

AGENDA
MEETING OF THE MARSHALL PLANNING COMMISSION
WEDNESDAY – APRIL 12, 2023
COUNCIL CHAMBERS – CITY HALL
5:30 P.M.

- 1) *Call to Order*
- 2) *Consider the approval of the minutes of the March 8, 2023, regular meeting of the Marshall Planning Commission.*
- 3) *Conduct Public Hearing for a Conditional Use Permit to have solar panels in an A – Agriculture District located at 1200 North 7th Street.*
- 4) *Ordinance amending Section 86-248 Outside storage.*
- 5) *Other Business*
- 6) *Adjourn*



MEMORANDUM

TO: Members of the Marshall Planning Commission
Sharon Hanson, City Administrator
Jason R. Anderson, P.E., Assistant City Engineer/Zoning Administrator *ja*

FROM: Ilya Gutman, Assistant Planning & Zoning Administrator *IG*

DATE: April 5, 2023

SUBJECT: REQUEST FOR CONDITIONAL USE PERMIT
Western MN Municipal Power Agency
1200 North 7th Street

Action Recommendation

Motion to close public hearing.

Recommend approval to the City Council of the request by the Western MN Municipal Power Agency for a Conditional Use Permit to have solar panels in an A – Agricultural District at 1200 North 7th Street with the following conditions:

1. That the regulations, standards and requirements as set forth in the City Code and as pertains to the class of district in which such premises are located shall be conformed with.
2. That the City reserves the right to revoke the Conditional Use Permit in the event that any person has breached the conditions contained in this permit provided that the City serve the person with written notice specifying items of any default and allow the applicant a reasonable time in which to repair such default.
3. That the property is maintained to conform to the Zoning Code and not cause or create negative impacts to adjacent existing or future properties.

Background

This area has been recently annexed into the city and is currently zoned A – Agricultural District. Solar panels are a Conditional Use Permit in an A – Agricultural District. Staff believe all standards for hearing are met. Typical conditions are attached.

The conditional use permit regulations are found in Section 86-46 and the Standards for Hearing are found in Section 86-49. Attached is a narrative submitted by the applicant.

Fiscal Impact

None known.

Alternatives / Variations

None recommended.

IG:cld



**MARSHALL SOLAR PLUS LLC
CONDITIONAL USE PERMIT
APPLICATION PRIMER**



COVER LETTER

February 2023
City of Marshall Planning & Zoning Department
344 West Main Street
Marshall, MN 56258

RE: Application by Marshall Solar Plus LLC for a Conditional Use Permit to Construct a Solar Garden

Dear City of Marshall Planning & Zoning Department,

Please consider this an application primer for a Conditional Use Permit ("CUP") to construct solar garden within the City of Marshall. Pursuant to Chapter 86 "Zoning," Article 86-IV "Zoning District Regulations," Section 86-96 "(A) Agricultural District," letter A "Conditional Uses," "Commercial Solar Energy Collectors and Systems" of the City of Marshall Municipal Code (the "Ordinance"), the request is being made by Marshall Solar Plus LLC, a subsidiary of United States Solar Corporation ("US Solar"). US Solar is a developer/owner/operator based in Minnesota.

Marshall Solar Plus LLC plans to construct a 10-megawatt (MW) solar garden (the "Solar Garden") in the City of Marshall on approximately 60 fenced acres of the approximately 77-acre parcel 27-626038-0 located on the north side of the City of Marshall (the "Property") through the City of Marshall's Conditional Use Permit (CUP) application process. Importantly, the project will also include a 5-megawatt Battery Energy Storage System (BESS). Our application primer includes basic information about the site and provides general analysis of the applicable land use permitting considerations.

The US Solar team appreciates the coordination and insights already provided by City of Marshall staff and looks forward to working with the city. Together, we will ensure that the Solar Garden will operate safely and efficiently over its lifespan, while providing environmental, financial, and social benefits to the surrounding area.

Please contact us with any questions, comments, or points of clarification.

Sincerely,

Luke Gildemeister

Luke Gildemeister – Project Developer

USS Marshall Solar Plus LLC
100 N 6th St., Suite 410B
Minneapolis, MN 55403
W: (612) 230.0172
E: luke.gildemeister@us-solar.com

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PROJECT TIMELINE ESTIMATE

- Development & Engineering = February, March & April 2023
- Procurement of Project Equipment = April & May 2023
- Construction = August 2023 through June 2024
- Completion = August 2024

BUILD-OWN-TRANSFER TRANSACTION STRUCTURE

Under this structure, US Solar will own the project company (Marshall Solar Plus LLC) and will develop and construct the solar garden. US Solar is responsible for obtaining local and state permits for the project, as well as providing engineering and detailed project design. Once the project is near “substantial completion,” US Solar will then sell the project company to Western Minnesota Municipal Power Agency (WMMPA), who owns the parcel. WMMPA will work with Marshall Municipal Utilities (MMU) on obtaining an interconnection agreement so that the project can connect to the North 7th Street substation owned by MMU.

