

MEMORANDUM

TO: Outagamie County Agriculture, Extension Education, Zoning & Land Conservation Committee
FROM: Isaac Uitenbroek, Zoning Administrator
DATE: June 2, 2025
RE: **PL202500149; Special Exception – Large-Scale Solar Energy System**

APPLICATION DETAILS:

Applicant(s): OneEnergy Development, LLC
Owner(s): Glass Hill Farm, LLC
Request: Special Exception – Large-Scale Solar Energy System
Location: Town of Maple Creek; Tax Parcel(s): 160042800, 160042900 (Subject Property)
Previous Action: N/A
Public Hearing: June 10, 2025 (Public Notice Per Post Crescent)

BACKGROUND & ANALYSIS:

The applicant is seeking a Special Exception Permit for a Large-Scale Solar Energy System at the above referenced property pursuant to Section 54-102(9) and Division 4 of Article IV of the Outagamie County Code of Ordinances (OCCO). The Subject Property is located approximately one-half mile northwest of the intersection of CTH D and CTH W, Town of Maple Creek.

The proposed solar energy system is 5 megawatts and approximately 23 acres in size. This classifies the proposed solar energy system as a “Large-Scale” solar energy system per definitions provided in Section 54-4 of the OCCO. The proposed use will include the installation of solar arrays, access drive, perimeter fencing, landscaping, and associated utility infrastructure (see project narrative Exhibit A).

The Subject Property is zoned Exclusive Agricultural (AED). Section 54-102(9) *Special Exception Uses and Structures* of the OCCO allows for a Large-Scale Solar Energy System within the Exclusive Agricultural District subject to dimensional requirement of Section 54-103(3).

Per Section 54-103(3) of the OCCO, the Subject Property and site design will need to satisfy the following dimensional requirements: minimum lot area, one acre; lot width 150 feet; front yard 40 feet (55 feet along CTH D); rear yard 40 feet; no side yard requirement. Per the proposed site plan (see Exhibit B), the aforementioned dimensional requirements have been satisfied.

In addition to Sections 54-102(9) and 54-103(3), Large-Scale Solar Energy Systems are further subject to the regulations and requirements of Division 4 – *Solar Energy Systems* of Article IV – *Supplementary District Regulations* of the OCCO (Sections 54-448 thru 54-449), explored in further detail below.

Per Section 54-448(a) of the OCCO:

1. Height. Ground-mounted solar energy systems shall not exceed 15 feet in height when oriented at maximum tilt. Height may be increased by 1 foot for every 2 feet of additional setback.
 - **Staff Analysis:** *Satisfied. Per the site design documents, the proposed height of the ground mounted solar energy system at maximum tilt will be approximately eight feet in height (see Exhibit C: Figure 1 – Page 5).*

2. Setbacks. Community-scale and large-scale solar energy systems must meet the following setbacks:
 - a. Arrays
 - i. Required setbacks for principal buildings or structures in the district in which the system is located.
 - ii. Setback distance shall be measured from the edge of the solar energy system array, excluding security fencing, screening, or berm.
 - b. Battery Energy Storage System (BESS)
 - i. Minimum 100 feet from exterior lot lines.
 - ii. Minimum 300 feet from existing dwellings and any other existing building containing a permitted principal use.
 - iii. Setback distance shall be measured from the edge of the BESS containment enclosure(s), excluding security fencing, screening, or berm.

- **Staff Analysis:** *Satisfied. Per the site plan (see Exhibit B) required setbacks will be met for the arrays. There is no BESS proposed.*

3. Screening. Community-scale and large-scale solar shall be screened from existing dwellings located within 300 feet of the closest array.
 - a. A screening plan shall be submitted that identifies the type and extent of screening.
 - b. Screening shall be consistent with Section 54-359 Landscaped Buffer requirements, except that screening may be located where most effective and does not need to run the entire length of the property line.
 - c. The Zoning Administrator may require additional screening where they determine there is a clear interest in protecting/maintaining a viewshed.

- **Staff Analysis:** *Not Applicable. There are no existing dwellings within 300 feet of the closest proposed array.*

4. Vegetation/Groundcover. The following provisions shall apply to the clearing of existing vegetation and establishment of vegetated ground cover for Large-Scale Solar Energy Systems. Additional site-specific conditions may apply as required by the Zoning Administrator.

- a. Large-scale removal of mature trees on the site is discouraged.
 - b. The applicant shall submit a vegetative management plan prepared by a qualified professional or reviewed and approved by a natural resource agency or authority, such as the Wisconsin Department of Natural Resources or Outagamie County Department of Land Conservation. The plan shall identify:
 - i. The natural resource professionals consulted or responsible for the plan.
 - ii. The conservation, habitat, eco-system, or agricultural goals, which may include: providing habitat for pollinators such as bees and monarch butterflies, providing habitat for wildlife such as upland nesting birds and other wildlife, establishing vegetation for livestock grazing, reducing on-site soil erosion, and improving or protecting surface or ground-water quality.
 - iii. The intended mix of vegetation upon establishment.
 - iv. The management methods and schedules for how the vegetation will be managed on an annual basis, with particular attention given to the establishment period of approximately three years.
 - c. Soils shall be planted and maintained in perennial vegetation for the full operational life of the project, to prevent erosion, manage run off and build soil.
 - d. Vegetative cover should include a mix of perennial grasses and wildflowers that will preferably result in a short stature prairie with a diversity of forbs or flowering plants that bloom throughout the growing season. Blooming shrubs may be used in buffer areas as appropriate for visual screening. Perennial vegetation (grasses and forbs) are preferably native to Wisconsin, but where appropriate to the vegetative management plan goals, may also include other naturalized and non-invasive species which provide habitat for pollinators and wildlife and/or other ecosystem services (i.e. clovers).
 - e. Plant material. Plant material must not have been treated with systemic insecticides.
- **Staff Analysis:** *Satisfied. The subject property is primarily an open agricultural field with an existing tree line. The applicant is not proposing large-scale removal of mature trees. Further, the applicant has provided a vegetation management plan (see Exhibit D) prepared in coordination with WDNR standards which will consist of native pollinator habitat. The plan adequately addresses the above criteria.*
5. Foundations. A licensed engineer shall certify that the foundation and design of the solar panel racking and support is within accepted professional standards, given local soil and climate conditions.
- **Staff Analysis:** *The applicant has provided the following response:*
 - *“We are not able to advance pile designs until geotechnical diligence work is complete, which typically follows key discretionary permits, namely the one under your review presently. By way of example, I included the sealed foundation design for our La Grange Solar project, which is similar and commencing construction this week.”*

Staff has included several pages of the La Grange Solar project design documents as Exhibit E (full document is 70 pages). Submittal of licensed engineer certification will be required prior to installation of solar panel racking and supports, and has been included as a recommended condition of approval.

6. Power and communication lines. Power and communication lines running between banks of solar panels and to nearby electric substations or interconnections with buildings shall be buried underground. Exemptions may be granted by the Zoning Administrator in instances where shallow bedrock, water courses, or other elements of the natural landscape interfere with the ability to bury lines, or distance makes undergrounding infeasible.
- **Staff Analysis:** *Satisfied. Per the site plan (see Exhibit B) all power and communication lines will be buried underground to the maximum extent practicable.*

Per Section 54-448(b) of the OCCO:

Stormwater. Solar collectors shall not be considered impervious surfaces if the soil under the collector is maintained in vegetation and not compacted.

- **Staff Analysis:** *Satisfied. Soil under the solar arrays is proposed to be maintained in vegetation (native pollinator habitat) per the approved Vegetation Installation and Management Plan (see Exhibit D). As such, the collectors will not be considered as impervious.*

Per Section 54-448(c) of the OCCO:

Other standards and codes. All solar energy systems shall be in compliance with all applicable local, state and federal regulatory codes, including the State of Wisconsin Uniform Building Code, as amended; and the National Electric Code, as amended.

- **Staff Analysis:** *Satisfied. The proposed solar project will require stormwater and erosion control permits from the County, permitting from WDNR for any disturbance over one acre, and a building permit from the town building inspector and/or the State of Wisconsin prior to the start of construction. Further, staff has included a recommended condition of approval to this effect.*

Per Section 54-448(d) of the OCCO:

Project Narrative. The applicant shall submit a project narrative providing a general description of the proposed facility, facility operations, and site design.

- **Staff Analysis:** *Satisfied. The applicant has provided a project narrative (see Exhibit A) and operations plan (see Exhibit A-1).*

Per Section 54-448(e) of the OCCO:

Site Plan/Elevations. The applicant shall submit a site plan and elevations for review in accordance with the following.

1. The site plan shall include both existing and proposed conditions, showing locations of all solar arrays, other structures, property lines, rights-of-way, entrances, service roads, storage systems, floodplains, wetlands and other protected natural resources, topography, electrical equipment/infrastructure, and all other characteristics requested by the Zoning Administrator.
 2. Elevation drawings must be scaled and show the location of the system on the building or on the property for a ground-mount system, including the property lines, and all other characteristics requested by the Zoning Administrator.
- **Staff Analysis:** *Satisfied. The applicant has provided a site plan (see Exhibit B) and included elevation drawings in the project narrative (see Exhibit A).*

Per Section 54-448(f) of the OCCO:

Decommissioning. A decommissioning plan shall be required to ensure that solar energy systems are properly removed after their useful life.

1. The developer, including any successor, is responsible for the removal of the system at the end of its useful life. The site is to be restored to its pre-construction condition to the maximum extent possible, within 12 months of ceasing operations.
 2. The plan shall include the following:
 - a. Provisions and steps for removal of all structures and foundations and restoration of soil and vegetation to pre-construction conditions.
 - b. Estimated cost for decommissioning and restoration of the site less the project's estimated salvage value.
- **Staff Analysis:** *Satisfied. The applicant has provided a decommissioning plan (see Exhibit F) that meets the above criteria. The decommissioning plan proposes to return the site back to a state similar to pre-construction conditions (agricultural field). Decommissioning of the site is required within 12 months of ceasing operations. Staff has included this as a recommended condition of approval.*

Per Section 54-448(g) of the OCCO:

Financial Assurance. Financial assurance shall be required in the amount adequate to cover the estimated cost of decommissioning as determined within the decommissioning plan and any subsequent amendments thereto. Financial assurance must be provided prior to the commencement of construction activities in the form of cash, irrevocable letter of credit, or other suitable financial mechanism as agreed upon by the County.

- **Staff Analysis:** *Satisfied. The applicant has provided a certified, third party, analysis of decommissioning costs for this project (see Exhibit G). Based on the analysis, the total cost to remove all improvements and restore this site to existing conditions (ag field) is \$269,890.76. The estimated salvage value (5 year projection) of all equipment and materials is \$1,963,192.78 resulting in a \$1,693,302.02 decommission surplus. As such, staff recommends that no financial assurance amount be required at this time; rather, the applicant/property owner be required to submit an updated certified, third party, analysis of decommissioning costs every five years to ensure salvage values continue to exceed decommissioning costs. This has been included as a*

recommended condition of approval.

Per Section 54-449 of the OCCO:

All special exception permit applications are subject to, and shall be processed in accordance with, procedures set forth in Division 6 of Article XII of this ordinance and the following:

- a) Application Requirements. Applications for special exception permits are subject to the provisions and requirements set forth in Section 54-448 and shall include application materials the same.
 - b) Conditions. In evaluating a special exception permit application, the zoning committee may impose one or more conditions as may be necessary to grant approval. Such conditions and restrictions may relate to the establishment, location, construction, maintenance, operation of the use, off-site impacts, and any other aspect of the use that impacts the public health, safety, or general welfare and must be based on substantial evidence.
- **Staff Analysis:** *Satisfied. The applicant has provided application materials to demonstrate compliance and/or intended compliance with Section 54-448 and staff has provided recommended conditions of approval below.*

2017 Wisconsin Act 67 requires conditions specified in the ordinance and/or imposed by the Zoning Committee be reasonable, and to the extent practicable, measurable. Act 67 further requires conditions imposed by the Zoning Committee to be related to the purpose statement of Chapter 54 of the OCCO and be founded on substantial evidence.

The criteria the Zoning Committee shall use to decide a Special Exception request is provided in Section 54-863 of the OCCO. Section 54-863 states no special exception shall be approved, unless the Zoning Committee finds:

1. The establishment, maintenance or operation of the proposed special exception use or structure at the proposed location will not be detrimental or injurious to the use and enjoyment of existing uses on adjacent properties or properties in the vicinity.
2. The establishment, maintenance or operation of the proposed special exception use or structure, along or in combination with other existing special exception uses and structures in the vicinity, will not cause traffic hazards.
3. Adequate provision is made for surface water drainage, ingress and egress to the property and off-street parking.
4. Adequate public facilities and services are available for the proposed special exception use or structure.

The applicant has provided the following responses regarding the criteria:

1. *The project will not be detrimental or injurious to the use and enjoyment of existing uses on adjacent properties or properties in the vicinity. Solar projects are quiet neighbors that produce no noise or light pollution.*
 - *Staff notes the applicant also provided a Glare Analysis (not required) with this application (see Exhibit H).*
2. *Road safety is vital to all of our construction projects. Construction traffic signage placed near to*

the site will ensure that no traffic hazards result from the construction of the project. After construction, the site will have very low visitation needs and will likely be visited on average once per month by a technician.

3. *Parking will be within the dedicated laydown area within the fenced area of the project. Post-construction drainage patterns will match pre-construction drainage patterns to the greatest extent possible; DNR stormwater requirements obligate us to demonstrate that adequate Best Management Practices are in place during construction and until the site is 70% vegetated, and that infiltration within the site will increase relative to pre-construction conditions after construction is complete. Ingress and egress will be maintained via the 16' aggregate access drive connecting to County Highway D.*
4. *No public facilities or services will be required for this project.*

It is staff's opinion that items 1-4 are being met with this application.

There are no environmentally sensitive areas located on the Subject Property. The Town of Maple Creek reviewed the proposed Special Exception Permit application at their May 14, 2025, Town Board meeting and recommended approval with the following conditions and exceptions (see Exhibit I):

The motion to approve came with two exceptions: 1) It will not be annexed to another Municipality and 2) it will not be expanded to parcel 160042700. Exception 1) When ATC put up their lines and substation, the C. of NL annexed it. They took most of the utility dollars from MC. 2) This is Exclusive Ag. Why take prime farmland for solar.

Staff notes the conditions requested by the town are not legally applicable to this Special Exception Permit, or under the regulatory jurisdiction of the County. Any future expansion of the proposed use outside of what has been presented in this application will require a new special exception permit application.

In consideration of the aforementioned, staff has provided the following recommendation:

STAFF RECOMMENDATION:

Based on our review and the above analysis of this Special Exception, **COUNTY ZONING STAFF RECOMMENDS APPROVAL** of PL202500149, with the following condition(s).

