



Redwood County

www.co.redwood.mn.us

Application for Conditional Use Permit

Permit #: 12-18 Date: 8/24/18

Location of Proposed Use:

Address: 27901 County Rd. 2 City: Morgan State: MN Zip: 56266
House # Street Name

Parcel #: 59.003.2060 Township: Sherman Section: 3 Twp #: 111N Range: 34W
MORGAN

Legal Description:

See Page 3 for full legal description

Information about the Site:

Zoning District: Agricultural

General description of the building(s) and proposed use:

USS Cougar Solar LLC is requesting a Conditional Use Permit to build a 1 MW community solar garden on approximately 10 acres of the Peterson's property.

Building Size: (Please enter dimensions in feet)

Width: 890 ft Length: 709 ft Diameter: _____ Total Height: 12 ft

Setbacks: (Please enter in feet)

Side Yard Setback: 63.7 ft Direction: South

Side Yard Setback: 533 ft Direction: North

Rear Yard Setback: 50.6 ft Direction: East

Road Type: County Road Setback from the Right-of-Way: 320 ft

Right-of-Way Width from Centerline 50 ft

Type of Sewer System:

N/A

Drainage Plan:

We plan to install a permanent wet sedimentation basin and berm holding a total of 12,172 cubic feet of storm water runoff

Other Information:

[Empty box for other information]

Applicant Information:

First Name: David **Last Name:** Watts

Business Name: United States Solar Corporation

Address: 100 N. 6th St. Suite 218C **City:** Minneapolis **State:** MN **Zip:** 55403

Home Phone: 612-294-6569 **Cell Phone:** _____ **Email:** david.watts@us-solar.com

Operator Information: (Complete only if different from Applicant)

First Name: _____ **Last Name:** _____

Business Name: _____

Address: _____ **City:** _____ **State:** MN **Zip:** _____

Home Phone: _____ **Cell Phone:** _____ **Email:** _____

Land Owner Information: (Complete only if different from applicant)

First Name: Jeffrey and Angela **Last Name:** Peterson

Address: 203 Southdale St. SE **City:** Sleepy Eye **State:** MN **Zip:** 56085

HomePhone: 507-220-1554 **CellPhone:** _____ **Email:** petwell@sleepyeyetel.net

I affirm that the forgoing information is true and accurate. I understand that if any portion of this information is false or materially misleading, any conditional use permit issued in reliance upon this information is voidable at the election of Redwood County.

Land Owner Signature: Jeffrey J. Peterson / Angela Peterson **Date:** aug. 14-18

Office Use Only: * The section below is to be filled out by the Environmental Office Staff

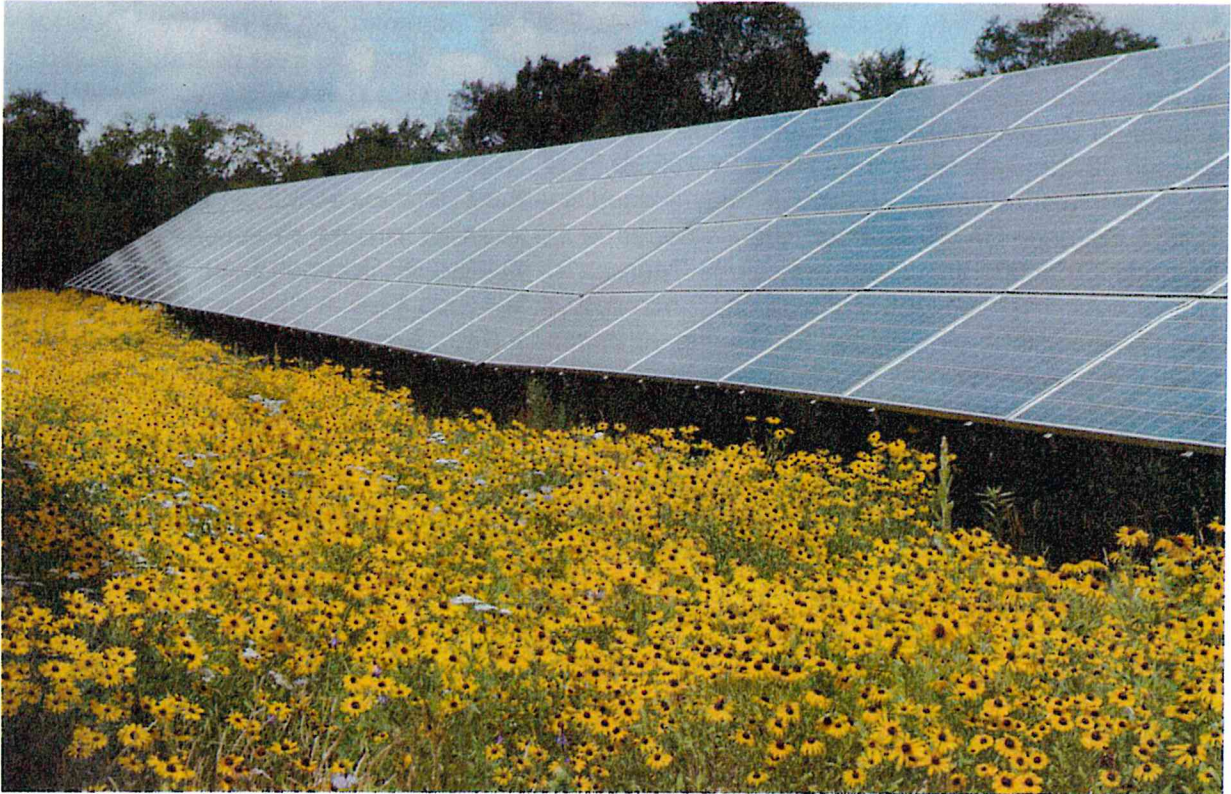
Permit Fee: \$700. **Receipt #:** 184858 **Date Approved:** _____

Application Received: 8/27/18

Commission Action:		County Board Action:	
Approved: _____	Date: _____	Approved: _____	Date: _____
Disapproved: _____	Date: _____	Disapproved: _____	Date: _____

Full Legal Description:

The West Half Of The Northwest Quarter Of The Northwest Quarter And The Southwest Quarter Of The Northwest Quarter In Section 3, Township 111 North, Range 34 West, Redwood County, Minnesota; Excepting Therefrom The Following Described Tract: That Part Of The Southwest Quarter Of The Northwest Quarter Of Section 3, Township 111 North, Range 34 West, Redwood County, Minnesota, Described As Follows: Commencing At The West Quarter Corner Of Section 3; Thence North 00 Degrees 02 Minutes 54 Seconds East Bearings Based On Redwood County Coordinate System NAD83(11) On The West Line Of The Northwest Quarter, A Distance Of 570.45 Feet To The Point Of Beginning; Thence South 89 Degrees 57 Minutes 06 Seconds East, A Distance Of 185.00 Feet; Thence South 00 Degrees 02 Minutes 54 Seconds West, A Distance Of 89.53 Feet; Thence South 89 Degrees 57 Minutes 06 Seconds East, A Distance Of 160.00 Feet; Thence South 00 Degrees 02 Minutes 54 Seconds West, A Distance Of 85.00 Feet; Thence South 89 Degrees 57 Minutes 06 Seconds East, A Distance Of 375.00 Feet; Thence North 00 Degrees 02 Minutes 54 Seconds East, A Distance Of 393.00 Feet; Thence North 89 Degrees 57 Minutes 06 Seconds West, A Distance Of 320.00 Feet; Thence South 60 Degrees 34 Minutes 09 Seconds West, A Distance Of 144.88 Feet; Thence South 80 Degrees 59 Minutes 22 Seconds West, A Distance Of 90.00 Feet; Thence South 00 Degrees 02 Minutes 54 Seconds West, A Distance Of 73.00 Feet; Thence North 89 Degrees 57 Minutes 06 Seconds West, A Distance Of 185.00 Feet To The West Line Of Said Northwest Quarter; Thence South 00 Degrees 02 Minutes 54 Seconds West, On Said West Line, A Distance Of 60.00 Feet To The Point Of Beginning.



