Zoning Conditional Use Permit Application (CUP) UID # 6254

Property Information

Parcel Information:					I
		Parcel Inform	ation		Owner Information
	Parcel ID Number	Site Address	City	Zoned as	Owner Name
	08.05.1.00.003			URBAN RESERVE	HUBERS NICHOLAS J
Are you the Landowner?	No				
Will you be using an authorized agent?	No				

Landowner Information



Applicant Information



Conditional Use Request

Specific Use from 508 Use Table:	Solar Energy Production
Explanation of requested CUP:	Application by USS Hubers Solar LLC for a Conditional Use Permit to construct and operate a 1-MW community solar garden.

Site Plan

O110 1 1011		
Please attach a Site Plan:	File 1: 2019-05-02_Hubers_Solar_CUP_Site_Plan_1.pdf	

Legal Descriptions

Legal Description of project:		
Legal Description of project.	File 1: WHubers_Legal_Description.docx	
	<u> </u>	

Written Evidence/Criteria

Criteria:	[]	
O'Horia.	File 1: Rice County CUP Criteria.pdf	
	i lie i. • ruce_oodinty_ooi _ontona.pui	
	hd	

Septic Information

Please attach any septic inspections or compliance inspection records.:	File 1: Hubers_Septic_System_Statement.pdf	
Is your septic system less than 5 years old or had a valid compliance inspection in the past 3 years?	<u>No</u>	

Additional Information

Additional Information:		
	!File 1: W Hubers additional information.pdf	1
	The I. Trabelo additional mornitation.par	4

Terms

Terms and Conditions

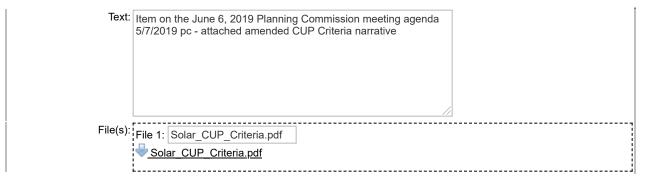
By checking the box above, I hereby certify that all data contained herein, as well as supporting data, are true and correct.

Landowner or Applicant or Representative must attend the scheduled public hearings.

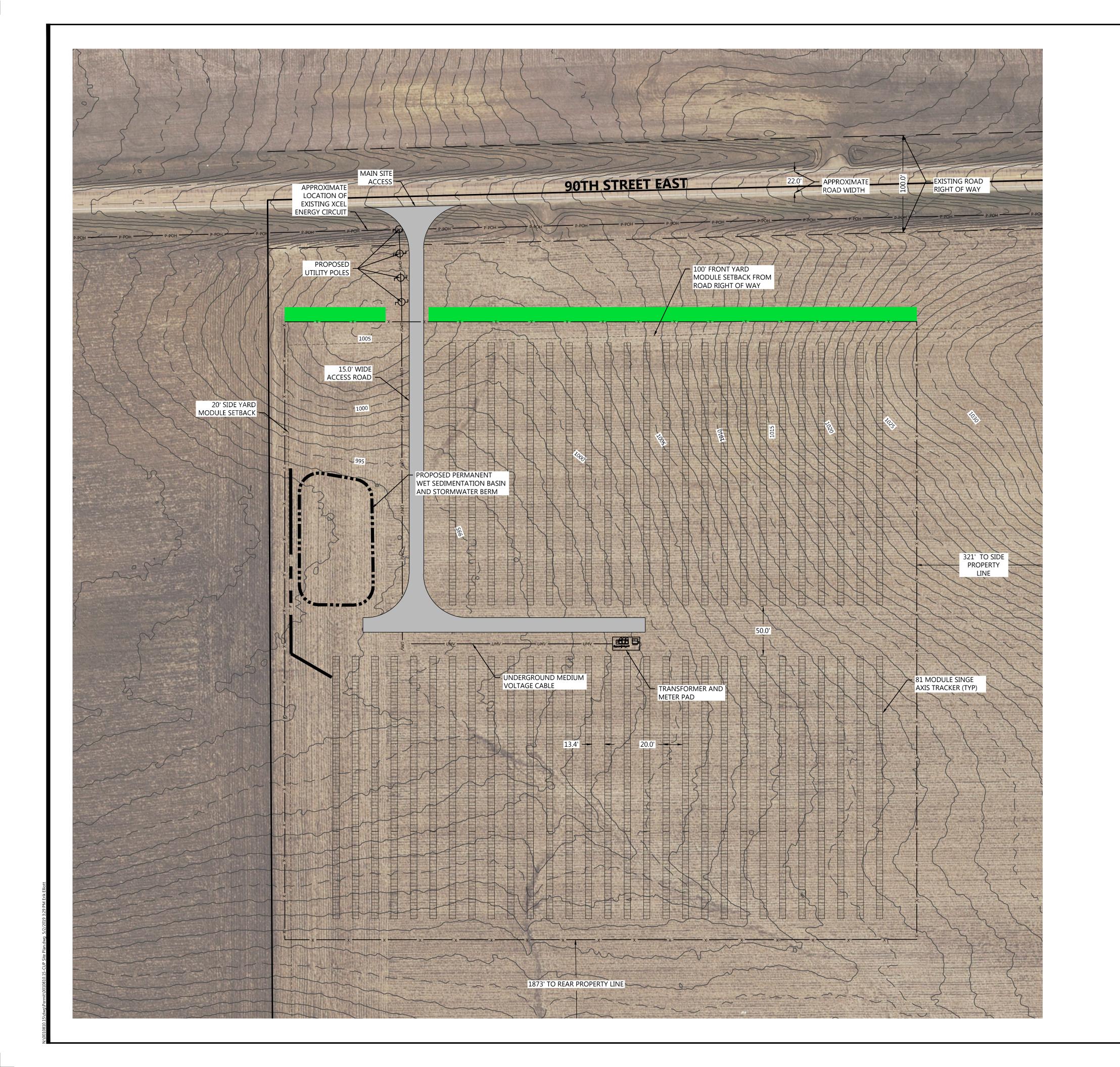
Invoice #7476 (05/02/2019)