1. **Decommissioning of the project site shall be in conformance with the approved Decommissioning Plan and shall commence no later than 12 months following cessation of site operations.**
2. **The applicant/property owner shall submit a certified third-party analysis of decommissioning costs to the County every five (5) years from the date of Special Exception permit approval. In the event that any submitted analysis shows the salvage value no longer exceeds the decommissioning cost, the applicant/property owner shall provide a financial assurance acceptable to the County, in an amount sufficient to fully fund the implementation of the approved decommissioning plan.**

- 3. Prior to installing the solar panel racking and support systems, the applicant shall provide the County with a certification from a licensed engineer confirming that the foundation and structural design meet accepted professional standards, taking into account local soil conditions and climate factors**
- 4. Site vegetation shall be installed and maintained in compliance with the “Vegetation Installation and Management Plan” approved with this permit.**
- 5. The applicant shall obtain an access permit from Outagamie County Highway Department prior to installation of the proposed access to CTH D.**
 - a. Application for permit shall include construction schedule and traffic control plan.**
- 6. Prior to site work, all necessary development permits must be approved and issued by the State, County, Town, or other required approving authority.**

EXHIBIT A



Special Exception Permit Application Addendum – Outagamie County, WI

New London Solar Project

Applicant:

**OneEnergy Development, LLC
10 N. Livingston St., Suite 201
Madison, WI 53703**

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Exhibits

Exhibit A – Site Plan

Exhibit B – Operations Plan

Exhibit C – Vegetation Management Plan

Exhibit D – Decommissioning Plan

Exhibit E – Survey Map

Exhibit F – Frequently Asked Questions

Exhibit G – Glare Analysis

Exhibit H – Project Profile

Exhibit I – List of Neighbors within 300 ft



Background

The New London Solar Project (the “Project”) is a proposed 5 Megawatt solar generation facility. OneEnergy Development, LLC (“OneEnergy” or “the Applicant”) will develop, engineer, and construct the Project.

The Applicant will complete all environmental studies and surveys required to construct the Project, including the following: wetland delineation, Phase I Environmental Site Assessment, soil analysis, Wisconsin State Historical Preservation Office, and endangered resources review. The Project is not expected to impact natural resources.

The Applicant intends to start construction on the Project in the spring of 2026, pending receipt of all required permits and approvals and availability of key equipment for the project. Construction of the project is expected to take approximately 4-6 months. If construction starts in spring of 2026, the Project is expected to be completed by the end of 2026. If construction is delayed due to key equipment availability or other issues until spring of 2027, the project is expected to be constructed and operational by the end of 2027. Once complete, the Project will generate local power for local customers within We Energies’ service territory.



Strobus Solar Project in Black River Falls, WI

A. General Land Use Description

Location

The Project is located on approximately 23 acres of vacant land in the Town of Maple Creek, Outagamie County known as parcel #'s 160042900 and 160042800, west of County Highway D. The land is part of a larger 29.32-acre parcel owned by Glass Hill Farm, LLC (Kevin Fermanich).

Zoning

The proposed Project is situated on land that is zoned AED - Exclusive Agricultural District.

Outagamie County staff requested the following additional items be discussed in this narrative pursuant to County ordinance. The criteria the Zoning Committee shall use to decide a Special Exception request is provided in Section 54-863 of the OCCO. Section 54-863 states no special exception shall be approved, unless the Zoning Committee finds:

- a) *The establishment, maintenance or operation of the proposed special exception use or structure at the proposed location will not be detrimental or injurious to the use and enjoyment of existing uses on adjacent properties or properties in the vicinity.*

The project will not be detrimental or injurious to the use and enjoyment of existing uses on adjacent properties or properties in the vicinity. Solar projects are quiet neighbors that produce no noise or light pollution.



- b) *The establishment, maintenance or operation of the proposed special exception use or structure, along or in combination with other existing special exception uses and structures in the vicinity, will not cause traffic hazards.*

Road safety is vital to all of our construction projects. Construction traffic signage placed near to the site will ensure that no traffic hazards result from the construction of the project. After construction, the site will have very low visitation needs and will likely be visited on average once per month by a technician.

- c) *Adequate provision is made for surface water drainage, ingress and egress to the property and off-street parking.*

Parking will be within the dedicated laydown area within the fenced area of the project. Post-construction drainage patterns will match pre-construction drainage patterns to the greatest extent possible; DNR stormwater requirements obligate us to demonstrate that adequate Best Management Practices are in place during construction and until the site is 70% vegetated, and that infiltration within the site will increase relative to pre-construction conditions after construction is complete. Ingress and egress will be maintained via the 16' aggregate access drive connecting to County Highway D.

- d) *Adequate public facilities and services are available for the proposed special exception use or structure.*

No public facilities or services will be required for this project.

Setbacks

OneEnergy commits to following all applicable Dimensional requirements (setbacks) outlined in the Code of Ordinances of Outagamie County, Wisconsin, Z-11—2024-25 and Section 54-103(3) for “Other permissible principal uses and structures”:

- a) Front yard – minimum 40 feet.
- b) Rear yard – minimum 40 feet.

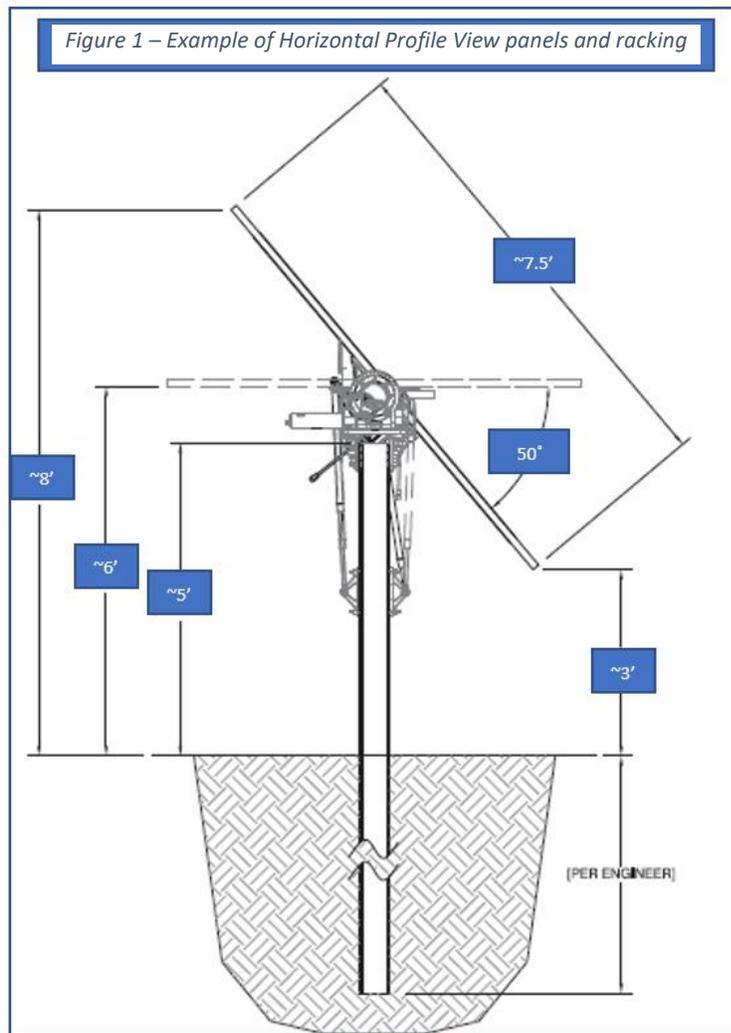
B. Description of Equipment

Racking and Panels

The racking for the proposed project consists of driven steel I-Beams that are embedded approximately 10’ into the ground, and extend approximately 5’ above ground. A torque tube connects to the top of the I-Beams, and the panels are mounted to the top of the torque tube. All components of the racking system are galvanized steel.



Below is a depiction of the horizontal profile view of the panels and racking, which will run in rows from north to south throughout the site and will track the sun from east to west throughout the day. At their maximum angle in morning and evening, the panels are 50 degrees from horizontal facing either east (morning) or west (evening). At mid-day, the panels are flat. At their maximum tilt angle in morning and evening, the tallest part of the panel is ~8' above ground level.



Solar Panels

Crystalline silicon solar PV panels, which represent ~95% of the installed solar panels in the US, consist primarily of tempered glass, silicon wafers, anodized aluminum, and wiring, all of which can be recovered and recycled at the end of their useful life. PV panels are extremely durable and built for long service life, as indicated by their 30-year warranty.



Inverters, Transformer, Electrical Rack

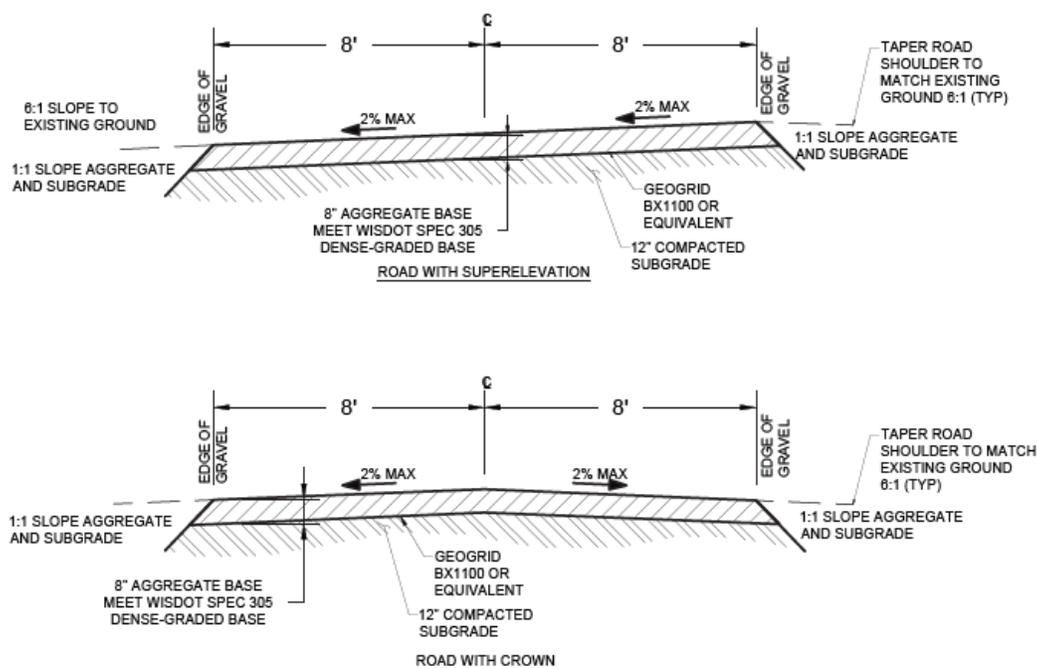
The inverters, electrical panels and transformers will be located in the middle of the project as depicted in the site plan. Most equipment (inverters, electrical panel, etc.) will be mounted on driven pilings similar to the pilings that support the solar panels and racking with a maximum height of 8 feet. The transformers and disconnects will be mounted on a concrete pad. These pieces of electrical equipment look similar to what you would see at a large load service like a grocery store.



Access Drive

The access drive is proposed to be 16' wide and will come off of County Highway D. The access drive will be installed below depending on the slope. The access drive is installed at-grade to minimize changes to existing drainage patterns.

Figure 2 – Example of Access Drive Design Detail



Fence

A fence will surround the solar project and will be an 8' tall agricultural-style fixed knot wildlife exclusion fence similar to what you might see around an orchard. The fence will have either wood or steel posts.



Image 4 – Fence at Rushford Village Solar Project in Rushford Village, MN



Image 5 – Fence at Blue Prairie Solar Project in Black River Falls, WI

C. Scale Map of the Project Site

Please see **Exhibit A - Proposed Site Plan** for dimensions and location of proposed facilities. OneEnergy designs our projects using highly efficient bifacial solar panels and single-axis tracking racking. Using this equipment, a 5 Megawatt solar system can be located on approximately 23 acres of relatively flat topography and, most importantly, consistent elevations in the north-south direction.

The proposed project is expected to produce enough electricity for approximately 1,300 average Wisconsin residences, equivalent to over 50 homes per acre.

D. Landscaping

The Project will be developed in a manner that complements the agricultural setting by using an agricultural-style fence, either a pasture for grazing sheep or a pollinator seed mix to attract bees and birds. Topsoil integrity will be preserved throughout construction by pre-seeding a cover crop prior to construction to minimize erosion and compaction, as well as by minimizing grading within the site. The permanent seeding will take place after construction is complete, and will conform with Wisconsin DNR recommendations for solar projects. The final landscape plan will be developed in partnership with the Wisconsin DNR and in compliance with all applicable stormwater requirements. By planting dense perennial vegetation beneath and around the solar panels, the project provides ecosystem services associated with pollinator benefits, soil building, increased water infiltration and reduced stormwater runoff compared to regularly tilled farmland. Please see **Exhibit C – Vegetation Management Plan**.

E. Wetland and Drainage Facilities

The project is designed to minimize soil disturbance and drainage alterations as much as possible. OneEnergy anticipates limited ground disturbance for the installation of the solar array and will ensure all grading is done in compliance with recommended best practices for stormwater and sediment erosion control. Because the project will occupy more than one acre, OneEnergy will be required to comply with the Wisconsin Department of Natural Resources NPDES Construction General Permit, which has the following requirements:

- Implement Best Management Practices to control sedimentation during construction, i.e. silt fencing, fiber logs, temporary stabilization, etc.
- Submittal of a Water Resource Application for Project Permits (WRAPP)
- Develop a Stormwater Management Plan approved by the Wisconsin DNR prior to commencement of construction

Sedimentation will be controlled from leaving the project area after construction by changing the land use of the project area from cultivated agricultural land to nearly 100% vegetated ground cover. The pollinator meadow growing beneath and around the solar panels acts as a vegetative buffer that covers ~95% of the site. Runoff from the access roads and concrete pads will travel through the vegetative cover prior to leaving the project area. Water that runs off panels into the proposed dense pollinator planting below will act as a natural vegetative buffer which will increase infiltration and act as erosion control to help the site meet required standards.



F. Construction Schedule

OneEnergy's goal is to finalize engineering in the winter of 2025-2026, to enable purchasing of long-lead equipment in early 2026 and construction during the months of May to October, 2026. If construction is delayed due to key equipment availability or other issues until spring of 2027, the project is expected to be constructed and operational by the end of 2027.

A project of this size typically takes 4-6 months to construct. The Project is intended to start construction in the summer of 2026 and be complete by the end of 2026. A tentative construction schedule is as follows:

Civil Work and Fencing Install	5/1/2026	5/31/2026
Pile Installation	6/1/2026	7/1/2026
Racking and Module Installation	7/1/2026	9/1/2026
Wiring and Transformer Installation	9/1/2026	10/15/2026
Pollinator Seeding and Revegetation	10/15/2026	11/1/2026
Target In-service Date	11/1/2026	

G. Operations & Vehicular Traffic Description

During operation, the Facility will be an unmanned plant that will operate through local and remote control/monitoring. Please see **Exhibit B – Operations Plan**. During construction, we anticipate that there will be between 5 and 30 construction workers on-site for the 6-month period (May-October) during which the bulk of construction will take place. Adequate provision for parking of such construction staff has been included in the design of the laydown area within the site perimeter. Additionally, deliveries will be expected during business hours. It is not expected that more than 3-4 delivery trucks will arrive to the site per day during construction. Following construction, traffic will be very limited. We typically expect approximately one pickup truck to visit the site per month during the operational period for routine site maintenance and mowing.

H. Decommissioning and Removal

OneEnergy has committed through its lease agreement with the landowner to remove the system at the end of the project life, including provisions to ensure that there is adequate financial security set aside to perform such decommissioning. When the Project is decommissioned, all infrastructure will be removed, and the site will be restored to predevelopment conditions for continued agricultural use with rested and restored soils. Please see **Exhibit D – Decommissioning Plan**.



I. About OneEnergy

OneEnergy is the leading developer of distributed utility scale solar in Wisconsin, having developed 55 projects in the Midwest totaling 220 MW, and 39 projects totaling ~170 MW in Wisconsin that are currently operating or under construction.

