listed on a policy that includes:

- Liability coverage that will include $10,000,000 per occurrence and $40,000,000 in the aggregate or whichever coverage is required by the county ordinance prior to at the time of the building permit.
- Property coverage in an amount necessary to cover the value of the Solar Garden and up to one year of lost revenue in the event the project is destroyed and needs to be rebuilt

PROJECT OWNERSHIP

The applicant of the SUP, USS CEK2 Solar LLC, is a subsidiary of US Solar. USS CEK2 Solar is the owner of the Project. Please find more information about US Solar at www.us-solar.com.

INTERCONNECTION WITH COMMONWEALTH EDISON

USS CEK2 Solar LLC has already received pre-application data on substation and feeder existing/pending/available capacity. The Solar Garden also has submitted an interconnection application to Commonwealth Edison where we have received the Feasibility Study Results and cost estimate. The project is currently in the System Impact Study. We expect to have an interconnection agreement with Commonwealth Edison sometime in Q4 2023. In the next few months, we hope to be submitting this project to the State of Illinois' Adjustable Block Program (ABP).

MANUFACTURER'S SPECIFICATIONS

USS CEK2 Solar LLC uses only Tier 1 solar modules. Tier 1 solar modules are manufactured to the highest quality, performance, and lifespan, produced by companies that have at least a five-year history in manufacturing them. Countless banks and financiers have vetted these modules. They are designed to absorb light and reflect less than 2% of the incoming sunlight, which is less than many natural features, including water, snow, crops, and grass. There will be no material impact from glare.

We are using Tier 1 string inverters for this Solar Garden installed throughout the site. The inverters and electrical pad mount transformers specifications are enclosed and will meet all applicable codes and requirements.

CONCLUSION

USS CEK2 Solar LLC has complied with all criteria and requirements of Livingston County Ordinance Article III-B, and we respectfully request that the Livingston County Boards approves the application.

APPENDIX I – SITE PLANS AND PROJECT MAPS

SYSTEM SPECIFICATIONS

SYSTEM SIZE DC	7,725.78 kW
SYSTEM SIZE AC	4,995.00 kW
DC/AC RATIO	1.55
MODULE MANUFACTURER	JINKO SOLAR
MODULE MODEL	JKM570M-72HL4-TV
MODULE RATING	570 W
TOTAL MODULE QTY	13,554
MODULES PER STRING	27
TOTAL NO. OF STRINGS	502
INVERTER MODEL	SOLIS 185K EHV 5G US-PLUS
INVERTER RATING	166.50 kW*
INVERTER QTY	30
NO. OF STRINGS PER INVERTER	16, 17
STEP-UP TRANSFORMER	13.8kV/600V, (2) 2747kVA
RACKING	ATI HSAT
TILT ANGLE	0°
TOTAL NO. TRACKER ROW WITH 108 MODULES	100
TOTAL NO. TRACKER ROW WITH 54 MODULES	51
INTER-ROW SPACING	16.6'
PITCH	24.1'
GCR	31%
AREA OCCUPIED	32.21 AC

* INVERTERS ARE TO BE FACTORY PROGRAMMED TO OUTPUT 166.50kW MAX.

BESS SPECIFICATIONS

MANUFACTURER	SYL BATTERY CO., LTD
RATED POWER	2,720 kW
CAPACITY	5,447.68 kWh
MODEL	SU340U170K

GENERAL NOTES

1. CUSTOMER POLE. UTILITY AC DISCONNECT, FUSED, ACCESSIBLE, VISIBLE AND LOCKABLE DISCONNECT. PROVIDE PLACARD STATING "UTILITY AC DISCONNECT".
2. DISCONNECT: WILL BE ACCESSIBLE, LOCKABLE, VISIBLE BLADE DISCONNECT.
3. PV INSTALLATION TO COMPLY WITH NEC 2020 ARTICLE 690 AND ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES OR REGULATIONS.
4. EQUIPMENT SHALL BE LABELED PER NEC 2020 ARTICLE 690.
5. 12' ACCESS DRIVES SHALL BE DESIGNED TO ACCOMMODATE ALL CONSTRUCTION, OPERATIONS, MAINTENANCE AND UTILITY TRAFFIC THROUGHOUT THE SITE.
6. PROVIDE UTILITY 24/7 UNESCORTED KEYLESS ACCESS.
7. ALL EQUIPMENT CLEARANCES AND WORK SPACES SHALL COMPLY WITH NEC 2020 REQUIREMENTS.

ADJACENT PROPERTIES

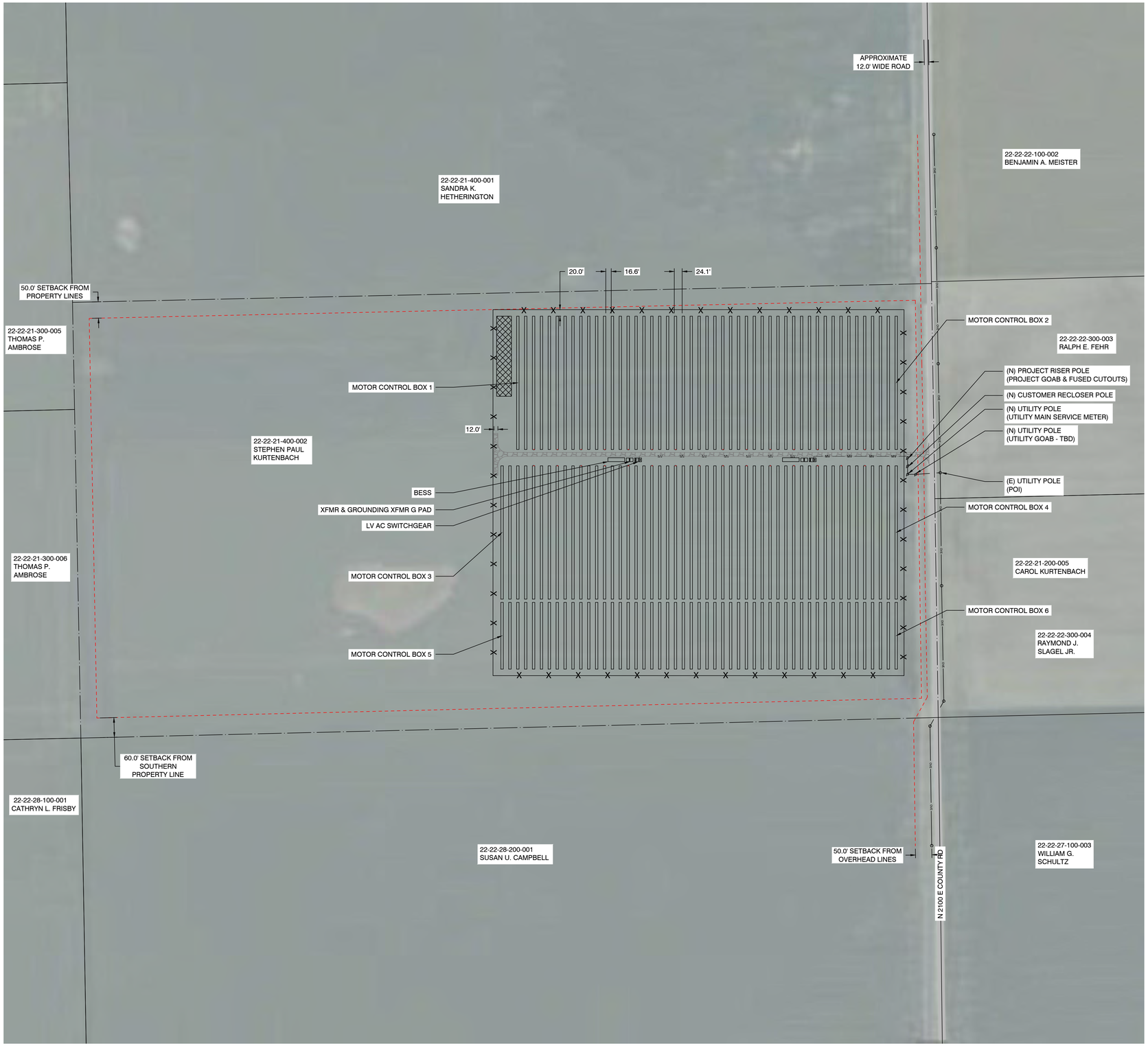
APN	OWNER	ACREAGE
22-22-21-300-006	THOMAS P. AMBROSE	60.05
22-22-21-300-005	THOMAS P. AMBROSE	60.15
22-22-21-400-001	SANDRA K. HETHERINGTON	80.07
22-22-22-100-002	BENJAMIN A MEISTER	238.31
22-22-22-300-003	RALPH E. FEHR	40.85
22-22-22-300-004	RAYMOND J. SLAGEL JR.	40.86
22-22-27-100-003	WILLIAM G. SCHULTZ	40.06
22-22-28-200-001	SUSAN U. CAMPBELL	238.85

ACREAGE BREAKOUT

CROPLAND	79.92 Ac
TIMBER	0 Ac
TOTAL	79.92 Ac

LEGEND

- 108 MODULES TRACKER ROW
- 54 MODULES TRACKER ROW
- (1) 600V 3500A PANELBOARD
- POWER STATION - (1) MV TRANSFORMER, (1) DAS, (1) WEATHER STATION
- STRING INVERTER
- 12' WIDE SITE ACCESS ROAD
- EXISTING ROADS
- PROPERTY LINE
- SETBACK
- MV — MV — U.G. MEDIUM VOLTAGE CABLE
- OVE — UTILITY CIRCUIT
- X — PROJECT SITE SECURITY FENCE
- STORM WATER BASIN



1 ARRAY PLAN
SCALE:1"=150'

N

US SOLAR

PROJECT:

USS CEK 2
SOLAR LLC

PROJECT ADDRESS:
N 2100 E RD,
FAIRBURY, IL 61739

LAT: 40.789429°
LON: -88.528916°

REV. NO	DESCRIPTION	DATE
0	FOR INTERCONNECT APPLICATION	08/11/23

SHEET TITLE:

PRELIMINARY
LAYOUT

DRAWING NO.:

PV-100

DRAWN BY: LR
REVIEWED BY:
DATE: 08/11/23
SCALE: AS SHOWN
PROJECT NO.:

1 SITE LOCATION
SCALE:1"=1000'

N

USSOLAR

PROJECT:

USS CEK 2
SOLAR LLC

PROJECT ADDRESS:
N 2100 E RD,
FAIRBURY, IL 61739

LAT: 40.789429°
LON: -88.528916°

REV. NO	DESCRIPTION	DATE
0	FOR INTERCONNECT APPLICATION	08/11/23

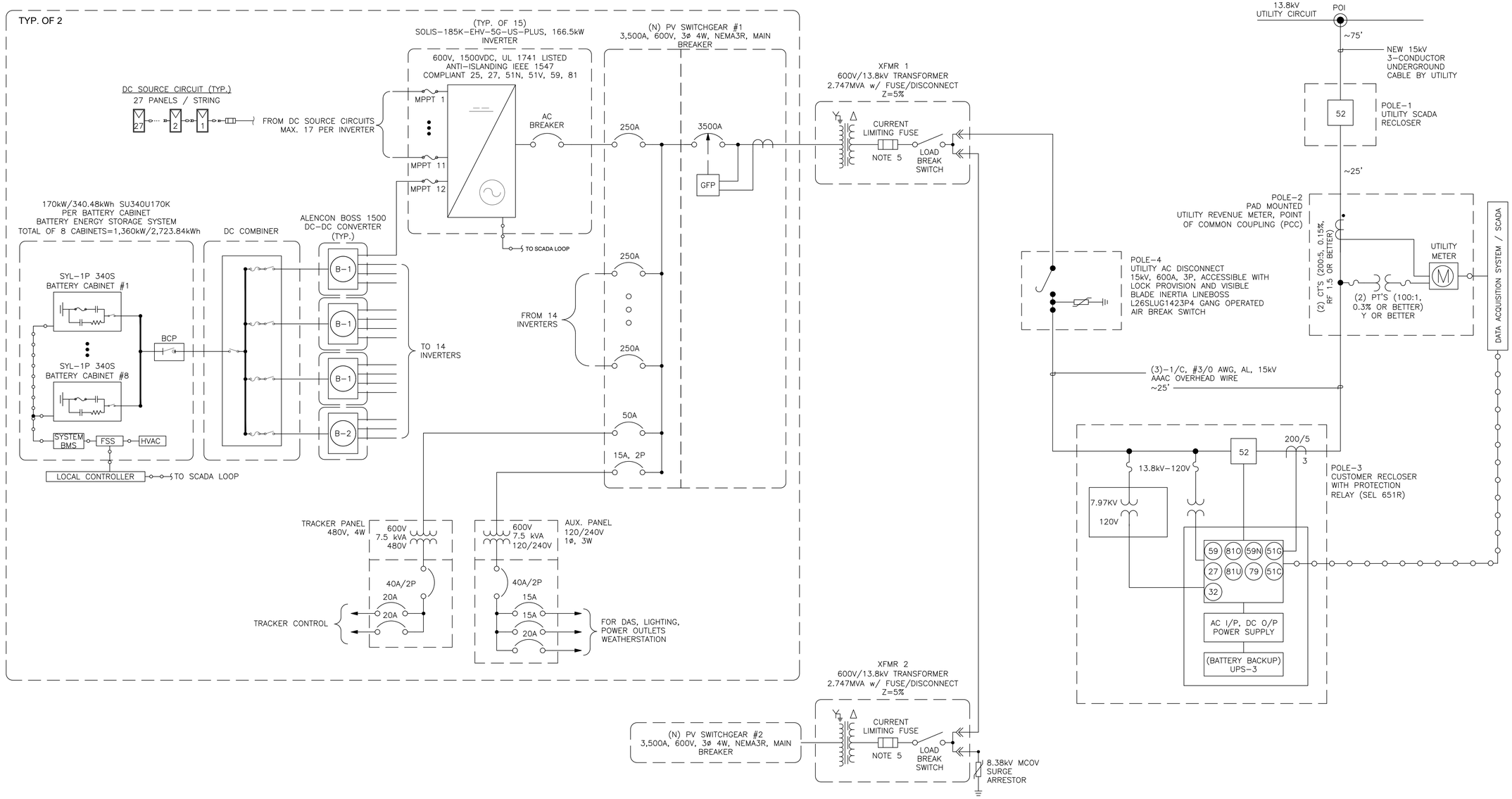
SHEET TITLE:

PRELIMINARY
LAYOUT

DRAWING NO.:

PV-101

DRAWN BY: LR
REVIEWED BY:
DATE: 08/11/23
SCALE: AS SHOWN
PROJECT NO.:



PV SYSTEM SPECIFICATIONS	
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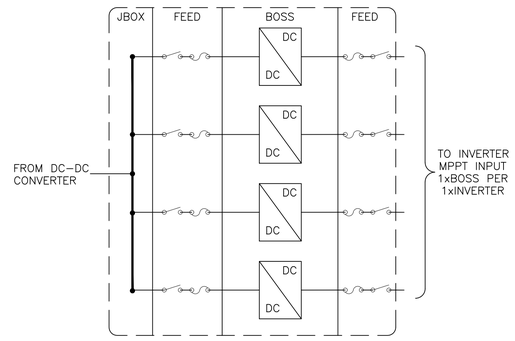
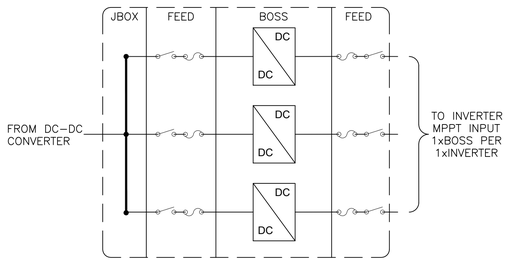


B-1 BOSS BOX DETAILED COMPONENT CONNECTION WITH 4x DC-DC CONVERTER



B-2 BOSS BOX DETAILED COMPONENT CONNECTION WITH 3x DC-DC CONVERTER

GENERAL NOTES

1. AC MV CIRCUITS SHALL BE INSTALLED AND INTERCONNECTED WITH UTILITY, PER UTILITY SPECIFICATIONS.
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2020 EDITION OF NATIONAL ELECTRIC CODE.
3. ALL DC AND AC EQUIPMENT, WHERE APPLICABLE, SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS, THE MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH NEC.
4. FINAL RECLOSER CONTROL SETTINGS TO BE COORDINATED WITH UTILITY AND CONTRACTOR.
5. ALL BREAKERS AND DISCONNECT SWITCHES ARE CLOSED UNDER NORMAL OPERATING CONDITIONS UNLESS OTHERWISE NOTED.

NOT FOR CONSTRUCTION

US SOLAR

PROJECT:

USS CEK 2
SOLAR LLC

PROJECT ADDRESS:
N 2100 E RD,
FAIRBURY, IL 61739

LAT: 40.789429°
LON: -88.528916°

REV. NO	DESCRIPTION	DATE
0	FOR INTERCONNECT APPLICATION	08/11/23

SHEET TITLE:

SINGLE LINE
DIAGRAM

DRAWING NO.:

E-100

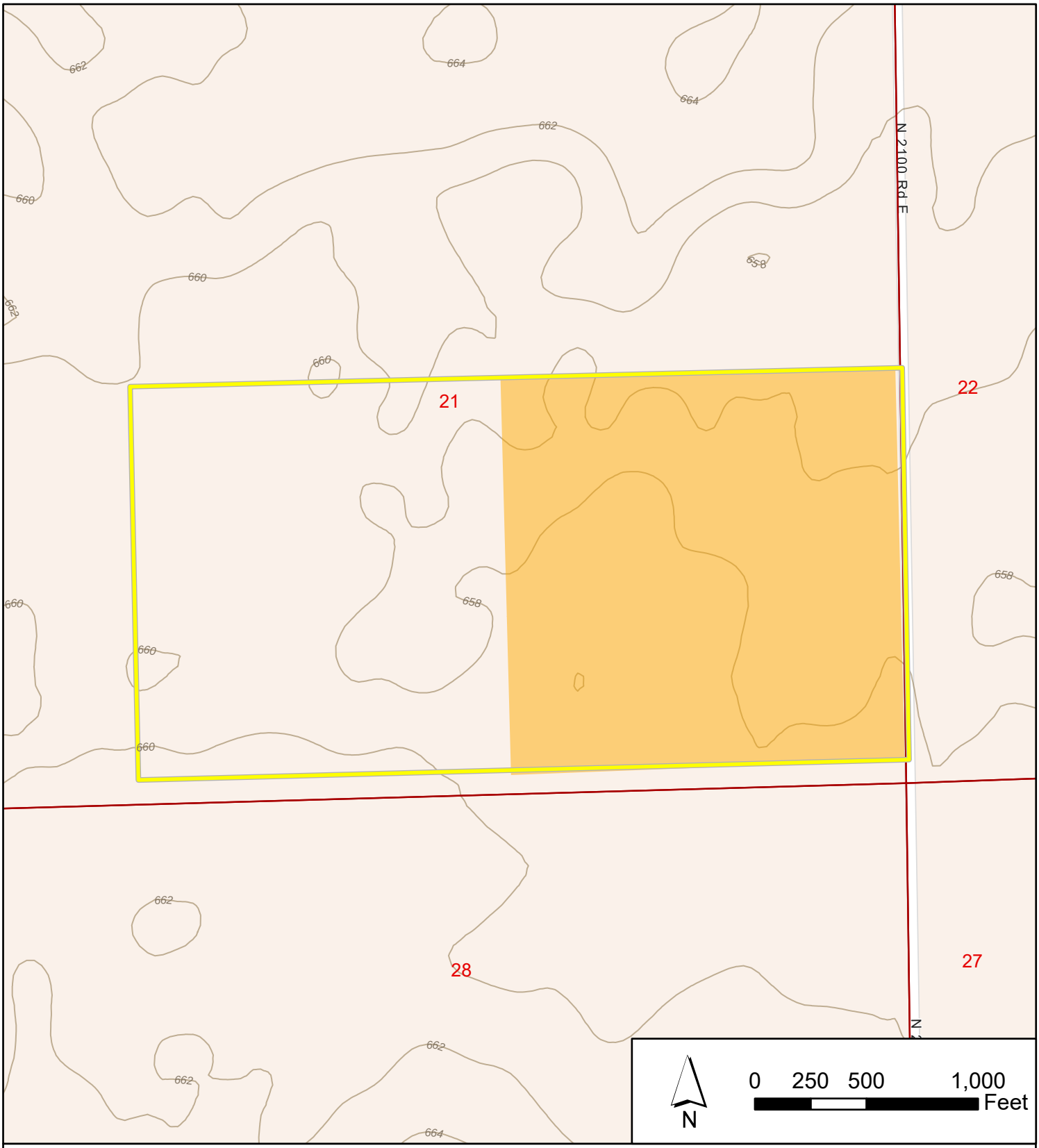
DRAWN BY: LR

REVIEWED BY:

DATE: 08/11/23

SCALE: AS SHOWN

PROJECT NO.:



USS CEK2 Solar LLC

Livingston County, IL

US SOLAR
100 N 6th St, Suite 410B
Minneapolis, MN 55403

- Project Parcels
- Municipal Boundaries
- PLSS Township Boundary
- PLSS Section Boundary
- 2 Ft Contours
- Approximate Fence Area

USGS Topography & Project Map

Map Data Sources: ESRI, USGS, OpenStreetMap, Garmin, Microsoft

U.S. Fish and Wildlife Service
National Wetlands Inventory

USS CEK2 Solar LLC - NWI Map

August 4, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Flood Hazard Layer FIRMette

88°32'4"W 40°47'36"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

88°31'27"W 40°47'9"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/4/2023 at 5:36 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or flood plain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or flood plain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

In the State of Illinois, any portion of a stream or watercourse that lies within the **floodway fringe** of a studied (AE) stream may have a state regulated floodway. The FIRM may not depict these state regulated floodways.

Floodways restricted by anthropogenic features such as bridges and culverts are drawn to reflect natural conditions and may not agree with the model computed widths listed in the Floodway Data table in the Flood Insurance Study report.

Multiple **topographic sources** may have been used in the delineation of Special Flood Hazard Areas. See Flood Insurance Study report for details on source resolution and geographic extent.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 16. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

Spatial Reference System Division
National Geodetic Survey, NOAA
Silver Spring Metro Center
1315 East-West Highway
Silver Spring, Maryland 20910
(301) 713-3191

To obtain current elevation, description, and/or location for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the United States Geological Survey. Digital orthoimagery with a spatial resolution of 0.5 meter ground sample distance were photogrammetrically compiled from aerial photography acquired during the leaf-off period of spring 2005.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The Special Flood Hazard Areas and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

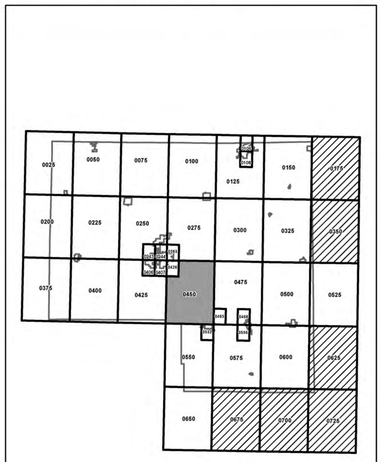
Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

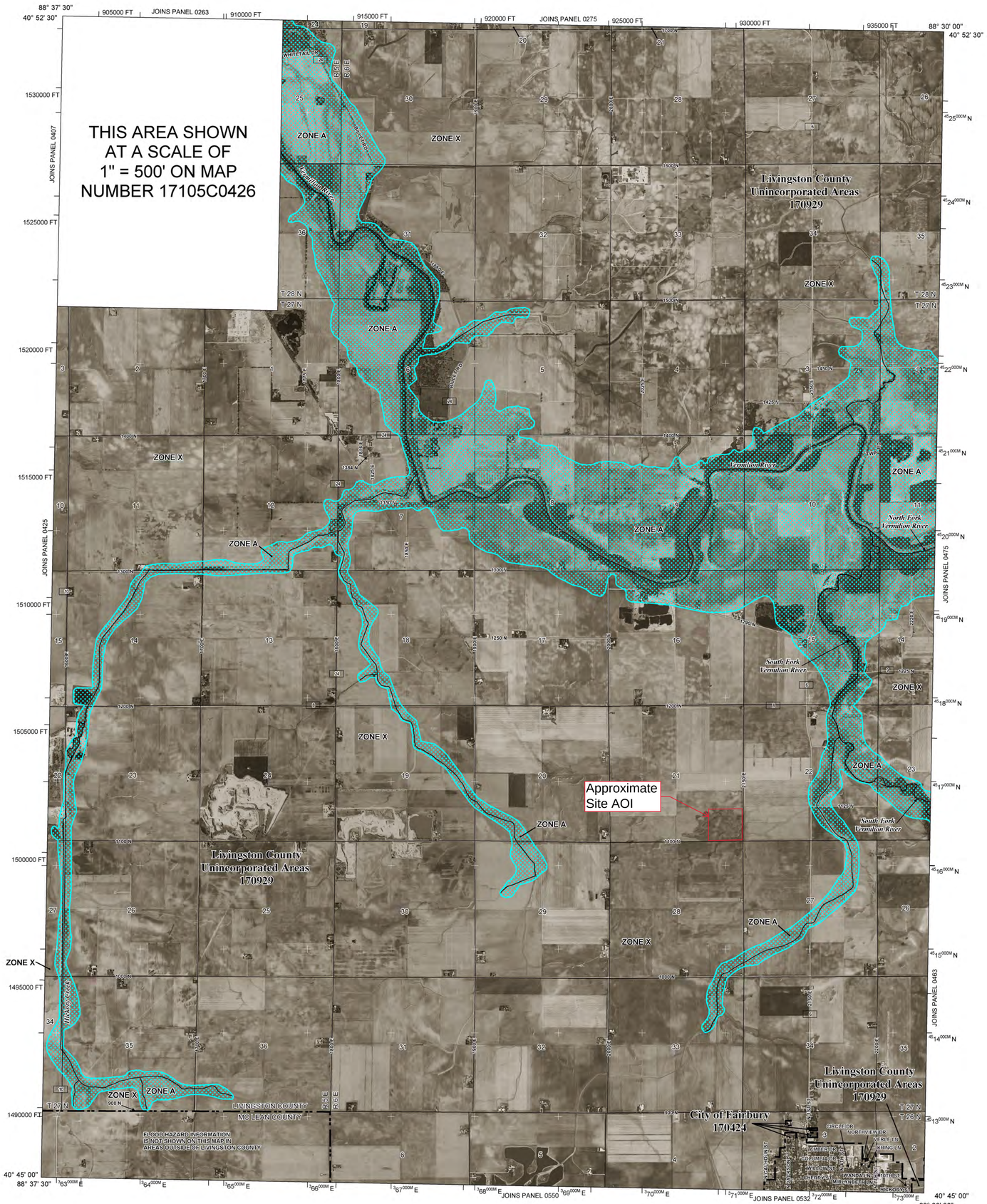
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital version of this map. The FEMA Map Service Center may also be reached by fax at 1-800-358-9620 and its website at www.msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at www.fema.gov/business/nfip/.

PANEL INDEX





LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4989000mN — 1000-meter Universal Transverse Mercator grid values, zone 16
- 1565000 FT — 5000-foot grid tick: Illinois State Plane East Coordinate System, 3776 zone (FIPSZONE 1201) Transverse Mercator
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
DECEMBER 18, 2007

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET
600 0 600 1200 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0450E

FIRM

FLOOD INSURANCE RATE MAP

LIVINGSTON COUNTY, ILLINOIS

AND INCORPORATED AREAS

PANEL 450 OF 725

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FAIRBURY, CITY OF	170424	0450	E
LIVINGSTON COUNTY	170929	0450	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 17105C0450E

EFFECTIVE DATE DECEMBER 18, 2007

Federal Emergency Management Agency

APPENDIX II – MEMORANDUM OF LEASE AGREEMENT

Lessor: Carol & Stephen Kurtenbach

Lessee: US Solar Development LLC

Note: US Solar Development LLC is a wholly owned subsidiary of United States Solar Corporation. Prior to construction, US Solar Development LLC will assign the lease to USS CEK2 Solar LLC, the SUP applicant and project company.