USS VERDE SOLAR LLC
CONDITIONAL USE PERMIT
APPLICATION



COVER LETTER

August 22, 2018
Redwood County Planning Commission
403 S. Mill St.,
Redwood Falls, MN 56283

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

Dear Redwood County Planning Commission,

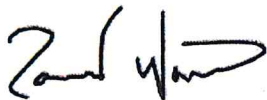
Attached, please find an application for a Conditional Use Permit (“CUP”) to construct and operate a community solar garden within Morgan Township. Pursuant to Section 15: Solar Power Management (the “Ordinance”), the request is being made by USS Cougar Solar LLC, a subsidiary of United States Solar Corporation (“US Solar”). US Solar, a small business based in Minnesota, is a turnkey community solar developer, coordinating all Project details—development, permits, finance, construction, and operations and maintenance.

USS Cougar Solar LLC plans to develop and construct a 1-megawatt (MW) community solar garden (the “Project”) in Redwood County on approximately 10.2 acres of a 55.49-acre parcel in Morgan Township at 27901 County Rd. 2, Morgan, MN 56266, Parcel ID 59.003.2060 (the “Property”) through Redwood County’s CUP process. Our subscribers, typically schools, cities, and nearby residential customers will be eligible for significant savings through community solar gardens like this one. Our application includes information about the applicant and site and provides detailed analysis of the applicable land use permitting considerations.

The US Solar team appreciates the coordination and insights already provided by Redwood County staff and looks forward to working with both Morgan Township and Redwood County. Together, we will ensure that this Project will operate safely and efficiently over its lifespan, while providing environmental, financial, and social benefits to the surrounding area.

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

Sincerely,



David Watts – Project Developer

USS Cougar Solar LLC
100 N 6th St., Suite 218C
Minneapolis, MN 55403
W: (612) 294.6978 C: (612) 859.7575
E: david.watts@us-solar.com

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PROJECT SUMMARY

USS Cougar Solar LLC respectfully submits this CUP application to construct, own, and operate a 1-MW(ac) community solar garden (the "Project") on approximately 10.2 acres of the 55.49 acres of Parcel ID 59.003.2060, in Section 03 of Morgan Township. The parcel is owned by Jeffrey L. Peterson and Angela T. Peterson. US Solar has a land lease allowing for the use of the Property with Jeffrey and Angela Peterson, a memorandum of which has been recording in the county records. A copy of the Memorandum of Lease Agreement can be found in Appendix III.

Parcel Identification Number	59.003.2060
Property Address	27901 County Rd. 2, Morgan, MN 56266
Landowner	Jeffrey and Angela Peterson
Township	Morgan
Current Use of Property	Agriculture
Application Fee	\$700

SELECTING THIS PROPERTY

The Property was selected because of its solar resource, physical characteristics, proximity and access to high-value 3-phase distribution facilities, applicable zoning and permit requirements, and landowner support.

- Solar Resource
 - Relatively large, flat, and open to provide unobstructed access to natural sunlight
- Physical Characteristics
 - Limited grading, if any, maintaining natural topsoil and existing drainage patterns
 - Not in Agricultural Preserve
 - No impact to wetlands or neighboring properties
 - Adequate space for setbacks or landscape screening
 - Soils capable of supporting facility and equipment
 - No water or other infrastructure improvements needed
- Proximity to Distribution Facilities
 - Existing distribution line on the Project-side of County Road 2
 - Adequate capacity for the Project on existing distribution line and other infrastructure
 - Supplies electricity throughout the local community
- Capacity Screens with Xcel Energy
 - Existing substation in relatively close proximity with adequate capacity for the Project

SETBACKS AND OTHER ORDINANCE CONSIDERATIONS

Requirement Description	Requirement	Project	Confirmation
Side Yard	10'	>10'	✓
Front Yard	67'	>67'	✓
Rear Yard	10'	>10'	✓
Dwelling	150'	>150'	✓
Solar Panel Height	15' maximum	<15'	✓

The Project will generate enough electricity to power approximately 225 homes annually and interconnect directly to the existing distribution system of Xcel Energy. Residents, businesses, and public entities in and around Redwood County who are Xcel Energy customers may subscribe to a portion of the electricity generated and receive bill credits on their Xcel Energy bills. In this way, local residents and businesses receive a direct economic benefit from the Project. USS Cougar Solar LLC is contracted to deliver electricity for a period of 25 years, commencing on the date of commercial operation, which is expected to occur in 2019.

Surrounding land use is primarily agricultural, with other farmsteads within a half mile of the Project. We plan to reach out to neighbors in the immediate vicinity of the Project to share our plans and ensure any concerns have been discussed.

LOCAL ECONOMIC IMPACT

In addition to discounted electric bills, this Project will have a positive economic impact, detailed below.

Already Spent

- o ~\$40,000 on local engineering, legal, and environmental consulting services
- o ~\$5,000 on legal fees, county recordings, travel, and meals,

During Construction

- o ~\$2,200,000 on capital infrastructure investment
- o ~\$900,000 on local spending
- o 15+ temporary construction and related service jobs, equivalent to ~4 full-time job years

During Operation

- o ~\$12,000 - \$15,000 on increased property tax payments during operation
- o ~1 permanent, part-time employee (\$22,500/yr, totaling \$562,000 over 25 years)

LOGISTICS

DESCRIPTION OF OPERATIONS

The major equipment components of the Project are solar panels, inverters, and racking. Single-axis tracker racks provided by a vetted manufacturer hold up the solar panels, reaching a maximum height of approximately 10 feet. Racking is installed with piles that are anchored into the ground to the appropriate depth to ensure long-term stability and structural soundness, based on detailed structural and geotechnical analysis. Piles also facilitate decommissioning at the end of the life of the Project, as they do not require cement foundations and are easily removed. We also use Tier 1 solar panels to achieve high efficiency and conform to high quality control and safety standards. Most importantly, we will provide non-invasive, ongoing maintenance of all our community solar gardens, both equipment and site conditions. On a regular schedule, we will analyze Project performance, detecting and diagnosing any production anomalies, identifying and addressing underperformance issues, managing service teams and technicians, and contacting landowners and the utility if necessary.

SITE VISITS DURING OPERATION

Approximately once per quarter, one vehicle with approximately two (authorized and insured) technicians will be sent out to perform routine maintenance on the site, in addition to any unplanned maintenance. During the first few years, one vehicle with approximately two vegetation maintenance personnel will visit the site a handful of times per year, to ensure the health of vegetation. After the first three years, we expect roughly four visits to the site per year for regular, preventative maintenance. The Project will be fenced, locked, and remotely monitored. The proposed Project, once operational, requires no daily traffic.

In addition, Xcel Energy personnel will have an easement to facilitate maintenance activities of their interconnection facilities.

VEHICLES

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

PARKING

During the operational phase of the Project, there will be approximately two parking spots within the boundaries of the perimeter fence. Our vehicles will park there to avoid disrupting traffic or land use. During our 3-4 month construction phase, a temporary parking area, adjacent to the Project, will be used for installation crews, delivery trucks (as needed), and construction and supervision personnel.

STRUCTURES

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

STORAGE DURING OPERATION

There will be no equipment or materials storage onsite after the construction phase.