Our regional team consists of developers, engineers, legal, and construction managers based out of our Madison office. The team completed development, engineering, and, in 2024, managed the construction of 7 projects in Wisconsin, including a series of four 6 Megawatt projects for WE Energies located in Fond du Lac, Jefferson, Racine, and Walworth Counties.

In this work, we have cultivated strong relationships with permitting entities and developed expertise in effective stakeholder communication, ensuring smooth project execution.

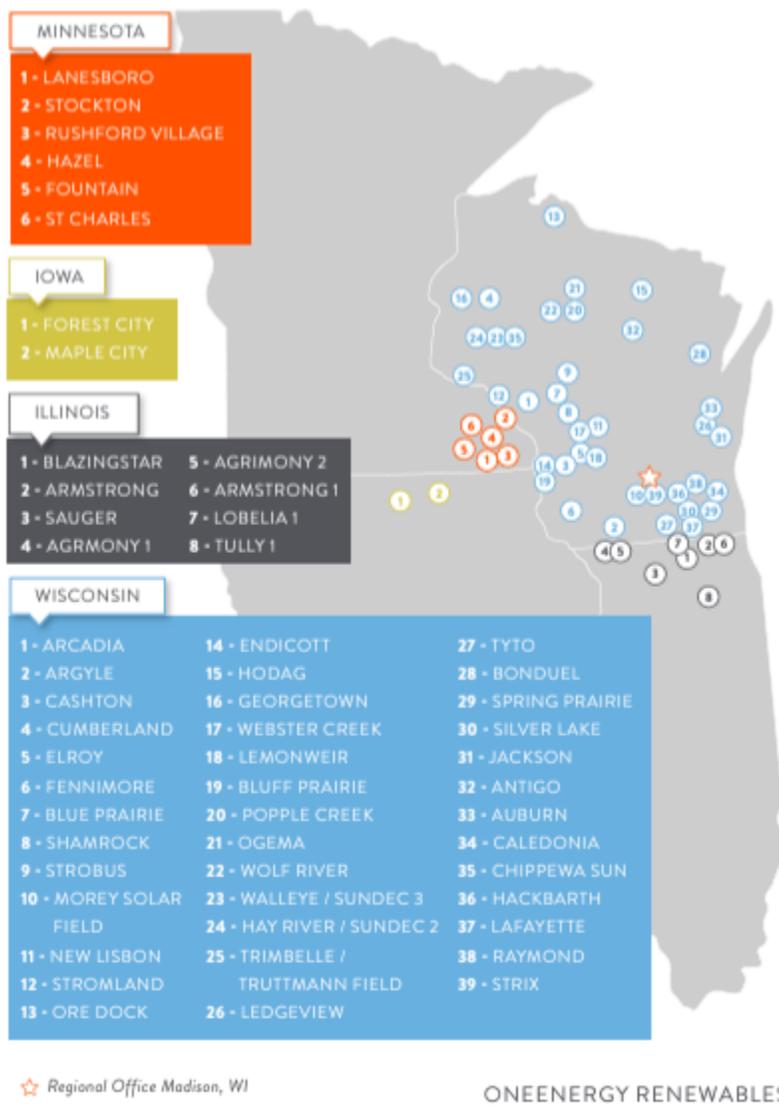


Figure 3 – OneEnergy Midwest Solar Projects





Exhibit B – Operations Plan

New London Solar Project

Applicant:

OneEnergy Development, LLC

10 N. Livingston St. Suite 201

Madison, WI 53703

OneEnergy Renewables

New London Solar Project

Solar Generating Facility Operations Plan

Type of Activity Proposed: OneEnergy Development, LLC is proposing to build a solar generation project (the “Facility” or “Project”) located on approximately 23 acres, consisting of solar modules and associated collection equipment that delivers power to the electric grid. The Facility will have a maximum capacity of 5 MW AC. The on-site equipment at the Facility will consist primarily of solar modules mounted on single-axis tracking racking. These panels generate direct current (DC) electricity. Approximately 20 inverters, situated throughout the array area, convert the DC electricity to alternating current (AC) electricity to allow it to be delivered to the existing electric distribution system. Two transformers increase the AC voltage produced by the inverters to the grid voltage of the existing three-phase distribution line to which the Project connects.

The Facility will be an unmanned plant that will operate through local and remote control and monitoring. The PV system will be monitored remotely through the Utility Energy Management System and the integrated Data Acquisition System (DAS), which signals alerts for any irregular operating condition. Scheduled maintenance will occur once annually to inspect all elements of the project to ensure optimal performance. After construction is complete, there will be limited access to the site for periodic inspections (monthly), maintenance and vegetation management.

The Facility will provide solar electricity to serve the needs of local utility customers.

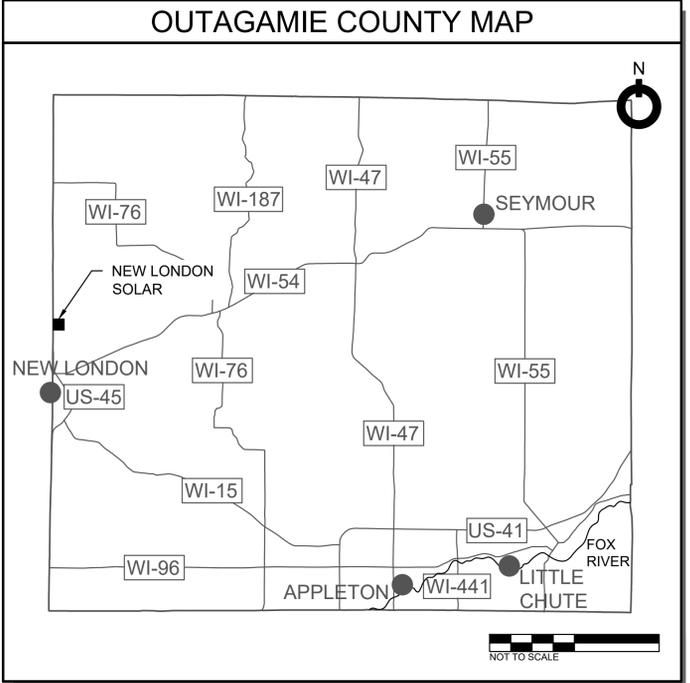
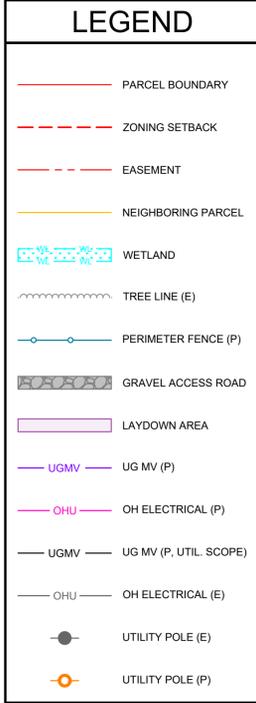
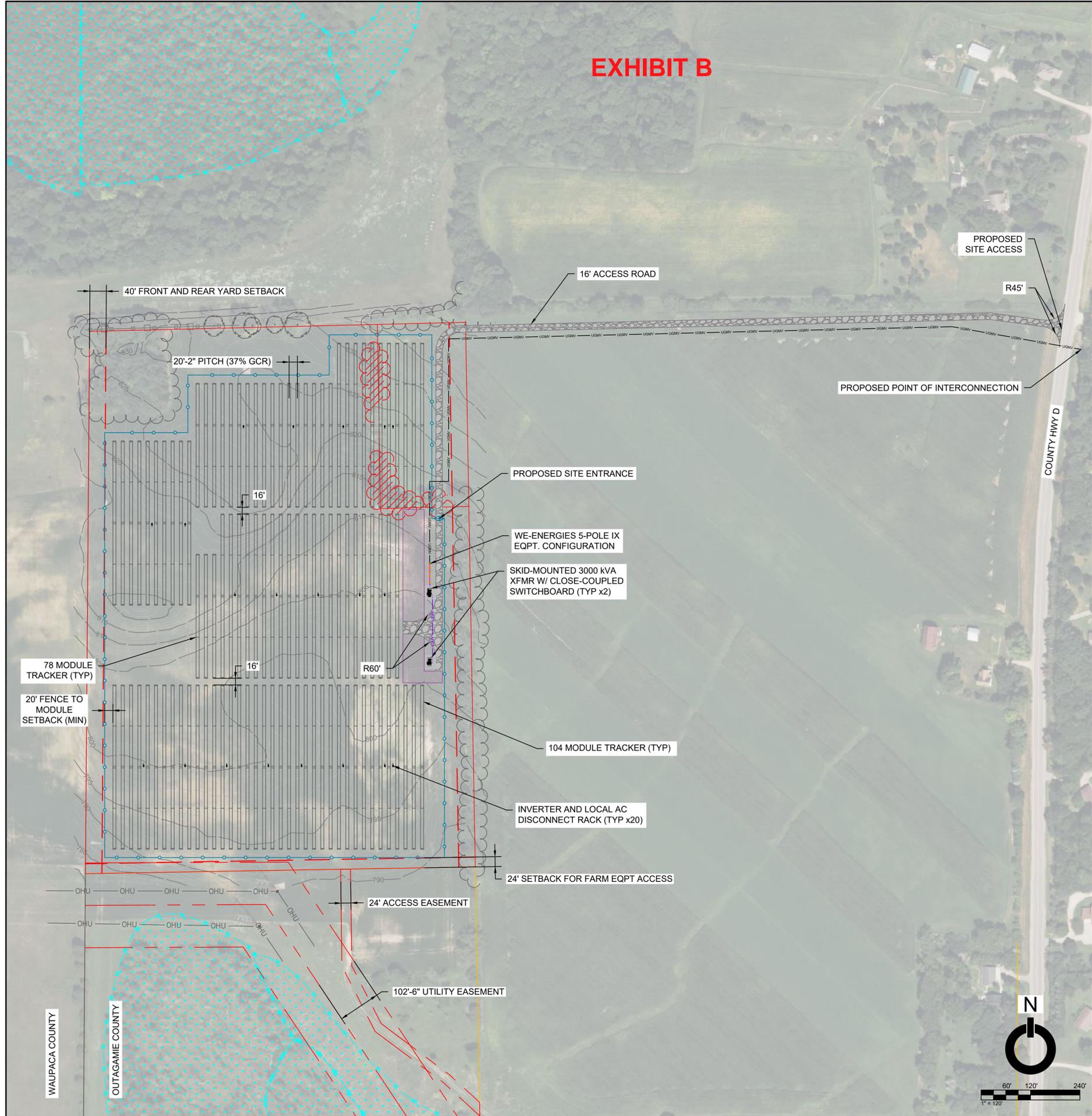
1. **Hours of Operation:** The solar facility will operate during daylight hours. This Facility will not be continuously staffed and will not be open to the public. It is anticipated that once construction is complete, operations and maintenance personnel (one or two people) will access the site once or twice per month for inspection or minor maintenance.
2. **Number of Employees:** There will be no employees stationed at the Facility. As noted in Item No. 1 above, one or two people will visit the site a once or twice each month for inspection and minor maintenance, as needed.
3. **Anticipated Customers:** No customers will be served at the Facility, and there will be no traffic associated with such customers. The renewable electricity generated from the Facility will be used to serve the needs of local utility customers.
4. **Outside Storage:** None proposed.
5. **Outdoor Activities:** Inspection of the solar electric system and periodic maintenance as described above.
6. **Outdoor Lighting:** No permanent outdoor lighting is proposed.
7. **Outside Loudspeakers:** None.
8. **Proposed Signs:** The site will only include necessary safety signage with contact information for the Project Operations team and an entrance sign.
9. **Trash Removal:** There will not be trash generated at this site.

NEW LONDON SOLAR

OUTAGAMIE COUNTY, WISCONSIN

SOLAR PV PROJECT
5.741 MWDC / 5.000 MWAC

EXHIBIT B



PROJECT DETAILS

THIS PROJECT CONSISTS OF THE DESIGN AND INSTALLATION OF 5.000 MWAC SOLAR PHOTOVOLTAIC SYSTEM. MODULES ARE TO BE MOUNTED IN A SINGLE AXIS TRACKERS, WHICH FOLLOW THE SUN FROM EAST TO WEST THROUGHOUT THE DAY.

SITE DETAILS:		DESIGN SUMMARY:	
PARCEL ID	160042900 & 160042800	MODULE POWER:	575 W
OWNER:	GLASS HILL FARM LLC	MODULE COUNT:	9984
ACREAGE:	29.32	ARRAY DC VOLTAGE:	1500 V
EXISTING ZONE:	AED	INVERTER SIZE:	250 kW / 250 KVA
		INVERTER COUNT:	20
		DC SIZE:	5.741 MWdc
		AC SIZE:	5.000 MWac
		DC/AC RATIO:	1.148
		GROUND COVERAGE RATIO:	37.0 %
		ASCE 7-16 GSL:	40 PSF
		ASCE 7-16 WIND SPEED:	99 MPH

LAND USE SUMMARY:

TOTAL PARCEL AREA (ACRES):	29.32
TOTAL LEASED AREA (ACRES):	TBD
TOTAL FENCED AREA (ACRES):	21.78
GRAVEL ACCESS ROAD (ACRES):	0.93
LAYDOWN AREA (ACRES):	0.51

ADDITIONAL NOTES:

- BASEMAP DEVELOPED FROM ALTA FIELD SURVEY
- PARCEL DATA TAKEN FROM ALTA FIELD SURVEY
- NWI & FEMA FLOOD HAZARD ZONE FROM GIS DATA

OneEnergy
RENEWABLES
2003 Western Ave, Suite 225
Seattle, WA 98121
oneenergyrenewables.com
206 922 7072

WRITTEN DIMENSIONS ON THIS PLAN SHALL SUPERCEDE SCALED DIMENSIONS. CONTRACTORS ARE RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS. THIS DRAWING, DESIGN, CONCEPT AND ARRANGEMENT REMAIN THE PROPERTY OF ONEENERGY RENEWABLES AND SHALL NOT BE COPIED, DISCLOSED OR REPRODUCED WITHOUT CONSENT.