Charge	Cost	Quantity	Total
CUP Application Fee added 05/02/2019 12:54 PM	\$460.00	x 1	\$460.00
CUP Recording Fee added 05/02/2019 12:54 PM	\$46.00	x 1	\$46.00
Grand Total			
		Total	\$506.00
		Payment 05/06/2019	\$506.00
		Due	\$0.00

Public Notes



Print View



LEGEND

SWITCHBOARD AND TRANSFORMER PAD SINGLE AXIS TRACKER Ą PROPOSED POWER POLE PROPOSED GRAVEL ACCESS ROAD (DRIVEWAY) PROPOSED UNDERGROUND COLLECTOR PROPOSED OVERHEAD POWERLINE EXISTING OVERHEAD POWERLINE PROPOSED FENCE LINE EXISTING PROPERTY LINE YARD SETBACK LINE PROPOSED STORMWATER BASIN PROPOSED STORMWATER BERM PROPOSED LANDSCAPING BUFFER

SYSTEM SPECIFICATIONS		
SYSTEM SIZE DC	1,453.14 kW	
SYSTEM SIZE AC	1,000 kW	
DC/AC RATIO	1.45314	
MODULE RATING	345 W	
TOTAL MODULE QTY	4,212	
TOTAL NO. OF TRACKER RACKS	52	
TOTAL NO. MODULES PER TRACKER RACK	81	
INTER-ROW SPACING	13.4'	
PITCH	20.0'	
GCR	33.0%	
FENCED AREA	9.52 ACRES	

100 N 6th St. #218c Minneapolis, MN 55403

A 05/02/19 CONDITIONAL USE PERMIT SITE PLAN

DATE

Westwood Professional Services, Inc.

GENERAL NOTES

- INSTALLATION TO COMPLY WITH NEC 2017 ARTICLE 690 AND ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES OR REGULATIONS
 EQUIPMENT SHALL BE LABELED PER NEC 690 AND XCEL ENERGY REGULATIONS
 15' ACCESS ROADS SHALL BE DESIGNED TO ACCOMMODATE ALL CONSTRUCTION, OPERATIONS, MAINTENANCE, AND UTILITY TRAFFIC THROUGHOUT THE SITE.
 DIMENSIONS TO PROPERTY LINES AND EXISTING FEATURES ARE APPROXIMATE PENDING SURVEY.

USS Hubers Solar LLC

Rice County, Minnesota

8967 90th Street E. Northfield, MN 55057

PV Site Plan

NOT FOR CONSTRUCTION

05/02/2019

SHEET:

C.100



LEGEND

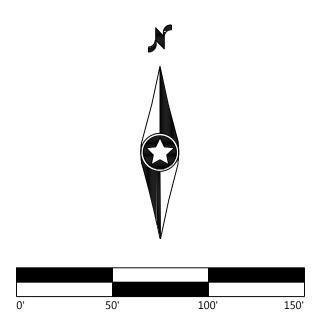
SWITCHBOARD AND TRANSFORMER PAD SINGLE AXIS TRACKER Ą PROPOSED POWER POLE PROPOSED GRAVEL ACCESS ROAD (DRIVEWAY) PROPOSED UNDERGROUND COLLECTOR PROPOSED OVERHEAD POWERLINE EXISTING OVERHEAD POWERLINE PROPOSED FENCE LINE EXISTING PROPERTY LINE YARD SETBACK LINE PROPOSED STORMWATER BASIN PROPOSED STORMWATER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





100 N 6th St. #218c Minneapolis, MN 55403

DATE A 05/02/19 CONDITIONAL USE PERMIT SITE PLAN



GENERAL NOTES

- INSTALLATION TO COMPLY WITH NEC 2017 ARTICLE 690 AND ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES OR REGULATIONS
 EQUIPMENT SHALL BE LABELED PER NEC 690 AND XCEL ENERGY REGULATIONS
 15' ACCESS ROADS SHALL BE DESIGNED TO ACCOMMODATE ALL CONSTRUCTION, OPERATIONS, MAINTENANCE, AND UTILITY TRAFFIC THROUGHOUT THE SITE.
 DIMENSIONS TO PROPERTY LINES AND EXISTING FEATURES ARE APPROXIMATE PENDING SURVEY.