2023R-01651

COUNTY CLERK & RECORDER
LIVINGSTON COUNTY
RECORDED ON:
05/11/2023 01:40:35 PM
KRISTY A MASCHING
COUNTY CLERK & RECORDER

RECORDER'S AUTOMATION FEE	**12.00**
GIS MAINTENANCE FEE	**20.00**
RHSPS FEE	**9.00**
RECORDING FEE	**17.00**
DOC STORAGE FEE	**5.00**
PAGES: 10	

_____(Top 3 inches Reserved for Recording Data)_____

MEMORANDUM OF LEASE AND SOLAR EASEMENT

THIS MEMORANDUM OF OPTION TO LEASE, LEASE AND SOLAR EASEMENT (this "**Memorandum**"), dated as of May 10, 2023 (the "**Effective Date**"), is made by and between, Stephen P. Kurtenbach and Carol E. Kurtenbach, husband and wife, whose address is 416 E. Hickory St., Chatsworth, IL 60921 ("**Lessor**") and **US SOLAR DEVELOPMENT LLC**, a Delaware limited liability company, whose address is 100 N 6th St., Suite 410B, Minneapolis, MN 55403 ("**Lessee**").

A. Lessor is the owner of real property located in Livingston County, Illinois, that is legally described in Exhibit A (the "**Lessor Property**").

B. Lessor and Lessee have entered into that certain Option to Lease, Lease and Solar Easement (the "**Lease**"), having an effective date of May 10, 2023, whereby Lessor leases to Lessee and Lessee leases from Lessor a portion of the Lessor Property (the "**Premises**") described in Exhibit A and whereby Lessor grants to Lessee certain easements described in Exhibit A and Exhibit B, in each case for the purposes of the Facility (as defined below).

C. Lessor and Lessee wish to give record notice of the existence of the Lease.

D. The Lease is exempt from Illinois realty transfer tax under 35 ILCS 200/31-45.

NOW THEREFORE, in consideration sum of One Dollar ($1.00), the parties agree as follows:

1. PURPOSE OF LEASE. THE LEASE IS SOLELY FOR SOLAR PHOTOVOLTAIC ENERGY GENERATION AND RELATED PURPOSES, AND THROUGHOUT THE TERM OF THE LEASE, LESSEE SHALL HAVE THE SOLE AND EXCLUSIVE RIGHT TO USE THE LESSOR PROPERTY FOR SUCH PURPOSES. FOR PURPOSES OF THE LEASE, PHOTOVOLTAIC ENERGY GENERATION PURPOSES MEANS: (I) MONITORING, TESTING AND ASSESSING THE LESSOR PROPERTY FOR SOLAR PHOTOVOLTAIC ENERGY GENERATION, AND (II) DEVELOPING, CONSTRUCTING, INSTALLING, OPERATING, MAINTAINING, REPAIRING, AND REPLACING PHOTOVOLTAIC ELECTRIC ENERGY GENERATING EQUIPMENT, SUPPORTING STRUCTURES AND BALLASTS, INVERTERS, ELECTRICAL STORAGE AND TRANSFORMERS, FIXTURES, ELECTRIC DISTRIBUTION LINES, COMMUNICATION LINES, METERING EQUIPMENT, PERIMETER FENCING, INTERCONNECTION FACILITIES AND RELATED FACILITIES AND EQUIPMENT (COLLECTIVELY, THE "FACILITY") ON THE LESSOR PROPERTY. ANY IMPROVEMENTS, FIXTURES OR STRUCTURES THAT ARE NOT A PART OF THE FACILITY SHALL NOT BE INSTALLED ON THE LESSOR PROPERTY WITHOUT THE EXPRESS WRITTEN CONSENT OF LESSOR.

2. COMMERCIAL OPERATION DATE; TERM; RENEWAL TERMS. THE TERM OF THE LEASE ("TERM") SHALL COMMENCE UPON THE EFFECTIVE DATE AND CONTINUE UNTIL 11:59 PM ON THE TWENTIETH (20TH) ANNIVERSARY OF THE COMMERCIAL OPERATION DATE. THE "COMMERCIAL OPERATION DATE" SHALL BE THE FIRST DAY OF THE FIRST FULL MONTH AFTER THE FACILITY COMMENCES COMMERCIAL PRODUCTION AND SALE OF ELECTRICITY UNDER ANY CONTRACT OR AGREEMENT OR OTHER ARRANGEMENT PURSUANT TO WHICH LESSEE SELLS THE ELECTRICITY AND RELATED ENVIRONMENTAL ATTRIBUTES (AS DEFINED IN THE LEASE) TO ANY PURCHASER THEREOF. LESSEE HAS OPTIONS TO EXTEND THE INITIAL TERM OF THE LEASE FOR FOUR (4) ADDITIONAL FIVE (5) YEAR TERMS COMMENCING IMMEDIATELY ON THE DAY THAT THE TERM WOULD OTHERWISE EXPIRE.

3. SOLAR EASEMENT. THE LEASE GRANTS TO LESSEE, FOR THE TERM OF THE LEASE, AN EXCLUSIVE SOLAR EASEMENT TO USE ALL SUNLIGHT WHICH NATURALLY ARRIVES AT THE PREMISES, INCLUDING AN EXCLUSIVE EASEMENT PROHIBITING ANY OBSTRUCTION TO THE FREE FLOW OF SUNLIGHT TO THE PREMISES THROUGHOUT THE ENTIRE AREA OF THE LESSOR PROPERTY DESCRIBED IN EXHIBIT B OF THE LEASE (THE "SOLAR PREMISES"), WHICH SHALL CONSIST HORIZONTALLY THREE HUNDRED AND SIXTY DEGREES (360°) FROM ANY POINT WHERE ANY PHOTOVOLTAIC GENERATING FACILITY IS OR MAY BE LOCATED AT ANY TIME FROM TIME TO TIME (EACH SUCH LOCATION REFERRED TO AS A "SOLAR SITE") AND FOR A DISTANCE FROM EACH SOLAR SITE TO THE BOUNDARIES OF THE SOLAR PREMISES, TOGETHER VERTICALLY THROUGH ALL SPACE LOCATED ABOVE THE SURFACE OF THE SOLAR PREMISES, THAT IS, ONE HUNDRED EIGHTY DEGREES (180°) OR SUCH GREATER NUMBER OR NUMBERS OF DEGREES AS MAY BE NECESSARY TO EXTEND FROM EACH POINT ON AND ALONG A LINE DRAWN ALONG THE PLANE FROM EACH POINT ALONG THE EXTERIOR BOUNDARY OF THE SOLAR PREMISES THROUGH EACH SOLAR SITE

TO EACH POINT AND ON AND ALONG SUCH LINE TO THE OPPOSITE EXTERIOR BOUNDARY OF THE SOLAR PREMISES.

4. OTHER EASEMENTS. THE LEASE GRANTS TO LESSEE, FOR THE TERM OF THE LEASE, THE FOLLOWING EASEMENTS OVER, ACROSS AND ON THE LESSOR PROPERTY (A) A NON-EXCLUSIVE EASEMENT ("ACCESS EASEMENT") ON AND THROUGH THE LESSOR PROPERTY FOR PURPOSES OF LESSEE'S ACCESS TO THE FACILITY ON THE PREMISES, WITHIN WHICH LESSEE MAY CONSTRUCT, USE AND/OR MAINTAIN A ROAD AT LESSEE'S EXPENSE; (B) A NON-EXCLUSIVE EASEMENT ON AND THROUGH THAT PORTION OF THE LESSOR PROPERTY CONSISTING OF THE DISTRIBUTION EASEMENT (AS DEFINED IN THE LEASE) FOR THE PURPOSE OF INSTALLING, OPERATING AND MAINTAINING AN ELECTRIC DISTRIBUTION LINE AND RELATED COMMUNICATION LINES BETWEEN THE FACILITY AND ELECTRICAL FACILITIES OWNED BY CERTAIN PURCHASERS OF ELECTRICITY AND RELATED ENVIRONMENTAL ATTRIBUTES; AND (C) AN EASEMENT AND LICENSE FOR THE FACILITY TO CREATE, CAUSE, INCREASE, ACCENTUATE, OR OTHERWISE CONTRIBUTE TO THE OCCURRENCE OF LIGHT, SHADOWS, SHADOW AND LIGHT FLICKERING, GLARE AND REFLECTION, ON AND ACROSS THE LESSOR PROPERTY. UNDER THE TERMS OF THE LEASE, LESSEE SHALL ALSO BE ENTITLED TO INGRESS AND EGRESS TO AND FROM ITS FACILITY AND APPURTENANT EQUIPMENT AND ELECTRICAL POWER LINES OVER THE PREMISES AND SUCH ADDITIONAL AREAS OF THE LESSOR PROPERTY AS SHALL BE REASONABLY NECESSARY TO ACCESS A PUBLIC ROADWAY OR ALLEY.

5. OWNERSHIP OF LESSEE'S IMPROVEMENTS; DISCLAIMER OF TITLE TO ENVIRONMENTAL ATTRIBUTES. THE FACILITY AND RELATED EQUIPMENT CONSTRUCTED, INSTALLED OR PLACED ON THE PREMISES AND WITHIN THE ACCESS EASEMENT, DISTRIBUTION EASEMENT AND UTILITY EASEMENT BY LESSEE PURSUANT TO THE LEASE SHALL BE THE SOLE PROPERTY OF LESSEE, AND LESSOR AGREES THAT IT SHALL HAVE NO OWNERSHIP OR OTHER INTEREST IN THE FACILITY AND RELATED EQUIPMENT OWNED BY LESSEE ON THE PREMISES OR WITHIN THE ACCESS EASEMENT, DISTRIBUTION EASEMENT AND UTILITY EASEMENT. THE FACILITY IS AND SHALL REMAIN PERSONAL PROPERTY OF THE LESSEE, NOTWITHSTANDING ANY PRESENT OR FUTURE COMMON OWNERSHIP OF THE FACILITY AND THE PREMISES, AND IRRESPECTIVE OF WHETHER ANY OF THE FACILITY IS DEEMED TO BE A FIXTURE OR OTHERWISE PART OF THE LESSOR PROPERTY OR ANY IMPROVEMENTS ON THE LESSOR PROPERTY, AND LESSOR ACKNOWLEDGES THAT THE FACILITY IS AND SHALL REMAIN PERSONAL PROPERTY OF LESSEE IRRESPECTIVE OF THE MANNER OF ITS ATTACHMENT OR CONNECTION TO THE LESSOR PROPERTY. LESSOR ACKNOWLEDGES THAT LESSEE'S LENDERS MAY REQUEST A FIRST PRIORITY SECURITY INTEREST IN THE FACILITY AS COLLATERAL FOR FINANCING OF THE FACILITY, AND LESSOR CONSENTS TO THE GRANT BY LESSEE OF SUCH A SECURITY INTEREST, AND THE FILING OF INSTRUMENTS NECESSARY TO PERFECT SUCH A SECURITY INTEREST UNDER THE UNIFORM COMMERCIAL CODE IN THE FACILITY AS PERSONAL PROPERTY OF THE LESSEE. LESSOR AGREES THAT ALL ENVIRONMENTAL ATTRIBUTES REMAIN THE PROPERTY OF LESSEE IRRESPECTIVE OF WHETHER LESSOR CONSUMES OR USES ANY OF THE ELECTRICITY

GENERATED BY THE FACILITY, AND LESSOR HAS NO TITLE OR RIGHT TO ANY SUCH ENVIRONMENTAL ATTRIBUTES RELATED TO, ARISING FROM OR ASSOCIATED WITH THE FACILITY OR ANY ELECTRICAL CAPACITY OR ENERGY CREATED BY THE FACILITY. ANY GRANT, REBATE, INCENTIVE PAYMENT, TAX CREDIT OR ANY OTHER CREDIT, VALUE, TAX OR OTHER BENEFIT ARISING FROM OR ASSOCIATED WITH THE INSTALLATION OR OWNERSHIP OF THE FACILITY OR THE PRODUCTION OF ENERGY AND CAPACITY BY THE FACILITY SHALL INURE TO THE EXCLUSIVE BENEFIT OF LESSEE.

6. RIGHT TO ENCUMBER; ASSIGNMENT. LESSEE MAY AT ANY TIME MORTGAGE, PLEDGE OR ENCUMBER ALL OR ANY PART OF ITS INTEREST IN THE LEASE AND RIGHTS UNDER THE LEASE AND/OR ENTER INTO A COLLATERAL ASSIGNMENT OF ALL OR ANY PART OF ITS INTEREST IN THE LEASE OR RIGHTS UNDER THE LEASE TO ANY ENTITY WITHOUT THE CONSENT OF LESSOR. LESSEE MAY ASSIGN, SUBLEASE, TRANSFER OR CONVEY ITS INTERESTS IN THE LEASE TO AN AFFILIATE OR SUBSIDIARY OF LESSEE WHICH WILL OWN, LEASE OR OTHERWISE CONTROL THE FACILITY, OR AN ENTITY THROUGH WHICH SUCCEEDS TO ALL OR SUBSTANTIALLY ALL LESSEE'S ASSETS, WITHOUT LESSOR'S CONSENT. LESSEE MAY ALSO ASSIGN, SUBLEASE, TRANSFER OR CONVEY ITS INTERESTS IN THE LEASE TO A THIRD PARTY WITHOUT LESSOR'S CONSENT, SUBJECT TO THE CONDITIONS SET FORTH IN THE LEASE. LESSOR ACKNOWLEDGES THAT IT MAY NOT SELL, TRANSFER, LEASE, ASSIGN, MORTGAGE, OR OTHERWISE ENCUMBER THE FACILITY OR LESSEE'S INTEREST IN THE LEASE AND RELATED EASEMENTS, AND ANY SALE OR CONVEYANCE OF THE LESSOR PROPERTY OR LESSOR IMPROVEMENTS SHALL BE SUBJECT TO THE LEASEHOLD AND EASEMENT INTERESTS OF LESSEE IN THE LEASE.