REVISION LOG					
REV	DESCRIPTION	DATE	BY	CK'D	SME
00	5% SUBMITTAL	10/07/2024	JL	AK	

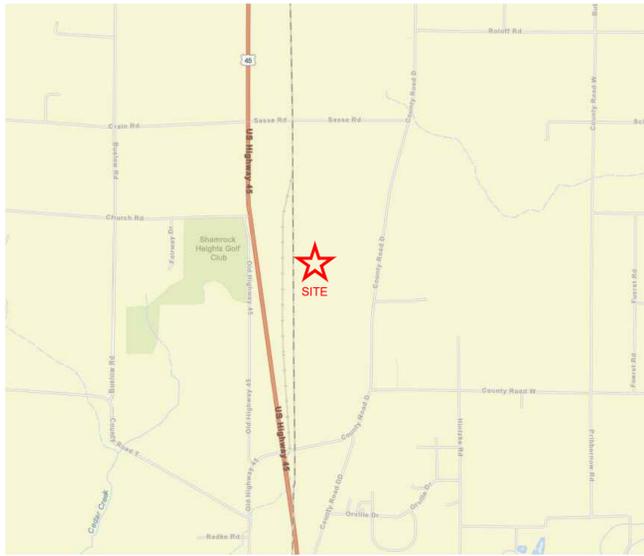
PRELIMINARY
NOT FOR CONSTRUCTION

NEW LONDON SOLAR
ONEENERGY RENEWABLES
44.436056° -88.73581°
OUTAGAMIE COUNTY, WISCONSIN

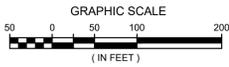
SHEET TITLE:
DEVELOPMENT LAYOUT

SHEET NO:
D-100

ALTA/NSPS LAND TITLE SURVEY



VICINITY MAP - NOT TO SCALE



LEGEND

- BOLLARD
- ⊕ SOIL BORING/MONITORING WELL
- ⚑ FLAGPOLE
- ✉ MAILBOX
- SIGN
- ☒ AIR CONDITIONER
- ☒ CONTROL BOX
- ⊕ TRAFFIC SIGNAL
- ☒ CABLE PEDESTAL
- ⊕ POWER POLE
- ⊕ GUY POLE
- ⊕ GUY WIRE
- ⊕ LIGHT POLE
- ⊕ SPOT/YARD/PEDESTAL LIGHT
- ♿ HANDICAPPED PARKING
- ⊕ PULL BOX
- ⊕ ELECTRIC MANHOLE
- ⊕ ELECTRIC PEDESTAL
- ⊕ ELECTRIC METER
- ⊕ ELECTRIC TRANSFORMER
- ⊕ TELEPHONE MANHOLE
- ⊕ TELEPHONE PEDESTAL
- ⊕ UTILITY VAULT
- ⊕ GAS VALVE
- ⊕ GAS METER
- ⊕ GAS WARNING SIGN
- ⊕ STORM MANHOLE
- ⊕ ROUND INLET
- ⊕ SQUARE INLET
- ⊕ STORM SEWER END SECTION
- ⊕ SANITARY MANHOLE
- ⊕ SANITARY CLEANOUT OR SEPTIC VENT
- ⊕ SANITARY INTERCEPTOR MANHOLE
- ⊕ MISCELLANEOUS MANHOLE
- ⊕ IRRIGATION CONTROL BOX
- ⊕ WATER VALVE
- ⊕ HYDRANT
- ⊕ WATER SERVICE CURB STOP
- ⊕ WATER MANHOLE
- ⊕ WELL
- ⊕ WATER SURFACE
- ⊕ WETLANDS FLAG
- ⊕ MARSH
- ★ CONIFEROUS TREE
- DECIDUOUS TREE
- SHRUB
- EDGE OF TREES
- s— SANITARY SEWER
- sto— STORM SEWER
- w— WATERMAIN
- g— MARKED GAS MAIN
- e— MARKED ELECTRIC
- ohw— OVERHEAD WIRES
- b— BUREAU ELEC. SERV.
- t— MARKED TELEPHONE
- tv— MARKED CABLE TV LINE
- fo— MARKED FIBER OPTIC
- (P)— UTILITY PER PLAN
- INDICATES EXISTING CONTOUR ELEVATION
- × 780.55 INDICATES EXISTING SPOT ELEVATION

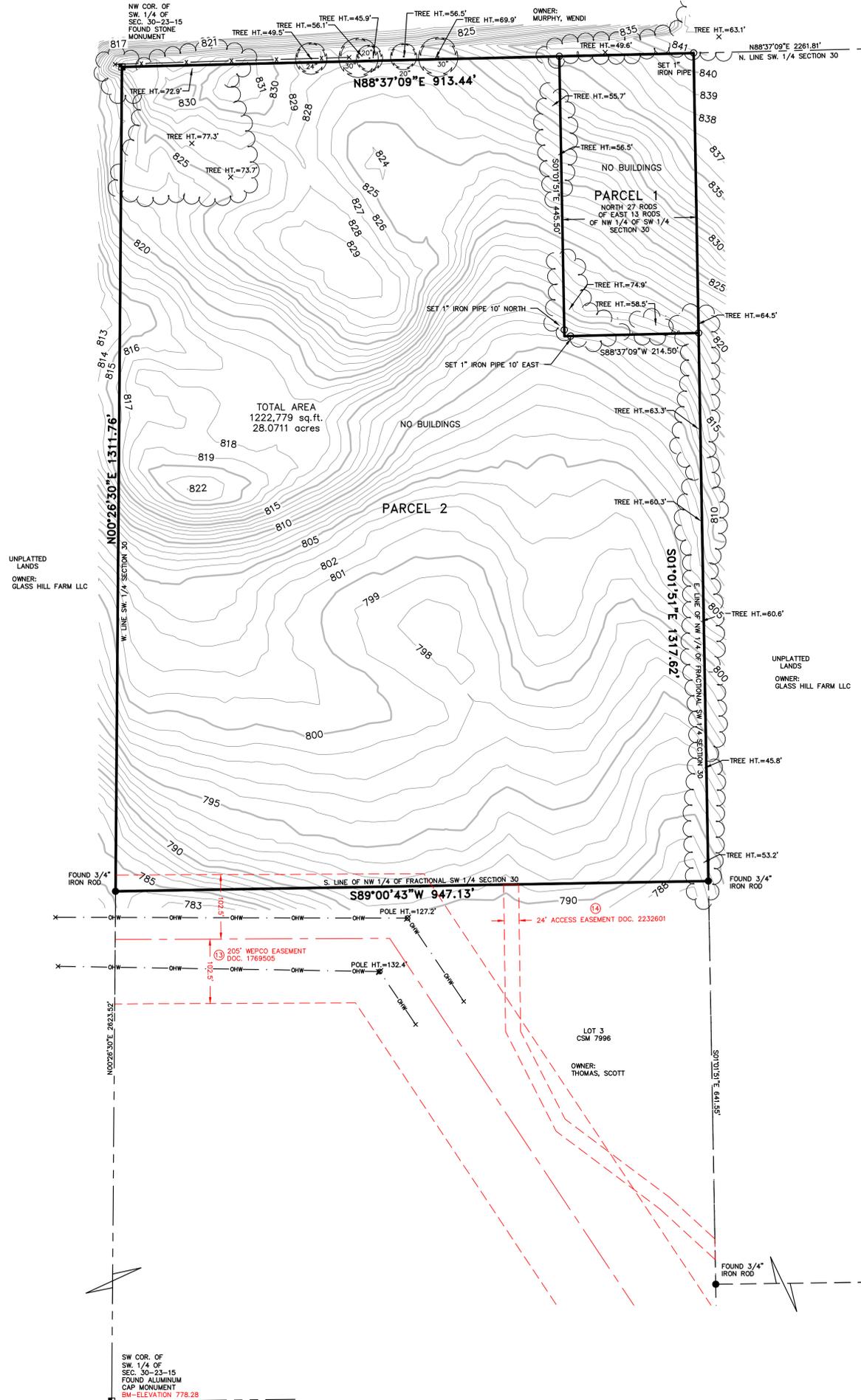
DIGGERS HOTLINE WAS NOT CALLED FOR THIS SITE.

THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

(P) INDICATES PIPE SIZES PER RECORD PLANS. OTHER PIPE SIZES ARE ESTIMATED. NO PIPE SIZES SHOULD BE RELIED UPON WITHOUT FURTHER VERIFICATION.

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Parcel 1:
The North 27 rods of the East 13 rods of the Northwest 1/4 of the Southwest 1/4 of Section 30, Township 23 North, Range 15 East, Town of Maple Creek, Outagamie County, Wisconsin.

Parcel 2:
The Northwest 1/4 of the Southwest 1/4 of Section 30, Township 23 North, Range 15 East, Town of Maple Creek, Outagamie County, Wisconsin, EXCEPT the North 27 rods of the East 13 Rods in the Northeast corner of said parcel.

For informational purposes only:
Property Address: Vacant Land, New London, WI 54961
Tax Key Number: 160 042800 and 160 042900

Prepared for: Thuja Solar WI, LLC
Survey No. 169423-RMK

A. Basis of Bearings
Bearings are based on the West line of the Northwest 1/4 of section 30-23-15, which bears North 00°26'30" West, Wisconsin County Coordinate System, Outagamie County.

B. Title Commitment
This survey was prepared based on Knight Barry Title Services LLC, underwritten by Stewart Title Guaranty Company, title commitment number 2279906, commitment date June 12, 2024, which lists the following easements and/or restrictions from schedule B-II:

1, 6-8. Visible evidence shown, if any.

2-5, 9, 12, 15-18. Not survey related.

10. Easement to Wisconsin Electric Power Company and other matters contained in the instrument recorded March 24, 1964 in Volume 655 of Records on page 143 as Document No. 566572. Easement Assignment to American Transmission Company LLC and other matters contained in the instrument recorded February 1, 2001 as Document No. 1393772. The surveyor has information indicating that it may have been released or otherwise terminated by Electric Transmission Line Easement and other matters contained in the instrument recorded October 4, 2007 as Document No. 1769505.

11. Easement to Wisconsin Electric Power Company and other matters contained in the instrument recorded December 21, 1994 in Jacket 16439, Image 55 as Document No. 1143367. Easement Assignment to American Transmission Company LLC and other matters contained in the instrument recorded January 5, 2001 as Document No. 1391158. The surveyor has information indicating that it may have been released or otherwise terminated by Electric Transmission Line Easement and other matters contained in the instrument recorded October 4, 2007 as Document No. 1769505.

13. Electric Transmission Line Easement and other matters contained in the instrument recorded October 4, 2007 as Document No. 1769505. Lies within or crosses the surveyed property - its location is shown.

14. Easement Agreement and other matters contained in the instrument recorded April 30, 2021 as Document No. 2232601. Lies within or crosses the surveyed property - its location is shown.

18. This Policy does not insure access to the Land. Further Covered Risk 4 is hereby deleted. (Access is by adjacent parcel owned by Glass Hill Farm LLC). Not survey related.

C. Flood Note

According to flood insurance rate map of Outagamie County, community panel number 55087C0136D, effective date of 7/22/2010, this site falls in zone X (areas determined to be outside the 0.2% annual chance floodplain).

E. Elevations

Elevations refer to NAVD88 Datum.

F. Municipal Zoning

The zoning information listed below is taken from Outagamie County GIS website - site is zoned AED Exclusive Agriculture Sec. 54-103 - Dimensional requirements.

Dimensional requirements of the AED exclusive agricultural district are as follows:

- (1) Principal agricultural uses and structures have no minimum lot area, lot width or yard requirements and no height limitations.
- (2) Preexisting dwellings and accessory dwellings on a separate parcel. Minimum lot area, 24,000 square feet; minimum lot width, 100 feet. Yards shall be a minimum of 25 feet in depth if at the front or rear and 15 feet in width if at the side. There are no height limitations.
- (3) Other permissible principal uses and structures. Minimum lot area, one acre; minimum lot width, 150 feet; minimum front and rear yard depth, 40 feet; and minimum lot area and yard requirements may be increased as a condition for a special exception permit.

G. Notes

As to table A item 11
Surveyor's responsibility to coordinate markings shall be limited to one marking request to 811 (national "call before you dig" number) based on the property address, as provided by the client.

Note to the client, insurer, and lender - With regard to Table A, item 11, information from the sources checked within will be combined with observed evidence of utilities pursuant to Section 5 E.iv. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response.

As of the field date indicated below in certificate (most recent site visit/inspection), it appears some underground utilities were not marked. This affected the surveyor's assessment of the location of the utilities resulting in partial illustration and/or mapping per plan. Where additional or more detailed information is required, the client is advised that excavation may be necessary.

There is no visible evidence of recent earth moving work, building construction or building additions observed in the process of conducting the fieldwork.

There are no proposed changes in street right of way lines, if such information is made available to the surveyor by the controlling jurisdiction or observed in the process of conducting the fieldwork.

There is no visible evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork.

There are no parking spaces.

Offsite plottable easements as shown.

To: Thuja Solar WI, LLC; Glass Hill Farm LLC a/k/a Glass Hill Farm, LLC, a Wisconsin Limited Liability Company; Knight Barry Title Services LLC; Stewart Title Guaranty Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes items 1, 2, 3, 4, 5, 6(a), 6(b), 7(a), 8, 11(a), 11(b), 16, 17, 18, 19 and 20 of Table A thereof. The fieldwork was completed on .

Date of Plat or Map: July 26, 2024

I CERTIFY, that this survey was prepared under my supervision and is correct to the best of my professional knowledge and belief and complies with Chapter A-E 7 of the Wisconsin Administrative Code.

Michael J. Ratzburg

Michael J. Ratzburg
Professional Land Surveyor
Registration Number S-2236
michael.ratzburg@rasmith.com

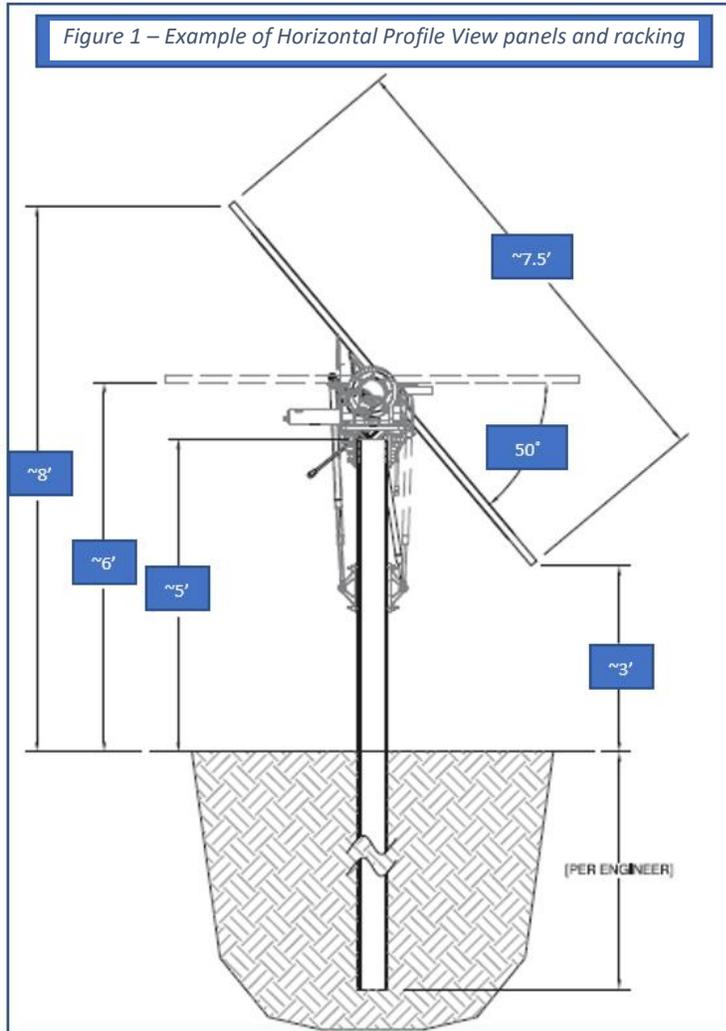


C.T.H.D



16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com

Below is a depiction of the horizontal profile view of the panels and racking, which will run in rows from north to south throughout the site and will track the sun from east to west throughout the day. At their maximum angle in morning and evening, the panels are 50 degrees from horizontal facing either east (morning) or west (evening). At mid-day, the panels are flat. At their maximum tilt angle in morning and evening, the tallest part of the panel is ~8' above ground level.



Solar Panels

Crystalline silicon solar PV panels, which represent ~95% of the installed solar panels in the US, consist primarily of tempered glass, silicon wafers, anodized aluminum, and wiring, all of which can be recovered and recycled at the end of their useful life. PV panels are extremely durable and built for long service life, as indicated by their 30-year warranty.