SIGNAGE

We will post signage required by law during construction at the Project. To provide safety and support good practices, labeling of electrical equipment requires internal signage. All signage will follow sign regulations in the Ordinance and National Electric Code.

WATER, SEWAGE, AND WASTE

No water, sewage, or waste management services are required onsite. Portable waste facilities will be provided during the construction period.

CONSTRUCTION TRIPS

Construction is expected to last 3-4 months, with most deliveries in the first month and most electrical testing in the later stages of construction. Delivery expectations are listed below.

- Modules will come on 40-foot flatbed trucks or in 40-foot containers
 - We expect no more than 8 deliveries for all solar modules
- We expect no more than 5 container trucks to deliver racking material
- We expect no more than 2 deliveries for inverters, switchgears, and transformer
- We expect additional trips for Balance of Plant equipment on smaller delivery vehicles
- We expect no more than 4 deliveries per day

Delivery routes will be designed to minimize any traffic impact in the local community. We will coordinate with local authorities as to preferred times and routes prior to construction mobilization.

Construction personnel will park within the Project premises. USS Cougar Solar LLC has responsibility for maintenance, replacement, or new installation of any drain tile servicing this site, if USS Cougar Solar LLC and the landowner determine it is necessary. The Project will comply with Minnesota Rules 7030 governing noise.

SITE PLAN

The proposed site plan is enclosed as Appendix I to describe our design of the Project. It shows the land parcel, Project dimensions and specifications, zoning setbacks, and more. The site plan, along with narrative and other associated figures in the Exhibits, address all requirements listed in the Ordinance.



EXAMPLE OF A SOLAR PROJECT IN CONSTRUCTION



EXAMPLE OF A SOLAR PROJECT IN OPERATION

SITE ACCESS

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

- (1) Remove topsoil from a 15-foot wide area and spread it thinly in adjacent areas,
- (2) Lay down geotextile fabric over compacted subgrades, if necessary, to prevent vegetative growth, and
- (3) Install and compact approximately eight to ten inches of aggregate material and gravel to level with surrounding grade.

This Project will be accessed from a 15-foot-wide access road directly off County Road 2. The access road will turn right after entering the tilled field directly to the Project location. USS Cougar Solar LLC will work with the road authority for approval. See Appendix I for a depiction of the access road.

EXISTING VEGETATION

The relevant area of the parcel is 100% row crop agriculture. The soil type under the Project is primarily Normania loam (5% hydric) and Canisteo clay loam (100% hydric). Please see the Soil Classification Map in [Appendix I](#).

VEGETATIVE SEEDING PLAN

The area underneath the modules and between rows will be transformed into a diverse mix of pollinator-friendly, low-lying, deep-rooted plants. USS Cougar Solar LLC will control for noxious weeds throughout the life of the Project. The seed mix will provide excellent habitat and food sources for native wildlife, preserve and improve the soils, and reduce erosion and water runoff.

Our design goals for this community solar garden seed mix are as follows:

- Withstand harsh climate conditions
- Minimize erosion
- Improve water quality
- Reduce storm water runoff
- Minimize maintenance costs
- Increase crop yield on surrounding farms

FENCING

In addition, our Project will include a security fence around the entire perimeter. The security fencing will be located entirely on the Property on the inside of the landscape screening. The fence will not exceed 8 feet in height, and it will be a farm-field style fence without barbwire. The fence will meet National Electric Code. See the image below for a representative photo.



PRELIMINARY DRAINAGE PLAN

Preliminary drainage plan has been included in Appendix I. A full drainage report is forthcoming and will be completed as part of the Stormwater and Pollution Prevention Plan (SWPPP) permit. Volume control (infiltration) will be provided through the disconnection of impervious surfaces as well as on-site infiltration basins. Aside from the gravel access road and meter pad, the entire area within the fence boundary will be restored to a low-maintenance seed mix, including the area below the solar panels. Runoff from the panels and gravel access roads will be allowed to “sheet flow” across the newly established perennial vegetation. The proposed Project discharges in a manner like the existing flow pattern in all modeled storm events and does not alter drainage patterns.

The SWPPP will include the following:

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

As described in the Minnesota Stormwater Manual, better site design techniques have been incorporated to ensure a site maintains good drainage. All impervious surfaces are fully disconnected and routed over low maintenance grass prior to leaving the site. The MPCA's spreadsheet tool has been used to calculate the volume of stormwater that must be treated on site from solar installations to meet the requirement of 1.0 inch of runoff from new impervious surfaces. A small basin may be provided to make up the remainder of the volume required. The basin design will allow for a 48-hour draw down time. Pretreatment is provided throughout the site by fully vegetative land cover that will be utilized as buffer. Runoff from access roads will not be channelized prior to discharge to the infiltration areas but allowed to freely sheet flow across the vegetated site. Redwood County requirements are met through the restoration of upland vegetation.

Temporary construction sedimentation basins will be necessary where greater than 5 acres of disturbed area discharges to a common point within 1 mile of impaired or special waters. Based on NPDES permit requirements, the sediment basin is designed for the 2-year storm event.

GRADING AND FILLING

We propose no substantial grading, filling, removal of soils, or addition of soils. Our solar racking can accommodate the current terrain, a primary reason we selected this location. This will maintain the original grading on the site and sustain the existing drainage and runoff patterns, minimizing impact to surrounding land.

AGRICULTURAL LAND AND ENVIRONMENTALLY SENSITIVE AREAS

The development of a community solar garden on agricultural land is temporary in nature and the impervious areas would be minimal, approximately 0.3 – 0.5 acres in total. The remainder, approximately 8 acres, will be converted from row-crops to native grasses and pollinator-friendly habitat. In total, the amount of land utilized for this Project is very small in relation to the total farmed acreage in Redwood County.

Community solar gardens contribute to the preservation and improvement of agricultural land. This is true for three primary reasons.

First, we use DNR-recommended, pollinator-friendly, native grasses to blanket the ground beneath our community solar gardens. A recent study has shown that these seed mixes reduce stormwater runoff by 23 percent for the 2-year storm event (2.9 inches of rain) and 8 percent for the 100-year storm (7.8 inches of rain)¹. These native plantings also expand habitat for pollinators and other species that enhance surrounding agricultural activity.

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

¹ (Jeffrey Broberg, "Utility & Community Solar Should Use Native Landscaping," <http://cleantechnica.com/2016/03/15/utility-and-community-solar-should-use-native-landscaping/>)

Third, community solar gardens effectively lock up the land use for 25 years or more, thwarting the potential for any industrial, or commercial development. Many neighbors recognize this reality: development will occur as residential and commercial uses expand and encroach on agricultural lands. It could be a residential subdivision, a commercial/industrial operation, or a community solar garden that is silent, invisible, and beneficial to the local environment. Of these options, the community solar garden will be the best steward of the prime agricultural land.

EFFECTS ON THE ENVIRONMENT

The National Renewable Energy Laboratory recently studied the environmental effect of solar panel manufacturing and concluded that the manufacturing energy cost is recuperated by energy payback in less than 4 years. The Project would provide decades of pollution-free and greenhouse-gas-free electrical generation.

In addition to the positive effects of solar energy, the sections above detail how and why the Project would have positive effects on the environment.

AGRICULTURAL PRESERVE STATUS

This site is not in the Agricultural Preserve program.

NO POLLUTION OF AIR, GROUNDWATER, AND SURFACE WATER

The materials that comprise the solar panels, racking, and other components of the Project are stable and contained, and do not pollute the air, groundwater, or surface area of the site on which they sit. As discussed above, the groundcover of pollinator-friendly, native plants drastically reduces runoff and erosion, while providing excellent habitat and food source for beneficial wildlife.

