

Application for Conditional Use Permit
Western Mustang Solar, LLC
Pierce County, WI



December 6, 2019

Table of Contents

1.0	NAME AND CONTACT INFORMATION OF THE APPLICANT, OWNER AND INSTALLER	1.4
2.0	LEGAL DESCRIPTION AND ADDRESS OF THE SITE	2.5
2.1	PROJECT AREA.....	2.5
2.2	PARTICIPATING PARCELS	2.6
3.0	DESCRIPTION OF THE SCOPE OF WORK.....	3.7
3.1	COUNTY ORDINANCE STANDARDS	3.8
3.2	DESCRIPTION OF PRELIMINARY SOLAR DESIGN	3.9
3.3	PROJECT SITING	3.9
3.4	EXPECTED PROJECT LIFESPAN.....	3.12
3.5	SUMMARY OF DECOMMISSIONING PLAN.....	3.12
3.6	REGULATORY PERMITS AND APPROVALS	3.13
4.0	SOLAR SYSTEM SPECIFICATIONS	4.13
4.1	TECHNICAL CHARACTERISTICS OF PANELS.....	4.13
4.2	TECHNICAL CHARACTERISTICS OF PANEL SUPPORTS	4.13
4.3	TECHNICAL CHARACTERISTICS OF INVERTERS	4.14
4.4	TECHNICAL CHARACTERISTICS OF COLLECTOR CIRCUITS	4.14
4.5	CONSTRUCTION OF PROJECT	4.15
4.5.1	Types of Construction Equipment / Delivery Vehicles.....	4.15
4.5.2	Gross Weight of Vehicles	4.16
4.5.3	Probable routes for Delivery of Equipment / Heavy and Oversized Equipment	4.16
4.5.4	Roads most likely to be affected by construction and materials delivery	4.16
4.5.5	Duration of typical traffic disturbance / time of day	4.17
4.5.6	Laydown areas	4.18
4.5.7	Internal Access Roads.....	4.18
4.5.8	Project Fencing.....	4.18
4.5.9	Construction Site Lighting.....	4.19
4.6	PRELIMINARY CONSTRUCTION SEQUENCE.....	4.19
4.7	OPERATION AND MAINTENANCE	4.20
5.0	SITE LAYOUT	5.20
6.0	INSTALLERS QUALIFICATIONS	6.21
7.0	UTILITY NOTIFICATION	7.21
8.0	ALL ADDITIONAL INFORMATION REQUIRED FOR A LAND USE PERMIT.....	8.22
9.0	ADDITIONAL APPLICATION REQUIREMENTS FOR A LARGE SES.....	9.22
9.1	SURROUNDING PROPERTY USES	9.22
9.2	PERCENTAGE OF LAND COVERAGE BY THE SES.	9.22
9.3	EFFECTS OF THE PROPOSED PROJECT ON COUNTY / TOWNSHIP BUDGETS AND BENEFITS TO THE COMMUNITY	9.22
9.4	CONSISTENCY WITH LOCAL COMPREHENSIVE PLANS AND COMMUNITY ENGAGEMENT.....	9.23

**Western Mustang Solar, LLC
Conditional Use Permit Application**

December 6, 2019

9.5	PROJECT CONSISTENCY WITH TOWN OF GILMAN COMPREHENSIVE PLAN.....	9.24
9.5.1	Utilities and Community Facilities:.....	9.24
9.5.2	Land Use	9.25
9.5.3	Economic Development.....	9.26
9.6	PROJECT CONSISTENCY WITH PIERCE COUNTY COMPREHENSIVE PLAN.....	9.26
9.6.1	Agricultural Resources	9.26
9.6.2	Natural Resources.....	9.27
9.6.3	Economic Development.....	9.28
9.6.4	Countywide Policies -- Use of Renewable Energy Systems	9.28
9.7	COMMUNITY ENGAGEMENT SUMMARY	9.28
9.8	WETLAND AND WATERWAY STUDIES	9.29
9.9	CULTURAL RESOURCES	9.30
9.10	ENDANGERED SPECIES	9.30
9.11	EROSION CONTROL AND STORM WATER MANAGEMENT PLAN	9.31
9.12	SUMMARY OF GLARE / GLINT STUDY	9.31
9.13	SUMMARY OF SOUND STUDY.....	9.31
9.14	ESTIMATE OF MAGNETIC PROFILE CREATED BY COLLECTOR CIRCUITS.....	9.31