USS Hubers Solar LLC

Rice County, Minnesota

8967 90th Street E. Northfield, MN 55057

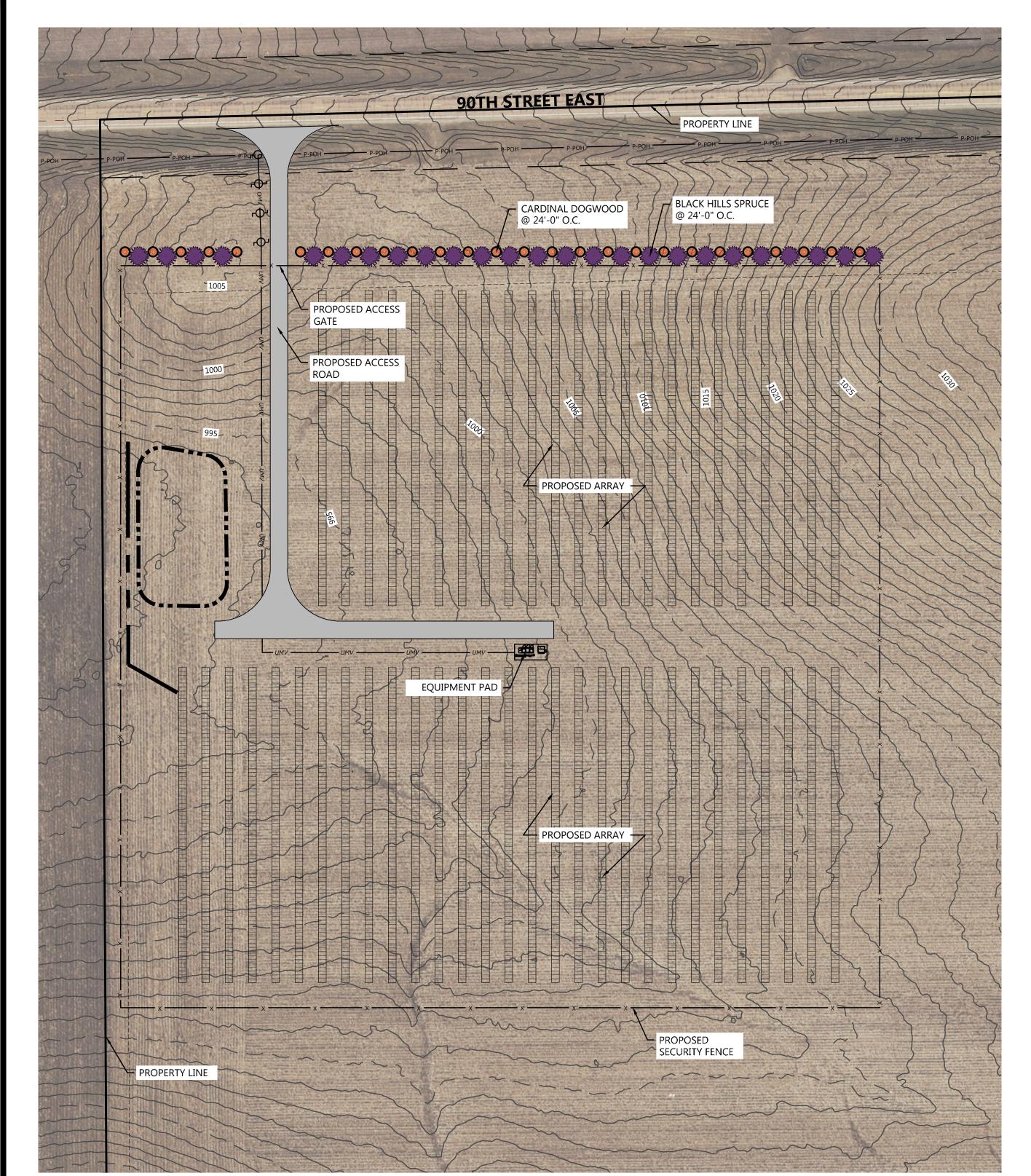
Site Hydrology

NOT FOR CONSTRUCTION

SHEET:

05/02/2019

C.101

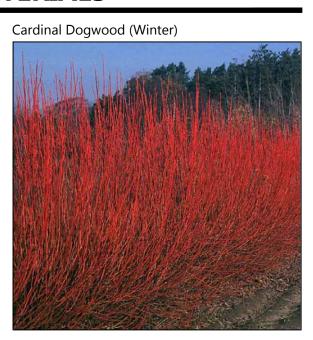


PLANTING NOTES

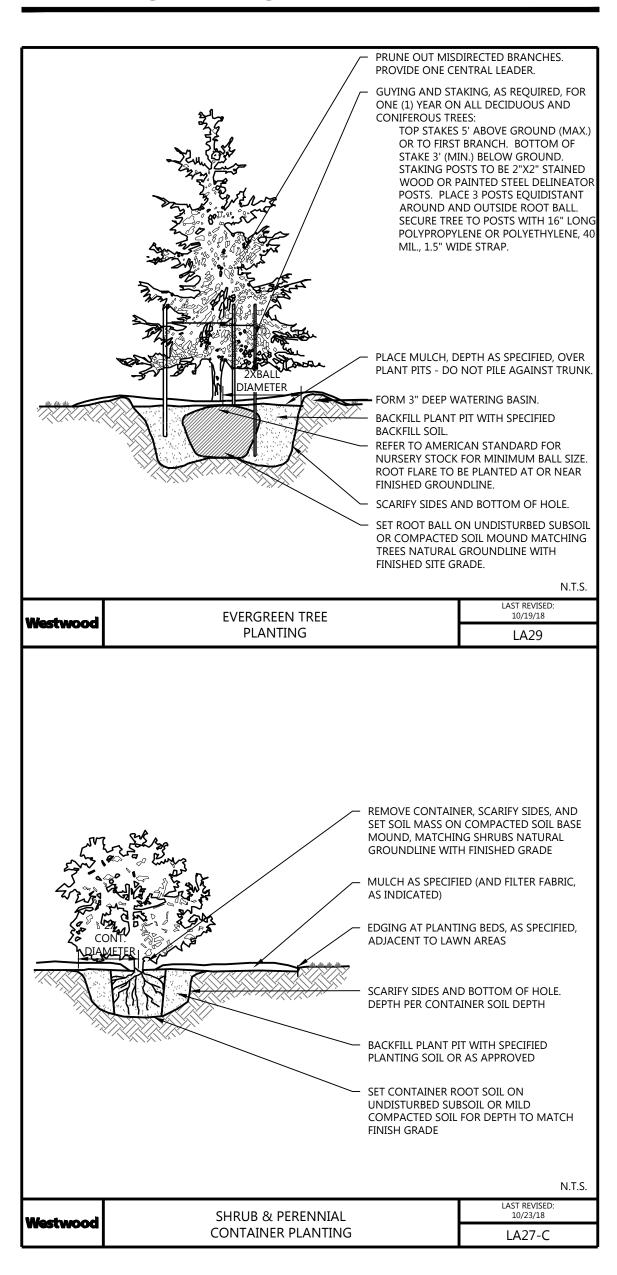
- 1. CONTRACTOR SHALL CONTACT COMMON GROUND ALLIANCE AT 811 OR CALL811.COM TO VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY PLANTS OR LANDSCAPE MATERIAL.
- 2. ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO FIELD AND SITE CONDITIONS.
- 3. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
- 4. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO SUBMISSION OF ANY BID AND/OR QUOTE BY THE LANDSCAPE CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TWO YEAR GUARANTEE OF ALL PLANT MATERIALS. THE GUARANTEE BEGINS ON THE DATE OF THE LANDSCAPE ARCHITECT'S OR OWNER'S WRITTEN ACCEPTANCE OF THE INITIAL PLANTING. REPLACEMENT PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE COMMENCING UPON PLANTING.
- 6. ALL PLANTS TO BE SPECIMEN GRADE, MINNESOTA-GROWN AND/OR HARDY. SPECIMEN GRADE SHALL ADHERE TO, BUT IS NOT LIMITED BY, THE FOLLOWING STANDARDS:
- ALL PLANTS SHALL BE FREE FROM DISEASE, PESTS, WOUNDS, SCARS, ETC.
- ALL PLANTS SHALL BE FREE FROM NOTICEABLE GAPS, HOLES, OR DEFORMITIES.
- ALL PLANTS SHALL BE FREE FROM BROKEN OR DEAD BRANCHES.
 ALL PLANTS SHALL HAVE HEAVY, HEALTHY BRANCHING AND LEAFING.
- CONIFEROUS TREES SHALL HAVE AN ESTABLISHED MAIN LEADER AND A HEIGHT TO WIDTH RATIO OF NO LESS THAN 5:3.
- 7. PLANTS TO MEET AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014 OR MOST CURRENT VERSION) REQUIREMENTS FOR SIZE AND TYPE SPECIFIED.
- 8. PLANTS TO BE INSTALLED AS PER MNLA & ANSI STANDARD PLANTING PRACTICES.
- 9. PLANTS SHALL BE IMMEDIATELY PLANTED UPON ARRIVAL AT SITE. PROPERLY HEEL-IN MATERIALS IF NECESSARY; TEMPORARY ONLY.
- 10. PRIOR TO PLANTING, FIELD VERIFY THAT THE ROOT COLLAR/ROOT FLAIR IS LOCATED AT THE TOP OF THE BALLED & BURLAP TREE. IF THIS IS NOT THE CASE, SOIL SHALL BE REMOVED DOWN TO THE ROOT COLLAR/ROOT FLAIR. WHEN THE BALLED & BURLAP TREE IS PLANTED, THE ROOT COLLAR/ROOT FLAIR SHALL BE EVEN OR SLIGHTLY ABOVE FINISHED GRADE.
- 11. OPEN TOP OF BURLAP ON BB MATERIALS; REMOVE POT ON POTTED PLANTS; SPLIT AND BREAK APART PEAT POTS.
- 12. PRUNE PLANTS AS NECESSARY PER STANDARD NURSERY PRACTICE AND TO CORRECT POOR BRANCHING OF EXISTING AND PROPOSED TREES.
- 13. WRAP ALL SMOOTH-BARKED TREES FASTEN TOP AND BOTTOM. REMOVE BY APRIL 1ST.
- 14. STAKING OF TREES AS REQUIRED; REPOSITION, PLUMB AND STAKE IF NOT PLUMB AFTER ONE YEAR.
- 15. THE NEED FOR SOIL AMENDMENTS SHALL BE DETERMINED UPON SITE SOIL CONDITIONS PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR THE NEED OF ANY SOIL AMENDMENTS.
- 16. BACKFILL SOIL AND TOPSOIL TO ADHERE TO MN/DOT STANDARD SPECIFICATION 3877 (SELECT TOPSOIL BORROW) AND TO BE EXISTING TOP SOIL FROM SITE FREE OF ROOTS, ROCKS LARGER THAN ONE INCH, SUBSOIL DEBRIS, AND LARGE WEEDS UNLESS SPECIFIED OTHERWISE. MINIMUM 4" DEPTH TOPSOIL FOR ALL LAWN GRASS AREAS AND 12" DEPTH TOPSOIL FOR TREE, SHRUBS, AND PERENNIALS.
- 17. MULCH TO BE AT ALL TREE, SHRUB, PERENNIAL, AND MAINTENANCE AREAS. TREE AND SHRUB PLANTING BEDS SHALL HAVE 4" DEPTH OF SHREDDED HARDWOOD MULCH. SHREDDED HARDWOOD MULCH TO BE USED AROUND ALL PLANTS WITHIN TURF AREAS. PERENNIAL AND ORNAMENTAL GRASS BEDS SHALL HAVE 2" DEPTH SHREDDED HARDWOOD MULCH. MULCH TO BE FREE OF DELETERIOUS MATERIAL AND COLORED RED, OR APPROVED EQUAL. ROCK MULCH TO BE BUFF LIMESTONE, 1 1/2" TO 3" DIAMETER, AT MINIMUM 3" DEPTH, OR APPROVED EQUAL. ROCK MULCH TO BE ON COMMERCIAL GRADE FILTER FABRIC, BY TYPAR, OR APPROVED EQUAL WITH NO EXPOSURE. MULCH AND FABRIC TO BE APPROVED BY OWNER PRIOR TO INSTALLATION. MULCH TO MATCH EXISTING CONDITIONS (WHERE APPLICABLE).
- 18. ALL DISTURBED AREAS TO BE SODDED OR SEEDED, UNLESS OTHERWISE NOTED. SOD TO BE STANDARD MINNESOTA GROWN AND HARDY BLUEGRASS MIX, FREE OF LAWN WEEDS. ALL TOPSOIL AREAS TO BE RAKED TO REMOVE DEBRIS AND ENSURE DRAINAGE. SLOPES OF 3:1 OR GREATER SHALL BE STAKED. SEED AS SPECIFIED AND PER MN/DOT SPECIFICATIONS. IF NOT INDICATED ON LANDSCAPE PLAN, SEE EROSION CONTROL PLAN.
- 19. CONTRACTOR SHALL PROVIDE NECESSARY WATERING OF PLANT MATERIALS UNTIL THE PLANT IS FULLY ESTABLISHED OR IRRIGATION SYSTEM IS OPERATIONAL. OWNER WILL NOT PROVIDE WATER FOR CONTRACTOR.
- 20. REPAIR, REPLACE, OR PROVIDE SOD/SEED AS REQUIRED FOR ANY ROADWAY BOULEVARD AREAS ADJACENT TO THE SITE DISTURBED DURING CONSTRUCTION
- 21. REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.