EROSION AND SEDIMENT CONTROL PLAN

USS Cougar Solar LLC will comply with the Minnesota Pollution Control Agency (MPCA) Construction Stormwater Permit Requirements, including obtaining a National Pollutant Discharge Elimination System (NPDES) stormwater permit prior to construction. The Project proposes no substantial grading or filling, as our racking equipment can accommodate the current terrain. Please refer to [Appendix I](#) for the erosion and sediment control site plan.

Due to the Project size and flat topography, no temporary sediment basins are required. The existing topography creates enough storage, so no grading is needed for this design. In addition to the silt fence, we propose a stormwater basin within the Project and permanent erosion control at the outlet. As can be seen on [Appendix I](#), our basins can hold a volume of 12,172 CF, exceeding the minimum requirement.

Please note in the site plan that there are no proposed permanent structures or buildings, as the Project is composed of tables of single-axis trackers. These are simple, durable, and non-intrusive. Between each row of solar panels, there is approximately 13 feet of green, open space, planted with pollinator-friendly vegetation.

MANUFACTURER'S SPECIFICATIONS

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

We are also using Tier 1 string inverters for this Project installed throughout the site. The inverters and electrical cabinets are enclosed and will meet all applicable codes and requirements.

The foundation of the racking system will utilize galvanized steel. The foundations should utilize galvanized steel, I-Beam piers. Depending on final soil analysis and foundation design prior to construction, they may be helical piles. The Project will utilize single-axis trackers, which rotate from east to west with the rising and setting of the sun. Single-axis trackers typically have a shorter solar panel height (approximately 10 feet at the highest point) and produce less glare than a fixed tilt system. The trackers will have a maximum rotational axis of 60 degrees each direction.

An underground, medium-voltage cable will connect directly to the proposed utility poles. All onsite power and communication lines running between solar modules will be underground.

Below are technical specifications and details of the current plans, which are subject to change:

Project Component	Specifications
Project Size	1 MW _{AC} /1.4616 MW _{DC}
Acres Required	10.2
Type of PV Panels	Silicone Polycrystalline
Panel Manufacturer	REC Solar, Trina, or equivalent Tier 1
Panel Model	350W
Panel Warranty	25 years, linear warranty
Mounting Manufacturer	Array Technologies
Mounting Model	DuraTrack® HZ v3
Mounting Warranty	10 years on structural components; 5 years on drive and control systems
Tilt Angle	0 degrees
Inverter Manufacturer	Huawei Technologies
Inverter Model	SUN2000
Inverter Peak Efficiency	99.0%
Inverter Size	25-40 kW _{AC}
Inverter Warranty	Up to 25 years. 10 years standard with additional options of up to 15 years.
Performance Monitoring System	AlsoEnergy

INTERCONNECTION WITH XCEL ENERGY

This Project has an executed Interconnection Agreement with Xcel Energy, as evidenced in [Appendix II](#).

DECOMMISSIONING PLAN

The Project consists of many recyclable materials, including glass, semiconductor material, steel, aluminum, copper, and plastics. When the Project reaches the end of its operational life, the component parts will be dismantled and recycled as described below. We have a lease contract with the property owner, which requires us to decommission and restore the site at our expense. The decommissioning plan would commence at the end of the lease term or in the event of twelve (12) months of non-operation. At the time of decommissioning, the Project components will be dismantled and removed using minimal impact construction equipment, and materials will be safely recycled or disposed. USS Cougar Solar LLC will be responsible for all the decommissioning costs.

REMOVAL PROCESS

The decommissioning of the Project proceeds in the following reverse order of the installation:

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

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

DECOMMISSIONING CONSIDERATIONS

We ask that the County take note of 3 important considerations: 1) a community solar garden is not a public nuisance, 2) the resale and recycle value are expected to exceed the cost of decommissioning, and 3) the County and taxpayers are not at risk.

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

2) Upon the end of the Project's life, the component parts may be resold and recycled. The aggregate value of the equipment is expected to exceed the cost of decommissioning and removal. Solar modules, for

example, have power output warranties guaranteeing a minimum power output in Year 25 of at least 80% of Year 1. Since the value of solar panels is measured by their production of watts, it is easy to calculate expected resale value. Even using extremely conservative assumptions, the value of the solar modules alone exceeds the cost of decommissioning. This does not factor in the recycle value of other raw materials like steel, copper, etc.

3) In the extremely unlikely, "worst-case" scenario where (1) the project owner fails to decommission and neither our lender nor any power generation entities want the assets, and then (2) the landowner fails to decommission the Project (which the landowner would have the right to do under the Property lease), and then (3) if the project owner and the landowner refuse to decommission the project and the decommissioning financial surety was insufficient to decommission the project, the County would have its standard police powers to enforce decommissioning. If that process ultimately resulted in the County gaining ownership of the property, the County could sell the parcel.

DECOMMISSIONING FINANCIAL SURETY

Considering 1) the Project is not a public nuisance, 2) the resale and recycle value is expected to exceed the cost of decommissioning, and 3) the County and taxpayers are not at risk, we are proposing that there are sufficient financial resources to properly decommission the project.

MAINTENANCE & OPERATIONS PLAN

Maintenance and Operations questions can be directed to the USS Cougar Solar LLC Operations Team at 612-260-2230. The Operations Team will be able to address any issues related to drainage, weed control, screening, general maintenance, and operation. Emergency contact details to be provided prior to construction.

INSURANCE INFORMATION

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

- Liability coverage that will include \$1,000,000 in coverage against damage to rented property
- Excess liability coverage of an additional \$1,000,000 per occurrence
- Property coverage in an amount necessary to cover the value of the solar project and up to one year of lost revenue in the event the project is destroyed and needs to be rebuilt

PROJECT OWNERSHIP

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

CONCLUSION

USS Cougar Solar LLC has complied with all requirements of the Solar Power Management Ordinance, and we respectfully request that the Redwood County Planning Advisory Commission approves the application.

APPENDIX I – SITE PLANS AND PROJECT MAPS

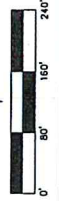
PRELIMINARY SITE PLAN	18
TOPOGRAPHY	20
WATER RESOURCES	21
DESKTOP HYDROLOGY	22
BIOLOGICAL RESOURCES & PUBLIC LANDS	23
INFRASTRUCTURE	24
SOILS	25
SURROUNDING PROPERTIES	26

***Please see the yellow boxes for the approximate location of the proposed solar garden. The red boxes are locations that are no longer being considered.

Checked by:	MM
Drawn by:	MM
Approved:	MM
Project Name:	USS Cougar Solar LLC
Project Address:	2794 County Rd. 2 Morgan, MN 56266
Project Date:	4/07/2017
Project Description:	CONVENTIONAL USE PERMIT SITE PLANS
Prepared for:	