LIST OF TABLES

TABLE 2.1-1	PROJECT LOCATION	2.5
TABLE 2.2-1	PARTICIPATING PARCELS	2.6
TABLE 5.0-1	SETBACKS	5.21
TABLE 9.3-1	ESTIMATE OF REVENUE	9.22

LIST OF APPENDICES

APPENDIX A	FIGURES
APPENDIX B	ENGINEERED SCHEMATICS
APPENDIX C	WETLAND / WATERWAY DELINEATION REPORT
APPENDIX D	CULTURAL RESOURCE REVIEW LETTER
APPENDIX E	GLARE / GLINT STUDY
APPENDIX F	PRE-CONSTRUCTION SOUND REPORT
APPENDIX G	PRELIMINARY GEOTECHNICAL REPORT
APPENDIX H	VEGETATION MANAGEMENT PLAN
APPENDIX I	DECOMMISSIONING PLAN
APPENDIX J	ELECTRO / MAGNETIC FREQUENCY STUDY
APPENDIX K	VISUAL SIMULATIONS

**Western Mustang Solar, LLC
Conditional Use Permit Application**

December 6, 2019

Abbreviations

AC	Alternating Current
CTH	County Trunk Highway
DC	Direct current
ER	Endangered Resources
HDD	Horizontal Directional Drilling
MW	Megawatts
NABCEP	North American Board of Certified Energy Practitioners
NHI	Natural Heritage Inventory
NSA	Nearest sound sensitive area
Project	Western Mustang Solar, LLC Project
PSC	Public Service Commission (of Wisconsin)
ROW	Right-of-Ways
SES	Solar Energy System
STH	State Trunk Highway
USH	U.S. Highway
WRAPP	Water Resource Application for Project Permits
Western Mustang	Western Mustang Solar, LLC
WisDOT	Wisconsin Department of Transportation

December 6, 2019

1.0 NAME AND CONTACT INFORMATION OF THE APPLICANT, OWNER AND INSTALLER

This Section 1.0 addresses Pierce County Zoning Code § 240-41 D (3)(d)[1]

Applicant and Owner:

Name: Western Mustang Solar, LLC
Address: 20 Jay Street, Suite 900
Brooklyn, New York, 11201
Phone: (917) 608-3569
Representative: Rosanne Koneval, Director - Development
Email: rosanne@rangerpower.com

Installer

An installer has not yet been selected at this time but will be selected during the final design stages of the project.

Agent:

Name: Stantec Consulting Services Inc.
Address: 209 Commerce Parkway
Cottage Grove, Wisconsin 53527
Phone: 608-830-2013
Representative: Brian Karczewski, Senior Associate
Email: brian.karczewski@stantec.com

The applicant is Western Mustang Solar, LLC, which will own and operate the Project. Western Mustang Solar, LLC, is a Delaware limited liability company.

Ranger Power LLC develops the project on behalf of Western Mustang Solar, LLC. Ranger Power is a utility-scale solar development company focused on bringing cost-effective clean renewable energy projects and jobs to the Midwest region. Ranger Power's team of experienced developers and renewable energy specialists have successfully developed early-, mid-, and late-stage solar projects throughout the country. Collectively, the Ranger Power team has worked on over 3,500 MW of renewable energy projects and currently has approximately 3 GW under development.

December 6, 2019

2.0 LEGAL DESCRIPTION AND ADDRESS OF THE SITE

This Section 2.0 addresses Pierce County Zoning Code § 240-41 D (3)(d)[2]

2.1 PROJECT AREA

The proposed Project is located in the Town of Gilman in Pierce County, Wisconsin. Table 2.1-1 further describes the location of the Project Area.