BUFFER PLANTING MATERIALS





PLANTING DETAILS



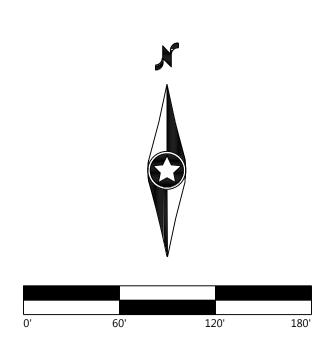


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100 N 6th St. #218c Minneapolis, MN 55403

DATE COMMENT

A 05/02/19 CONDITIONAL USE PERMIT SITE PLAN



USS Hubers Solar LLC

Rice County, Minnesota

8967 90th Street E. Northfield, MN 55057

Landscaping Site Plan

NOT FOR CONSTRUCTION

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05/02/2019

SHEET: C.500

BUFFER PLANTING SCHEDULE

KEY	QTY.	COMMON/BOTANICAL NAME	SIZE	SPACING O.C.	MATURE HEIGHT
3	25	Black Hills Spruce / Picea glauca densata	6' HT BB	24'-0" O.C. TYP.	30'-40'
	26	Cardinal Dogwood / Cornus sericea 'Cardinal'	#5 CONT.	24'-0" O.C. TYP.	8'-10'

NOTE: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN THE EVENT OF A DISCREPANCY.

Conditional Use Permits - Answer questions as they pertain to your request

503.05 E.2. Review criteria for all conditional use permits. In granting or renewing a conditional use permit, the Rice County Board of Commissioners shall consider the advice and recommendations of the Planning Commission and the effect of the proposed use upon the health, safety and general welfare of occupants of surrounding lands. Among other things, the following findings shall be made:

a. **Burden on public facilities.** The use will not create an excessive burden on existing parks, schools, streets and other public facilities and utilities that serve or are proposed to serve the area.

Community solar gardens (CSGs) impose no burden on public facilities. CSGs are not connected to government utilities (sewer, water, etc.) and do not require public services (police, fire, etc.). Traffic after construction is negligible. See Item H for more details on traffic.

b. **Sewer and water.** The site is adequate for water supply and on-site sewage treatment.

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

c. Compatible with surrounding uses. The use will be sufficiently compatible or separated by distance or screening from adjacent agricultural or residentially zoned or used land so that existing homes will not be depreciated in value and there will be no deterrence to development of vacant land.

The surrounding land uses and zoning are mostly agricultural with some rural residences, both of which are perfectly harmonious with solar. The array would be covered by approximately 1.5 million native plants, providing a sanctuary for bees, monarchs, songbirds, and pheasants. This pollinator-friendly habitat also reduces stormwater runoff, increases nearby crop yields, and improves air quality, water filtration rates, and soil nutrient levels. In fact, both the MN Farm Bureau and the MN Farmers Union support the development of CSGs, because they improve crop yields and protect agricultural land without damaging the rural character of the agricultural community.

The most comprehensive study of property values of parcels near large solar arrays was done by Kirkland Appraisals LLC across 9 states. The average distance from the home to the solar array was 150', and the study found no indication of any impact to property values, either positive or negative, due to a nearby solar array. More locally, the Chisago County Assessor analyzed property sales near the state's largest solar array (100x larger than this application) and found no impact to property values. All available data indicates no impact to property values.

Residences will be separated by distance and professional landscape screening, discussed further in Item D. Further, a screened CSG does not deter development of vacant land, though it does protect the agricultural land on which it is located.

d. Appearance. The structure and site shall have an appearance that will not have an adverse effect upon adjacent residential properties.

Our systems will differ in appearance compared to most solar gardens in the state. Most of the constructed CSGs in Minnesota utilize fixed-tilt systems. Fixed-tilt systems permanently face south and have an approximate height of 15'. Our systems utilize single-axis trackers, which rotate from east to west as the sun rises and sets. These systems are much shorter, with average height of 5'-7', with a maximum height of 9' at maximum tilt. These shorter systems can be screened much more effectively.

With a Minnesota licensed landscape architect, we developed a landscape screening plan using Black Hills Spruce and Cardinal Dogwood. The plan provides pleasing landscape screening from residences and public rights-of-way, as well as a healthy habitat for local wildlife. The combination of Black Hills Spruce and Cardinal Dogwood has been well-received in similar areas, but we are happy to amend our plant selection based on feedback from the community and County. See attached Landscape Screening Plan.

We propose an 8' farm-field style (often referred to as page wire or livestock) fence without barbwire. Typically, rural communities prefer this to the alternative, an 8' chain-link fence without barbwire. Again, we are open to feedback from the community and County.

e. County needs. The use is reasonably related to the overall needs of the County and to the existing land use.

Rice County needs electricity. Much of the County is serviced by Xcel Energy (including Faribault, Northfield, Webster, Lonsdale, and more). Xcel Energy created this community solar program with the MN Public Utilities Commission, due to the state mandate to achieve 1.5% of electric production from solar energy by 2020. By approving a CSG, Rice County would decrease the amount of imported electricity and burning of fossil fuels.

In addition, Rice County needs to continue to satisfy its taxpayers and provide them economic opportunities, in this case the Hubers family who wants us to develop a CSG. This will also provide increased tax revenue to the County and subscription opportunities to Xcel Energy customers.

f. Zoning district purposes. The use is consistent with the purposes of this Ordinance and the purposes of the zoning district in which the applicant intends to locate the proposed use.

This use is consistent with the Ordinance, because Solar Energy Production is a conditional use in "Urban Reserve" districts, and our application meets all Ordinance requirements.

g. Comprehensive Plan. The use is in conformance with the Rice County Comprehensive Land Use Plan of the County.

CSGs are allowed in the zoning ordinance, so this use is compatible with the Rice County Comprehensive Land Use Plan. As explained herein, there are direct, tangible benefits to the local environment and preservation of natural resources, which align with the Comp Plan.

h. Traffic. The use will not cause traffic hazard or congestion.

During the operation of the CSG, we expect approximately 4 annual visits to the site for preventative maintenance of equipment and landscape maintenance. These maintenance trips involve approximately 2 workers and standard utility vehicles. Therefore, the traffic after construction is negligible. During construction, we expect a total of approximately 15 deliveries in 40' containers. We expect these deliveries to occur in 4-6 weeks, and we expect no more than 4 deliveries per day. Delivery routes will be designed to impose the smallest traffic impact on the local community. We will coordinate with local authorities as to the preferred times and routes prior to commencement of construction. The site will be accessed off of 90th St E, with a 15'-wide access road heading directly into the project area.