100 N. 1st St. #105
 Minneapolis, MN 55403



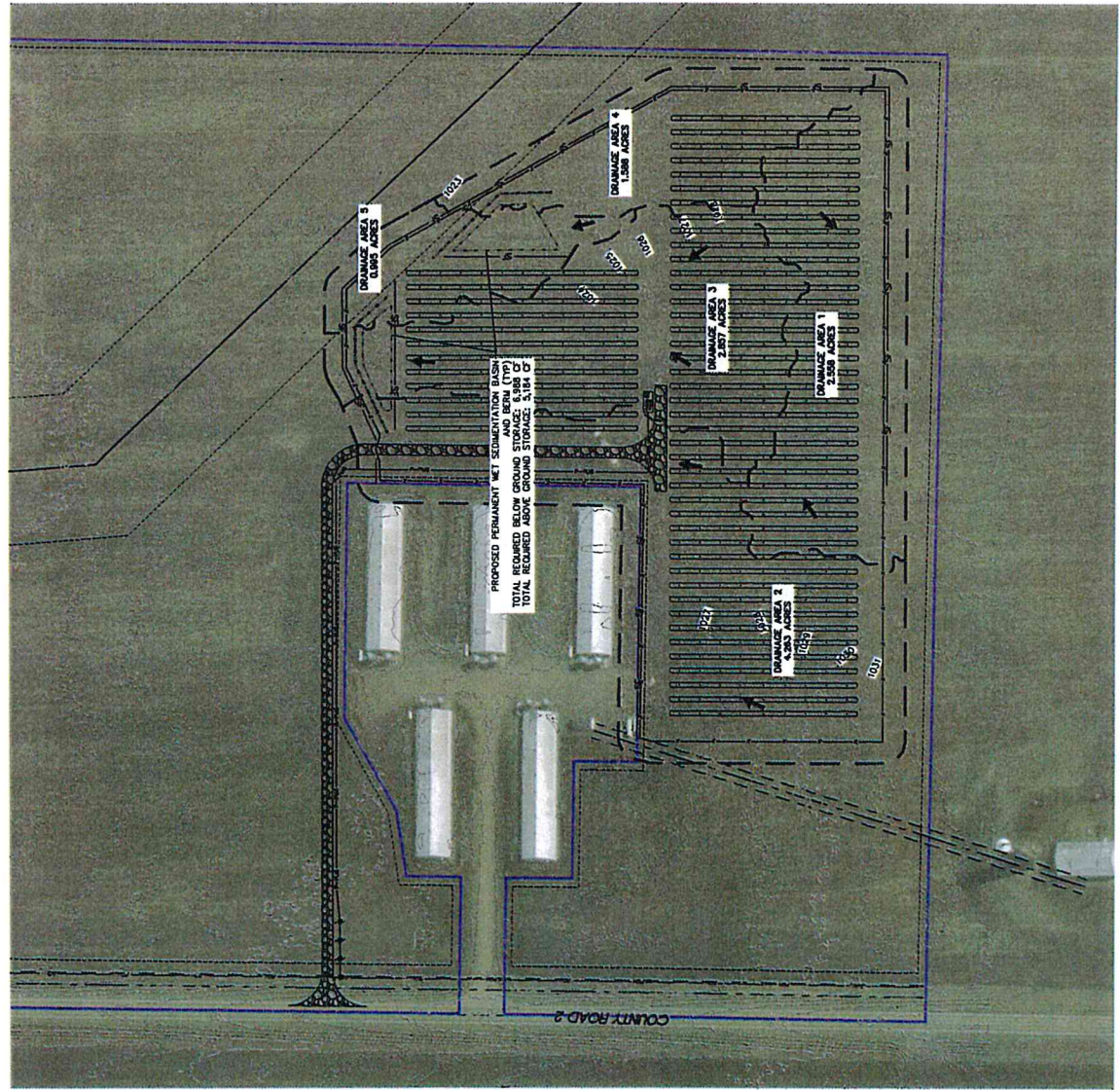
USS Cougar Solar LLC
 Redwood County, Minnesota
 2794 County Rd. 2
 Morgan, MN 56266

Site Hydrology

Not for Construction

Date: 07/20/17
 Sheet: C1.01

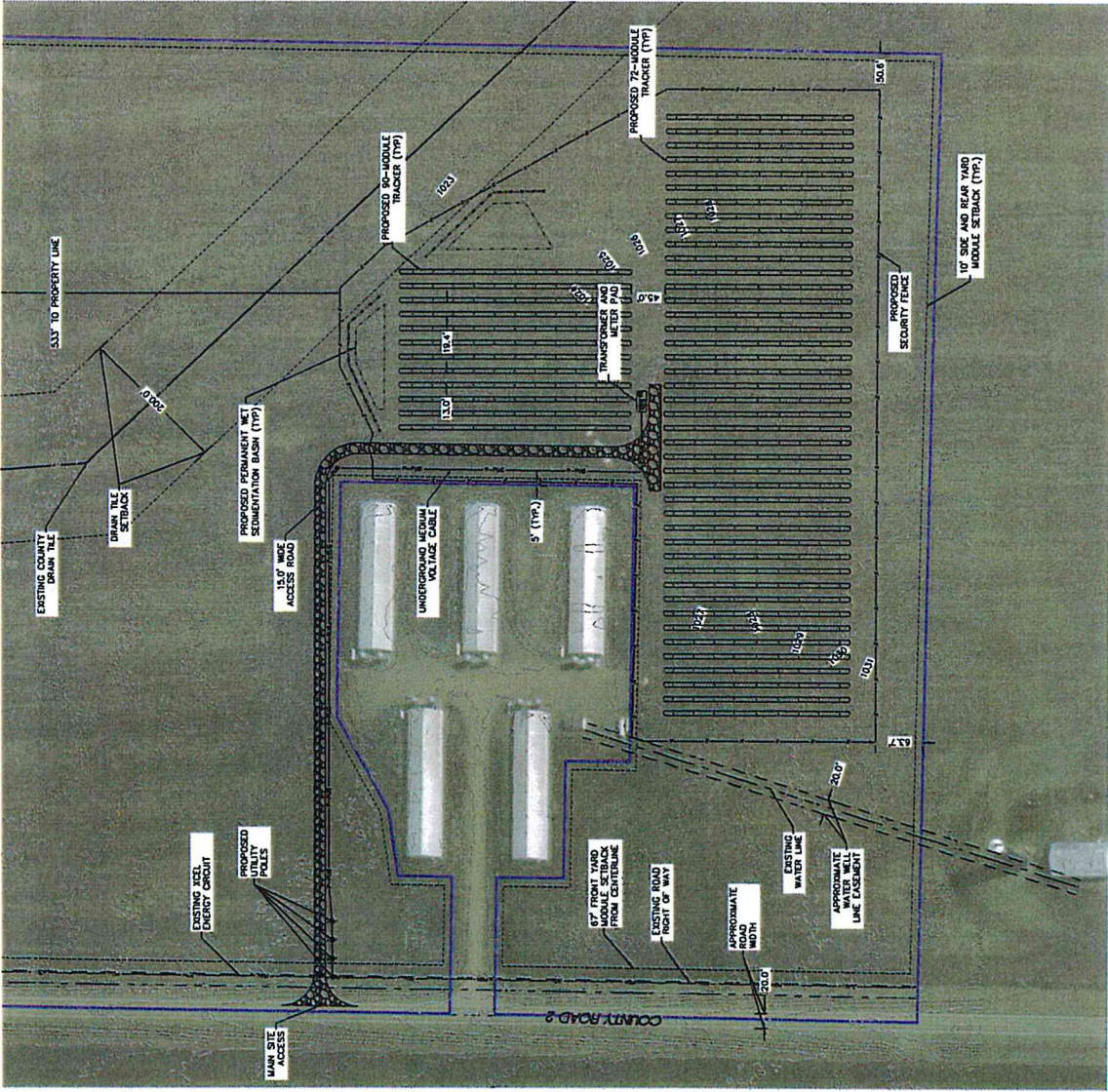
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LEGEND

[Symbol]	SWITCHBOARD AND TRANSFORMER PAD
[Symbol]	SINGLE AXIS TRACKER
[Symbol]	PROPOSED POWER POLE
[Symbol]	PROPOSED GRAVEL ACCESS ROAD (DRIVEWAY)
[Symbol]	PROPOSED UNDERGROUND COLLECTOR
[Symbol]	PROPOSED POWER OVERHEAD
[Symbol]	EXISTING OVERHEAD POWERLINE
[Symbol]	EXISTING UNDERGROUND POWERLINE
[Symbol]	PROPOSED FENCE LINE
[Symbol]	EXISTING PROPERTY LINE
[Symbol]	YARD SETBACK LINE
[Symbol]	PROPOSED STORMWATER BASIN
[Symbol]	PROPOSED STORMWATER BASIN
[Symbol]	SILT FENCE
[Symbol]	DRAINAGE AREA BOUNDARY
[Symbol]	FLOW DIRECTION ARROWS

- GENERAL NOTES**
1. INSTALLATION TO COMPLY WITH NEC 2014, ARTICLE 690 AND ALL APPLICABLE REGULATIONS AND NATIONAL CODES OR EQUIVALENT SHALL BE LABELED PER NEC.
 2. ALL ACCESS ROADS SHALL BE DESIGNED TO ACCOMMODATE ALL CONSTRUCTION, TRAFFIC THROUGHOUT THE SITE. UTILITY LOCATIONS SHALL BE LABELED PER THE EXISTING FEATURES SURVEY AND PENDING SURVEY.
 - 3.
 - 4.