7. CONTINUING NATURE OF OBLIGATIONS. THE BURDENS OF THE EASEMENTS AND ALL OTHER RIGHTS GRANTED TO LESSEE IN THE LEASE RUN WITH AND AGAINST THE LEASE PREMISES AND THE LESSOR PROPERTY AND ARE A CHARGE AND BURDEN ON THE LEASE PREMISES AND THE LESSOR PROPERTY AND ARE BINDING UPON AND AGAINST LESSOR AND ITS SUCCESSORS, ASSIGNS, PERMITTEES, LICENSEES, LESSEES, EMPLOYEES AND AGENTS. THE LEASE PREMISES, INCLUDING THE EASEMENTS AND ALL OTHER RIGHTS GRANTED TO LESSEE IN THE LEASE, INURE TO THE BENEFIT OF LESSEE AND ITS SUCCESSORS, ASSIGNS, PERMITTEES, LICENSEES AND LESSEES. ANY SALE OR CONVEYANCE OF THE LESSOR PROPERTY OR LESSOR IMPROVEMENTS IS SUBJECT TO THE LEASEHOLD AND EASEMENT INTERESTS OF LESSEE IN THE LEASE.

8. LANDOWNER ACTIVITIES. LESSOR USES THE LESSOR PROPERTY FOR AGRICULTURAL PURPOSES. LESSEE RESERVES THE RIGHT TO RELOCATE OR RECONFIGURE THE FACILITY UPON THE PREMISES DURING THE TERM OF THIS LEASE. LESSEE AGREES TO COOPERATE WITH LESSOR TO LOCATE THE FACILITY ON THE PREMISES IN A MANNER THAT MINIMIZES INTERFERENCE WITH AGRICULTURAL OR BUSINESS OPERATIONS OF LESSOR OR LESSOR'S TENANTS, TO THE EXTENT CONSISTENT WITH LESSEE'S PLANNED USE OF THE PREMISES.

9. PURPOSE OF THIS MEMORANDUM. THIS MEMORANDUM HAS BEEN EXECUTED, DELIVERED AND RECORDED FOR THE PURPOSE OF GIVING NOTICE OF THE LEASE, EASEMENTS, AND OTHER RIGHTS IN ACCORDANCE WITH THE TERMS, COVENANTS AND CONDITIONS OF THE LEASE. THE TERMS AND CONDITIONS OF THE LEASE ARE INCORPORATED BY REFERENCE INTO THIS MEMORANDUM AS IF SET FORTH FULLY HEREIN AT LENGTH. IN THE EVENT OF ANY CONFLICT BETWEEN THE TERMS AND PROVISIONS OF THE LEASE AND THIS MEMORANDUM, THE LEASE SHALL CONTROL.

[Signature pages follow]

IN WITNESS WHEREOF, each of the parties hereto has executed and delivered this Memorandum as of the day and year first above written.

LESSEE: **US SOLAR DEVELOPMENT LLC,**
a Delaware limited liability company

By: _____

Name: Reed Richerson

Title: President

STATE OF MINNESOTA)
) ss.
COUNTY OF Hennepin)

This instrument was acknowledged before me on May 10, 2023 by Reed Richerson, the President of US Solar Development LLC, a Delaware limited liability company, on behalf of the company

Hadley Braaten
Notary Public
Minnesota
My Commission Expires Jan. 1, 2028

_____
Name Printed:
Hadley Braaten

(SEAL)

LESSOR: Stephen P. Kurtenbach and Carol E. Kurtenbach, husband and wife

By: Stephen P Kurtenbach

Name: Stephen P. Kurtenbach

By: Carol E. Kurtenbach

Name: Carol E. Kurtenbach

STATE OF ILLINOIS)
) ss.
COUNTY OF LIVINGSTON)

The foregoing instrument was acknowledged before me on April 25, 2023 by Stephen P. Kurtenbach and Carol E. Kurtenbach, husband and wife.

OFFICIAL SEAL
AARON GALLOWAY
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES: 03/20/2027

Name Printed: Aaron S. Galloway

(SEAL)

THIS INSTRUMENT DRAFTED BY AND
WHEN RECORDED, RETURN TO:

Bruce A. Bedwell. Esq.
United States Solar Corporation
100 N 6th St, Suite 410B
Minneapolis, MN 55403
612.260.2230

EXHIBIT A TO
MEMORANDUM OF LEASE AND SOLAR EASEMENT

Lessor Property, Lease Premises, Access Easement, Distribution Easement and Utility Easement

1. Lessor Property: One tract in Livingston County, Illinois described as follows:

Property ID: 22-21-400-002
Legal Description:

The South Half of the Southeast Quarter of Section 21, Township 27 North, Range 6 East of the Third Principal Meridian, in Livingston County, Illinois.

Lessor gives Lessee permission to input the full legal description for the Lessor Property after the Effective Date.

2. Lease Premises: Up to 40 acres of the one tract comprising the Lessor Property as described above If the Lease Premises is to be constructed along N. 2100 E. Road, then the Lessee must provide adequate access, a minimum of sixty (60) feet wide between the facility and property boundary line, for the Lessor to access the remaining part of the described parcel. Approximate depiction of the Lease Premises (orange) is shown below. Precise legal description of the Lease Premises to be added following Effective Date pursuant to Section 2.4 of the Agreement.

3. Access Easement: Approximate depiction of the Access Easement (green) is shown below. Precise legal description of the Access Easement to be added following Effective Date pursuant to Section 2.4 of the Agreement.

4. Distribution Easement: Approximate depiction of the Distribution Easement (red) is shown below. Precise legal description of the Distribution Easement to be added following Effective Date pursuant to Section 2.4 of the Agreement.

5. Utility Easement: Approximate depiction of the Utility Easement (blue) is shown below. Precise legal description of the Utility Easement to be added following Effective Date pursuant to Section 2.4 of the Agreement.

EXHIBIT A CONT.

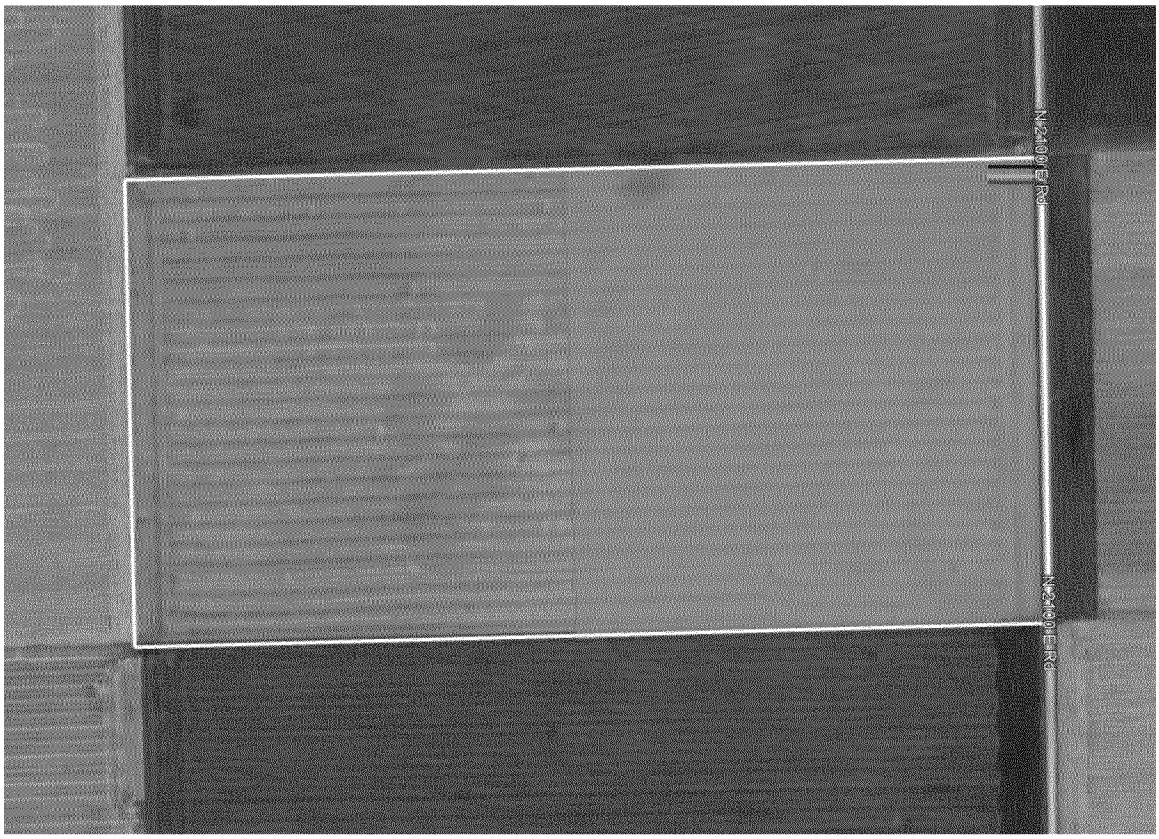


EXHIBIT B TO
MEMORANDUM OF LEASE AND SOLAR EASEMENT

Description of Solar Premises

1. Solar Premises.

Same as Lease Premises as described above in Exhibit A.

APPENDIX III – ECOCAT CONSULTATION

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: United States Solar Corporation
Contact: Ryan Magnoni
Address: 100 N. 6th St.
Suite 410B
Minneapolis, MN 55403

Project: USS CEK2 Solar LLC
Address: N 2100 E. Road, Fairbury

IDNR Project Number: 2402391
Date: 08/07/2023

Description: Develop, construct, and operate a community solar garden.

Natural Resource Review Results

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

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Northern Long-Eared Myotis *(Myotis septentrionalis)*

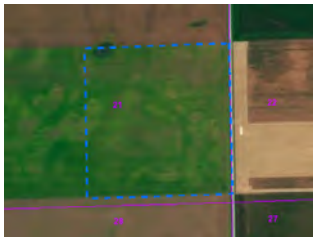
An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

Location

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

County: Livingston

Township, Range, Section:
27N, 6E, 21
27N, 6E, 22



IL Department of Natural Resources Contact
Kyle Burkwald
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
Livingston County
Jesse King
112 W. Madison St.
Pontiac, Illinois 61764

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.

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor

Natalie Phelps Finnie, Director

August 09, 2023

Ryan Magnoni
United States Solar Corporation
100 N. 6th St.
Suite 410B
Minneapolis, MN 55403

RE: USS CEK2 Solar LLC
Project Number(s): 2402391
County: Livingston

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

However, the Department recommends the following:

Th project proponent should establish pollinator-friendly habitat as groundcover wherever feasible. Solar Site Pollinator Establishment Guidelines can be found here: https://dnr.illinois.gov/conservation/pollinatorscorecard.html

The site should be de-compacted before planting. Long term management of the site should be planned for prior to development to ensure successful native pollinator habitat establishment for the lifetime of this project. An experienced ecological management consultant should be considered to assist with long-term management.

Required fencing, excluding areas near or adjacent to public access areas (e.g., roads, parking areas, trails, etc.), should not exceed 6 feet in height and should have a 6-inch gap along the bottom to prevent the restriction of wildlife movement.

Required night lighting should follow International Dark-Sky Association (IDA) guidance to minimize the effect of light pollution on wildlife.

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

JB Pritzker, Governor

Natalie Phelps Finnie, Director

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.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, 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, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Bradley Hayes

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

APPENDIX IV – LIVINGSTON COUNTY CUSTOM SOIL RESOURCE REPORT

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Livingston County, Illinois

August 4, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:3,560 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Livingston County, Illinois
Survey Area Data: Version 17, Aug 31, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 26, 2019—Jul 25, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
293A	Andres silt loam, 0 to 2 percent slopes	0.6	1.3%
300A	Westland clay loam, 0 to 2 percent slopes	20.2	46.2%
398A	Wea loam, 0 to 2 percent slopes	2.9	6.6%
609A	Crane loam, 0 to 2 percent slopes	20.1	45.9%
Totals for Area of Interest		**43.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Livingston County, Illinois

293A—Andres silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2t6zx
Elevation: 540 to 860 feet
Mean annual precipitation: 34 to 40 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Andres and similar soils: 91 percent
Minor components: 9 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Andres

Setting

Landform: Till-floored lake plains, ground moraines
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Thin mantle of loess over loamy outwash over till and/or lacustrine deposits

Typical profile

Ap - 0 to 11 inches: silt loam
Bt1 - 11 to 36 inches: clay loam
2Bt2 - 36 to 50 inches: silty clay loam
2C - 50 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C/D
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Minor Components

Reddick, drained

Percent of map unit: 3 percent
Landform: Till-floored lake plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Elliott

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Ashkum, drained

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

300A—Westland clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 5y4d
Elevation: 590 to 840 feet
Mean annual precipitation: 30 to 42 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 200 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Westland and similar soils: 95 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Westland

Setting

Landform: Flats

Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy outwash over gravelly outwash

Typical profile

A - 0 to 17 inches: clay loam
Btg - 17 to 37 inches: clay loam
2Btg - 37 to 49 inches: gravelly clay loam
2C - 49 to 60 inches: very gravelly loamy coarse sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to strongly contrasting textural stratification
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 35 percent
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

398A—Wea loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 5y4r
Elevation: 590 to 840 feet
Mean annual precipitation: 30 to 42 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Wea and similar soils: 94 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wea

Setting

Landform: Stream terraces, outwash plains
Landform position (two-dimensional): Summit

Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy outwash over gravelly outwash

Typical profile

H1 - 0 to 12 inches: loam
H2 - 12 to 40 inches: clay loam
H3 - 40 to 54 inches: gravelly sandy clay loam
H4 - 54 to 60 inches: stratified gravelly loamy sand to very gravelly coarse sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to strongly contrasting textural stratification
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2s
Hydrologic Soil Group: B
Ecological site: R110XY006IL - Dry Glacial Drift Upland Prairie
Hydric soil rating: No

609A—Crane loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 5y5j
Elevation: 590 to 840 feet
Mean annual precipitation: 30 to 42 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 145 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Crane and similar soils: 94 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Crane

Setting

Landform: Stream terraces, outwash plains
Landform position (two-dimensional): Summit

Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy outwash over gravelly outwash

Typical profile

H1 - 0 to 11 inches: loam
H2 - 11 to 31 inches: clay loam
H3 - 31 to 51 inches: gravelly sandy clay loam
H4 - 51 to 60 inches: very gravelly loamy coarse sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to strongly contrasting textural stratification
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 25 percent
Available water supply, 0 to 60 inches: Moderate (about 8.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: R110XY007IL - Moist Glacial Drift Upland Prairie
Hydric soil rating: No

Minor Components

Westland

Percent of map unit: 5 percent
Landform: Flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R110XY008IL - Wet Glacial Drift Upland Prairie
Hydric soil rating: Yes

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APPENDIX V – COMPLETED AGRICULTURAL IMPACT MITIGATION AGREEMENT (AIMA)

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT

between

USS CEK2 Solar LLC

and the

ILLINOIS DEPARTMENT OF AGRICULTURE

Pertaining to the Construction of a Commercial Solar Energy Facility

in

Livingston County, Illinois

Pursuant to the Renewable Energy Facilities Agricultural Impact Mitigation Act (505 ILCS 147), the following standards and policies are required by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any Agricultural Land that is impacted by the Construction and Deconstruction of a Commercial Solar Energy Facility. They were developed with the cooperation of agricultural agencies, organizations, Landowners, Tenants, drainage contractors, and solar energy companies to comprise this Agricultural Impact Mitigation Agreement (AIMA).