SOLAR GARDEN SUMMARY

Marshall Solar Plus LLC respectfully submits this CUP application to construct a 10-megawatt solar garden (the “Solar Garden”) with a 5-megawatt battery energy storage system (BESS).

SELECTING THIS PROPERTY

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

- Solar Resources
 - Relatively large, flat, and open to provide unobstructed access to natural sunlight
- Physical Characteristics
 - Not in Agricultural Preserve
 - No impact to wetlands or neighboring properties
 - Adequate space for setbacks or landscape screening if needed
 - Soils capable of supporting facility and equipment
 - No water or other infrastructure improvements needed
- Proximity to Sufficient Distribution Facilities
 - Existing three-phase distribution lines nearby
 - Adequate capacity for the Solar Garden on existing distribution line and other infrastructure
 - Supplies electricity throughout the local community
 - Existing substation in relatively close proximity with adequate available capacity for the Solar Garden
- Ability to meet all local permitting requirements

LOCAL IMPACT

ENVIRONMENTAL

The area underneath the modules and between rows will be transformed into a diverse mix of pollinator-friendly, low-lying, deep-rooted plants. This enhances soil, water, and air quality. A study has shown that these seed mixes reduce stormwater runoff by 23 percent for the 2-year storm event (2.9 inches of rain) and 8 percent for the 100-year storm event (7.8 inches of rain)¹. These native plantings also expand habitat for pollinators and other species that increase crop yields and improve the local environment.

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

ECONOMIC

US Solar is a leading provider of solar solutions to residents, businesses, and public entities across Minnesota. We are proud to work with over 70 commercial customers and 1,000 residential customers in Minnesota.

Here are some local economic impacts:

Already Spent

- oLocal engineering, environmental, and permitting consulting services
- oLegal fees, county recordings, travel, and meals

During Construction

- oPrivate capital infrastructure investment
- oLocal spending
- oConstruction and related labor jobs

During Operation

- oIncreased property tax payments throughout operation
- oPermanent, part-time work to monitor and maintain

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

ELECTRICAL

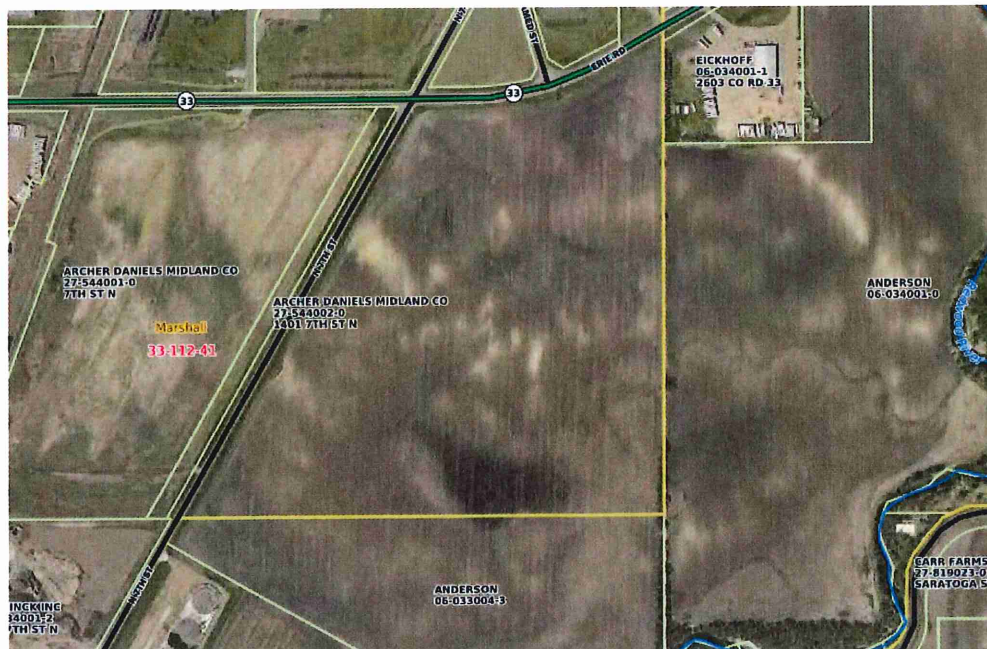
The Solar Garden will generate enough clean electricity to power approximately 2,200 homes annually. Because the Solar Garden will interconnect to the existing 7th Street substation and distribution system of Marshall Municipal Utilities (MMU), the clean energy will be used by nearby electric customers. This Solar Garden will also contribute to energy independence, decreasing our reliance on importing energy.