New London Solar
Vegetation Installation and Management Plan



Date: 5/27/2025

Site Location: 44.436056, -88.73581

Contents

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2	Benefits of Pollinator-Friendly Solar	3
3	Site Preparation and Temporary Seeding	3
4	Permanent Seeding.....	4
5	Vegetation Monitoring.....	5
6	Vegetation Management	6
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8	References	11
9	Appendix A – Project Layout.....	12
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1 Site Overview

New London Solar is a 5 MWac solar generation facility that will be developed, engineered, and constructed by OneEnergy Development, LLC and purchased by WEC Energy Group. The Project is located east of Hwy 45 and west of County Road D in the Town of Maple Creek in Outagamie County, Wisconsin.

The solar facility will be comprised of 9984 ZNSHINE 575W bifacial modules connected by strings, which will be mounted on an ATI DuraTrack single-axis tracking racking system. The minimum leading edge clearance is 8 ft and the maximum average leading edge clearance is 10 ft. Piles in adjacent panel rows will be spaced 20 ft apart, with 20 ft of space between the perimeter fence and nearest module. The facility will also contain 20 inverters.

The 29-acre parcel area is currently used for agricultural production. The site does not contain wetlands, and the predominant soils on site are well-drained loamy sand and fine sandy loam. Following construction of the solar array, the site will be managed for native pollinator habitat.

2 Benefits of Pollinator-Friendly Solar

There are many benefits to installing native prairie plant communities on solar sites. Pollinator friendly solar sequesters carbon into the soil through plants, while carbon emissions are simultaneously reduced by using renewable solar energy. Planting native prairie species restores soil by reducing erosion, improving soil structure, increasing carbon storage, diversifying microbial communities, and increasing soil fertility. In addition to supporting native wildlife, these improvements to the soil will increase the value of the soil for future agricultural production once the solar panels are removed. Agricultural benefits are not limited to future land use. Supporting native pollinator populations can increase yields of nearby pollinator-dependent crops such as soybeans, apples, and many vegetables.

The aesthetic benefits of pollinator habitat provide additional services to the local community for those who appreciate observing the wildflowers, birds, butterflies, and other species that are drawn to the solar site. Native prairie plants reduce stormwater runoff and improve surrounding water quality, which is an important consideration following the construction of solar projects. While the initial costs and amount of planning needed for installing and managing native pollinator habitat may be greater than turfgrass, the benefits outweigh the costs. Following the first five years of management, as the hardier native plant communities become established, reduced maintenance needs are anticipated for the remainder of the time the solar array is in operation.

3 Site Preparation and Temporary Seeding

The Project site will be in agricultural row crop production until the fall prior to construction. After row crops are harvested, a cover crop of winter wheat will be seeded at a rate of 131 lbs

per acre as recommended by the WDNR Technical Standard (1059) and the WisDOT seeding specification (630).

There will be approximately some areas disturbance in the Project area due to grading. Soil will not be removed from the site and will be stockpiled until it is replaced following disturbance. During construction, a cover crop of oats will be seeded at a rate of 131 lbs/acre where grading has occurred. At a minimum, erosion control measures will be implemented on the site, including, a silt fence, sediment control logs, and an erosion control blanket. Oats will also be seeded in any areas disturbed by construction activities. The site will be mowed regularly during construction to control noxious and invasive species.

After construction, discing and deep ripping may be used to decompact the soil depending on the level of compaction. The soil surface will be smoothed using a spike tooth harrow or similar implement. Soil compaction will be tested across the site using a soil penetrometer, and any soil with a penetration resistance above 250 psi at a minimum of 12 inches below the soil surface will be decompacted until the penetration resistance is 250 psi or less.

Any invasive species observed on site will be treated with herbicide prior to seeding. The herbicide will be selected and applied by an Environmental Specialist. Herbicides may be used to treat additional noxious or invasive species identified on site prior to seeding. Following herbicide treatment, a waiting period may be necessary before disturbing the soil or seeding.

The Environmental Specialist overseeing site preparation activities and selecting and applying herbicide treatments for noxious and invasive species suppression will have comprehensive knowledge and experience selecting and applying herbicides for restricting invasive species and managing vegetation to encourage native plant communities. Additionally, the Environmental Specialist will have a degree in biology, botany, natural areas management, or a related field, detailed knowledge of Wisconsin flora, excellent vegetation identification skills, and experience in ecological restoration that includes overseeing and conducting native prairie restoration and vegetation assessments.

4 Permanent Seeding

Permanent seeding with a native prairie mix will occur in the fall after construction has been completed. Seeding will take place from October 15th until the soil freezes. If seeding is delayed due to construction or weather conditions, permanent seeding will take place the following spring from April to May.

A nurse crop of winter wheat will be added to the native seed mix to reduce weed growth and erosion until the native species are established. If seeding is delayed until the following spring, a nurse crop of oats will be used instead of winter wheat. Drill seeding is the preferred method of seeding the native prairie mix. Seed may be broadcast spread if drill seeding equipment is

unavailable at the time of planting. A cultipacker would be used to improve seed to soil contact following broadcast seeding.

The permanent seed mix used will be a diverse mix of around thirty native plant species designed by the Environmental Specialist to suit site-specific soil and microclimate conditions and to provide forage and habitat for pollinators. All species reach maximum heights of approximately thirty inches to prevent vegetation from shading panels at maximum tilt. The seed mix includes flowering species with a wide range of bloom times to cover each season pollinators are active. The upland seed mixes can be found in Appendix B.

Changes to plant species and their proportions in the mix may be necessary depending on seed availability at the time of planting, but the diversity of species and quality of the mix will be maintained. Seed will be sourced within 175 miles of the project location if available. The project owner, WEC Energy Group, will review and approve all final seed mixes. Seeding records that include spatial locations of seeding, seed mixes, seed tags or packing slips, seeding rate, seeding method, and date installed will be submitted to WEC.

5 Vegetation Monitoring

The following objectives will be achieved through vegetation monitoring:

1. Document the presence of targeted native species.
2. Document the presence of noxious and invasive species.
3. Provide recommendations for appropriate corrective actions to promote and maintain the planned vegetative cover and limit noxious and invasive species.

Vegetation monitoring data will be collected through a timed meander survey or equivalent surveying method approved by WEC. Observations will be recorded and visually depicted on a site map using a GIS field application during the vegetation monitoring site visit. Observations will include the presence of any noxious or invasive species, native species, and estimated percentage of vegetation cover of each. Erosion or other issues observed on site will be recorded. Reference maps will be produced from this collected data and will be used to make management recommendations and evaluate progress toward establishing the target plant community.

Records in the GIS field application will be shared between vegetation management crews, project managers, and WEC. Recommended vegetation management actions based on these observations will be communicated with OneEnergy and WEC within one week of a vegetation monitoring visit, and an estimated date for corrective management actions will be provided.

6 Vegetation Management

The Environmental Specialist overseeing vegetation management will have comprehensive knowledge and experience restricting invasive species and managing vegetation to encourage native plant communities. Additionally, the Environmental Specialist will have a degree in biology, botany, natural areas management, or a related field, detailed knowledge of Wisconsin flora, excellent vegetation identification skills, and experience in ecological restoration that includes overseeing and conducting native prairie restoration. The Environmental Specialist may direct employees or subcontractors that do not meet the qualifications of the Environmental Specialist to complete vegetation management activities selected and supervised by the Environmental Specialist.

Vegetation will be managed to achieve the following objectives:

1. Establish native vegetation cover as prescribed in the selected pollinator seed mixes.
2. Maintain complete vegetation cover while limiting weed and invasive species to less than 5% cover.
3. Encourage the growth of flowering species to provide continuous forage and habitat for pollinators.

Vegetation management objectives will be measured using the following performance standards:

1. Stabilized soils will have no significant erosion, and, if any erosion does occur, corrective action will be taken and include reseeding of repaired areas with the planned vegetation.
2. Noxious and invasive weed species will have a maximum coverage of 5% of the project area.
3. The following milestones for minimum coverage of planted perennial species will be achieved:
 - a. A minimum of 20% cover of planted perennial species by the end of the first growing season following seeding.
 - b. A minimum of 40% cover of planted perennial species by the end of the second growing season.
 - c. A minimum of 70% cover of planted perennial species by the end of the third growing season.

During the first year of establishment, vegetation will be mowed 2 to 3 times to a height of 8 inches. After the first year of establishment, vegetation will be mowed to a height of 10 to 12 inches. During the second year of establishment, vegetation will be mowed twice. During the third year of management, vegetation will be mowed once or twice. There will be a dormant mow during the fourth year of establishment. Following this establishment period, if there is a

minimum of 70% cover of planted perennial species and less than 5% cover of noxious and invasive species, the site will be mowed as needed for noxious and invasive species control and to intermittently remove excess biomass. In addition to mowing the entire Project area, spot-treatment of invasive species with targeted mowing and herbicide treatment will be completed as needed, depending on observations made during vegetation monitoring visits.

A comprehensive Vegetation Management Report (VMR) will be provided to WEC at the end of each calendar year and will summarize vegetation observations and management actions. The VMR will also contain recommendations for the following year's vegetation management actions and a plan for carrying out those recommendations.

6.1 Noxious and Invasive Species Management

Plant species will be suppressed if they are likely to either outcompete the native species planted or grow to a height that would potentially shade the solar panels. Noting noxious and invasive species through well-timed site inspections and proactively controlling these species during the establishment phase is critical for the long-term success of native vegetation establishment. Plant species will be considered invasive if they are listed in Wis. Admin. Code NR 40, which prohibits the possession, transportation, or introduction of certain invasive species in Wisconsin without a permit.

Control of noxious and invasive species may include spot-spraying, spot-mowing, hand weeding, wicking, or other methods selected by the environmental specialist and depending on the target species and time of year. Vegetation monitoring data will be used to schedule mowing before the predominant noxious or invasive species develop seeds.

If necessary, the following herbicides may be used for spot-treatment: glyphosate, triclopyr, clopyralid, or aminopyralid. Glyphosate is a non-selective systemic herbicide used to treat broadleaf weeds, grasses, and woody plants, and triclopyr is a selective systemic herbicide used to control woody and herbaceous broadleaf species. Clopyralid and aminopyralid are selective herbicides used to target broadleaf weeds, especially clover and thistle. Herbicide contact with native species will be limited and herbicides will not be used when wind speeds exceed 10 mph to prevent drift.

Other herbicides may be utilized based on the target species observed and identified for management. Environmental specialists will identify actual herbicide prescriptions based on observations during site inspections. The site will be inspected before each vegetation management visit to plan appropriate management actions.

7 Vegetation Monitoring and Management Timeline

Year 0		
Seedbed Preparation	Deep ripping and discing will be used to decompact soils following construction. Herbicide will be applied as needed to remove invasive species prior to seeding.	Aug-Oct
Seeding	The pollinator seed mix will be seeded along with a cover crop of winter wheat. <i>Seeding may be delayed until the following spring from Apr to May.</i>	Oct 15 th until the ground freezes
Year 1		
1 st Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Late Apr to early May
1 st Herbicide treatment	Spot treatment of noxious and invasive species as needed. Herbicide treatment may be concurrent with mowing visit.	Variable
1 st Mow	Complete site mow to control noxious and invasive species and encourage growth of native plant community.	Late May to early Jun
2 nd Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Mid-Jun
2 nd Herbicide treatment	Spot treatment of noxious and invasive species as needed. Herbicide treatment may be concurrent with mowing visit.	Variable
2 nd Mow	Complete site mow to control noxious and invasive species and encourage growth of native plant community.	Jul
3 rd Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Late July
3 rd Mow	Complete site mow to control noxious and invasive species and encourage growth of native plant community.	Aug-Sep
3 rd Herbicide Treatment	Spot treatment of noxious and invasive species as needed. Herbicide treatment may be concurrent with mowing visit.	Variable
Year 2		
1 st Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Late Apr to early May
1 st Mow	Complete site mow to control noxious and invasive species and encourage growth of native plant community.	Jun
1 st Herbicide Treatment	Spot treatment of noxious and invasive species as needed. Herbicide treatment may be concurrent with mowing visit.	Variable
2 nd Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Mid-Jun

2 nd Mow	Complete site mow to control noxious and invasive species and encourage growth of native plant community.	Jul-Aug
2 nd Herbicide Treatment	Spot treatment of noxious and invasive species as needed. Herbicide treatment may be concurrent with mowing visit.	Variable
Year 3		
1 st Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Late Apr to early May
1 st Herbicide Treatment	Spot treatment of noxious and invasive species as needed. Herbicide treatment may be concurrent with mowing visit.	Variable
1 st Mow	Complete site mow to control noxious and invasive species and encourage growth of native plant community.	May
2 nd Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Mid-Jun
2 nd Herbicide Treatment	Spot treatment of noxious and invasive species as needed.	Variable
2 nd Mow	Complete or targeted site mow, as needed, to control noxious and invasive species and encourage growth of native plant community.	Jul-Aug
Year 4		
1 st Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Late Apr to early May
Herbicide treatment	Spot treatment of noxious and invasive species as needed.	Variable
2 nd Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation, and observations will be recorded in the GIS field application.	Mid-Jun
Mow	Complete or targeted site mow, as needed, to control noxious and invasive species and encourage growth of native plant community.	Variable
Years 5-25		
1 st Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation; observations will be recorded in the GIS field application.	Late Apr to early May
Herbicide treatment	Spot treatment of noxious and invasive species as needed.	Variable
2 nd Vegetation Inspection	Timed meander survey or equivalent surveying method to monitor vegetation; observations will be recorded in the GIS field application.	Mid-Jun

Optional Dormant Mow	Mow every two to three years to remove thatch.	Oct-Nov
-------------------------	--	---------

8 References

Siegner, K., Wentzell, S., Urrutia, M., Mann, W., & Kennan, H. (2019) Maximizing land use benefits from utility scale solar: A cost benefit analysis of pollinator-friendly solar in Minnesota. *Yale Center for Business and the Environment*. <https://cbey.yale.edu/research/maximizing-land-use-benefits-from-utility-scale-solar>.

Walston, L. et al. (2018) Examining the potential for agricultural benefits from pollinator habitat at solar facilities in the United States. *Environmental Science & Technology* 52 (13), 7566-7576. <https://doi.org/10.1021/acs.est.8b00020>.

Walston, L. et al. (2020) Modeling the ecosystem services of native vegetation management practices at solar energy facilities in Midwestern United States. *Ecosystem Services* (47), 101227. <https://doi.org/10.1016/j.ecoser.2020.101227>

10 Appendix B – Pollinator Seed Mixes

Percentage of mix is the based on seed weight.