USS CEK2 Solar LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 5MWac Commercial Solar Energy Facility in Livingston County [GPS Coordinates: 40.789429, -88.528916], which will consist of up to 32.21 acres that will be covered by solar facility related components, such as solar panel arrays, racking systems, access roads, an onsite underground collection system, inverters and transformers and any affiliated electric transmission lines. This AIMA is made and entered between the Facility Owner and the IDOA.

If Construction does not commence within four years after this AIMA has been fully executed, this AIMA shall be revised, with the Facility Owner's input, to reflect the IDOA's most current Solar Farm Construction and Deconstruction Standards and Policies. This AIMA, and any updated AIMA, shall be filed with the County Board by the Facility Owner prior to the commencement of Construction.

The below prescribed standards and policies are applicable to Construction and Deconstruction activities occurring partially or wholly on privately owned agricultural land.

Conditions of the AIMA

The mitigative actions specified in this AIMA shall be subject to the following conditions:

A. All Construction or Deconstruction activities may be subject to County or other local requirements. However, the specifications outlined in this AIMA shall be the minimum standards applied to all Construction or Deconstruction activities. IDOA may utilize any legal means to enforce this AIMA.

B. Except for Section 17. B. through F., all actions set forth in this AIMA are subject to modification through negotiation by Landowners and the Facility Owner, provided such changes are negotiated in advance of the respective Construction or Deconstruction activities.

C. The Facility Owner may negotiate with Landowners to carry out the actions that Landowners wish to perform themselves. In such instances, the Facility Owner shall offer Landowners the area commercial rate for their machinery and labor costs.

D. All provisions of this AIMA shall apply to associated future Construction, maintenance, repairs, and Deconstruction of the Facility referenced by this AIMA.

E. The Facility Owner shall keep the Landowners and Tenants informed of the Facility's Construction and Deconstruction status, and other factors that may have an impact upon their farming operations.

F. The Facility Owner shall include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement.

G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. Not less than 30 days prior to the commencement of Construction, a copy of this AIMA shall be provided by the Facility Owner to each Landowner that is party to an Underlying Agreement. In addition, this AIMA shall be incorporated into each Underlying Agreement.

H. The Facility Owner shall implement all actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Facility.

I. No later than 45 days prior to the Construction and/or Deconstruction of a Facility, the Facility Owner shall provide the Landowner(s) with a telephone number the Landowner can call to alert the Facility Owner should the Landowner(s) have questions or concerns with the work which is being done or has been carried out on his/her property.

J. If there is a change in ownership of the Facility, the Facility Owner assuming ownership of the Facility shall provide written notice within 90 days of ownership transfer, to the Department, the County, and to Landowners of such change. The Financial Assurance requirements and the other terms of this AIMA shall apply to the new Facility Owner.

K. The Facility Owner shall comply with all local, state and federal laws and regulations, specifically including the worker protection standards to protect workers from pesticide exposure.

L. Within 30 days of execution of this AIMA, the Facility Owner shall use Best Efforts to provide the IDOA with a list of all Landowners that are party to an Underlying Agreement and known Tenants of said Landowner who may be affected by the Facility. As the list of Landowners and Tenants is updated, the Facility Owner shall notify the IDOA of any additions or deletions.

M. If any provision of this AIMA is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the AIMA shall be interpreted as if it did not contain the unenforceable provision.

Definitions

Abandonment	When Deconstruction has not been completed within 12 months after the Commercial Solar Energy Facility reaches the end of its useful life. For purposes of this definition, a Commercial Solar Energy Facility shall be presumed to have reached the end of its useful life if the Commercial Solar Energy Facility Owner fails, for a period of 6 consecutive months, to pay the Landowner amounts owed in accordance with an Underlying Agreement.

Aboveground Cable	Electrical power lines installed above ground surface to be utilized for conveyance of power from the solar panels to the solar facility inverter and/or point of interconnection to utility grid or customer electric meter.
Agricultural Impact Mitigation Agreement (AIMA)	The Agreement between the Facility Owner and the Illinois Department of Agriculture (IDOA) described herein.
Agricultural Land	Land used for Cropland, hayland, pastureland, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government conservation programs used for purposes as set forth above.
Best Efforts	Diligent, good faith, and commercially reasonable efforts to achieve a given objective or obligation.
Commercial Operation Date	The calendar date of which the Facility Owner notifies the Landowner, County, and IDOA in writing that commercial operation of the facility has commenced. If the Facility Owner fails to provide such notifications, the Commercial Operation Date shall be the execution date of this AIMA plus 6 months.
Commercial Solar Energy Facility (Facility)	A solar energy conversion facility equal to or greater than 500 kilowatts in total nameplate capacity, including a solar energy conversion facility seeking an extension of a permit to construct granted by a county or municipality before June 29, 2018. "Commercial solar energy facility" does not include a solar energy conversion facility: (1) for which a permit to construct has been issued before June 29, 2018; (2) that is located on land owned by the commercial solar energy facility owner; (3) that was constructed before June 29, 2018; or (4) that is located on the customer side of the customer's electric meter and is primarily used to offset that customer's electricity load and is limited in nameplate capacity to less than or equal to 2,000 kilowatts.
Commercial Solar Energy Facility Owner deemed (Facility Owner)	A person or entity that owns a commercial solar energy facility. A Commercial Solar Energy Facility Owner is not nor shall it be to be a public utility as defined in the Public Utilities Act.
County	The County or Counties where the Commercial Solar Energy Facility is located.
Construction	The installation, preparation for installation and/or repair of a Facility.
Cropland	Land used for growing row crops, small grains or hay; includes land which was formerly used as cropland, but is currently enrolled in a government conservation program; also includes pastureland that is classified as Prime Farmland.

Deconstruction	The removal of a Facility from the property of a Landowner and the restoration of that property as provided in the AIMA.
Deconstruction Plan	A plan prepared by a Professional Engineer, at the Facility's expense, that includes: (1) the estimated Deconstruction cost, in current dollars at the time of filing, for the Facility, considering among other things: i. the number of solar panels, racking, and related facilities involved; ii. the original Construction costs of the Facility; iii. the size and capacity, in megawatts of the Facility; iv. the salvage value of the facilities (if all interests in salvage value are subordinate to that of the Financial Assurance holder if abandonment occurs); v. the Construction method and techniques for the Facility and for other similar facilities; and (2) a comprehensive detailed description of how the Facility Owner plans to pay for the Deconstruction of the Facility.
Department	The Illinois Department of Agriculture (IDOA).
Financial Assurance	A reclamation or surety bond or other commercially available financial assurance that is acceptable to the County, with the County or Landowner as beneficiary.
Landowner	Any person with an ownership interest in property that is used for agricultural purposes and that is party to an Underlying Agreement.
Prime Farmland	Agricultural Land comprised of soils that are defined by the USDA Natural Resources Conservation Service (NRCS) as "Prime Farmland" (generally considered to be the most productive soils with the least input of nutrients and management).
Professional Engineer	An engineer licensed to practice engineering in the State of Illinois.
Soil and Water Conservation District (SWCD)	A unit of local government that provides technical and financial assistance to eligible Landowners for the conservation of soil and water resources.
Tenant	Any person, apart from the Facility Owner, lawfully residing or leasing/renting land that is subject to an Underlying Agreement.
Topsoil	The uppermost layer of the soil that has the darkest color or the highest content of organic matter; more specifically, it is defined as the "A" horizon.
Underlying Agreement	The written agreement between the Facility Owner and the Landowner(s) including, but not limited to, an easement, option, lease, or license under the terms of which another person has constructed, constructs, or intends to construct a Facility on the property of the Landowner.

Underground Cable	Electrical power lines installed below the ground surface to be utilized for conveyance of power within a Facility or from a Commercial Solar Energy Facility to the electric grid.
USDA Natural Resources Conservation Service (NRCS)	An agency of the United States Department of Agriculture that provides America's farmers with financial and technical assistance to aid with natural resources conservation.

Construction and Deconstruction Standards and Policies

1. Support Structures

A. Only single pole support structures shall be used for the Construction and operation of the Facility on Agricultural Land. Other types of support structures, such as lattice towers or H-frames, may be used on nonagricultural land.

B. Where a Facility's Aboveground Cable will be adjacent and parallel to highway and/or railroad right-of-way, but on privately owned property, the support structures shall be placed as close as reasonably practicable and allowable by the applicable County Engineer or other applicable authorities to the highway or railroad right-of-way. The only exceptions may be at jogs or weaves on the highway alignment or along highways or railroads where transmission and distribution lines are already present.

C. When it is not possible to locate Aboveground Cable next to highway or railroad right-of-way, Best Efforts shall be expended to place all support poles in such a manner to minimize their placement on Cropland (i.e., longer than normal above ground spans shall be utilized when traversing Cropland).

2. Aboveground Facilities

Locations for facilities shall be selected in a manner that is as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land that contains or is adjacent to the Facility.

3. Guy Wires and Anchors

Best Efforts shall be made to place guy wires and their anchors, if used, out of Cropland, pastureland and hayland, placing them instead along existing utilization lines and on land other than Cropland. Where this is not feasible, Best Efforts shall be made to minimize guy wire impact on Cropland. All guy wires shall be shielded with highly visible guards.

4. Underground Cabling Depth

A. Underground electrical cables located outside the perimeter of the (fence) of the solar panels shall be buried with:

1. a minimum of 5 feet of top cover where they cross Cropland.
2. a minimum of 5 feet of top cover where they cross pastureland or other non-Cropland classified as Prime Farmland.
3. a minimum of 3 feet of top cover where they cross pastureland and other Agricultural Land not classified as Prime Farmland.

4. a minimum of 3 feet of top cover where they cross wooded/brushy land.

B. Provided that the Facility Owner removes the cables during Deconstruction, underground electric cables may be installed to a minimum depth of 18 inches:

1. Within the fenced perimeter of the Facility; or

2. When buried under an access road associated with the Facility provided that the location and depth of cabling is clearly marked at the surface.

C. If Underground Cables within the fenced perimeter of the solar panels are installed to a minimum depth of 5 feet, they may remain in place after Deconstruction.

5. Topsoil Removal and Replacement

A. Any excavation shall be performed in a manner to preserve topsoil. Best Efforts shall be made to store the topsoil near the excavation site in such a manner that it will not become intermixed with subsoil materials.

B. Best Efforts shall be made to store all disturbed subsoil material near the excavation site and separate from the topsoil.

C. When backfilling an excavation site, Best Efforts shall be used to ensure the stockpiled subsoil material will be placed back into the excavation site before replacing the topsoil.

D. Refer to Section 7 for procedures pertaining to rock removal from the subsoil and topsoil.

E. Refer to Section 8 for procedures pertaining to the repair of compaction and rutting of the topsoil.

F. Best Efforts shall be performed to place the topsoil in a manner so that after settling occurs, the topsoil's original depth and contour will be restored as close as reasonably practicable. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance shall the topsoil materials be used for any other purpose unless agreed to explicitly and in writing by the Landowner.

G. Based on the mutual agreement of the landowner and Facility Owner, excess soil material resulting from solar facility excavation shall either be removed or stored on the Landowner's property and reseeded per the applicable National Pollution Discharge Elimination System (NPDES) permit/Stormwater Pollution Prevention Plan (SWPPP). After the Facility reaches the end of its Useful Life, the excess subsoil material shall be returned to an excavation site or removed from the Landowner's property, unless otherwise agreed to by Landowner.

6. Rerouting and Permanent Repair of Agricultural Drainage Tiles

The following standards and policies shall apply to underground drainage tile line(s) directly or indirectly affected by Construction and/or Deconstruction:

A. Prior to Construction, the Facility Owner shall work with the Landowner to identify drainage tile lines traversing the property subject to the Underlying Agreement to the extent reasonably practicable. All drainage tile lines identified in this manner shall be shown on the Construction and Deconstruction Plans.

B. The location of all drainage tile lines located adjacent to or within the footprint of the Facility shall be recorded using Global Positioning Systems (GPS) technology. Within 60 days after Construction is complete, the Facility Owner shall provide the Landowner, the IDOA, and the respective County Soil and Water Conservation District (SWCD) with "as built" drawings (strip maps) showing the location of all drainage tile lines by survey station encountered in the Construction of the Facility, including any tile line repair location(s), and any underground cable installed as part of the Facility.

C. **Maintaining Surrounding Area Subsurface Drainage**

If drainage tile lines are damaged by the Facility, the Facility Owner shall repair the lines or install new drainage tile line(s) of comparable quality and cost to the original(s), and of sufficient size and appropriate slope in locations that limit direct impact from the Facility. If the damaged tile lines cause an unreasonable disruption to the drainage system, as determined by the Landowner, then such repairs shall be made promptly to ensure appropriate drainage. Any new line(s) may be located outside of, but adjacent to the perimeter of the Facility. Disrupted adjacent drainage tile lines shall be attached thereto to provide an adequate outlet for the disrupted adjacent tile lines.

