We Energies
231 W. Michigan St.
Milwaukee, WI 53203
www.we-energies.com

Town of Lyndon

Solar Project Narrative

PROJECT SUMMARY

The Energy for Tomorrow Program is a state approved voluntary renewable energy program that enables We Energies electric customers to not only increase their use of renewable energy from sources such as wind and solar, but also to reduce greenhouse gas emissions produced by fossil fuels. Energy for Tomorrow is Green-e certified and meets the environmental and consumer protection standards set forth by the nonprofit Center for Resource Solutions.

We-Energies will own, operate and maintain the solar PV array renewable energy output through the Energy for Tomorrow program to help support their environmental goals. For this specific project, We Energies will lease a portion of the property for 25 years with an additional five-year extension option. We-Energies will be responsible for all maintenance and repairs to the array, including vegetation management within the safety fence, and assets used for distribution interconnection. SunVest Solar LLC will design and construct the PV array, using several of their subcontractors for various aspects of construction.

PROPERTY PARCEL IDENTIFICATION NUMBERS

59010126740

590919126710

PROPERTY OWNER

Deborah Zimmerman and Susan Plate

N6018 Higjway 32

Sheboygan Falls, WO 53085

SURROUNDING PARCEL LAND USES

North - Agricultural

South - Agricultural

East - Agricultural

West – Railroad and Agricultural

PROJECT FEATURES

Site improvements will consist of photovoltaic solar panels installed on single axis tracking racking systems. The total system size is 5 MW of AC capacity. The estimated annual production is approximately 1,742 MWh/yr, equivalent to offsetting the carbon emissions of over 1200 metric tonnes of CO2, taking 260 cars off the roads or planting 20,000 trees annually. During the 30 year life of the system that number grows to well over 33,000 metric tonnes of CO2 removed, 7200 cars, and 560,000 trees planted. The racking system is comprised of galvanized steel beams, pile driven 10' 6" into the ground. No concrete is anticipated to be used for the support system. The single axis tracking racking will move East to West with the sun on a daily schedule. The overall height of the system will be 11' at its tallest point, with a 3' ground clearance to the bottom edge of the module (See Fig 1 for a cross-section).

All electrical cables will be buried throughout the project area. The installer will be NABCEP Certified. Foundations will be certified by a qualified engineer and the access route to the solar project will have a Pavement Surface Evaluation and Rating prior to the issuance of a Building Permit. In addition, the solar project will comply with all applicable local, state, and federal regulatory codes including the State of Wisconsin electrical and plumbing codes and the National Electrical Code.

SOUND

The project inverters, substation, motors and other noise emitting equipment collectively will not exceed the Public Service Commissions mandated maximum nighttime sound levels.

SITE ACCESS

Access to the site will be from an 18' wide entrance located on the north side of the property onto Clearview Road. Off-street parking will be provided for vehicles inside of the project area.

DECOMMISSIONING PLAN

A Decommissioning Plan has been submitted with this application that outlines the method of solar removal and financial security.

IMPACT TO ADJACENT EXISTING AND FUTURE LAND USES

The solar facility is specifically designed to minimize impact to the land while complying with all required setbacks, height restrictions, and zoning ordinances for the Town of Lyndon and Sheboygan County. The solar array will have minimal to no impact on adjacent land use. This site was chosen to minimize land use that has little development potential.

STORM WATER RUNOFF MANAGEMENT

Storm water management will be handled on-site and will comply with all requirements set forth in local, County and State regulations. Approved DNR storm water NOI study has been submitted and the design will address all requirements as necessary. Temporary erosion control measures will be in place during construction. Silt fencing and sediment logs for this project are detailed on the attached erosion

control plan that is part of the construction drawing set. The final planting of a native grass community is a best practice and will help effectively manage the stormwater runoff. Native grasses have deep root systems that disperse the water so there is very little to no concentrated run-off.

VEGETATION MAINTENANCE

After the construction of the solar array, We-Energies will be responsible for restoring the land affected by construction. Once the native meadow / prairie vegetation is established, maintenance of the plantings will occur bi-annually and will consist of mowing and spot treating invasive weeds. The entire site will be covered with diverse, pollinator friendly, native vegetation specifically designed for this project. The vegetation will require minimal maintenance once established; creating a habitat beneficial to bees, other insects, birds and other animal species (Fig 2 & 3).

Additional seeding will be done on an "as needed" basis to help maintain optimal vegetative cover. After the end of the term, We-Energies will decommission the array and restore the land to its previous condition as required in the Lease agreement.

IMPACT TO THE GENERAL PUBLIC'S HEALTH, SAFETY AND WELFARE

Solar facilities generally have little to no impact on surrounding properties health and safety and do not impede the welfare of the surrounding area. They are quiet, dust free, smoke and odor free. Solar modules are designed to minimize glint and glare by absorbing light to produce electrical energy while not reflecting it. The entire site will be secured by a fence that will control access to the facility and keep the general public safe. The top glass on the modules has an anti-glare coating. The electrical inverter equipment used on-site is FCC part 15 Class A certified, providing assurance that there will be no interference with radio, TV, internet, or telecommunications. All electrical equipment and construction follow the NEC2017 code requirements, the racking is designed to withstand 105 mile per hour winds and includes safety features to shut down the facility in event of a system fault. Lastly, Sunvest will also work with the local emergency responders that serve the area for training on system components, and additional training materials for how to safely address concerns on a solar site. We Energies has a positive track record with SunVest installing solar arrays throughout Wisconsin. Together we have installed over 23 arrays and have another three projects under construction. We have experienced no health and safety issues with the public.