Upland Mix

Common Name	Scientific Name	% of Mix	Seeds/ft ²
Grasses			
Sideoats Grama	<i>Bouteloua curtipendula</i>	27.27%	6.61
Blue Grama	<i>Bouteloua gracilis</i>	7.27%	11.75
Plains Oval Sedge	<i>Carex brevior</i>	2.55%	2.98
June Grass	<i>Koeleria macrantha</i>	1.82%	14.69
Little Bluestem	<i>Schizachyrium scoparium</i>	33.45%	20.28
Prairie Dropseed	<i>Sporobolus heterolepis</i>	0.36%	0.24
Forbs			
Common Yarrow	<i>Achillea millefolium</i>	0.36%	2.62
Anise Hyssop	<i>Agastache foeniculum</i>	0.09%	0.33
Prairie Onion	<i>Allium stellatum</i>	0.73%	0.32
Lead Plant	<i>Amorpha canescens</i>	1.36%	0.88
Wild Columbine	<i>Aquilegia canadensis</i>	0.18%	0.28
Common Milkweed	<i>Asclepias syriaca</i>	0.36%	0.06
Butterfly Milkweed	<i>Asclepias tuberosa</i>	0.91%	0.16
Whorled Milkweed	<i>Asclepias verticillata</i>	0.10%	0.20
Sky Blue Aster	<i>oolentangiense</i>	0.18%	0.59
Upland White Goldenrod	<i>Solidago ptarmicoides</i>	0.73%	1.88
Partridge Pea	<i>Chamaecrista fasciculata</i>	2.73%	0.30
Lanceleaf Coreopsis	<i>Coreopsis lanceolata</i>	1.09%	0.88
White Prairie Clover	<i>Dalea candida</i>	4.55%	3.49
Purple Prairie Clover	<i>Dalea purpurea</i>	5.82%	4.23
Rough Blazing Star	<i>Liatris aspera</i>	0.27%	0.18
Spotted Bee Balm	<i>Monarda punctata</i>	0.18%	0.66
Large-flowered Beardtongue	<i>Penstemon grandiflorus</i>	0.73%	0.41
Prairie Wild Rose	<i>Rosa arkansana</i>	0.09%	0.01
Black-eyed Susan	<i>Rudbeckia hirta</i>	2.09%	7.77
Gray Goldenrod	<i>Solidago nemoralis</i>	0.09%	1.10
Ohio Spiderwort	<i>Tradescantia ohiensis</i>	0.45%	0.15
Hoary Vervain	<i>Verbena stricta</i>	1.73%	1.95
Heartleaf Alexanders	<i>Zizia aptera</i>	0.36%	0.18
Golden Alexanders	<i>Zizia aurea</i>	2.18%	0.97
Seeding Rate: 85.9 seeds/ ft²			



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EXHIBIT E
CONSTRUCTION SERVICES

Client	OneEnergy	Project	La Grange
Sheet No		Of	
Calculated By	MC	Date	2/19/2025
Checked By		Date	
Notes	Pile Design Capacity		

c:\users\mcolecchia\documents\design\oneenergy\la grange\pv pile design capacity_6ft_tth.xlsm

Structural Calculations
For
Solar Array Posts and Foundations
6'-0" Torque Tube Height

OneEnergy - La Grange
La Grange, WI



Index:

- Basis of Design
- Pile Loads and Foundation Embedment Depth
- Pile Design Capacity Interior Piles
- Pile Design Capacity Exterior Piles
- LPILE Analysis
- Appendix A - Array Technologies Inc. Ground Force Calculations
- Appendix B - Excerpts from Geotechnical Investigation Report
- Appendix C - Corrosion Assessment
- Appendix D - Approved Alternate Methods of Pile Installation



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Basis of Design:

Loads provided by Array Technologies, Inc.. Applied at center of torque tube.

DTHZ v3 ZXM7-UHLDD144-575575-104 -C Ground Force Analysis, 17 INT(SB) / 17 EXT

Loading	Interior Rows	Exterior Rows
Horizontal Loading	1.77 kip	2.51 kip
Wind Up	1.63 kip	1.95 kip
Wind Downward	1.38 kip	1.95 kip
Snow	2.15 kip	2.15 kip
Moment	13.31 kip-ft	17.97 kip-ft
Dead Load	0.58 kip	0.58 kip

Load combinations for Allowable Stress Design per ASCE 7, Section 2.4.1

	1.0D + 0.6W	1.0D + 0.6(0.75)W + 0.75S
	0.6D + 0.6W	1.0D + 1.0S

Soil properties used in LPile analysis provided by Giles, Report #1G-2212019.

Layer	Type	p-y Curve	Depth (ft)	Unit Wt (pcf)	Friction Angle (deg)	Modulus (pci)	Cohesion (psf)	Strain Factor (e)	p-mult
1	Clay	Stiff Clay	0.0-2.8	120	NA	200	1500	0.007	
2	Sand	Sand	2.8-7.0	115	32	90	NA	NA	
3	Sand	Sand	7.0-16.0	130	35	225	NA	NA	

Top 34" of soil neglected in vertical capacity.

Seismic analysis performed in the weak axis of gear rack posts and seismic posts. $S_{DS} = 0.074 g$
 Loads about the weak axis of the piles consider a max N-S slope of 3.5 deg

Design life of 30 years.

Minimum pile size and embedment:

Type	Pile Size	Embedment	Deflection	Notes
Interior	W6x10.4	6'-6"	1.3"	gear pile shall be galvanized
Exterior	W6x12	7'-0"	1.6"	gear pile shall be galvanized

Lightweight equipment may be supported on the same pile as an interior tracker row pile.

Deflection of the pile head is within the 4" limit recommended by ATI.

Post size and embedment were designed with consideration of up to 12" of variation in ground surface.

Therefore, the torque tube may be 60" (min) to 72" (max) above ground surface.

To mitigate frost heave forces, all piles shall be isolated from the soil by pre-drilling a 12" dia hole at each pile location to a depth of 34", backfilling with clean sand, and driving the pile through the backfill.

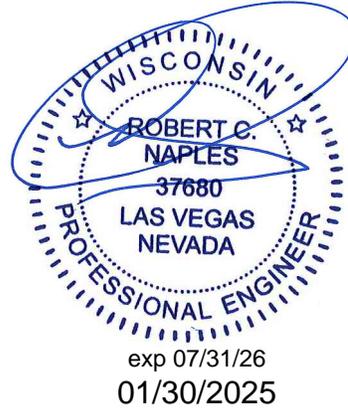
2 bearing piles per row with set-screw bearings or translation clamps.

If AHJ requests inspection for pile installation, only 10% periodic inspection is required.

**DTHZ v3 ZXM7-UHLDD144-575575-104 -C Ground Force Analysis, 17 INT(SB) / 17 EXT
(SB)Columns
52° Range of Motion – Category I - Low Risk – ASCE_7-16-SM**

PROJECT INFORMATION:

Project Name: La Grange
Client: OneEnergy
Location: La Grange/WI
Size: 6.877 MWDC



DESIGN REQUIREMENTS:

Building Code: ASCE_7-16-SM
Wind Speed (mph): 100
Ground Snow (psf): 30
Seismic Sds: 0.074
Terrain/Exposure: C
Building Category: I - Low Risk
Topographic Factor: 1
Directional Factor: 0.85
Elevation (ft): 952

MECHANICAL DESIGN:

Module dimensions 2278 x 1134 x 30 mm , Module weight = 69.45 lbs
Row: 104 module row with 52N/52S split for interior and exterior rows.
Foundations: 17 columns interior and 17 columns exterior
Bearings: Standard Bearing on both interior and exterior
Range of Motion: +/-52°
Center Structure Gap: 48" with 12" bracket and 10" hanger, 6" for construction tolerance
GCR=38.00%,
Max height of tracker = 7.00'

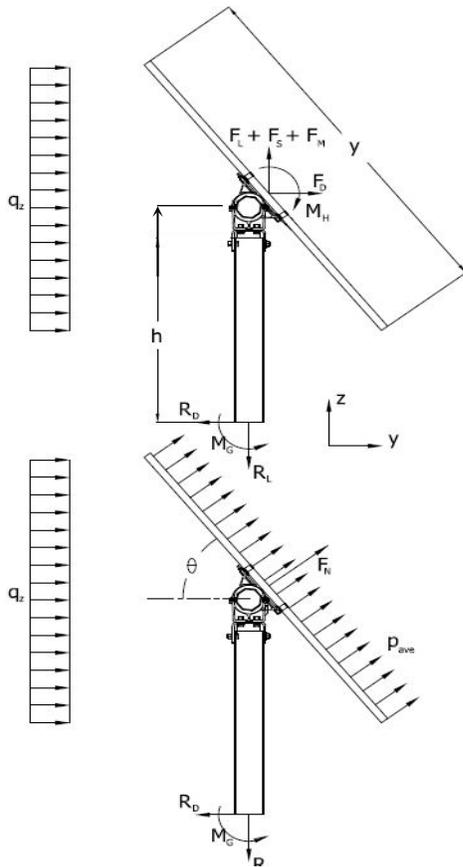
DESIGN BASIS:

Max +/- 5 degree motor block angle N/S in horizontal plane
Max +/- 4 degree N/S torque tube slope

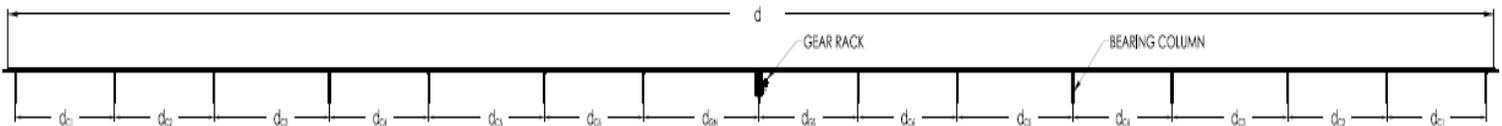
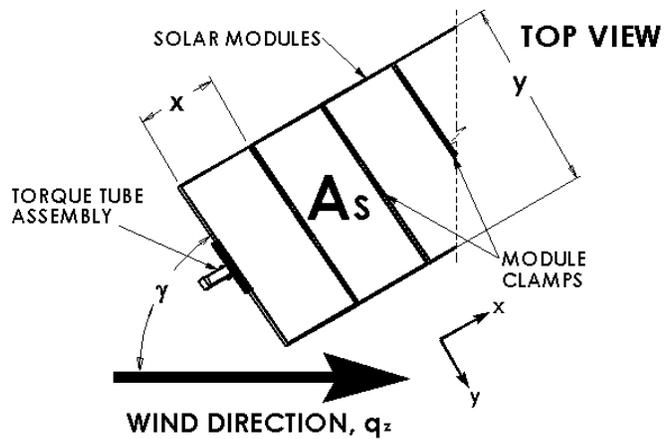
STOWING:

Passive wind stow @ 52°
Night Snow Mode

Symbols Conventions and Terminology



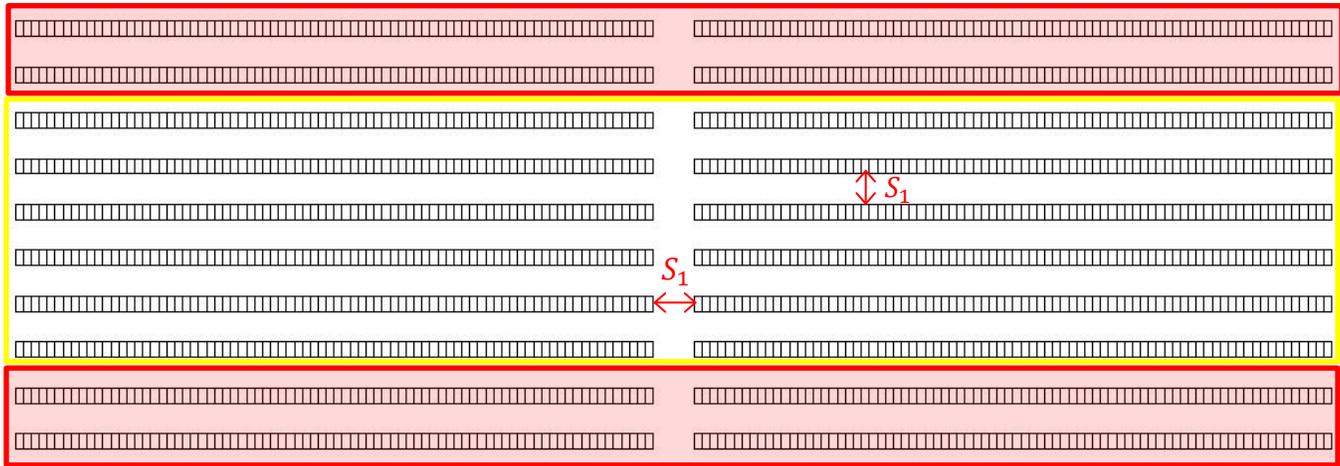
General Tracker Dimensions:	
d , Tracker Length	389.50'
x , Module Width	44.65" = 3.72'
y , Module Length	89.69" = 7.47'
X , Module Assembly Width	44.94" = 3.75'
Y , Module Assembly Length	89.69" = 7.47'
n , Total Number of Modules	104
h , Column Height	84" = 7.00'
Max. open area	5.26 × 7.47' = 39.29'; GCR=0.380



The diagram is for demonstrational purposes only. For actual individual column spacing dimensions, refer to the assembly drawing

Other Symbols	
A_s , Module Surface Tributary Area for Column	d_c or d_G , Column Spacing
M_H , Hinge Moment due to wind loading	F_D , Drag Force due to wind loading
M_G , Total Ground Moment Reaction	F_L , Lift Force due to wind loading
R_D , Ground Drag Reaction	F_s , Lift Force due to snow loading
R_L , Ground Lift Reaction	q_z , Dynamic Velocity Pressure of wind
θ , Tracker Angle from y-axis	γ , Yaw Angle of Wind from the y-axis

The figure below demonstrates that the entire site consists of two types of rows to optimize the structural design according to the loading contribution from RWDI wind loading report for Array Technologies, Inc.



- = Exterior Columns
- = Interior Columns

$$S_1 \leq 2 \times \text{Row Spacing}$$

Foundations are optimized for material costs since higher loads exist on the edges of the array. The controlling case from each designation in the field shall be used for all column designs. It is assumed that each column absorbs half of the load of the adjacent spans. Exterior columns are defined as any portion of the field where the max open area of 39.29' is exceeded in any direction.

Interior Column Spacing (from end, in inches)			
		North of Gear Rack	South of Gear Rack
Bearing Column Spacing 1	d _{c1}	270	270
Bearing Column Spacing 2	d _{c2}	225	225
Bearing Column Spacing 3	d _{c3}	315	315
Bearing Column Spacing 4	d _{c4}	315	315
Bearing Column Spacing 5	d _{c5}	315	315
Bearing Column Spacing 6	d _{c6}	315	315
Bearing Column Spacing 7	d _{c7}	315	315
Gear Rack North Spacing	d _{gn}	319	NA
Gear Rack South Spacing	d _{gs}	NA	295

Exterior Column Spacing (from end, in inches)			
		North of Gear Rack	South of Gear Rack
Bearing Column Spacing 1	d_{c1}	270	270
Bearing Column Spacing 2	d_{c2}	225	225
Bearing Column Spacing 3	d_{c3}	315	315
Bearing Column Spacing 4	d_{c4}	315	315
Bearing Column Spacing 5	d_{c5}	315	315
Bearing Column Spacing 6	d_{c6}	315	315
Bearing Column Spacing 7	d_{c7}	315	315
Gear Rack North Spacing	d_{gn}	319	NA
Gear Rack South Spacing	d_{gs}	NA	295

The **wind loads** are 100 mph 3 second gust, exposure C, evaluated using a combination of ASCE code and results obtained from RWDI wind loading testing done on the DuraTrack HZ system. All maxima were found at $\gamma = 0^\circ$. To properly determine design forces, a dynamic/velocity pressure, q_z , was determined to be:

$$q_z = 0.00256K_zK_{zt}K_dV^2K_e = 0.00256(0.85)(1.00)(0.85)(100)^2(0.97) = 17.94 \text{ PSF}$$

Design wind loads and moments are determined using the following equations. Diagrams showing how these loads are applied can be seen on page 1. GC_D , GC_L , and GC_M refer to the coefficients of drag and lift, and moment respectively. These coefficients were experimentally determined from RWDI wind loading tests, and the maxima recorded are conservatively assumed to be applied to each section simultaneously.

$$GC_D = C_HGC_P \sin \theta, \quad GC_L = C_HGC_P \cos \theta, \quad GC_T = C_HGC_M$$

C_H – Height correction factor, θ is the tilt angle.

$$F_D = q_zGC_D A_S, \quad F_L = q_zGC_L A_S, \quad M_H = q_zGC_T A_S y$$

There are two types of columns in this assembly: interior and exterior columns. At the design wind speed all columns will become fixed at the axis of rotation and set at the trackers designed range of motion, 52 degrees. This condition controls the design of the tracker and creates additional

moment at the top of the columns. The resultant forces and moments are due to the wind pressure on the frontal area of the modules supported by one column. The ground forces at the pile head (depth = 0) are found as follows.