D. **Re-establishing Subsurface Drainage Within Facility Footprint**

Following Deconstruction and using Best Efforts, if underground drainage tile lines were present within the footprint of the facility and were severed or otherwise damaged during original Construction, facility operation, and/or facility Deconstruction, the Facility Owner shall repair existing drainage tiles or install new drainage tile lines of comparable quality and cost to the original, within the footprint of the Facility with sufficient capacity to restore the underground drainage capacity that existed within the footprint of the Facility prior to Construction. Such installation shall be completed within 12 months after the end of the useful life of the Facility and shall be compliant with Figures 1 and 2 to this Agreement or based on prudent industry standards if agreed to by Landowner.

E. If there is any dispute between the Landowner and the Facility Owner on the method of permanent drainage tile line repair, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

F. During Deconstruction, all additional permanent drainage tile line repairs beyond those included above in Section 6.D. must be made within 30 days of identification or notification of the damage, weather and soil conditions permitting. At other times, such repairs must be made at a time mutually agreed upon by the Facility Owner and the Landowner. If the Facility Owner and Landowner cannot agree upon a reasonable method to complete this restoration, the Facility Owner may implement the recommendations of the appropriate County SWCD and such implementation constitutes compliance with this provision.

G. Following completion of the work required pursuant to this Section, the Facility Owner shall be responsible for correcting all drainage tile line repairs that fail due to Construction and/or Deconstruction for one year following the completion of Construction or Deconstruction, provided those repairs were made by the Facility Owner. The Facility Owner shall not be responsible for drainage tile repairs that the Facility Owner pays the Landowner to perform.

7. Rock Removal

With any excavations, the following rock removal procedures pertain only to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois, which emerged or were brought to the site as a result of Construction and/or Deconstruction.

A. Before replacing any topsoil, Best Efforts shall be taken to remove all rocks greater than 3 inches in any dimension from the surface of exposed subsoil which emerged or were brought to the site as a result of Construction and/or Deconstruction.

B. If trenching, blasting, or boring operations are required through rocky terrain, precautions shall be taken to minimize the potential for oversized rocks to become interspersed in adjacent soil material.

C. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, shall be removed from the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Facility Owner.

8. Repair of Compaction and Rutting

A. Unless the Landowner opts to do the restoration work on compaction and rutting, after the topsoil has been replaced post-Deconstruction, all areas within the boundaries of the Facility that were traversed by vehicles and Construction and/or Deconstruction equipment that exhibit compaction and rutting shall be restored by the Facility Owner. All prior Cropland shall be ripped at least 18 inches deep or to the extent practicable, and all pasture and woodland shall be ripped at least 12 inches deep or to the extent practicable. The existence of drainage tile lines or underground utilities may necessitate less ripping depth. The disturbed area shall then be disked.

B. All ripping and disking shall be done at a time when the soil is dry enough for normal tillage operations to occur on Cropland adjacent to the Facility.

C. The Facility Owner shall restore all rutted land to a condition as close as possible to its original condition upon Deconstruction, unless necessary earlier as determined by the Landowner.

D. If there is any dispute between the Landowner and the Facility Owner as to what areas need to be ripped/disked or the depth at which compacted areas should be ripped/disked, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

9. Construction During Wet Weather

Except as provided below, construction activities are not allowed on agricultural land during times when normal farming operations, such as plowing, disking, planting or harvesting, cannot take place due to excessively wet soils. With input from the landowner, wet weather conditions may be determined on a field by field basis.

A. Construction activities on prepared surfaces, surfaces where topsoil and subsoil have been removed, heavily compacted in preparation, or otherwise stabilized (e.g. through cement mixing) may occur at the discretion of the Facility Owner in wet weather conditions.

B. Construction activities on unprepared surfaces will be done only when work will not result in rutting which may mix subsoil and topsoil. Determination as to the potential of subsoil and topsoil mixing will be made in consultation with the underlying Landowner, or, if approved by the Landowner, his/her designated tenant or designee.

10. Prevention of Soil Erosion

A. The Facility Owner shall work with Landowners and create and follow a SWPPP to prevent excessive erosion on land that has been disturbed by Construction or Deconstruction of a Facility.

B. If the Landowner and Facility Owner cannot agree upon a reasonable method to control erosion on the Landowner's property, the Facility Owner shall consider the recommendations of the appropriate County SWCD to resolve the disagreement.

C. The Facility Owner may, per the requirements of the project SWPPP and in consultation with the Landowner, seed appropriate vegetation around all panels and other facility components to prevent erosion. The Facility Owner must utilize Best Efforts to ensure that all seed mixes will be as free of any noxious weed seeds as possible. The Facility Owner shall consult with the Landowner regarding appropriate varieties to seed.

11. Repair of Damaged Soil Conservation Practices

Consultation with the appropriate County SWCD by the Facility Owner shall be carried out to determine if there are soil conservation practices (such as terraces, grassed waterways, etc.) that will be damaged by the Construction and/or Deconstruction of the Facility. Those conservation practices shall be restored to their preconstruction condition as close as reasonably practicable following Deconstruction in accordance with USDA NRCS technical standards. All repair costs shall be the responsibility of the Facility Owner.

12. Compensation for Damages to Private Property

The Facility Owner shall reasonably compensate Landowners for damages caused by the Facility Owner. Damage to Agricultural Land shall be reimbursed to the Landowner as prescribed in the applicable Underlying Agreement.

13. Clearing of Trees and Brush

A. If trees are to be removed for the Construction or Deconstruction of a Facility, the Facility Owner shall consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.

B. If there are trees of commercial or other value to the Landowner, the Facility Owner shall allow the Landowner the right to retain ownership of the trees to be removed and the disposition of the removed trees shall be negotiated prior to the commencement of land clearing.

14. Access Roads

A. To the extent practicable, access roads shall be designed to not impede surface drainage and shall be built to minimize soil erosion on or near the access roads.

B. Access roads may be left intact during Construction, operation or Deconstruction through mutual agreement of the Landowner and the Facility Owner unless otherwise restricted by federal, state, or local regulations.

C. If the access roads are removed, Best Efforts shall be expended to assure that the land shall be restored to equivalent condition(s) as existed prior to their construction, or as otherwise agreed to by the Facility Owner and the Landowner. All access roads that are removed shall be ripped to a depth of 18 inches. All ripping shall be performed consistent with Section 8.

15. Weed/Vegetation Control

A. The Facility Owner shall provide for weed control in a manner that prevents the spread of weeds. Chemical control, if used, shall be done by an appropriately licensed pesticide applicator.

B. The Facility Owner shall be responsible for the reimbursement of all reasonable costs incurred by owners of agricultural land where it has been determined by the appropriate state or county entity that weeds have spread from the Facility to their property. Reimbursement is contingent upon written notice to the Facility Owner. Facility Owner shall reimburse the property owner within 45 days after notice is received.

C. The Facility Owner shall ensure that all vegetation growing within the perimeter of the Facility is properly and appropriately maintained. Maintenance may include, but not be limited to, mowing, trimming, chemical control, or the use of livestock as agreed to by the Landowner.

D. The Deconstruction plans must include provisions for the removal of all weed control equipment used in the Facility, including weed-control fabrics or other ground covers.

16. Indemnification of Landowners

The Facility Owner shall indemnify all Landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of the Commercial Solar Energy Facility, including Construction and Deconstruction thereof, and also including damage to such Facility or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Landowners, and/or the Landowners heirs, successors, legal representatives, and assigns.

17. Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities

A. Deconstruction of a Facility shall include the removal/disposition of all solar related equipment/facilities, including the following utilized for operation of the Facility and located on Landowner property:

1. Solar panels, cells and modules;
2. Solar panel mounts and racking, including any helical piles, ground screws, ballasts, or other anchoring systems;
3. Solar panel foundations, if used (to depth of 5 feet);

4. Transformers, inverters, energy storage facilities, or substations, including all components and foundations; however, Underground Cables at a depth of 5 feet or greater may be left in place;
5. Overhead collection system components;
6. Operations/maintenance buildings, spare parts buildings and substation/switching gear buildings unless otherwise agreed to by the Landowner;
7. Access Road(s) unless Landowner requests in writing that the access road is to remain;
8. Operation/maintenance yard/staging area unless otherwise agreed to by the Landowner; and
9. Debris and litter generated by Deconstruction and Deconstruction crews.

B. The Facility Owner shall, at its expense, complete Deconstruction of a Facility within twelve (12) months after the end of the useful life of the Facility.

C. During the County permit process, or if none, then prior to the commencement of construction, the Facility Owner shall file with the County a Deconstruction Plan. The Facility Owner shall file an updated Deconstruction Plan with the County on or before the end of the tenth year of commercial operation.

D. The Facility Owner shall provide the County with Financial Assurance to cover the estimated costs of Deconstruction of the Facility. Provision of this Financial Assurance shall be phased in over the first 11 years of the Project's operation as follows:

1. On or before the first anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover ten (10) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
2. On or before the sixth anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover fifty (50) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
3. On or before the eleventh anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover one hundred (100) percent of the estimated costs of Deconstruction of the Facility as determined in the updated Deconstruction Plan provided during the tenth year of commercial operation.

The Financial Assurance shall not release the surety from liability until the Financial Assurance is replaced. The salvage value of the Facility may only be used to reduce the estimated costs of Deconstruction if the County agrees that all interests in the salvage value are subordinate or have been subordinated to that of the County if Abandonment occurs.

E. The County may, but is not required to, reevaluate the estimated costs of Deconstruction of any Facility after the tenth anniversary, and every five years thereafter, of the Commercial Operation Date. Based on any reevaluation, the County may require changes in the level of Financial Assurance used to calculate the phased Financial Assurance levels described in Section 17.D. required from the Facility Owner. If the County is unable to its satisfaction to perform the investigations necessary to approve the Deconstruction Plan filed by the Facility Owner, then the County and Facility may mutually agree on the selection of a Professional Engineer independent of the Facility Owner to conduct any necessary investigations. The Facility Owner shall be responsible for the cost of any such investigations.

F. Upon Abandonment, the County may take all appropriate actions for Deconstruction including drawing upon the Financial Assurance.

Concurrence of the Parties to this AIMA

The Illinois Department of Agriculture and USS CEK2 Solar LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the Construction and Deconstruction of the solar farm project in Livingston County within the State of Illinois.

The effective date of this AIMA commences on the date of execution.

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE

By: Jerry Costello II, Director

By Tess Feagans, General Counsel

801 E. Sangamon Avenue, 62702
State Fairgrounds, POB 19281 Springfield,
IL 62794-9281

June 22, 2023

USS CEK2 Solar LLC

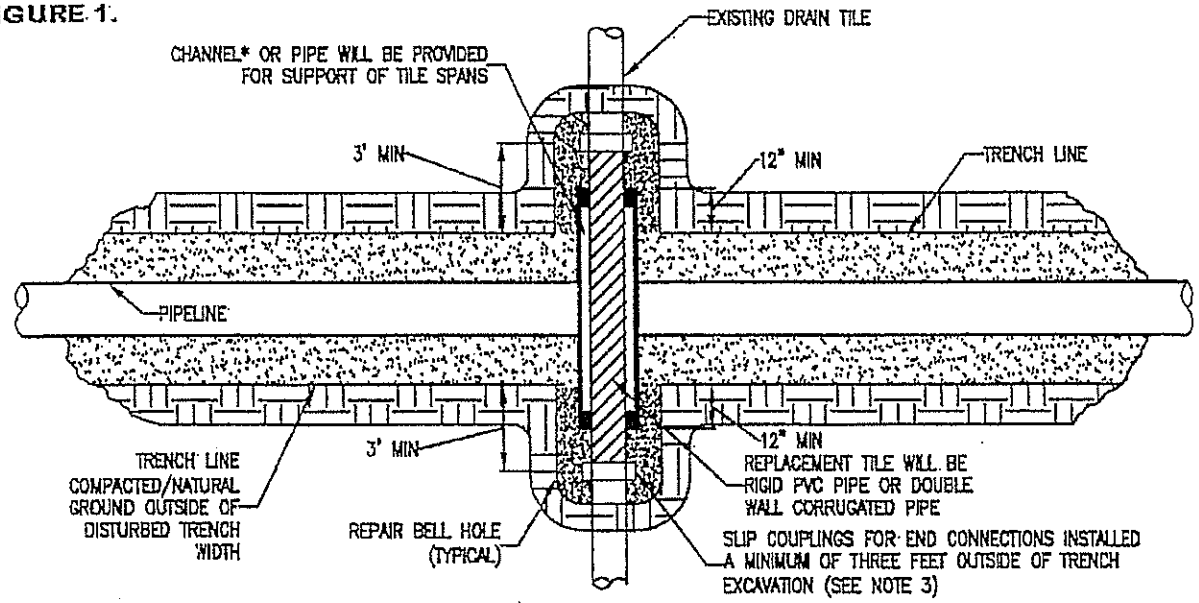
By Reed Richerson, Vice President

100 N. 6th St., Suite 410B
Minneapolis, MN 55403

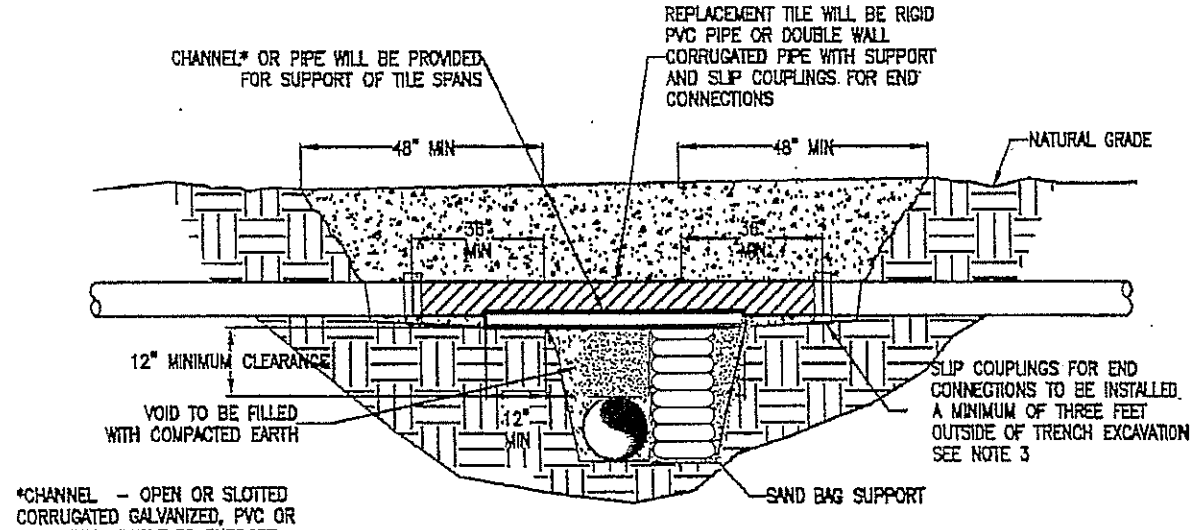
Address

May 31, 2023

FIGURE 1.