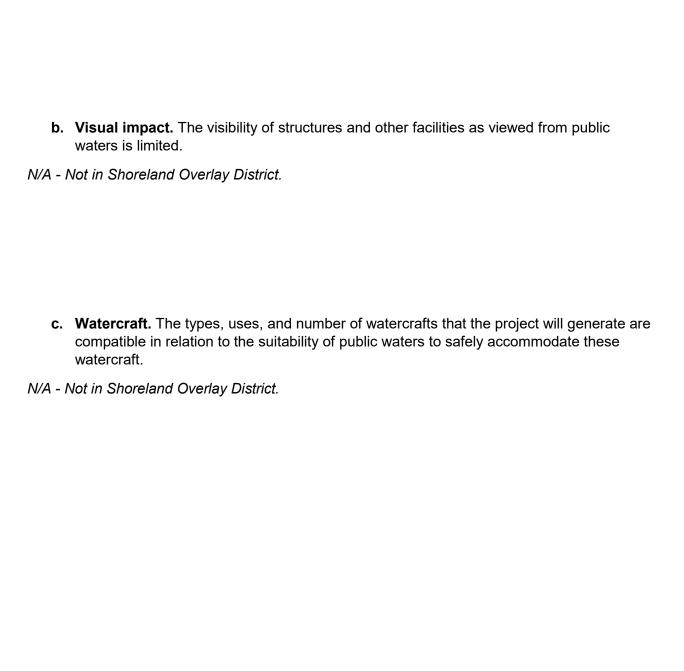
i. Effect on businesses. Existing businesses nearby will not be adversely affected because of curtailment of customer trade brought about by intrusion of noise, glare, or general unsightliness.

CSGs impose no adverse impact to businesses and customer trade. CSGs do not produce offensive odor, traffic, light, noise, glare, vibration, dust, pests, or unsightliness.

503.05 H.1 Additional criteria and conditions in Shoreland Districts. Conditional uses allowed in Shoreland Districts shall be subject to the following additional information, evaluation criteria and conditions: **Additional evaluation criteria.** A thorough evaluation of the water body and the topographic, vegetation, and soils conditions on the site must be made to ensure all of the following:

a. Soil erosion. The prevention of soil erosion or other possible pollution of public waters, both during and after construction.

N/A - Not in Shoreland Overlay District.





USS Hubers Solar LLC Use Permit Application Rice County Planning Commission 5/3/2019

Legal Description of Parcel

EXHIBIT A

Description of Premises, Lessor Property, and Access Premises

One tract in Rice County, Minnesota described as follows:

Property ID: 08.05.1.00.003 Deeded Acreage: 81.79

Legal Description:

The South 1582.50 feet of the Northeast Quarter (NE1/4) of Section 5, Township 111 North, Range 19 West of the Fifth Principal Meridian, Rice County, Minnesota, lying Easterly of the West 1048.60 feet of said South 1582.50 feet; except that part thereof lying within the East 60 acres of the Northeast Quarter (NE1/4) of said Section 5.

AND

The East 60 acres of the Northeast Quarter (NE1/4) of Section 5, Township 111 North, Range 19 West of the Fifth Principal Meridian, Rice County, Minnesota.



USS Hubers Solar LLC **Use Permit Application** Rice County Planning Commission 5/3/2019

SEPTIC SYSTEM STATEMENT

There is no septic system on this parcel.





USS HUBERS SOLAR LLC CONDITIONAL USE PERMIT APPLICATION



COVER LETTER

May 6, 2019 Rice County Planning Commission 320 Third Street NW Faribault, MN 55021

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

Dear Rice County Planning Commission,

Attached, please find an application for a Conditional Use Permit ("CUP") to construct and operate a community solar garden within Northfield Township. Pursuant to Chapter 508 (the "Ordinance"), the request is being made by USS Hubers 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 Hubers Solar LLC plans to develop and construct a 1-megawatt (MW) community solar garden (the "Project") in Rice County on approximately 9.5 acres of an 81.79-acre parcel in Northfield Township at 8967 90th St. E., Northfield, MN 55057, Parcel ID 08.05.1.00.003 (the "Property") through Rice 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 Rice County staff and looks forward to working with both Northfield Township and Rice 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 Hubers 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

PROJECT SUMMARY

USS Hubers Solar LLC respectfully submits this CUP application to construct, own, and operate a 1-MW(ac) community solar garden (the "Project") on approximately 9.5 acres of the 81.79 acres of Parcel ID 08.05.1.00.003, in Section 05 of Northfield Township. The parcel is owned by Nicholas Hubers. US Solar has a land lease allowing for the use of the Property with Nicholas Hubers, a memorandum of which has been recorded in the county records. A copy of the Memorandum of Lease Agreement can be found in Appendix III.

Parcel Identification Number	08.05.1.00.003
Property Address	8967 90th St. E., Northfield, MN 55057
Landowner	Nicholas Hubers
Township	Northfield
Current Use of Property	Agriculture
Application Fee	\$506

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 90th Street East
 - o Adequate capacity for the Project on existing distribution line and other infrastructure
 - Supplies electricity throughout the local community
- Capacity Screens with Xcel Energy
 - o Existing substation in relatively close proximity with adequate capacity for the Project

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
- o15+ 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 OPERATIONS

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 and landscaping. 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 Hubers Solar LLC has responsibility for maintenance, replacement, or new installation of any drain tile servicing this site, if USS Hubers 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 90th Street East via the existing field access. The access road will enter the tilled field directly to the Project location. USS Hubers Solar LLC will work with the road authority, for approval. See Appendix I for a depiction of the access road.

LANDSCAPE SCREENING PLAN

We understand and appreciate that many communities would like to see landscape screening that not only shields the Project from view of neighbors and passersby, but also fit with the neighborhood and benefit the local environment. USS Hubers Solar LLC has consulted with local contractors and arborists with experience in landscape screening in the area, including Westwood Professional Services, to create a professional landscape screening plan. Appendix I includes a complete landscaping plan, showing the size, quantity, planting spacing, and appropriate species of vegetation to accomplish effective screening. USS Hubers Solar LLC complies with Rice County's landscape screening requirements.

We propose to plant 25 Black Hills Spruce and 26 Cardinal Dogwood along the north side of the Project.