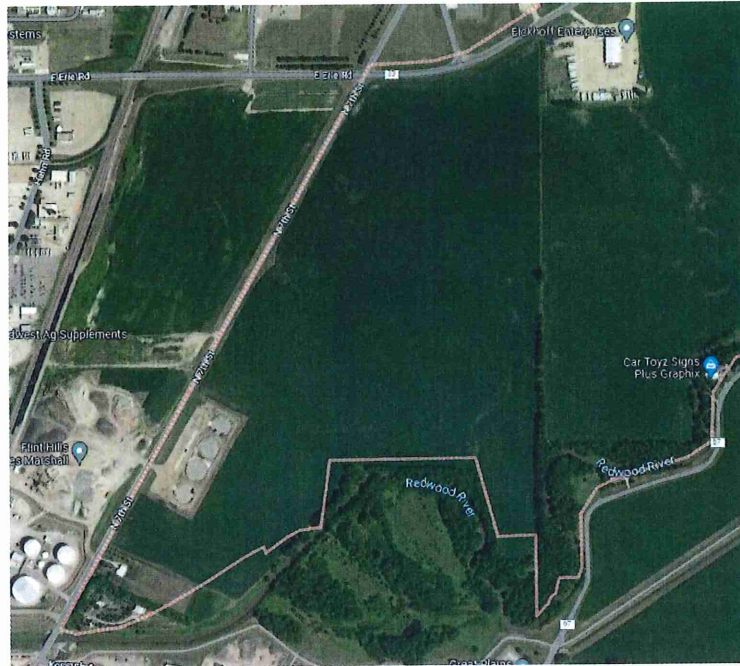
VISUAL IMPACT

OVERVIEW

To the north of our proposed project area is County Road 33/East Erie Road. To the west of our proposed project area is North 7th Street. To the south of our proposed project area is agricultural land and then the Redwood River. To the east of our proposed project area is agricultural land and Eickhoff Enterprises, a trucking company. The Solar Garden will be composed of single-axis trackers, which means the panels will rotate from east to west as the sun rises and sets. The panels will be about 6 - 10 feet tall, depending on the tilt angle, which varies throughout the day. Each row of solar panels will be approximately 12 feet apart, and the Solar Garden's fenced area will be planted in a mix of native grasses and pollinator-friendly habitat. There will be no permanent structures or buildings. There will be approximately 21,465 solar panels. The fenced area of the solar garden will be approximately 60 acres. The battery energy storage system (BESS) will be placed to the north of our Solar Garden, on the north end of the parcel. The main site access will come from the north on County Road 33/East Erie Road.

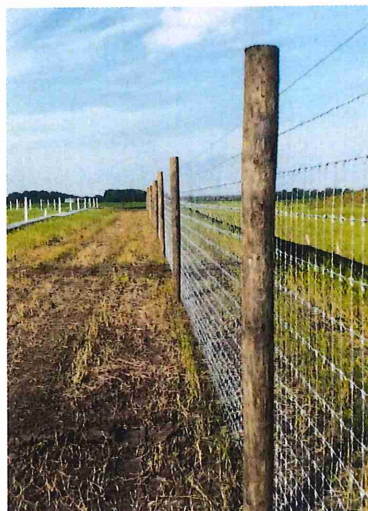
PHOTOS OF THE SITE





FENCE + SCREENING

The Solar Garden will include a security fence around the entire perimeter, as required by National Electric Code. The security fencing will be located entirely on the Property. The fence will not exceed 8 feet in height, and it will be a farm-field style fence without barbwire. See the image below for a representative photo taken of a Solar Garden under construction in Minnesota in 2020.



Marshall Solar Plus LLC is not currently proposing any screening around the Solar Garden. Should elected officials from the City of Marshall deem that screening should be required on the outside of the Solar Garden, US Solar is open to having that conversation.

VEGETATIVE SEEDING PLAN

As mentioned in the "Local Impact" section, the area underneath the modules and between rows will be transformed into a diverse mix of pollinator-friendly, low-lying, deep-rooted plants.