PLAN
N.T.S.



*CHANNEL – OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

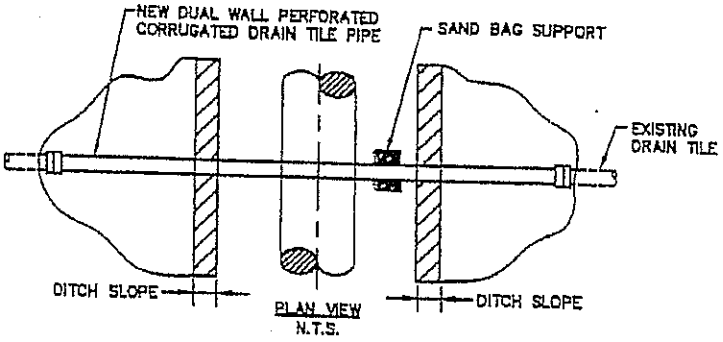
CROSS SECTION
N.T.S.

NOTE:

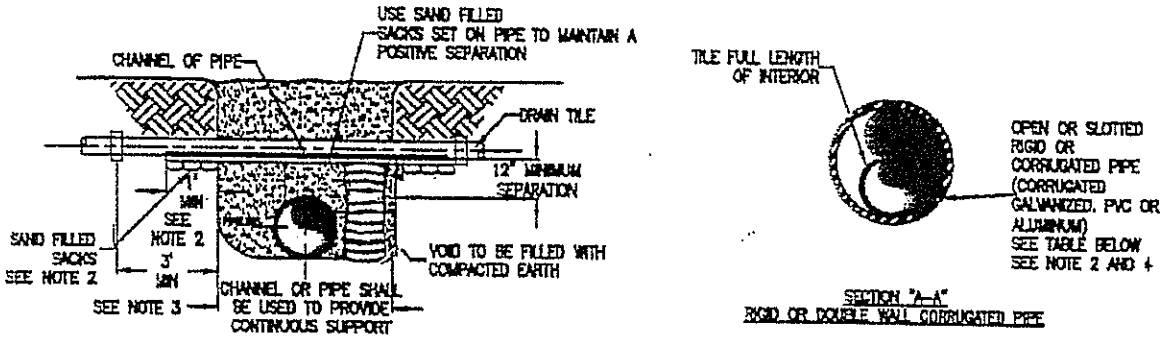
1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE 'NIGHT CAP' SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
2. CHANNEL OR PIPE (OPEN OR SLOTTED) MADE OF CORRUGATED GALVANIZED PIPE, PVC OR ALUMINUM WILL BE USED FOR SUPPORT OF DRAIN TILE SPANS.
3. INDUSTRY STANDARDS SHALL BE FOLLOWED TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.

TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



PLAN VIEW



END VIEWS

MINIMUM SUPPORT TABLE			
TILE SIZE	CHANNEL SIZE	PIPE SIZE	
3"	4" @ 5.4 #/ft	4"	STD. WT.
4"-5"	5" @ 6.7 #/ft	6"	STD. WT.
6"-9"	7" @ 9.8 #/ft	9"-10"	STD. WT.
10"	10" @ 15.3 #/ft	12"	STD. WT.

NOTE:

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.

2. 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).

3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.

4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.

5. OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.

6. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.

7. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

PERMANENT DRAIN TILE REPAIR

APPENDIX VI – RESULTS FROM THE UNITED STATES FISH AND WILDLIFE SERVICE

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800 Fax: (309) 757-5807

In Reply Refer To:
Project Code: 2023-0112080
Project Name: USS CEK2

August 02, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the ECOSPHERE Information for Planning and Consultation (IPaC) website https://ipac.ecosphere.fws.gov at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service (Service) if they determine their project “may affect” listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have

no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or more Determination Keys to conclude consultation on your action.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.

2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have “no effect” on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.

3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude “no species habitat or species present” and document your finding in your project records. For example, if the project area is located entirely within a “developed area” (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project’s immediate footprint.

4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat,

‘may affect’ is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.

2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species’ resources may have consequences even if the species is not present when the project is implemented.

3. If no listed or proposed species will be exposed to stressors caused by the action, a ‘no effect’ determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."

4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.

5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.

6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms

used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance.
You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation

Northern Long-eared Bat Update

Please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.
Other Trust Resources and Activities

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website https://www.fws.gov/library/collections/bald-and-golden-eagle-management.
We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries

- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
(309) 757-5800

PROJECT SUMMARY

Project Code: 2023-0112080
Project Name: USS CEK2
Project Type: Power Gen - Solar
Project Description: Proposed solar facility
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.7892376,-88.5312188992068,14z

Counties: Livingston County, Illinois

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. 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.

MAMMALS

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

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* 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.	Breeds Oct 15 to Aug 31
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31

NAME	BREEDING SEASON
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

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.

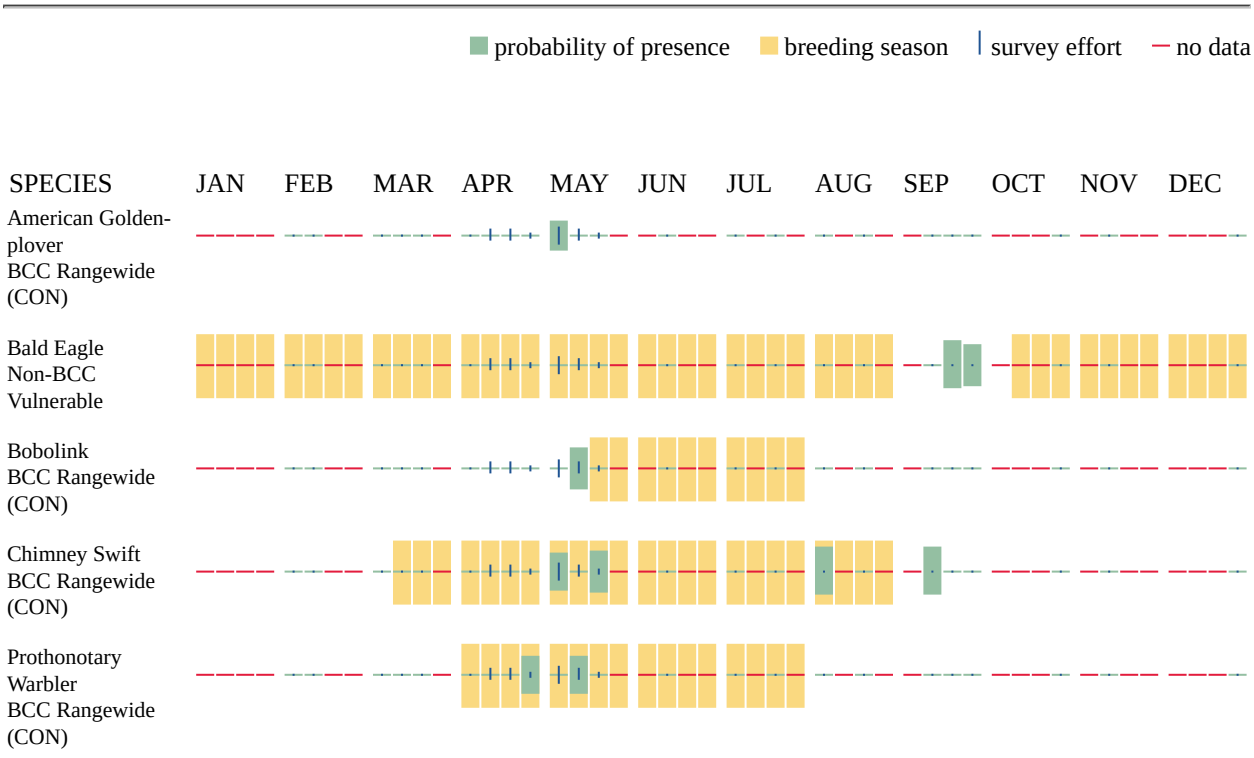
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

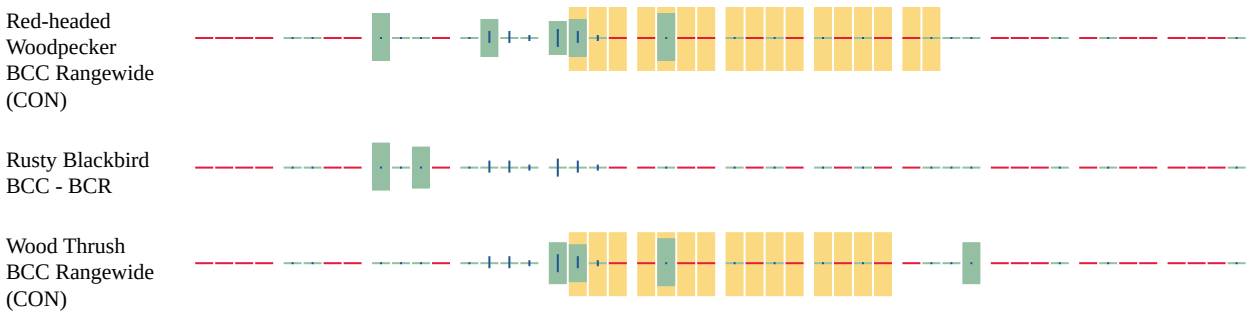
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

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.

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.





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

MIGRATORY BIRDS FAQ

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.

WETLANDS

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.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1Af

IPAC USER CONTACT INFORMATION

Agency:	Westwood Professional Services
Name:	Laura Nussbaum
Address:	10170 Church Ranch Way
Address Line 2:	Suite 201
City:	Westminster
State:	CO
Zip:	80021
Email	laura.nussbaum@westwoodps.com
Phone:	4063902954

APPENDIX VII – LETTER OF CONSULTATION WITH ILLINOIS STATE HISTORIC PRESERVATION OFFICE

Westwood

12701 Whitewater Drive, Suite 300
Minnetonka, MN 55343

Main (952) 937-5150
Fax (952) 937-5822

westwoodps.com
(888) 937-5150

August 23, 2023

Illinois Department of Natural Resources
State Historic Preservation Office
One Natural Resources Way
Springfield, IL 62702

Re: USS CEK2 Solar Project, Livingston County, IL
File: R0045915.00

To Whom It May Concern:

On behalf of USS CEK2 Solar LLC (Applicant), Westwood Professional Services is writing to request comments regarding the proposed USS CEK2 Solar Project located in Livingston County, Illinois (**Exhibits 1 & 2**). This Project will be an approximate 5.0 MWac solar facility located within an approximate 80-acre Subject Parcel consisting of currently undeveloped, agricultural land in Section 21 of Township 27N, Range 6E.

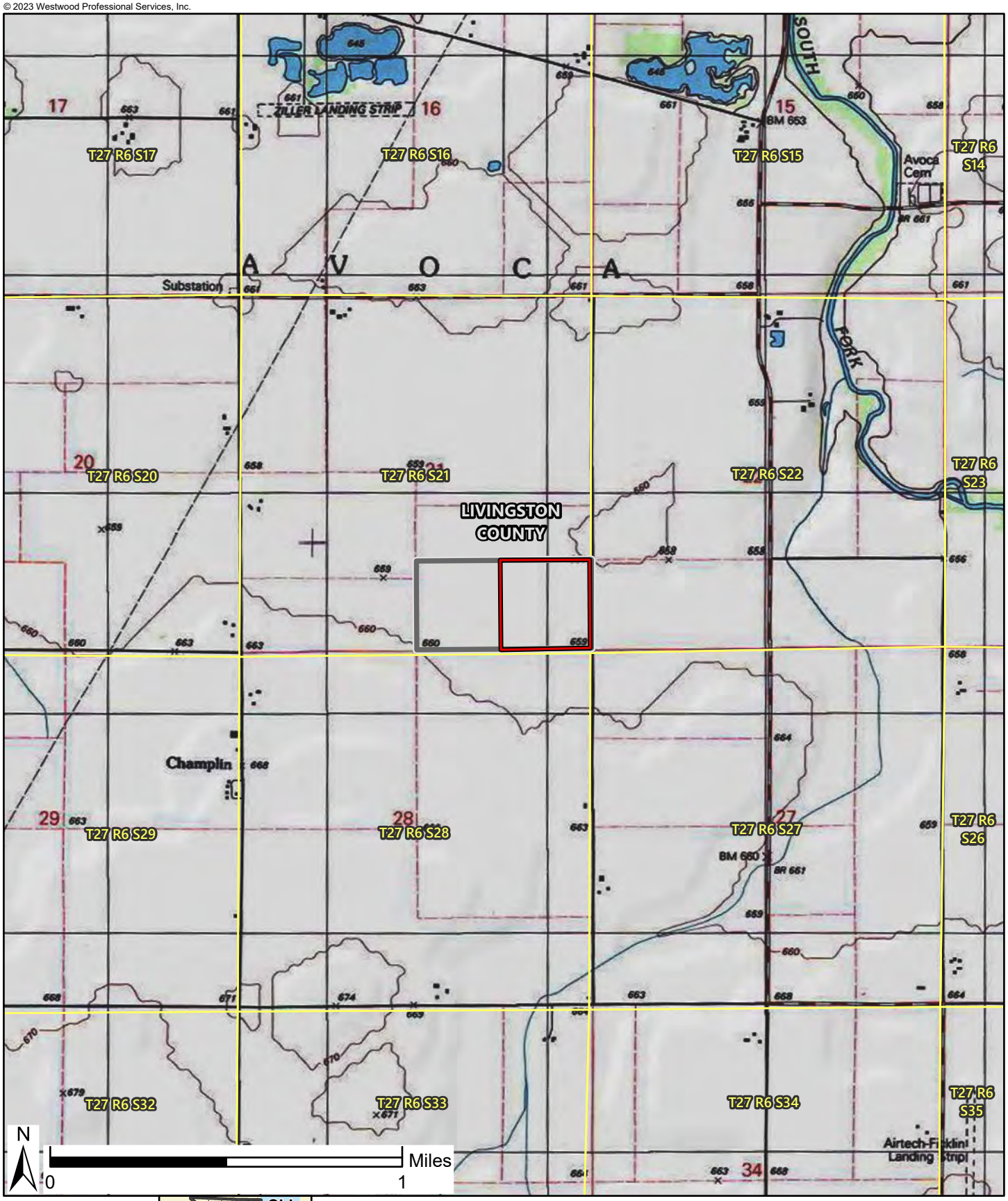
As part of the preparation of a SWPPP in accordance with the General NPDES Permit No. ILR10, planned for 2024, the Applicant is required to consult with the Historic Preservation Agency. This consultation is to ensure compliance with Illinois State law regarding historic preservation. This Project has no known federal nexus as this time. Only minor surface grading is planned for the Project which will comply with state required stormwater management controls.