- LEGEND**
- SWITCHEBOARD AND TRANSFORMER PAD
 - SINGLE AXIS TRACKER
 - PROPOSED POWER POLE
 - PROPOSED GRAVEL ACCESS ROAD (DRIVEWAY)
 - PROPOSED UNDERGROUND COLLECTOR
 - PROPOSED UNDERGROUND OVERHEAD
 - EXISTING OVERHEAD POWERLINE
 - EXISTING PROPERTY LINE
 - PROPOSED FENCE LINE
 - YARD SETBACK LINE
 - PROPOSED STORMWATER BASIN

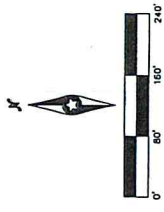
SYSTEM SPECIFICATIONS	
SYSTEM SIZE DC	14616 kW
SYSTEM SIZE AC	1,000 kW
DC/AC RATIO	1.4616
MODULE RATING	350 W
TOTAL MODULE CITY	4176
TOTAL NO. 90-MODULE TRACKER BACKS	43
TOTAL NO. 75-MODULE TRACKER RACKS	12
INTER-ROW SPACING	13.0
PITCH	19.4
GCR	33.0%
FENCED AREA	102 AC

- GENERAL NOTES**
- INSTALLATION TO COMPLY WITH NEC AND ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES OR REGULATIONS.
 - SPACING AND TRACKER BACKS SHALL BE AS PER NEC.
 - 15' ACCESS ROADS SHALL BE DESIGNED TO ACCOMMODATE CONSTRUCTION, OPERATIONS, MAINTENANCE, AND UTILITY TRAFFIC THROUGHOUT THE LIFE OF THE SYSTEM.
 - EXISTING FEATURES ARE APPROPRIATE. FENCING SURVEY.

Westwood
 PROFESSIONAL SERVICES, INC.
 15330 County Rd. 2, Suite 1112
 Minneapolis, MN 55424
 Phone: (763) 751-1000
 westwoodps.com

Design:	SM
Check:	SM
Drawn:	SM
Approved:	SM
Project No.:	1808000000
Date:	07/20/17
Scale:	CONDITIONAL USE PERMIT SITE PLANS

US/SOLAR
 180 N. 43rd. St.
 Minneapolis, MN 55409



USS Cougar Solar LLC
 Redwood County, Minnesota
 2790 County Rd. 2
 Redwood, MN 56265

PV Site Plan

Not for Construction
 Date: 07/20/17
 Scale: C:100

1808000000.dwg (7/20/17) 11:14 AM

THROUGH ALL SPACE LOCATED ABOVE THE SURFACE OF THE EASEMENT PREMISES, THAT IS, ONE HUNDRED EIGHTY DEGREES (180°) OR SUCH GREATER NUMBER OR NUMBERS OF DEGREES AS MAY BE NECESSARY TO EXTEND FROM EACH POINT ON AND ALONG A LINE DRAWN ALONG THE PLANE FROM EACH POINT ALONG THE EXTERIOR BOUNDARY OF THE EASEMENT PREMISES THROUGH EACH SOLAR SITE TO EACH POINT AND ON AND ALONG SUCH LINE TO THE OPPOSITE EXTERIOR BOUNDARY OF THE EASEMENT PREMISES.

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

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

INCENTIVE PAYMENT, TAX CREDIT OR ANY OTHER CREDIT, VALUE, TAX OR OTHER BENEFIT ARISING FROM OR ASSOCIATED WITH THE INSTALLATION OR OWNERSHIP OF THE FACILITY OR THE PRODUCTION OF ENERGY AND CAPACITY BY THE FACILITY, INCLUDING, BUT NOT LIMITED TO, ANY PRODUCTION TAX CREDIT OR INVESTMENT TAX CREDIT PURSUANT TO 26 U.S.C. SECTIONS 45 AND 48 OR SIMILAR STATE TAX LAW PROVISIONS; THE MADE-IN-MINNESOTA REBATES PURSUANT TO MINN. STAT. SECTION 116C.7791 (2013); AND THE REBATES AVAILABLE THROUGH NSP'S "SOLAR REWARDS" PROGRAM SHALL INURE TO THE EXCLUSIVE BENEFIT OF LESSEE.

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

CONTINUING NATURE OF OBLIGATIONS. THE SOLAR EASEMENT AND RELATED RIGHTS AND EASEMENTS GRANTED BY LESSOR IN THE LEASE TO LESSEE ARE EASEMENTS IN GROSS, REPRESENTING INTERESTS PERSONAL TO AND FOR THE BENEFIT OF LESSEE, ITS SUCCESSORS AND ASSIGNS, AS OWNER OF THE RIGHTS CREATED BY THE EASEMENT. THE EASEMENT AND OTHER RIGHTS GRANTED BY LESSOR IN THE LEASE ARE INDEPENDENT OF ANY LANDS OR ESTATES OR INTEREST IN LANDS, THERE IS NO OTHER REAL PROPERTY BENEFITING FROM THE SOLAR EASEMENT AND RELATED RIGHTS GRANTED IN THE LEASE AND, AS BETWEEN THE PREMISES AND OTHER TRACTS OF PROPERTY, NO TRACT IS CONSIDERED DOMINANT OR SERVIENT AS TO THE OTHER. THE BURDENS OF THE SOLAR EASEMENT AND ALL OTHER RIGHTS GRANTED TO LESSEE IN THE LEASE SHALL RUN WITH AND AGAINST THE PREMISES AND THE EASEMENT PREMISES AND SHALL BE A CHARGE AND BURDEN ON THE PREMISES AND THE EASEMENT PREMISES AND SHALL BE BINDING UPON AND AGAINST LESSOR AND ITS SUCCESSORS, ASSIGNS, PERMITTEES, LICENSEES, LESSEES, EMPLOYEES AND AGENTS. THE LEASE, INCLUDING THE SOLAR EASEMENT, SHALL INURE TO THE BENEFIT OF LESSEE AND ITS SUCCESSORS, ASSIGNS, PERMITTEES, LICENSEES AND LESSEES.