SITE PLAN

The preliminary site plan is attached. You can also find a screenshot of the preliminary site plan here for your convenience – future/updated renditions of the site plan will be provided to the City of Marshall as soon as US Solar receives them from its engineering contractor:



SOLAR ON AGRICULTURAL LAND

Harvesting solar to generate energy is widely viewed as an agricultural business opportunity for farmers across the United States, including those in Minnesota. This is evidenced by many agricultural groups that have gone on record to support the expansion of community solar. For example, the President of the Minnesota Farm Bureau has stated publicly that the **"Minnesota Farm Bureau statewide policy supports the development and use of alternative energy sources such as solar farms and gardens, as long as the drainage is maintained and serviced."** Other groups that have voiced their support for community solar include the American Farm Bureau Federation, MN Farmers Union and National Farmers Union.

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

1. The Solar Garden area is converted to native grasses and pollinator-friendly habitat. As mentioned in the "Local Impact" section, this makes a tremendous impact on the local environment, including but not limited to soil quality, water quality, and crop yields.
2. Decommissioning of solar gardens is simple and does not disrupt the land. Because we use piles as foundation, system removal involves almost no disruption to the land. After the Solar Garden's life, what is left is an undisturbed field of native grasses atop immaculate soils. This is one of the only ways for a landowner to increase and diversify income while preserving and protecting farmland for future generations, when crop prices and agricultural practices may be more viable than they are today.
3. Landowners can convert their land to a Solar Garden, which provides them with guaranteed, increased, and diversified income. This sort of financial stability is traditionally only offered by residential, commercial, or industrial development. Of these options, a solar garden will be the best steward of the soils and natural resources of the agricultural land.

CONSTRUCTION

OVERVIEW

The construction of a Solar Garden is simpler than many people realize. Galvanized steel I-beams are driven into the ground to the appropriate depth to ensure long-term stability, according to detailed structural and geotechnical analysis. Racking sits on top of the steel I-beams. Solar panels clip into the racks. Inverters are set up in between sections of solar panels. Electrical line is buried about 4 feet deep in an electrical conduit. There are no concrete footings, which makes the eventual decommissioning process easy at the end of the Solar Garden life. The Solar Garden will comply with Minnesota Rules 7030 governing noise. We use Tier 1 solar panels to achieve high efficiency and conform to high quality control and safety standards.

The bulk of the construction will occur in approximately seven (7) weeks, followed by testing, inspections, and commissioning work. The most noticeable phase of the construction is the pile driving, which is often completed in two (2) days or less. In total, the construction period is expected to last from approximately August 2023 to June 2024. Hours of construction will be 7:00 AM to 7:00 PM Monday - Saturday. No work will be done on Sundays and nationally-observed holidays.

PARKING

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

VEHICLES/CONSTRUCTION TRIPS

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

- Most deliveries will be in the first month and most electrical testing will be in the later stages of construction.
- Modules will come on 40-foot flatbed trucks or in 40-foot containers.
- We expect no more than eight (8) deliveries for all solar modules.
- We expect no more than five (5) container trucks to deliver racking material
- We expect no more than two (2) deliveries for inverters, switchgears, and transformer
- We expect four (4) trips for Balance of Plant equipment in containers that are 40 feet or smaller.
- Note: We expect no more than four (4) deliveries per day.

STRUCTURES

All monitoring is done remotely. There will be a small maintenance building constructed near the northwest corner of the parcel (to the north of the Solar Garden and the west of the BESS).

STORAGE DURING OPERATION

There will be a small maintenance building constructed near the northwest corner of the parcel.

SIGNAGE

There will be no external signage of the facility unless specifically desired by the City of Marshall. To provide safety and support good practices, labeling of electrical equipment requires internal signage.

WATER, SEWAGE, AND WASTE

No water, sewage, or waste management services are required onsite. Portable waste facilities will be provided during the construction period. Delivery routes will be designed to pose the smallest traffic impact in the local community. We will coordinate with local authorities as to preferred times and routes prior to construction mobilization. Construction employees will park within the Project premises. Employees will be provided with mobile waste management options sourced from the local area.