Interior Row Columns – Max Unfactored Forces

Wind Horizontal Drag, When $\theta = 52^\circ$

$$GC_D = C_H GC_P \sin \theta = (1.03)(0.63) = 0.65$$

$$A_S = \bar{d}_b y = (248" \div 12)(7.47') = 154.38 \text{ ft}^2$$

$$R_D = F_D = q_z GC_D A_S = (17.94 \text{ PSF})(0.65)(154.38 \text{ ft}^2) = 1.80 \text{ kips}$$

Wind Vertical Up, When $\theta = 52^\circ$

$$GC_L = C_H GC_P \cos \theta = (1.03)(0.58) = 0.60,$$

$$R_L = F_L = q_z GC_L A_S = (17.94 \text{ PSF})(0.60)(154.38 \text{ ft}^2) = 1.66 \text{ kips}$$

Wind Vertical Down, When $\theta = 52^\circ$

$$GC_L = C_H GC_P \cos \theta = (1.03)(-0.49) = -0.50$$

$$R_L = F_L = q_z GC_L A_S = (17.94 \text{ PSF})(-0.50)(154.38 \text{ ft}^2) = -1.38 \text{ kips}$$

Snow Vertical Down, When $\theta = 0^\circ$

The ground snow load is 30.00 PSF.

Thus, $p_S = 10.89 \text{ PSF}$

$$F_S = p_S A_S = (10.89 \text{ PSF})(197.33 \text{ ft}^2) = -2.15 \text{ kips}$$

Ground-line Moments, When $\theta = 52^\circ$

$$M_G = F_D h + q_z GC_M A_S y = (1.80 \text{ k})(7.00') + (17.94 \text{ PSF})(0.13)(154.38 \text{ ft}^2)(7.47') = 15.29 \text{ k-ft}$$

The estimated dead weight on each column = -0.58 kips.

Exterior Row Columns – Max Unfactored Forces

Wind Horizontal Drag, When $\theta = 52^\circ$

$$GC_D = C_H GC_P \sin \theta = (1.03)(0.70) = 0.72$$

$$A_S = \bar{d}_b Y = (317" \div 12)(7.47') = 197.33 \text{ ft}^2$$

$$R_D = F_D = q_z GC_D A_S = (17.94 \text{ PSF})(0.72)(197.33 \text{ ft}^2) = 2.55 \text{ kips}$$

Wind Vertical Up, When $\theta = 52^\circ$

$$GC_L = C_H GC_P \cos \theta = (1.03)(0.54) = 0.56$$

$$R_L = F_L = q_z GC_L A_S = (17.94 \text{ PSF})(0.56)(197.33 \text{ ft}^2) = 1.98 \text{ kips}$$

Wind Vertical Down, When $\theta = 52^\circ$

$$GC_L = C_H GC_P \cos \theta = (1.03)(-0.54) = -0.56$$

$$R_L = F_L = q_z GC_L A_S = (17.94 \text{ PSF})(-0.56)(197.33 \text{ ft}^2) = -1.98 \text{ kips}$$

Snow Vertical Down, When $\theta = 0^\circ$

The ground snow load of 30.00 PSF.

Thus, $p_S = 10.89 \text{ PSF}$

$$F_S = p_S A_S = (10.89 \text{ PSF})(197.33 \text{ ft}^2) = -2.15 \text{ kips}$$

Ground-line Moments, When $\theta = 52^\circ$

$$M_G = F_D h + q_z GC_M A_S y = (2.55 \text{ k})(7.00') + (17.94 \text{ PSF})(0.11)(197.33 \text{ ft}^2)(7.47') = 20.76 \text{ k-ft}$$

The estimated dead weight on each column = -0.58 kips.

Snow Load Note: The snow load is the maximum of $0.7(C_e)(C_t)(I)(p_g)$ and either $p_g(I)$, if the ground snow (p_g) is greater than 20psf, or $20(I)$, if the ground snow is less than 20psf.

Max. Ground Force Summary Table

Loading Type	HEIGHT = 7.00'		HEIGHT = 6.00'		HEIGHT = 5.00'	
	Interior Column	Exterior Column	Interior Column	Exterior Column	Interior Column	Exterior Column
R_D (drag), kips	1.80	2.55	1.77	2.51	1.74	2.48
R_L (wind vertical up), kips	1.66	1.98	1.63	1.95	1.61	1.91
R_L (wind vertical down), kips	-1.38	-1.98	-1.38	-1.95	-1.36	-1.91
R_L (snow vertical down), kips	-2.15	-2.15	-2.15	-2.15	-2.15	-2.15
M_G (ground-line), k-ft	15.29	20.76	13.31	17.97	11.39	15.31
Estimated Dead-weight, kips	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58

Note: Design forces summarized in the table are from ATI tracker components ONLY. Foundation engineer must include any additional component design forces that customer may attach to the array that are not ATI supplied. Example: CAB, cable trays etc.

The above loads are applied at each column. Interpolation of the forces is allowed for heights between 5.00' and 7.00'. Heights outside of these values will require an updated or additional ground force document from ATI.

ASCE 7 recommends the following **interaction equations** for **LRFD** design:

$$1. 1.2D + 1.6S + 0.5W \quad 2. 1.2D + 1.0W + 0.5S \quad 3. 0.9D + 1.0W \quad 4. 1.2D + 1.0E$$

ASCE 7 recommends the following **interaction equations** for **ASD** design:

$$1) 1.0D + 0.6W \quad 2) 1.0D + 0.6(0.75)W + 0.75S \quad 3) 0.6D + 0.6W$$

$$4) 1.0D + 1.0S \quad 5) 1.0D + 0.7E \quad 6) 1.0D + (0.75)(0.7)E + 0.75S$$

Note: the acceptable elastic deflections at the top of the column in E-W direction are approximately 3"~4" and are 3"~4" in N-S direction.

N-S Loading Due to Tracker Weight

N-S wind loading is negligible, and N-S loads on the tracker are mostly due to the weight of tracker and seismic loading. Seismic loading is described next on this document. N-S loading due to tracker weight is $W \sin(\theta)$ (N-S slope in degrees) where W is the weight of tracker and N-S slope is assumed maximum as 4 degrees. For higher slopes, Array should be notified as loads may be affected.

N-S load due to tracker weight = 9914 lbs x $\sin(4^\circ) = 0.69$ kips.

N-S loads due to tracker weight is equally shared by gear rack column and seismic columns as described in seismic loading in the following section.

Seismic Loading – North / South Direction (Weak-Axis)

According to ASCE code, Considering tracker as an inverted pendulum. The equivalent lateral force is as follows:

$V_s = C_s W$, $C_s = \frac{S_{DS}}{\left(\frac{R}{I_e}\right)}$, Where $R=2.0$, for an inverted pendulum and

$I_e = 1.0$ for occupancy Category I - Low Risk in accordance with ASCE code.

$S_{DS} = 0.07g$ and $C_s = \frac{0.07g}{2.0} = 0.04g$

The effective seismic weight of one row, $W = 9914$ lbs excluding all the columns.
The total lateral seismic force acting on the array, in any horizontal direction, is:

$$V_s = (0.04g) \left(\frac{9914 \text{ lb}}{g} \right) = 0.40 \text{ k}$$

The gear rack center structure and the seismic columns with the set screw bearing housings restrains the tracker in N/S direction and share the loads equally. The moment on the north south seismic resisting system is as follows:

Seismic Shear Per Column:



$$V_{per\ column} = \frac{1}{3} [V_s] = \frac{1}{3} [0.40k] = 0.13 \text{ kips}$$

(Note: Seismic shear can be distributed to additional columns to lower shear per column)

$$M_{sc} = \frac{1}{3} [V_s] \times h$$

$$M_{sc} = \frac{1}{3} [0.40k](7.00') \times 12 \text{ in/ft} = 11.10 \text{ k-in}$$

Seismic Loading – East / West Direction (Strong-Axis)

In the east-west direction, the load is equally shared among all columns.

$$V_s = \frac{0.40 \text{ k}}{17} = 0.02 \text{ kips per column}$$

$$M_s = 0.02 \text{ k} (7.00') \times 12 \text{ in/ft} = 1.68 \text{ k-in}$$

When comparing the seismic load in the east-west direction to the wind load, the seismic load is substantially lower and can be deemed negligible. For more detailed information on structural loading, please contact Rebecca Troske.



Exhibit D – Decommissioning Plan

New London Solar Project

Applicant:

OneEnergy Development, LLC

10 N. Livingston St. Suite 201

Madison, WI 53703

OneEnergy Renewables

New London Solar Project

Solar Generating Facility Decommissioning Plan

1. Introduction

The Decommissioning Plan provides an overview of activities that will occur during the decommissioning phase of the New London Solar Project, the “Project,” including activities related to the restoration of land and management of materials and waste.

The Project has an estimated useful lifetime of 40 years. This Decommissioning Plan assumes at the point it is no longer economical or prudent to continue operating, the Project will be dismantled, and the site restored to a state similar to its pre-construction condition.

Decommissioning activities include but are not limited to, disconnecting the Solar Facility from the electrical grid and removal of all components, including:

- Photovoltaic (PV) modules, panel racking, and supports
- Inverter units, transformers, and other electrical equipment
- Wiring cables, communications, and perimeter fence

The Decommissioning Plan is based on current best management practices and procedures. This Plan may be subject to revision based on new standards and best management practices at the time of decommissioning. Permits will be obtained as required and notification will be given to stakeholders prior to decommissioning.

Project Information

Address: To be assigned

County: Outagamie, Wisconsin

Township: Maple Creek

Project Size: 5 MWac



2. Decommissioning Process

At the time of decommissioning, the installed components will be removed, reused, disposed, and recycled where possible. The site will be restored to a state similar to its pre-construction condition. All removal of equipment will be done in accordance with any applicable regulations and manufacturer recommendations. All applicable permits will be acquired before decommissioning activities begin.

Equipment Dismantling and Removal

Generally, the decommissioning of a Solar Project proceeds in the reverse order of the installation.

1. The Project will be disconnected from the utility power grid.
2. PV modules will be disconnected, collected, and disposed at an approved solar module recycler or reused/resold on the market. Although the PV modules will not be cutting edge technology at the time of decommissioning, they are expected to produce approximately 80% of the original electricity output at year 40 and offer value for many years.
3. All aboveground and underground electrical interconnection and distribution cables will be removed and disposed off-site at an approved facility.
4. Galvanized steel PV module support and racking system support posts will be removed and disposed off-site at an approved facility.
5. Electrical and electronic devices, including transformers and inverters will be removed and disposed off-site at an approved facility.
6. Concrete pads will be removed and disposed off-site at an approved facility.
7. Fencing will be removed and disposed off-site at an approved facility.

Environmental Effects

Decommissioning activities, particularly the removal of project components, could result in environmental effects similar to construction such as ground disturbance (erosion/sedimentation). Mitigation measures employed during the construction phase of the Project will be implemented. These will remain in place to mitigate erosion and silt/sediment runoff and prevent any impact to the natural features located adjacent to the site.

Road traffic will temporarily increase due to the movement of decommissioning crews and equipment. Work will be undertaken during daylight hours to conform to any applicable restrictions.



Site Restoration

Upon completion of the decommissioning phase, the site will be restored to a state similar to its pre-construction condition. Rehabilitated lands may be seeded with native seed mixes to help stabilize soil conditions, enhance soil structure, and increase soil fertility.

Managing Materials and Waste

During the decommissioning phase, a variety of excess materials and wastes (listed in the table below) will be generated. Most of the materials used in a Solar Project are reusable or recyclable and some equipment may have manufacturer take-back and recycling requirements. Any remaining materials will be removed and disposed of off site at an appropriate facility. Policies and procedures will be established to maximize recycling and reuse and project owners will work with manufacturers, local subcontractors, and waste firms to segregate material to be disposed of, recycled, or reused.

Solar module manufacturers are looking for ways to recycle and/or reuse solar modules when they have reached the end of their lifespan. OneEnergy works with The Retrofit Companies, Inc. (TRC) in Minnesota to recycle panels that are damaged during shipping or installation and intends to partner with TRC or another similar panel recycler to recycle any panels that require disposal in the future. Modules will be disposed in the best way possible using best management practices at the time of decommissioning.

Material / Waste	Means of Managing Excess Materials and Waste
PV Panels	If there is no possibility for reuse, the panels will either be returned to the manufacturer for appropriate disposal or will be transported to a recycling facility where the glass, metal, and semiconductor materials will be separated and recycled.
Mounting racks and supports	These steel and other metal materials will be disposed off-site at an approved facility
Transformer	The small amount of oil from the transformer will be removed on-site to reduce the potential for spills and will be transported to an approved facility for disposal. The transformers will be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards of the day.
Inverters	The metal components of the inverters will be disposed of or recycled, where possible. Remaining components will be disposed of in accordance with the standards of the day.



Concrete Pad	Concrete pads will be broken down and transported by a certified and licensed contractor to a recycling or approved disposal facility.
Cables and Wiring	All electrical wiring will be disconnected and disposed of at an approved facility, associated electronic equipment (isolation switches, fuses, metering) will either be returned to the manufacturer for recycling or disposed off-site in accordance with current standards and best practices.
Fencing	Fencing will be removed and recycled at a metal recycling facility.
Debris	Any remaining debris on the site will be separated into recyclables/residual wastes and will be transported from the site and managed as appropriate.

Decommissioning Notification

Decommissioning activities will require the notification of stakeholders given the nature of the works at the site. Twelve months prior to the start of decommissioning activities the list of stakeholders will be updated and notified. Federal, county, and local authorities will be notified as needed to discuss the potential approvals required to engage in decommissioning activities.

Financial Assurance

Prior to commencement of construction, project owner shall provide financial assurance in the form of a letter of credit, performance bond, or other means acceptable to municipality in the amount of the Decommissioning Costs, unless the owner is a public utility regulated by the Public Service Commission of Wisconsin (PSCW). In accordance with obligations under Wis. Stat. §196.09, public utilities regulated by the PSCW are required to periodically file with the PSCW an “estimate of the annual rate of depreciation required for each of its classes of fixed capital used for public utility purposes.” Included in that filing are estimated costs for recovery in utility rates for decommissioning costs related to the public utility assets.

Approvals

Well-planned and well-managed renewable energy facilities are not expected to pose environmental risks at the time of decommissioning. Decommissioning of the Project will follow all standards of the day. Any required permits will be obtained prior to the start of any decommissioning activities.

This Decommissioning Report will be updated as necessary in the future to ensure that changes in technology and site restoration methods are taken into consideration.