Black Hills Spruce provide great visual screening year-round with a natural appearance. Further, these trees have significantly better survivability, availability, and manageability than common substitutes. The dense and protective nature of Black Hills Spruce branches and needles provide nesting habitat for song birds and offers enhanced wind and predator protection compared to common substitutes.

Quick-growing Cardinal Dogwood shrubs will provide buffer screening and beautification. The dogwoods, although deciduous, will provide visual appeal throughout the winter with their bright red stems. The plant selected is native to the local landscape, screens effectively, and provides beneficial wildlife habitat.

BUFFER PLANTING MATERIALS





USS Hubers Solar LLC will ensure the landscaping plan, which was prepared by a Minnesota registered landscape architect, is approved by the Rice County Planning and Water Management Department ("CCWMO"). The following document was referenced to determine which species of vegetation would be appropriate for the site: *Minnesota's Native Vegetation: A Key to Natural Communities, version 1.5* (final selection depends on availability).

PLANTING METHODOLOGY

The Black Hills Spruce will alternate with Cardinal Dogwoods, planted in a linear fashion at 24 feet on center. The Black Hills Spruce will be approximately 30 – 40 feet tall at maturity. The Cardinal Dogwood will be approximately 8 – 10 feet tall at maturity. This plan will effectively screen the perimeter of the Project from residences and passersby on public roads. In addition, we ensure that our landscape contractors provide a full three years of care, maintenance, and warranty. Please see Appendix I for a professional landscape plan.

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 Hubers 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. Rice County WMO 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 Rice 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.

<u>Second</u>, <u>decommissioning of community solar gardens is simple and does not disrupt the land</u>. 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.

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,

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

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.

EROSION AND SEDIMENT CONTROL PLAN

USS Hubers 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 <u>Appendix I</u> 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 14,510 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 20 feet of green, open space, planted with pollinator-friendly vegetation.

MANUFACTURER'S SPECIFICATIONS

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

We are using Tier 1 string inverters for this 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 MWAC/7.088 MW _{DC}
Acres Required	9.52
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 Hubers 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

Despite the considerations of 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 propose posting with the County a decommissioning financial surety with details as follows:

- Total financial surety of \$50,000 for decommissioning and road repair.
- Half of the financial surety is released when the building permit is closed out and road conditions are confirmed to be maintained.
- The surety would be in the form of a cash deposit, a letter of credit, or some other form approved by the County.

This financial surety provides an extra layer of security that the Project site will be returned to the appropriate condition at the end of the Project's useful life or earlier, should the Project cease operations for a twelve-month period. Rice County will be the designated beneficiary of the fund and the landowner will be provided a copy of the document, thereby establishing the obligation before construction commences.

MAINTENANCE & OPERATIONS PLAN

Maintenance and Operations questions can be directed to the USS Hubers 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 Hubers 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 Hubers 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 Hubers Solar LLC, is a subsidiary of US Solar. USS Hubers Solar LLC is the owner of the Project. Please find more information about US Solar at www.us-solar.com.

CONCLUSION

USS Hubers Solar LLC has complied with all requirements of the Rice County Zoning Ordinances, and we respectfully request that the Rice County Planning Commission recommends approval of the application.

414 Nicollet Mall Minneapolis, MN 55401

1-800-895-4999 xcelenergy.com



April 15, 2019

Solar*Rewards Community Study Results

Customer Legal Name: USS Hubers SolarLLC

Service Address: 8967 90th St E, Northfield, MN 55057

Project Description: 1 MW SRC Project

Xcel Energy is pleased to deliver the engineering indicative cost estimate for the Solar*Rewards Community solar garden application(s) for the above-referenced site:

Site	SRC#	Garden Name	Legal Name	Capacity
			(if different than the legal name noted above)	(MW)
1	052434	Hubers		1

The engineering indicative cost estimate has identified scope and costs to accommodate 1 MW at 0.95 leading power factor, which is the largest size generation up to the applied for amount allowed at this location.

Our indicative estimated cost for proceeding with maximum MW allowed for this proposed project at the above site is \$359,921. This estimate is based on the content of the application as of the date it became Expedited Ready and we began our review for purposes of determining the indicative estimated cost within the 40 day – 50 business day time frame as set forth in our tariff.

There are a total of 19.65 MWs ahead of the above in the applicable Interconnection Substation Queue and 12.65 MW of that on the same Feeder. The indicative estimated cost is contingent upon all projects ahead in the Interconnection Queue moving forward as proposed. Projects may include other Solar Rewards Community projects as well as all other types of generation interconnection projects such as wind, hydro, or non-program PV. Any changes, cancellations, or modifications to the previous projects in the Interconnection Queue may require significant changes in scope and cost of your projects. Xcel Energy shall communicate any changes to those affected projects as they are identified.

You have the option of further proceeding with this project at the capacity allowed based on the indicative estimate if you pay to us either the full amount or one-third of this amount within 30 days along with a Letter of Credit. You agree to pay the actual costs consistent with the Section 10 Interconnection Agreement and comply with all provisions of the Section 10 Tariff. Pursuant to Minn. R. 7835.4750, please note that the Commission's interconnection standards are set forth in our Section 10 Tariff which as of the date of this letter is available at this

link: http://www.xcelenergy.com/staticfiles/xe/PDF/Regulatory/Me_Section_10.pdf

Please note that you need to provide certain contact information or signatures on the following:

- 1.) Provide contact information on Sheet 124 of the Interconnection Agreement,
- 2.) Sign the Interconnection Agreement on Sheet 127,
- 3.) Sign the attached Statement of Work associated with Exhibit B to the Interconnection Agreement,
- 4.) Provide the 24/7 contact information on Exhibit D, par. 9.3 to the Interconnection Agreement,
- 5.) Sign Exhibits D and E to the Interconnection Agreement.