SITE ACCESS

A new unpaved access road will be built off of County Road 33/East Erie Road for the Project. The access path for will come south directly off of the existing road – this is where the battery energy storage system (BESS) will be situated. The access path will continue south from the BESS area and will enter into the northern fence of Marshall Solar Plus LLC. This provides necessary access for construction, regular mowing and maintenance activities, and decommissioning of the Project, while minimizing impact to adjacent land uses. The road also provides access in the unlikely event that emergency crews are

needed onsite. US Solar will also likely propose a secondary access road to the west leading to North 7th Street. We utilize the following simple process for construction of access roads:

- (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 8-10" of aggregate material/gravel to level with surrounding grade.

Please see the attached site plan for a visual depiction of the primary access road.

PARKING

After construction is completed, there will be approximately two (2) parking spots within the boundaries of the perimeter fence. Our vehicles will park there to avoid disrupting traffic or adjacent land use.

OTHER

There will be:

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

OPERATIONS AND MAINTENANCE

Operations and maintenance work will be performed by Western Minnesota Municipal Power Agency (WMMPA), the future owner of the project.

GRADING AND EROSION

GRADING

DGR Engineering already performed grading plans and Western Minnesota Municipal Power Agency (WMMPA, the owner of the parcel) has constructed the previously-permitted civil works.

EROSION AND SEDIMENT CONTROL PLAN

The majority of the eastern half of the project parcel is located largely within a FEMA floodplain, zoned AE, which represents a 1% annual flood chance. The southeastern corner of the project parcel is located within a FEMA floodway – no construction will occur over this area. Marshall Solar Plus LLC will obtain a stormwater permit prior to construction. Our racking equipment is very accommodating of various terrain types and topography.

NO HAZARDOUS MATERIALS INVOLVED

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

PROPERTY VALUES

According to a widely circulated independent study conducted by researchers at the [LBJ School of Public Affairs at the University of Texas](#), the results from the survey of residential home assessors show that the majority of respondents believe that proximity to a solar installation has either no impact or a positive impact on home values. Data comes from a survey of 37 different appraisers across the U.S. and represents 23 states of the 42 to have utility scale solar facilities. Responses that indicated negative impact were primarily from properties with closer proximity to larger facilities i.e. homes studied within 100 feet of a larger facility (25MW -100MW in size). It is also important to note that assessors with experience assessing homes near solar installations perceived considerably smaller impacts than those without experience.

[Kirkland Appraisals, LLC](#) conducted a matched pair analysis of the property value of homes and agricultural land adjoining existing solar farms in North Carolina, South Carolina, Tennessee, Virginia, Mississippi, Texas, Oregon, New York and Maryland. The conclusion of this study was no indication of any impact on property values, positive or negative, of homes or vacant residential or agricultural land due to adjacency to a solar farm. Note that the average distance from a residential home to solar panels in this study was 150'.

Locally, [Chisago County](#) decided to study this independently. They released a report conducted by the County Assessor reviewing property value impacts due to the 100MW North Star solar project which covers approximately 1,000 acres. Note that North Star is approximately 100x the size of this project. Between January 2016 and October of 2017 fifteen (15) properties sold adjacent or near the solar array. After analyzing sales prices, they concluded no adverse impact due to the solar array was found.

In summary, all available data finds no negative impacts to property values of residential homes or agricultural land adjacent or near a solar array. This fact has been confirmed in decisions by the Minnesota Court of Appeals.

PROJECT OWNERSHIP

The applicant of the CUP, Marshall Solar Plus LLC, is a subsidiary of US Solar. As previously mentioned, this project has a “build-own-transfer” transaction structure. This means that US Solar will be in charge of developing and constructing the project. US Solar will then sell the project company (Marshall Solar Plus LLC) to the customer, Western Minnesota Municipal Power Agency (WMMPA) before the project is “substantially complete.” Please find more information about US Solar at www.us-solar.com.

INTERCONNECTION

As part of the “build-own-transfer” transaction structure, Western Minnesota Municipal Power Agency (WMMPA) will submit an interconnection application to Marshall Municipal Utilities (MMU) with the intent to finalize an interconnection agreement. The project parcel is already owned by WMMPA, and the North 7th Street substation, to which the project will interconnect, is owned by MMU. This substation is located just north of County Road 33/East Erie Road, across the street from the project.

MANUFACTURER’S SPECIFICATIONS

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

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

CONCLUSION

Marshall Solar Plus LLC will comply with all criteria and requirements of Chapter 86 “Zoning,” Article 86-IV “Zoning District Regulations,” Section 86-96 “(A) Agricultural District,” letter A “Conditional Uses,” “Commercial Solar Energy Collectors and Systems” of the City of Marshall Municipal Code. We respectfully request that the City of Marshall Planning Commission provides an objective consideration of our Conditional Use Permit application.