We would appreciate hearing any comments you may have regarding the solar project. If you have questions, I can be reached at (612) 209-3352 or via email at ryan.grohnke@westwoodps.com.

Sincerely,

WESTWOOD PROFESSIONAL SERVICES

Ryan P. Grohnke
Cultural Resources Manager



Scale: 1:24,000

Data Source(s): Westwood (2023); USA_Topo_Maps: Copyright:© 2013 National Geographic Society, i-cubed
World Street Map: Esri, HERE, Garmin, FAO, NOAA, USGS, EPA.

- Project Premises
- Subject Parcel
- County Line
- Section Line

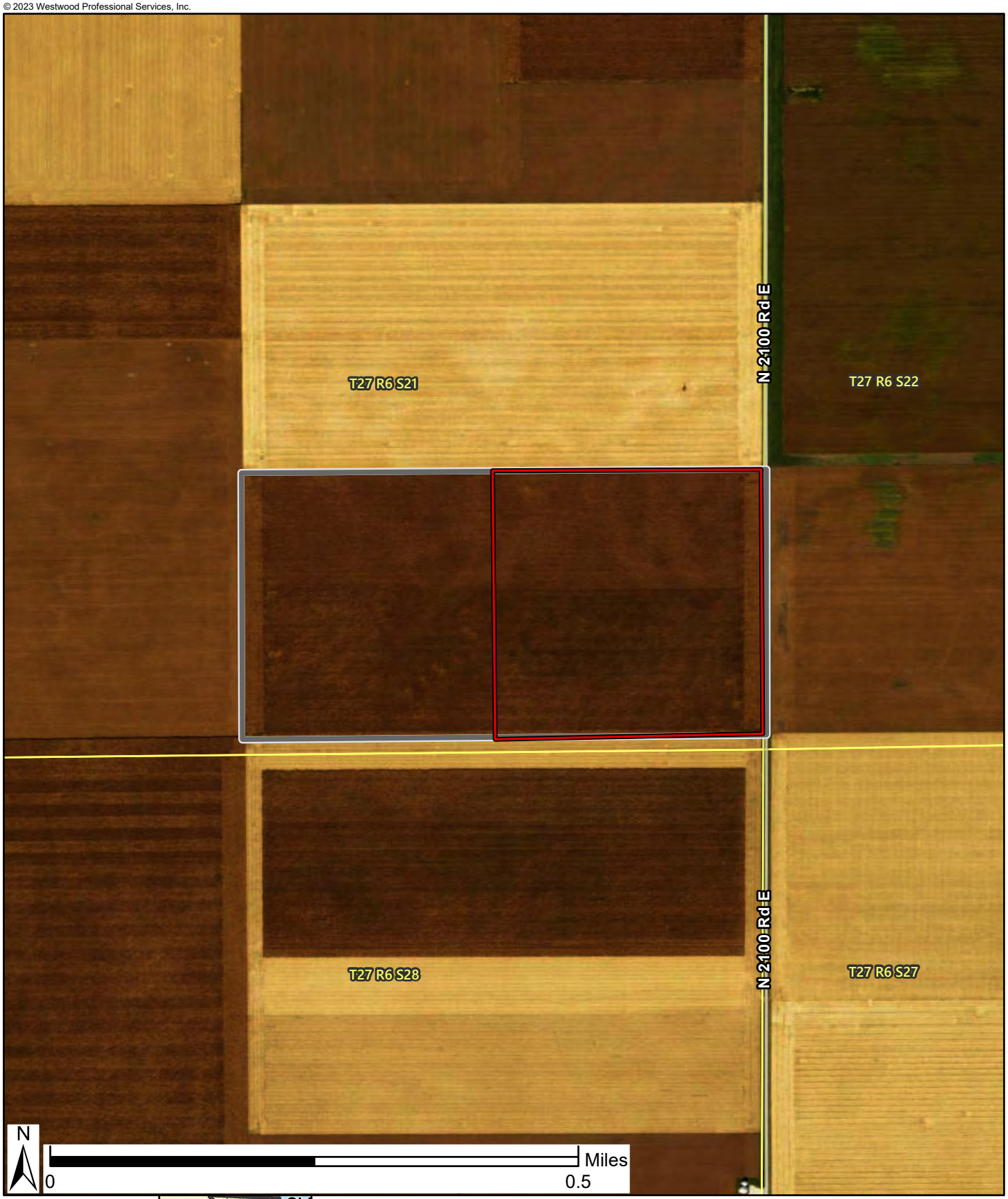
USS CEK2 Solar LLC Project

Livingston County, Illinois

Project Location

EXHIBIT 1

August 23, 2023



Scale: 1:8,000

Data Source(s): Westwood (2023); Hybrid Reference Layer: Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/ NASA, USGS, EPA, NPS, US Census Bureau, USDA
NAIP Imagery: Source: Esri,

Westwood
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

Project Premises
Subject Parcel
Section Line

USS CEK2 Solar LLC

Livingston County, Illinois

Project Area

EXHIBIT 2

August 23, 2023

APPENDIX VIII – TYPICAL MANUFACTURER SPECIFICATIONS

THREE PHASE PADMOUNT TRANSFORMERS

Short for "Tamper-proof, compartmentalized, liquid-filled, pad mounted transformer", all padmount designs feature fully enclosed tamper-proof terminal compartments and can be supplied with dead-front or live-front configuration, for loop or radial feed applications, with Type II mineral oil, or environmentally friendly and high flash-point Envirotemp™ FR3™.

All new Maddox padmount transformers are constructed of the highest quality materials and built in the US to heavy duty industrial standards, making them ideal for commercial and industrial applications such as data centers, solar step-up, manufacturing facilities, shopping centers, etc. Our padmounts are designed to the latest department of energy efficiency standards built and tested in accordance with industry standards including NEMA, ANSI C.57, DOE, and IEEE as applicable.

With thousands of new units in stock and ready-to-ship, and the manufacturing ability to produce almost any custom design, Maddox stands ready to meet your transformer need(s). Maddox stocks all standard configurations to match most common applications and deliver on short notice.

Design

HV Bushing Config.:
- Dead front or live front
- Loop feed or radial feed

Fluid Options:
- Type II Mineral Oil
- Envirotemp™ FR3™

Standard Gauge/Accessory Package:
- Pressure relief valve
- Pressure vacuum gauge
- Liquid temp & level gauges
- Drain & sample valve
- Adjustment taps

Switch Options:
- 2 Position LBOR Switch
- 4 Position LBOR Switch (V-blade or T-blade)
- (3) 2 Position LBOR Switches

Fusing Options:
- Bayonets w/ isolation links or CLFs

Construction:
- 5-legged core
- Rectangular wound copper or aluminum windings
- Carbon rienforced or stainless steel tank
- Steel divider between HV and LV cabinets
- Penta-head captive bolt

Optional Design Features & Accessories:
- Gauges w/ Contacts
- External drain and sample valve
- Electrostatic Shielding
- Step-up Design
- Surge-Arresters

Available Ratings

Table 1. Typical Transformer Ratings

Sizes (kVA)	45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000
Frequency	60 Hz or 50 Hz
Cooling Class	ONAN or KNAN
Temp Rise	55°C, 65°C, 55/65°C, 75°C
Voltages	*Available in Δ or Y configuration*
600V	208
	240
	416
	480
	600
2.5kv – 5kv	2400
	4160
	4800
15kV	12000
	12470
	13200
	13800
	14400
25kV	20780
	21600
	22900
	24940
	26400
35kV	33000
	34500

Fig 1. Padmount Transformer Outline

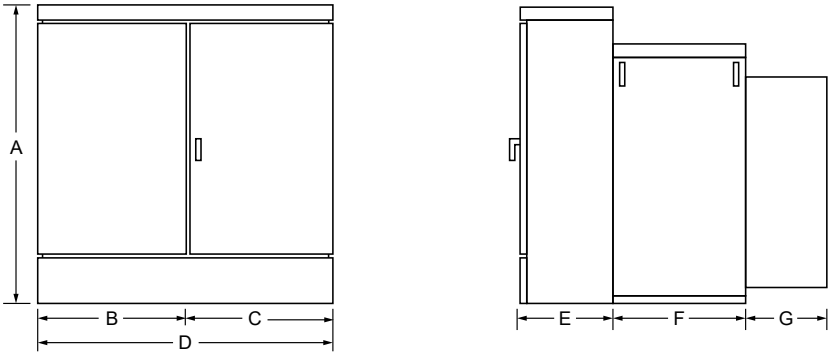


Table 2. Approximate Transformer Dimensions

kVA	A	B	C	D	E	F	G	Gallons	Weight (Lbs)
300	59”	29.5”	22”	51.5”	20.5”	24”	10”	196	4,056
500	59”	33”	26.5”	59.5”	24”	26.5”	10”	210	5,023
750	73”	36”	29”	65”	24”	26.5”	10”	358	7,664
1000	73”	36”	29”	65”	24”	27”	10”	354	8,530
1500	73”	36”	35.5”	71.5	24”	33.5”	10”	410	10,782
2000	75”	39.5”	28”	67.5	24”	35”	27”	433	12,490
2500	78”	39.5”	35.5”	75.5”	24”	37.5”	22.5”	545	14,246
3000	84”	30.5”	32”	62.5”	24”	37.5”	38”	550	14,014
3750	75”	50.5”	30”	80.5”	25.5”	42”	38”	730	17,785

Fig 2. Three Phase Maddox Padmount Transformer

Table 3. Common Accessories

1. Bayonet Fuses

2. Loadbreak Switch

3. Tap-changer

4. Bushings

5. Parking Stand

6: Gauges

Solis-(125-255)K-EHV-5G-US

Solis Three Phase US Inverters

Model:

600V: Solis-125K-EHV-5G-US-PLUS Solis-185K-EHV-5G-US Solis-185K-EHV-5G-US-PLUS

800V: Solis-255K-EHV-5G-US Solis-255K-EHV-5G-US-PLUS

Efficient

- 9/12/14 MPPTs, max. efficiency 99.0% (CEC efficiency 98.3%)
- > 150% DC/AC ratio
- High power tracking density 60MPPT/MW
- Compatible with 500W+ bifacial modules

Safe

- IP66
- CA Rule 21 compliant and UL 1741 SA Certified
- Built-in PID recovery for better module performance
- Fuse free design, safe and maintenance free
- Globally recognised branded component for longer life

Smart

- Intelligent string monitoring, smart I-V curve scan
- Remote firmware upgrade with simple operation

Economic

- Power line communication (PLC) (optional)
- DC side supports "Y" connector
- Support aluminium wire to reduce cost
- Reserve DC energy storage access

Datasheet

Model Name	Solis-125K-EHV-5G-US-PLUS	Solis-185K-EHV-5G-US	Solis-185K-EHV-5G-US-PLUS	Solis-255K-EHV-5G-US	Solis-255K-EHV-5G-US-PLUS
Input DC					
Max. input voltage	1500 V				
Rated voltage	950 V			1080 V	
Start-up voltage	500 V				
MPPT voltage range	480-1500 V				
Max. input current	9*30 A	14*26 A	12*30 A	14*26 A	12*30 A
Max. short circuit current	9*50 A	14*40 A	12*50 A	14*40 A	12*50 A
MPPT number/Max. input strings number	9/18	14/28	12/24	14/28	12/24
Output AC					
Rated output power	125 kW	185 kW		255 kW	
Max. apparent output power	137.5 kVA	185 kVA		255 kVA	
Max. output power	137.5 kW	185 kW		255 kW	
Rated grid voltage	3Φ/PE, 600 V			3Φ/PE, 800 V	
Rated grid frequency	60 Hz				
Max. output current	132.3 A	178.0 A		184.0 A	
Power Factor	>0.99 (0.8 leading - 0.8 lagging)				
THDi	<3%				
Efficiency					
Max. efficiency	99.0%				
CEC efficiency	98.3%				
Protection					
DC reverse-polarity protection	Yes				
Ground fault monitoring	Yes				
Anti-islanding protection	Yes				
Strings monitoring	Yes				
Integrated AFCI (DC arc-fault circuit protection)	Yes				
I/V Curve scanning	Yes				
Integrated PID recovery	Yes				
General Data					
Dimensions (W*H*D)	46.1*30.3*15.1 in (1170*770*384 mm)				
Weight	240 lbs (109 kg)	249.0 lbs (113 kgs)			
Topology	Transformerless				
Self consumption (night)	<2 W				
Relative humidity	0-100%				
Ambient operating temperature range	-13°F to 140°F (-25°C ~ +60°C)				
Storage environment	-40°F to 176°F (-40°C to 80°C)				
Ingress protection	TYPE 4X				
Cooling concept	Intelligent redundant fan-cooling				
Max. operation altitude	13,120 ft (4000 m)				
Compliance	UL 1741, UL 1741SA, UL 1998, UL1699B, IEEE 1547, FCC Part 15 (Class A & B), CAN/CSA C22.2 107.1-1, California Rule 21 Phaes II & III				
Features					
DC connection	MC4 connector				
AC connection	OT terminal (max. 300 mm^2)				
Display	LCD				
Communication	RS485, Optional: PLC				