EXHIBIT G



Atwell, L.L.C.
 1250 East Diehl Road, Suite 300
 (630) 577-0800

Project: New London Solar
Location: Outagamie County, Wisconsin
Site: 5.0 MW (AC)
Parcel ID: 160042900 and 160042800
Date: 4/18/2025

Engineer's Opinion of Probable Decommissioning Cost for New London Solar During First 5 Years of Operation

	Estimated Quantity	Unit	Unit Cost	Removal Cost	Salvage Value based on 5-year projections			Net Cost	Notes
					Material Weight (lbs.)	Material Recycle Value	Net Salvage		
Erosion Control/Contractor Fees									
Mobilization	1	LUMP SUM	\$10,000.00	\$10,000.00			\$0.00	\$10,000.00	
Electrical Disconnect	1	EACH	\$750.00	\$750.00			\$0.00	\$750.00	
Permitting (NPDES)	1	LUMP SUM	\$1,200.00	\$1,200.00			\$0.00	\$1,200.00	
Silt Fence	2,465	LF	\$6.00	\$14,790.00			\$0.00	\$14,790.00	Silt fence for access road removal
Seeding	0.93	ACRES	\$800.00	\$744.00			\$0.00	\$744.00	Seeding access road removal only.
Sub-Total				\$27,484.00			\$0.00	\$27,484.00	
Site Demolition									
Remove Existing Culvert	65	LF	\$15.00	\$975.00			\$0.00	\$975.00	
Remove Existing Storm Structure	2	EACH	\$500.00	\$1,000.00			\$0.00	\$1,000.00	
Remove Existing Fence (8' High Fixed Knot Farm Fence)	4,180	LF	\$3.85	\$16,093.00	23,408	\$0.09	\$2,106.72	\$13,986.28	
Remove Existing Gravel Entrance (12" depth)	1,497	CY	\$4.00	\$5,988.00			\$0.00	\$5,988.00	
Haul off for Existing Gravel Entrance (12" depth)	1,497	CY	\$10.00	\$14,970.00			\$0.00	\$14,970.00	
Sub-Total				\$39,026.00			\$2,106.72	\$36,919.28	
Racking and Module Removal									
Pile Removal	1,709	EACH	\$8.00	\$13,672.00	897,225	\$0.04	\$33,645.94	(\$19,973.94)	Assumes W10x35 I-beams at 15' long = 525 lbs. each @ \$0.0375/lb
Assembly Removal	399	EACH	\$60.00	\$23,961.60	59,904	\$0.04	\$2,246.40	\$21,715.20	Assumes 150 lbs. each @ \$0.0375/lb
PV Module Removal	9,984	EACH	\$1.25	\$12,480.00		\$1,647,360.00	\$1,647,360.00	(\$1,634,880.00)	Assumes 75% of original value (\$220 original value)
PV Module Haul Off	319	TON	\$45.00	\$14,376.96			\$0.00	\$14,376.96	
Sub-Total				\$64,490.56			\$1,683,252.34	(\$1,618,761.78)	
Wiring Removal									
Utility Pole Removal	4	EACH	\$750.00	\$3,000.00			\$0.00	\$3,000.00	
Underground AL	36,837	LF	\$2.00	\$73,674.00	7,367.40	\$0.30	\$2,210.22	\$71,463.78	Underground aluminum wire
Underground CU	11,943	LF	\$2.00	\$23,886.00	2,388.60	\$1.80	\$4,299.48	\$19,586.52	Underground copper wire
Above Ground CU	121,998	LF	\$0.10	\$12,199.80	24,399.60	\$1.80	\$43,919.28	(\$31,719.48)	Aboveground copper wire
Above Ground AL	304	LF	\$0.10	\$30.40	15.81	\$0.30	\$4.74	\$25.66	Aboveground aluminum wire
Combiner Box Removal	20	EACH	\$80.00	\$1,600.00		\$400.00	\$400.00	\$1,200.00	
Sub-Total				\$114,390.20			\$50,833.72	\$63,556.48	
Power Conditioning Equipment Removal									
PCU Station (inverters, etc.)	20	EACH	\$800.00	\$16,000.00		\$75,000.00	\$75,000.00	(\$59,000.00)	Assumes 50% of original value (\$7,500 original value)
Scada Equipment	2	EACH	\$500.00	\$1,000.00		\$2,000.00	\$2,000.00	(\$1,000.00)	
Transformer	2	EACH	\$3,000.00	\$6,000.00		\$150,000.00	\$150,000.00	(\$144,000.00)	Assumes 50% of original value (\$150,000 original value)
Sub-Total				\$23,000.00			\$227,000.00	(\$204,000.00)	
Equipment Pad Removal									
Remove Pad	2	EACH	\$750.00	\$1,500.00			\$0.00	\$1,500.00	
Sub-Total				\$1,500.00			\$0.00	\$1,500.00	
DECOMMISSIONING TOTAL				\$269,890.76			\$1,963,192.78	(\$1,693,302.02)	

- Assumptions:
 1. Cost Estimate based on 5-year projections.
 2. Cost Estimate based on the Developmnet Layout Plan prepared by OneEnergy dated 10/07/2024.
 3. Refer to Decommissioning Plan for further information.

Note: This Engineer's Opinion of Probable Cost is made on the basis of Engineer's experience and qualifications using estimated quantities and represents Engineer's best judgment as an experienced and qualified professional Engineer generally familiar with the construction industry. However, since Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, or over quantities of work actually performed, Engineer cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from Opinions of Probable Construction Cost prepared by Engineer. This Opinion of Probable Construction Cost is limited to those items stated herein.

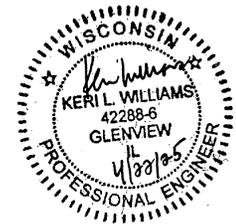




Exhibit G – Glare Analysis

New London Solar Project

Applicant:

OneEnergy Development, LLC

10 N. Livingston St. Suite 201

Madison, WI 53703

FORGESOLAR GLARE ANALYSIS

Project: **New London Solar**

New London Solar will include approximately 30 acres of agricultural land in the town of Maple Creek, Outagamie County, WI. Some light grading and clearing may take place but there will be little change to the quantity of impervious surface. It is expected that the project will generate 6 MW of power.

Site configuration: **Untitled**

Created 04 Apr, 2025
 Updated 04 Apr, 2025
 Time-step 1 minute
 Timezone offset UTC-6
 Minimum sun altitude 0.0 deg
 DNI peaks at 1,000.0 W/m²
 Category 1 MW to 5 MW
 Site ID 146010.24631

Ocular transmission coefficient 0.5
 Pupil diameter 0.002 m
 Eye focal length 0.017 m
 Sun subtended angle 9.3 mrad
 PV analysis methodology V2



Summary of Results No glare predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	18,190,000.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1
Description: 6MW
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 52.0°
Resting angle: 52.0°
Ground Coverage Ratio: 0.5
Rated power: 6000.0 kW
Panel material: Light textured glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	44.437332	-88.736610	819.89	7.00	826.89
2	44.433946	-88.736545	767.30	7.00	774.30
3	44.433931	-88.732983	791.59	7.00	798.59
4	44.438037	-88.733037	843.85	7.00	850.85
5	44.437984	-88.734121	834.23	7.00	841.23
6	44.437654	-88.734110	829.90	7.00	836.90
7	44.437639	-88.735730	831.75	7.00	838.75
8	44.437332	-88.735698	829.96	7.00	836.96

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	44.435885	-88.728628	844.50	17.50
OP 2	2	44.435885	-88.728220	844.47	5.50
OP 3	3	44.439776	-88.728327	797.74	17.50
OP 4	4	44.436145	-88.726911	842.25	17.50
OP 5	5	44.434919	-88.727083	852.63	17.50
OP 6	6	44.433939	-88.727211	849.72	17.50
OP 7	7	44.432943	-88.726911	843.67	17.50
OP 8	8	44.433923	-88.724594	848.74	17.50
OP 9	9	44.433372	-88.725001	850.96	17.50
OP 10	10	44.433525	-88.724272	845.30	5.50
OP 11	11	44.431855	-88.726954	823.64	17.50
OP 12	12	44.432590	-88.728370	821.60	17.50
OP 13	13	44.431763	-88.728563	808.86	17.50
OP 14	14	44.431410	-88.726804	824.72	17.50
OP 15	15	44.430307	-88.727619	812.10	5.50
OP 16	16	44.437263	-88.727598	826.95	10.00
OP 17	17	44.434613	-88.727683	847.12	10.00
OP 18	18	44.433383	-88.739248	778.94	10.00
OP 19	19	44.436478	-88.739827	794.59	10.00
OP 20	20	44.432908	-88.740836	791.33	5.50
OP 21	21	44.433659	-88.740707	786.03	17.50
OP 22	22	44.438876	-88.740288	803.61	10.00
OP 23	23	44.429978	-88.726293	812.50	17.50
OP 24	24	44.435771	-88.741697	798.95	10.00

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	18,190,000.0

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0
OP 21	0	0.0	0	0.0
OP 22	0	0.0	0	0.0
OP 23	0	0.0	0	0.0
OP 24	0	0.0	0	0.0

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 15

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 17

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV array 1 and OP 21

No glare found

PV array 1 and OP 22

No glare found

PV array 1 and OP 23

No glare found

PV array 1 and OP 24

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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EXHIBIT I



Department of Development and Land Services
Planning & Zoning | GIS & Land Information
320 S. Walnut St. | Appleton, WI 54911
Outagamie County Government Center, 3rd Floor
Phone: (920) 832-5255 Fax: (920) 832-4770
www.outagamie.org

TOWN RECOMMENDATION FORM

This form must accompany any County petition requesting a rezone (map amendment), special exception permit, special exception airport permit, conditional use permit, variance, or appeal. Towns must provide a signed copy of this form to the applicant/petitioner and should retain a copy.

OVERVIEW OF REQUEST:

Town (or Applicable Village):	Maple Creek
Request:	Special Exception
Applicant or Petitioner Name:	Peter Murphy - OneEnergy Renewables, LLC
Applicant Contact Information (Preferred):	peter@oneenergyrenewables.com
Site Parcel Number(s):	160042900 and 160042800
Site Address (if applicable):	N5437 County Road D, New London, WI 54961
Pre-Application Meeting Number (if applicable):	PL 202500155
Description of the Request: <i>(Please summarize the purpose of this request and/or attach a copy of the pre-application meeting summary, if applicable.)</i>	Special Exception Permit for New London Solar, a 6-Megawatt, 25 acre solar project in the Town of Maple Creek.

COMPLETED BY THE CLERK:

Certification:

I hereby certify that the Board of Maple Creek, at a legally convened meeting of the Board held on 05/12/2025, voted to Approve the Special Exception request:

Clerk Signature

5-14-2025
Date

Motion Outcome by a Vote of:	2	For	0	Against
General Comments/Reasons for the Decision: <i>(See next page for instructions. If needed, you may include additional pages.)</i>	One Supervisor abstained. The motion to approve came with two exceptions: 1) it will not be annexed to another Municipality and 2) it will not be expanded to parcel 160042700. Exception 1) When ATC put up their lines and substation, the C. of NL annexed it. They took most of the utility dollars from MC. 2) This is Exclusive Ag. Why take prime farmland for a solar. +			

NOTICE OF PUBLIC HEARING

TOWN OF MAPLE CREEK
OUTAGAMIE COUNTY

TO WHOM IT MAY CONCERN

Notice is hereby given that the Outagamie County Zoning Committee will hold a public hearing at the Outagamie County Government Center, County Board Room, 320 S. Walnut St., Appleton, WI 54911, on June 10, 2025 at 09:00 AM to consider the petition of OneEnergy Development, LLC, applicant on behalf of Glass Hill Farm LLC, owner, for a Special Exception with the following associated details and scope of work:

Request for a Special Exception Permit to allow a Large-Scale Solar Energy System in the Exclusive Agricultural District (AED) pursuant to Section 54-102(9) of the Outagamie County Code of Ordinances.

The project sites are located: Tax Parcel No.: 160042800, further described as, N27RDS OF E13RDS NW SW SEC30 T23N R15E 2.19AC M/L. Tax Parcel No.: 160042900, further described as, NW SW LESS N27RDS OF E13RDS SEC30 T23N R15E 27.13AC M/L, TOWN OF MAPLE CREEK, Outagamie County, Wisconsin.

For particulars, reference is made to documents located at <https://cityview.outagamie.org/> by referencing the below File Number under Planning Application search.

Any interested person may address the Zoning Committee by mailing a letter to Outagamie County DLS, 320 S. Walnut Street, Appleton, WI 54911, emailing zoningemail@outagamie.org, or attending on the date and time listed above.

Dated this 20 day of May, 2025

OUTAGAMIE COUNTY ZONING COMMITTEE
DEBBIE VANDER HEIDEN, CHAIR

File No: PL202500149

Published: MAY 27 AND JUNE 3, 2025

Accommodation Notice:

Any person requiring special accommodation who wishes to attend this meeting should call (920) 832-5255 at least 48 hours in advance.

Account Number:	1013041
Customer Name:	Outagamie County Development & Land Services
Customer Address:	Outagamie County Development & Land Services 320 S Walnut ST Zoning Dept. Appleton WI 54911-5918
Contact Name:	Becky A. Meulemans
Contact Phone:	920-832-4921
Contact Email:	Becky.Meulemans@outagamie.org
PO Number:	202500149

Date:	05/20/2025
Order Number:	11334568
Prepayment Amount:	\$ 0.00

Column Count:	1.0000
Line Count:	59.0000
Height in Inches:	4.8900

Print

Product	#Insertions	Start - End	Category
APC Appleton Post Crescent	2	05/27/2025 - 06/03/2025	Govt Public Notices
APC postcrescent.com	2	05/27/2025 - 06/03/2025	Govt Public Notices

As an incentive for customers, we provide a discount off the total order cost equal to the 3.99% service fee if you pay with Cash/Check/ACH. Pay by Cash/Check/ACH and save!

Total Cash Order Confirmation Amount Due	\$98.94
Tax Amount	\$0.00
Service Fee 3.99%	\$3.95
Cash/Check/ACH Discount	-\$3.95
Payment Amount by Cash/Check/ACH	\$98.94
Payment Amount by Credit Card	\$102.89

Order Confirmation Amount	\$98.94
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Ad Preview

NOTICE OF PUBLIC HEARING

TOWN OF MAPLE CREEK
OUTAGAMIE COUNTY

TO WHOM IT MAY CONCERN

Notice is hereby given that the Outagamie County Zoning Committee will hold a public hearing at the Outagamie County Government Center, County Board Room, 320 S. Walnut St., Appleton, WI 54911, on June 10, 2025 at 09:00 AM to consider the petition of OneEnergy Development, LLC, applicant on behalf of Glass Hill Farm LLC, owner, for a Special Exception with the following associated details and scope of work:

Request for a Special Exception Permit to allow a Large-Scale Solar Energy System in the Exclusive Agricultural District (AED) pursuant to Section 54-102(9) of the Outagamie County Code of Ordinances.

The project sites are located: Tax Parcel No.: 160042800, further described as, N27RDS OF E13RDS NW SW SEC30 T23N R15E 2.19AC M/L. Tax Parcel No.: 160042900, further described as, NW SW LESS N27RDS OF E13RDS SEC30 T23N R15E 27.13AC M/L, TOWN OF MAPLE CREEK, Outagamie County, Wisconsin.

For particulars, reference is made to documents located at <https://cityview.outagamie.org/> by referencing the below File Number under Planning Application search.

Any interested person may address the Zoning Committee by mailing a letter to Outagamie County DLS, 320 S. Walnut Street, Appleton, WI 54911, emailing zoningemail@outagamie.org, or attending on the date and time listed above.

Dated this 20 day of May, 2025

OUTAGAMIE COUNTY ZONING
COMMITTEE
DEBBIE VANDER HEIDEN, CHAIR

File No: PL202500149

Accommodation Notice:

Any person requiring special accommodation who wishes to attend this meeting should call (920) 832-5255 at least 48 hours in advance.

Run: May 27, June 3, 2025 WNAXLP