APPENDIX I – SITE PLANS

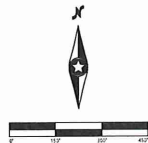


LEGEND:	
[Symbol]	PROJECT BOUNDARY
[Symbol]	NON-PARTICIPATING PROPERTY
[Symbol]	DC PAVEMENT
[Symbol]	DC ROAD RIGHT-OF-WAY
[Symbol]	DC EASEMENT
[Symbol]	DC BRIDGE
[Symbol]	DC INTERIOR CONTOUR
[Symbol]	DC OVERHEAD POWER
[Symbol]	DC UNDERGROUND GAS
[Symbol]	DC BRIDGE CENTERLINE
[Symbol]	DC FEMA FLOODPLAIN
[Symbol]	DC FEMA FLOODWAY
[Symbol]	PROPOSED SOLAR ARRAY
[Symbol]	PROPOSED ACCESS ROAD
[Symbol]	PROPOSED SECURITY FENCE
[Symbol]	PROPOSED STORMWATER BASIN
[Symbol]	PROPOSED ELECTRICAL EQUIPMENT

SYSTEM SPECIFICATIONS	
SYSTEM SIZE DC	14.06 MW
SYSTEM SIZE AC	10.0 MW
DC/AC RATIO	1.4
MODULE MODEL	ASTRONERGY ASTRO 6
MODULE RATING	655 W
TOTAL MODULE QTY	21,463
TOTAL NO. 81 MODULE TRACKER RACKS	253
TOTAL NO. 54 MODULE TRACKER RACKS	12
INTER-ROW SPACING	11.8'
PITCH	19.4°
GCR	40%
FENCED AREA	50.8 ACRES

Westwood
Phone: 612.834.0333 | 8675 Glenview Blvd., Suite 400
Minneapolis, MN 55425
www.westwoodinc.com

US SOLAR
100 H 6th St. 44100
Minneapolis, MN 55403
N. BERRY
A. DATE: 01/04/2023
A. DRAWN: [Name]
BY: [Name]



**USS Marshall
Solar LLC**
Lyon County, Minnesota

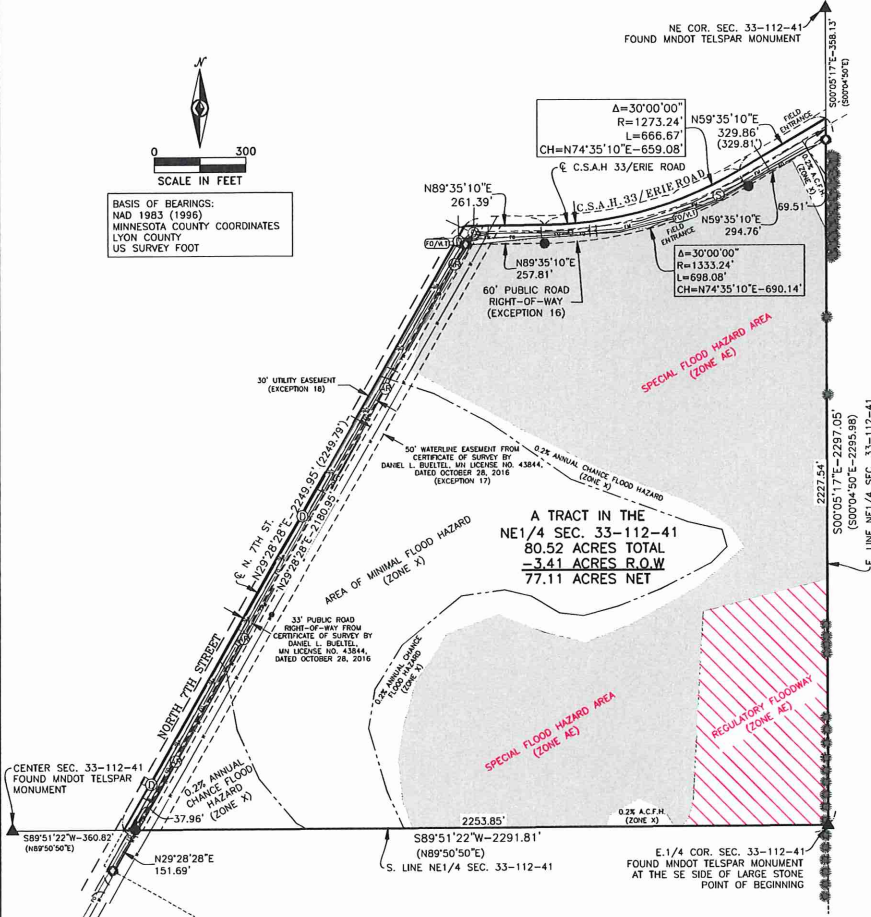
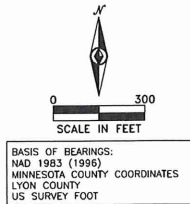
PV Site Plan -
Astronergy Astro 6