FACILITY SECURITY

The facility will be surrounded by a security fence with a locked gate to prevent access from unauthorized persons. All major electrical equipment will be individually locked and warning signage is on-site to identify specific dangers.

LIGHTING AND BUILDINGS

No lighting or buildings are planned at this facility.

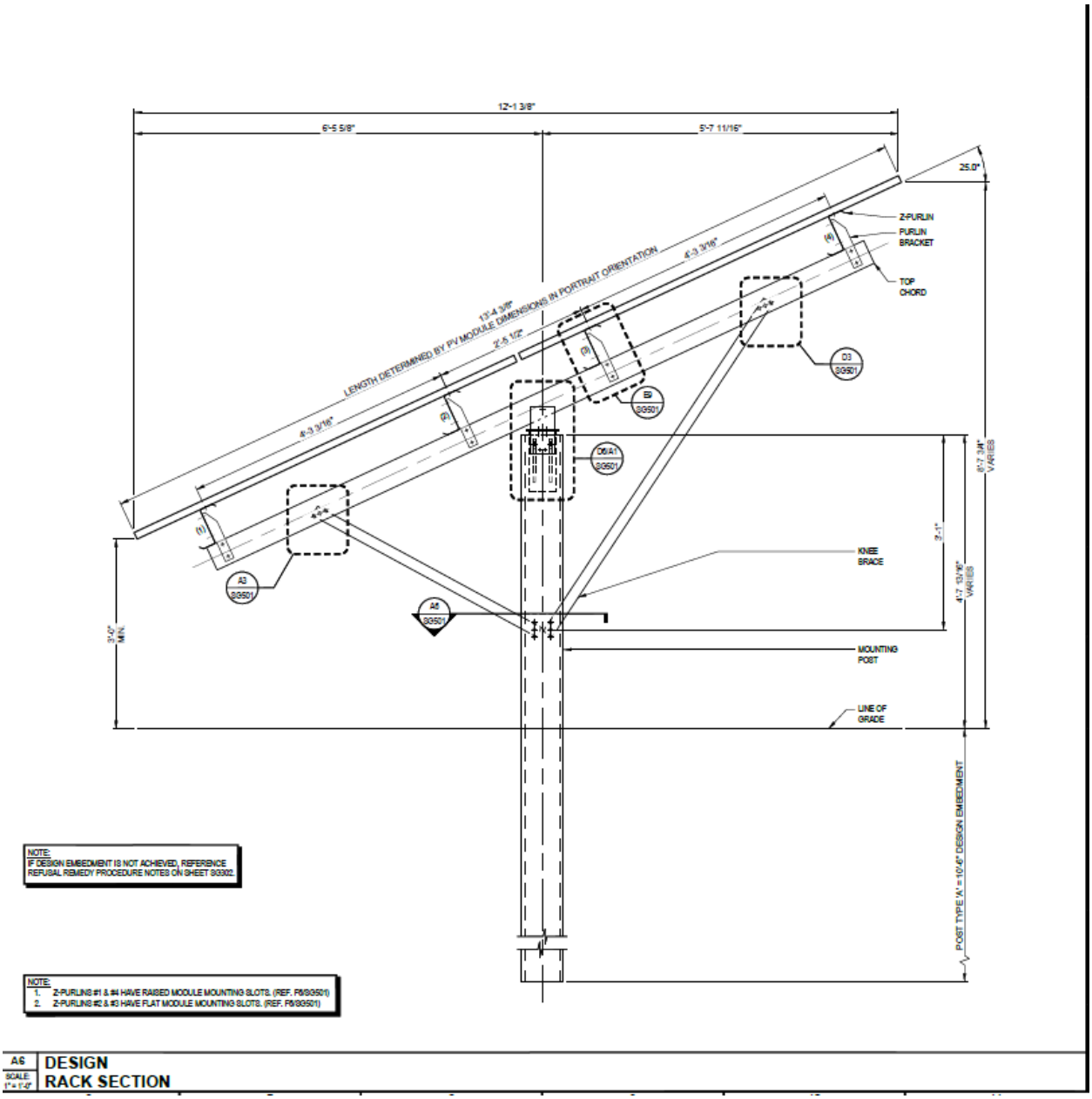

Figure 1 – Snip from the racking construction drawings showing a cross-section of the racking, above and below grade.

Figure 2 - Example of a solar array with an establishing pollinator habitat

Figure 3 – Photo of a fixed mounted solar project with established native vegetation

CONSTRUCTION ACTIVITIES

It is anticipated that 15 to 20 full time employees will be on site in the early stages of construction. This will taper off to a team of approximately 10 members toward the end of the construction activities. Typically, there will be a vehicle for each worker, approximately three (3) utility vehicles (UTV's) for

transferring equipment around the site, and forklifts needed to perform different construction tasks. Vehicles will be parked on the site access road that will be built to connect to the array. Hours of operation may take place 6am to 7pm Monday through Saturday and 10:00 am to 7:00pm on Sunday, but will not take place on state legal holidays. The total construction will take approximately 12-16 weeks. The first two (2) weeks will consist of pile driving with the balance of the construction timeline used for erecting the racking, panels and electrical equipment. Dust will be mitigated through the use of a water truck as needed.

Example array construction showing pile being driven (left) and racking before module install (right)

OPERATIONS & MAINTENANCE

The site will be monitored remotely with 24/7 alerts via a SCADA system and wireless phone connection. Annual preventative maintenance will take place each spring to ensure the facility is operating at its full capabilities and to proactively identify issues before they arise. Landscaping will be performed on an as needed basis to keep the low growth vegetation in check. This will be limited to a crew of 1-2 electrical personnel in a passenger vehicle performing annual maintenance checks and replacing equipment as needed.