APPENDIX III- MEMORANDUM OF LEASE AGREEMENT

Lessor: Nicholas J. Hubers

Lessee: US Solar Development LLC

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

A715316
OFFICE OF COUNTY RECORDER/REGISTRAR
RICE COUNTY, MN
I hereby certify that this document was
filed in this office and duly recorded on
04-18-2019 at 01:38 PM
JUDY VAN ERP, RECORDER
Pages: 7 Fee Amount: \$46.00
electronically recorded

(TOP 3 INCHES RESERVED FOR RECORDING DATA)_	
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MEMORANDUM OF LEASE AND SOLAR EASEMENT

- A. Lessor is the owner of real property located in Rice County, Minnesota, that is legally described in Exhibit A (the "Lessor Property").
- B. Lessor and Lessee have entered into that certain Lease and Solar Easement (the "Lease"), having an effective date of $\sqrt{200}$, 2016, whereby Lessor leases to Lessee and Lessee leases from Lessor the Lessor Property (the "Premises") for the purposes of the Facility (as defined below) on the Premises.
 - C. Lessor and Lessee wish to give record notice of the existence of the Lease.

NOW THEREFORE, in consideration sum of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

Purpose of Lease. The Lease is solely for solar photovoltaic energy generation purposes, and throughout the term of the Lease, Lessee shall have the sole and exclusive right to use the Lessor Property for such purposes. For purposes of the Lease, photovoltaic energy generation purposes means: (i) monitoring, testing and assessing the Lessor Property for solar photovoltaic energy generation, and (ii) developing, constructing, installing, operating, maintaining, repairing, and replacing photovoltaic electric energy generating equipment, supporting structures and ballasts, inverters, electrical transformers, fixtures, electric distribution lines, communication lines, metering equipment, interconnection facilities and related facilities and equipment (collectively, the "Facility") on the Lessor Property. Any improvements, fixtures or structures that are not a part of the Facility shall not be installed on the Lessor Property without the express written consent of Lessor.

Commencement Date; Term; Renewal Terms. The term of the Lease ("Term") shall commence upon the Effective Date and continue until 11:59 pm on the twenty-fifth (25th) anniversary of the Commencement Date. The "Commencement Date" shall be the first day of the first full month after the Facility commences commercial production and sale of electricity on the Lessor Property under any contract or agreement or other arrangement pursuant to which Lessee sells the electricity and related Environmental Attributes (as defined in the Lease) to any purchaser thereof. The period of time between the Effective Date and the Commencement Date is not expected to exceed three (3) years. If the Commencement Date does not occur within three years of the Effective Date of the Lease, except as such period may be extended due to Force Majeure or by agreement of the parties, then, Lessee may elect to pay the Rent amount that would otherwise by due following the Commencement Date (in which case the date of such payment shall be deemed to be the Commencement Date), and if Lessee does not elect to do so (or if the Commencement Date does not otherwise occur) within ninety (90) days following the expiration of such three-year period (as may be extended as provided in the Lease), then either Lessee or Lessor may elect to terminate the Lease by delivering written notice to the other to such effect, in which case neither Lessee nor Lessor shall have any further obligations under this Lease and Lessee shall have no further obligation to pay Rent to Lessor. Lessee shall use commercially reasonable efforts to have the Commencement Date occur on or before December 31, 2016; provided, however, that if Lessee determines at any time prior to the Construction Date (as defined in the Lease) that the Lessor Property is unsuitable for the Facility or that a required approval has not been received or is not likely to be received in a timely fashion. Lessee may terminate the Lease in accordance with its terms. Lessee has options to extend the initial Term of the Lease for one additional five (5) year term commencing immediately on the day that the Term would otherwise expire.

Solar Easement. The Lease grants to Lessee, for the term of the Lease, an exclusive solar easement to use all sunlight which naturally arrives at the Premises, including an exclusive easement prohibiting any obstruction to the free flow of sunlight to the Premises throughout the entire area of the Lessor Property described on Exhibit B of the Lease (the "Easement Premises"), which shall consist horizontally three hundred and sixty degrees (360°) from any point where any photovoltaic generating facility is or may be located at any time from time to time (each such location referred to as a "Solar Site") and for a distance from each Solar Site to the boundaries of the Easement Premises, together vertically 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 cash or tax benefit arising from or associated with the installation or ownership of the Facility or the production of energy and capacity by the Facility, shall inure to the exclusive benefit of Lessee.

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.

<u>Purpose of this Memorandum.</u> 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:	Paral Pickers						
	Name: Title:	Reed Richerso	n					
	rille.	COO						
STATE OF	MINNESOTA)	BARBAI	RA JEAN LENE ary Public				
0011111111	of Hennepin) ss.	M Page 1	innesota imm. Expires 31, 2018				
COUNTY	DE THENDERIN		Jan	31, 2018				
GUINN X				20				
The	foregoing in 2016 by	strument was acknow Reed Richerson, the	viedged before n e COO of US Sol	ne this <u>J(</u>	day of LLC, a			
Delaware lii		ompany on behalf of suc		•	,			
		Markona (<i>A.</i>				
		Angha-	<u> </u>	<u>K/Y</u>				
		Notary Public		7010				
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Ву:

Nicholas J Hubers

STATE OF MINNESOTA)

COUNTY OF Henn)

BARBARA JEAN LENE
Notary Public
Minnesota
My Comm. Expires
Jan 31, 2018

The foregoing instrument was acknowledged before me this 30 day of , 2016 by Nicholas J Hubers, an individual.

Notary Public

My commission expires:

THIS INSTRUMENT DRAFTED BY:

Lindquist & Vennum LLP (DJG) 4200 IDS Center 80 S. Eighth Street Minneapolis, MN 55402 (612) 371-3211



EXHIBIT A TO MEMORANDUM OF LEASE AND SOLAR EASEMENT

One tract in Rice County, Minnesota described as follows:

Property ID: 08.05.1.00.003 Deeded Acreage: 81.79

Legal Description:

The South 1582.50 feet of the Northeast Quarter (NE1/4) of Section 5, Township 111 North, Range 19 West of the Fifth Principal Meridian, Rice County, Minnesota, lying Easterly of the West 1048.60 feet of said South 1582.50 feet; except that part thereof lying within the East 60 acres of the Northeast Quarter (NE1/4) of said Section 5.

AND

The East 60 acres of the Northeast Quarter (NE1/4) of Section 5, Township 111 North, Range 19 West of the Fifth Principal Meridian, Rice County, Minnesota.