CONCEPTUAL
NOT FOR CONSTRUCTION

DATE: 01/04/2023
SHEET: C100
REV:

APPENDIX II – ADDITIONAL DOCUMENTS

ALTA/NSPS LAND TITLE SURVEY
EFFECTIVE DATE FEBRUARY 23, 2016
A TRACT IN THE NE1/4 SECTION 33-112-41
LYON COUNTY, MINNESOTA



SURVEYOR'S NOTES:

EXCEPTION NO. 1 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 2 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 3 WERE NOT VISIBLE.
EXCEPTION NO. 4 WERE NOT VISIBLE.
EXCEPTION NO. 5 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 6 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 7 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 8 WERE NOT VISIBLE.
EXCEPTION NO. 9 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 10 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 11 WAS NOT FOUND AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 12 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 13 IS NOT A SURVEY MATTER AND COULD NOT BE LOCATED ON THE GROUND.
EXCEPTION NO. 14 IS SHOWN ON THE SURVEY AS RECORD AND MEASURED DIMENSIONS.
EXCEPTION NO. 15 IS NOT ON THE SUBJECT PROPERTY.
A MINNESOTA ONE CALL UTILITY LOCATE WAS PERFORMED. THE TICKET NO. IS 190840808.
NO BUILDINGS WERE OBSERVED ON THE SUBJECT PROPERTY.

LEGAL DESCRIPTION AS CONTAINED IN EXHIBIT A OF THE TITLE COMMITMENT FILE NUMBER L052119CT--Western DATED MAY 22, 2019

That part of the Northeast Quarter (NE1/4) of Section Thirty-three (33), Township 112 North, Range 41 West of the 5th P.M., Lyon County, Minnesota, lying South of the centerline of County State Aid Highway No. 33 (Erie Road) and lying East of the centerline of North 7th Street, more particularly described as follows:

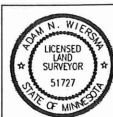
Beginning at the East Quarter Corner of said Section 33; thence South 89°51'22" West on the south line of said NE1/4 for a distance of 2,291.81 feet to the centerline of said North 7th Street; thence North 29°28'28" East on said centerline for a distance of 2,249.95 feet to the centerline of said County State Aid Highway No. 33 (Erie Road); thence North 89°35'10" East on said centerline for a distance of 261.39 feet to the beginning of a curve, concave North, having a radius of 1,273.24 feet; thence Easterly on the arc of said curve to the left and on said centerline for an arc distance of 666.67 feet (said curve subtended by a chord which bears North 74°35'10" East with a chord distance of 659.08 feet); thence North 59°35'10" East on said centerline for a distance of 329.86 feet to the east line of said NE1/4; thence South 00°05'17" East on said east line for a distance of 2,297.05 feet to the Point of Beginning.

ALTA/NSPS SURVEYOR'S CERTIFICATE:

To Western Minnesota Municipal Power Agency:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes Items 5 and 11 of Table A thereto.

The field work was completed on May 3rd, 2019.



I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

By: *Adam Wierzma* 8-01-19 (Date)
Adam N. Wierzma, L.S. License No. 51777
My license renewal date is June 30, 2020

Sheets covered by this seal: **THIS SHEET ONLY**

LEGEND	
▲ SECTION CORNER AS NOTED	
● SET 1/2" X 24" REBAR WITH RED SURVEYOR'S I.D. CAP NO. 51727	
● FOUND 5/8" DIA. REBAR WITH RED SURVEYOR'S I.D. CAP NO. 43844	
(H) RECORD DIMENSION	
— E —	UNDERGROUND ELECTRIC
— OH —	OVERHEAD ELECTRIC
— ST —	STORM SEWER LINE
— SA —	SANITARY SEWER LINE
— SA —	EDGE OF ASPHALT
— SA —	EDGE OF GRAVEL
— G —	EDGE OF FIELD
— G —	GAS LINE & STRUCTURES
— G —	CURB AND GUTTER
— T —	UNDERGROUND TELEPHONE LINE
— EX —	EXISTING GROUND CONTOURS
— FO —	UNDERGROUND FIBER OPTIC
— CATV —	UNDERGROUND CABLE TELEVISION
⊙	SANITARY MANHOLE
⊙	AIR RELEASE MANHOLE
⊙	STORM INTAKE
⊙	STORM MANHOLE
⊙	FIBER OPTIC VAULT
●	T-POST
○	LIGHT POLE
⊙	POWER POLE
⊙	TELEPHONE BOX
⊙	SIGN/SIGN POST
⊙	DECIDUOUS TREE
⊙	CONIFEROUS TREE