SURVIVAL OF COVENANTS. THE PARTIES ACKNOWLEDGE THAT THE COVENANTS, CONDITIONS, RIGHTS AND RESTRICTIONS IN FAVOR OF LESSEE UNDER THE LEASE, INCLUDING, BUT NOT LIMITED TO, THE EASEMENT DESCRIBED IN SECTION 3 AND 4 HEREOF, AND LESSEE'S USE OF AND BENEFIT FROM THOSE COVENANTS, CONDITIONS, RIGHTS AND RESTRICTIONS, MAY CONSTITUTE A PORTION OF A LARGER SET OF FACILITIES SERVING SEVERAL SOLAR ENERGY FACILITIES WITH WHICH THE FACILITY WILL SHARE STRUCTURAL AND TRANSMISSION COMPONENTS, INGRESS AND EGRESS,

UTILITY ACCESS, AND OTHER SUPPORT, ALL OF WHICH ARE SPECIFICALLY DESIGNED TO BE INTERRELATED AND INTEGRATED IN OPERATION AND USE FOR THE FULL LIFE OF THE FACILITY, AND THAT THE COVENANTS, CONDITIONS, RIGHTS AND RESTRICTIONS IN FAVOR OF LESSEE PURSUANT TO THE LEASE SHALL NOT BE DEEMED NOMINAL, INVALID, INOPERATIVE OR OTHERWISE BE DISREGARDED WHILE ANY PORTION OF THE FACILITY OR RELATED SOLAR PROJECTS OR FACILITIES REMAIN OPERATIONAL.


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

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

[Signature pages follow]

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

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

By: 
Name: Reed Richerson
Title: COO

STATE OF MINNESOTA

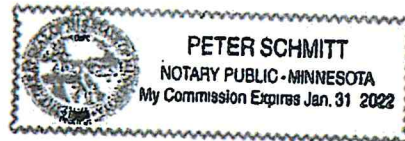
COUNTY OF Hennepin

This instrument was acknowledged before me on 23 October 2017 by Reed Richerson, the COO of US Solar Development LLC, a Delaware limited liability company, on behalf of the company



Name Printed: Peter Schmitt

(SEAL)



LANDOWNER:

By:
Name:

Jeffrey L. Peterson
Jeffery L. Peterson

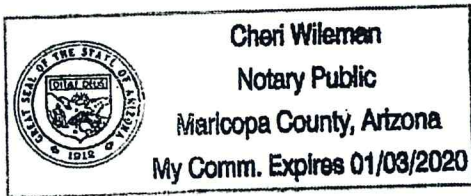
By:
Name:

Angela T. Peterson
Angela T. Peterson

STATE OF ARIZONA

COUNTY OF MARICOPA

This instrument was acknowledged before me on 21 February 2018, by Jeffrey L. Peterson and Angela T. Peterson, husband and wife.



(SEAL)

[Signature]
Notary Public
My commission expires: 01/03/2020

EXHIBIT A TO
MEMORANDUM OF LEASE AND SOLAR EASEMENT

Lessor Property

One tract(s) in Redwood County, Minnesota described as follows:

Property ID: 59-003-2060

Deeded Acreage: 55.49

Legal Description:

The West Half of the Northwest Quarter of the Northwest Quarter and the Southwest Quarter of the Northwest Quarter in Section 3, Township 111 North, Range 34 West, Redwood County, Minnesota; EXCEPTING THEREFROM the following described tract: That part of the Southwest Quarter of the Northwest Quarter of Section 3, Township 111 North, Range 34 West, Redwood County, Minnesota, described as follows: Commencing at the West Quarter corner of Section 3; thence North 00 degrees 02 minutes 54 seconds East bearings based on Redwood County Coordinate System NAD83(11) on the west line of the Northwest Quarter, a distance of 570.45 feet to the point of beginning; thence South 89 degrees 57 minutes 06 seconds East, a distance of 185.00 feet; thence South 00 degrees 02 minutes 54 seconds West, a distance of 89.53 feet; thence South 89 degrees 57 minutes 06 seconds East, a distance of 160.00 feet; thence South 00 degrees 02 minutes 54 seconds West, a distance of 85.00 feet; thence South 89 degrees 57 minutes 06 seconds East, a distance of 375.00 feet; thence North 00 degrees 02 minutes 54 seconds East, a distance of 393.00 feet; thence North 89 degrees 57 minutes 06 seconds West, a distance of 320.00 feet; thence South 60 degrees 34 minutes 09 seconds west, a distance of 144.88 feet; thence South 80 degrees 59 minutes 22 seconds West, a distance of 90.00 feet; thence South 00 degrees 02 minutes 54 seconds West, a distance of 73.00 feet; thence North 89 degrees 57 minutes 06 seconds West, a distance of 185.00 feet to the west line of said Northwest Quarter; thence South 00 degrees 02 minutes 54 seconds West, on said west line, a distance of 60.00 feet to the point of beginning.

APPENDIX IV - SKETCH ELEVATION

NOTE:

IF HEIGHT DIFFERENCE EXCEEDS THE DISTANCE NOTED, ROW ON HIGHER PLANE IS AN EXTERIOR ROW.

NOTE:

REFERENCE INDIVIDUAL FIELD ASSEMBLY DRAWINGS FOR DETAILS.

INSTALL END CLAMP SPACER ON END CLAMPS.

INSTALL END CAP AT END OF TUBE.

EXTERIOR ROW HEIGHT PARAMETER

DETAIL A

MINIMUM DISTANCES AND MODULE DATA

DETAIL C

NOTES:

- GEAR RACK COLUMN TOP TO BEARING COLUMN TOP HEIGHT DIFFERENCE: 32"
- GEAR RACK COLUMN BRACKET TOP TO BEARING COLUMN BRACKET TOP HEIGHT DIFFERENCE: 32"
- MAX COLUMN HEIGHT IS DETERMINED BY FOUNDATION ENGINEER

COLUMN HEIGHT REQUIREMENTS

DETAIL B

PLEASE VERIFY THIS PLAN, SPECIFICATIONS, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: **ROBERT COONTI MAPLE, P.E.**

Signature: _____

Date: **06/12/2018** License # **489445**

REV	DESCRIPTION	DATE
A	ISSUE	06/12/2018

ARRAY TECHNOLOGIES	
300 NORTH PARK BL. ANN ARBOR, MI 48106	
Durabrock® HZ Project:	
10660 Big Lake	
Detail Views:	
NO. OF SHEETS	A
TOTAL SHEETS	1
DATE	06/12/2018
DESIGNED BY	A
CHECKED BY	A
APPROVED BY	A

APPENDIX V – RECOMMENDED FINDINGS OF FACT

- 1. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the immediate vicinity.**

The proposed solar garden would be set back from streets and property lines, as mandated by the Redwood County land use ordinance, to protect nearby properties from being affected by the garden. Because the proposed solar garden will not produce any noise, odor, or toxins, and is confined to 10 acres, development around the garden will be unaffected.

- 2. That the establishment of the conditional use will not impeded the normal and orderly development and improvement of surrounding vacant property for uses predominant to the area.**

Because the proposed solar garden will not produce any noise, odor, glare, vibration, or toxins and is confined to 10 acres, development around the garden will be unaffected. The proposed garden will also abide by setbacks determined by Redwood County, meaning that any solar garden will be set back from adjacent property lines.

- 3. That adequate utilities, access roads, drainage and other necessary facilities have been or are being provided**

We will construct our own 15-foot-wide access road and temporary parking area for installation crews, delivery trucks, and personnel to avoid adding to the traffic in the area. Portable waste facilities will be provided during the construction period. US Solar has submitted a preliminary drainage plan. No other facilities are necessary.

- 4. That adequate measures have been or will be taken to provide sufficient off-street parking and loading space to serve the proposed use.**

During operation, we will have our own 2 parking spots on-site for vegetation maintenance and other employees. During construction, we will create a temporary parking area for installation crews, delivery trucks, and personnel.

- 5. That adequate measures have been or will be taken to prevent or control offensive odor, fumes, dust, noise, and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.**

The proposed solar garden will not constitute a nuisance. It will not emit any odor, fumes, noise, dust, or vibrations, and it will not have any lights.