DATE OF FIELD WORK--5-03-19



DGR ENGINEERING
Rock Rapids, Iowa 712-472-2531
Sioux City, Iowa
Ankeny, Iowa
Sioux Falls, South Dakota

Date 8-01-19
Drawn By ANW
Approved ANW
Revised

PROJECT NO. 418533

DWG. # P:0418533/418533/CIVIL/DWG418533/ALTA.DWG

NEWS RELEASE

FOR IMMEDIATE RELEASE

FEBRUARY 16, 2023

Western Minnesota Municipal Power Agency signs contract for construction of Marshall Solar Plus

SIOUX FALLS, S.D. – The Western Minnesota Municipal Power Agency’s (WMMPA) Board of Directors, following a recommendation by the Missouri River Energy Services (MRES) Board of Directors, has approved a Build-Own-Transfer Agreement with US Solar for the development and construction of the Marshall Solar Plus project in Marshall, Minnesota.

The solar project will have a rated capacity of 10 megawatts (MW) and is expected to produce about 22,470 megawatt-hours of electricity annually, or enough to serve over 2,000 homes. Marshall Solar Plus will include over 26,000 solar panels on 57 acres of land owned by WMMPA along North 7th Street near the Archer Daniels Midland Company and the 7th Street Substation owned by Marshall Municipal Utilities (MMU).

“Solar power is a carbon-free, renewable resource that will be an important part of our evolving power supply mix as we work to create and maintain a clean and resilient energy future,” said Terry Wolf, vice president of power supply and operations for MRES. “The Marshall site was chosen, in part, for its close proximity to the 7th Street substation, where the project will interconnect to the MMU distribution system.”

Solar power on its own is not dispatchable, meaning it can’t be turned on or off to meet customer demand like other more traditional resources. That’s why WMMPA will also install a 5 MW battery energy storage system. WMMPA intends to have controls on the battery system to allow energy to be stored or injected into the grid based on conditions at the time. “The batteries will add reliability to the project, moving electrical production into the times of the day when it is needed the most,” said Wolf.

Site grading work has already begun and will be completed prior to construction of the project. Residents can expect to see major equipment onsite in August 2023 and support structures and solar panels being installed by November 2023. Substantial completion of the project is expected in August 2024.

US Solar will obtain state and local permits for the project, as well as provide engineering and detailed project design. WMMPA expects to submit an application to MMU in the near future with the intent to finalize an interconnection agreement.

“MMU’s power supply mix is already 30% renewable and 76% carbon-free,” said MMU General Manager Dave Schelkoph. “The Marshall Solar Plus project will be another clean energy resource for MMU and the other MRES member utilities.”

WMMPA will provide financing for the project. WMMPA is a joint-action agency made up of MRES members in Minnesota. It has provided financing for all of the major generation and transmission facilities with which MRES serves its 61 member municipal electric systems in Iowa, Minnesota, North Dakota and South Dakota.

MRES has a power supply agreement with WMMPA obligating MRES to pay for and WMMPA to supply the entire output of WMMPA-owned facilities. MRES, in turn, has long-term power sales agreements with its members to supply them with wholesale power, energy and transmission needed by the member utilities to serve their customers.

MMU is a community-owned, not-for-profit municipal utility serving the residents and businesses of Marshall, Minnesota. MMU provides electricity and water service to over 6,500 customers, along with a variety of energy services.

US Solar is a developer, owner, operator and financier of solar generation and storage projects with a focus on emerging markets and community solar programs.

About US Solar

United States Solar Corporation ("US Solar") makes solar energy accessible with simple solutions that are as good for the wallet as for the environment. US Solar is a developer, owner, operator and financier of solar generation and energy storage projects with a focus on emerging state markets and community solar programs. US Solar helps residents, public entities and businesses reduce electricity costs with local, renewable energy. Additional information about US Solar and a Solar Garden Sunsubscription can be found by visiting www.us-solar.com.

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