APPENDIX VI – RECOMMENDED CONDITIONS

1. The permit holder shall comply with all applicable laws, rules, and regulations, including but not limited to Redwood County Ordinance, as hereafter amended from time to time.
2. The permit holder shall allow the Redwood County Environmental Office to inspect the site(s) of the project for all purposes permitted by law whenever deemed necessary by the Redwood County Environmental Office.
3. The construction, maintenance, operation, and decommissioning of the project will conform to the Application for a Conditional Use Permit submitted by USS Verde Solar LLC as attached to the Conditional Use Permit.
4. The permit holder shall contact all relevant local, state, and federal authorities/entities and inquire as to whether a permit and/or license is required. If a permit and/or license is required, the permit holder shall apply for and obtain any and all required permits and/or licenses. A copy of all such permits and/or licenses shall be provided to the Redwood County Environmental Office upon request.
5. The permit holder shall take appropriate and reasonable measures to assure that all surface water runoff satisfies all applicable local, state, and federal discharge standards. Any drainage tile damaged during construction shall be repaired and/or replaced by the permit holder.
6. A 67-foot setback shall be maintained between all structures, including solar modules and racking, and the right-of-way of any public road. A 10 foot setback shall be maintained between all structures, including solar modules and racking, and the side and rear property lines. A 75 foot setback shall be maintained between all structures, including solar modules and racking, and main county drain tile line.
7. The permit holder shall not allow the conditional use to be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted. The permit holder shall not allow the conditional use to impeded normal and orderly development and improvement of surrounding vacant property for uses predominant to the area.
8. The permit holder is responsible for the control of all noxious weeds on the permitted site.
9. Adequate utilities, access roads, drainage, and other necessary facilities will be provided and continue to be provided by the permit holder now and in the future.
10. Applicant or permit holder, as used in this Conditional Use Permit to refer to USS Verde Solar LLC, shall also include its successors and assigns.
11. The Redwood County Planning Commission shall review the conditional use permit and shall be authorized to take any and all necessary action(s), including but not limited to revoking the conditional use permit and/or requiring the permit holder to reapply for a conditional use permit if: 1) the Redwood County Environmental Office acquires information previously unavailable that indicates the terms and conditions of the permit do not accurately represent the actual circumstances of the permitted facility or the conditional use; 2) It is discovered subsequent to the issuance of the permit that the permit holder failed to disclose all facts relevant to the issuance of the permit or submitted false or misleading information to the Redwood County Environmental Office, the Redwood County Planning Commission, or the Redwood County Board of Commissioners; 3) the Redwood County Environmental Office determines the permitted facility or conditional use endangers human health or the environment; and/or 4) The permit holder violates any of the herein described conditions.

12. Adequate measures will be taken to provide sufficient off-street parking and loading space to serve the proposed use.

13. Adequate measures will be taken to prevent or control offensive odor, fumes, dust, noise, and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.

14. The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the immediate vicinity.

Conditions for Permit No. 12-18 (United States Solar Corporation/USS Cougar Solar LLC – Ground mounted photovoltaic system – Jeffery & Angela Peterson site)

1. The permit holder shall comply with all applicable laws, rules, and regulations, including but not limited to Redwood County Ordinance, as hereafter amended from time to time.
2. The permit holder shall allow the Redwood County Environmental Office to inspect the site(s) of the project for all purposes permitted by law whenever deemed necessary by the Redwood County Environmental Office.
3. The construction, maintenance, operation, and decommissioning of the project will conform to the Application for a Conditional Use Permit submitted by USS Cougar Solar LLC as attached to the Conditional Use Permit.
4. The permit holder shall contact all relevant local, state, and federal authorities/entities and inquire as to whether a permit and/or license is required. If a permit and/or license is required, the permit holder shall apply for and obtain any and all required permits and/or licenses. A copy of all such permits and/or licenses shall be provided to the Redwood County Environmental Office upon request.
5. The permit holder shall take appropriate and reasonable measures to assure that all surface water runoff satisfies all applicable local, state, and federal discharge standards. Any drainage tile damaged during construction shall be repaired and/or replaced by the permit holder.
6. The permit holder shall not allow the conditional use to be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted. The permit holder shall not allow the conditional use to impede the normal and orderly development and improvement of surrounding vacant property for uses predominant to the area.
7. The permit holder is responsible for the control of all noxious weeds on the permitted site.
8. Adequate utilities, access roads, drainage, and other necessary facilities will be provided and continue to be provided by the permit holder now and in the future.
9. Applicant, or permit holder, as used in this Conditional Use Permit to refer to USS Cougar Solar LLC, shall also include its successors and assigns.
10. The Redwood County Planning Commission shall review the conditional use permit and shall be authorized to take any and all necessary action(s), including but not limited to revoking the conditional use permit and/or requiring the permit holder to reapply for a conditional use permit, if: 1) The Redwood County Environmental Office acquires information previously unavailable that indicates the terms and conditions of the permit do not accurately represent the actual circumstances of the permitted facility or the conditional use; 2) It is discovered subsequent to the issuance of the permit the permit holder failed to disclose all facts relevant to the issuance of the permit or submitted false or misleading information to the Redwood County Environmental Office, the Redwood County Planning Commission, or the Redwood County Board of Commissioners; 3) The Redwood County Environmental Office determines the permitted facility or conditional use endangers human health or the environment; and/or (4) The permit holder violates any of the herein described conditions.



REDWOOD COUNTY ENVIRONMENTAL OFFICE

**PO BOX 130
REDWOOD FALLS
MINNESOTA 56283
PH: 507-637-4023**

*Planning & Zoning ● Parks & Trails ● GIS
Aquatic Invasive Species ● Septic Inspector
Drainage Inspector ● Agricultural Inspector*

**REDWOOD COUNTY PLANNING COMMISSION
USS Cougar Solar LLC/Jeffrey & Angela Peterson – Community Solar Garden
Conditional Use Permit Application #12-18
September 24, 2018**

FINDINGS OF FACT

ORDINANCE CRITERIA – The Planning Commission may recommend the granting of a Conditional Use Permit in any district provided the proposed use is listed as a conditional use for the district and upon a showing that the standards and criteria stated in this Ordinance will be satisfied and that the use is in harmony with the general purposes and intent of this Ordinance and the Comprehensive Plan.

In determining whether the proposed use is in harmony with the general purposes and intent of the Ordinance and the Comprehensive Plan, the Planning Commission shall consider and make findings on the following questions:

1) Will the proposed use have an adverse impact on the health, safety, and general welfare of the residents in the surrounding neighborhood?

Yes _____ No _____

Why?: _____

2) Has evidence been presented that shows the proposed use will cause material injury to the use and enjoyment of other property in the surrounding neighborhood for land uses that are already permitted?

Yes _____ No _____

Why?: _____

3) Will the proposed use have a substantial adverse effect on property values or future development of land in the surrounding neighborhood for uses common to the area?

Yes _____ No _____

Why?: _____

4) Are there, or will there be provided, adequate utilities, access roads, drainage, off-street parking and loading areas, and other necessary facilities to support the proposed use of the property?

Yes _____ No _____

Why?: _____

5) Have adequate measures been taken, or will adequate measures be taken, to prevent or control offensive odor, fumes, dust, noise, lights, and vibration, so that no disturbance to neighboring properties will result?

Yes _____ No _____

Why?: _____

6) Is the proposed use of the property consistent with the general purpose and intent of the Zoning Ordinance and the goals and policies adopted in the Comprehensive Plan?

Yes _____ No _____

Why?: _____

NAME: _____

DATE: _____