TABLE 2.1-1 PROJECT LOCATION

County	Town	Township (North)	Range (West)	Sections
Pierce	Gilman	27	16	3, 4, 5, 8, 9, and 10

The Project boundary is 1,055 acres in size before consideration of siting restrictions, with the project footprint being approximately 478.66 acres. The Project footprint constitutes approximately 45 percent of the total Project Boundary. These figures are based on currently available technology and the precise project footprint number will only be known when the final design is produced. The final design will be comparable to the acreage listed here and significantly less than the 1,055 leased acres. Figure 1 provided in Appendix A depicts the general Project location within the state, Figure 2 shows the total Project area with an aerial photography base map. Figure 3 is a site layout of the proposed Project facilities.

The Project boundary was designed taking into consideration the following:

- Location of Project facilities (panels, access roads, substation)
- Location of land under contract
- Public roads utilized for construction and maintenance
- Current setbacks per County and Township zoning (Refer to Section 5.0 for a listing of setbacks incorporated into the preliminary design)
- Approximate zone of shadow/sound impact of panels

The Project is situated on multiple parcels of land with seventeen property owners. Western Mustang possesses signed landowner agreements for the parcels currently proposed to host panels, access roads, substation, laydown yard, transformers, junction boxes and the collection system. The Project will require permits from town, county and state departments of transportation to allow partial placement of the collection system in public road rights-of-way ("ROW").

December 6, 2019

2.2 PARTICIPATING PARCELS

Table 2.2.1 provides a list of participating parcels for the Project.

TABLE 2.2-1 PARTICIPATING PARCELS

Owner	Landowner	Parcel ID
Behrens	Scott C. & Valerie J. Behrens	010-01010-0800
Behrens	Scott C. & Valerie J. Behrens	010-01025-0500
Behrens	Scott C. & Valerie J. Behrens	010-01025-0200
Behrens	Scott C. & Valerie J. Behrens	010-010-250-410
Solberg	Norman S. Solberg	010-01012-0610
Lenarz	John & Sonya Gambrel-Lenarz	010-01012-0500
MarShan Farms, LLC	Mary I. & Shane Lucking	0100-1009-1000
MarShan Farms, LLC	Mary I. & Shane Lucking	0100-1010-0100
MarShan Farms, LLC	Mary I. & Shane Lucking	0100-1010-0120
Verges	Phillip G. & Judith A. Verges	0100-1012-0200
Verges	Phillip G. & Judith A. Verges	010-01012-0100
Nord Family Trust	Jeanette M. Leonard	010-01009-0600
Mattison	Jerry E. and Dianne J. Mattison	010-01023-0100
Mattison	Jerry E. and Dianne J. Mattison	010-01022-0900
Mattison	Jerry E. and Dianne J. Mattison	010-01022-0700
Yang	Mai Yang	010-01024-0100
Yang	Mai Yang	010-01024-0200
Mason	James L. and Sandra K. Mason	010-01026-0310
Mason	James L. and Sandra K. Mason	010-01025-1000
Mason	James L. and Sandra K. Mason	010-01026-0100
Dangeur	Nicholas J. & Sonja K. Thompson	010-01024-0700
Dangeur	Nicholas J. & Sonja K. Thompson	010-01024-1000
Dangeur	Nicholas J. & Sonja K. Thompson	010-01025-0100
Rush River	Nils A. and Jennifer E. Rahm	010-01013-0500
Rush River	Nils A. and Jennifer E. Rahm	010-01013-0900
Rush River	Nils A. and Jennifer E. Rahm	010-01013-0700
Rush River	Nils A. and Jennifer E. Rahm	010-01013-0200
Turner	Bradley D. & Patricia Turner	010-01014-0900
Turner	Bradley D. & Patricia Turner, Eric S. & Linda Turner	010-01014-0600
Turner	Bradley D. & Patricia Turner, Eric S. & Linda Turner	010-01014-0300
Turner	Bradley D. & Patricia Turner, Eric S. & Linda Turner	010-01014-0500

December 6, 2019

Owner	Landowner	Parcel ID
Turner	Bradley D. & Patricia Turner, Eric S. & Linda Turner	010-01019-0900
Wayne & Anita Spence Family Trust	Mark Spence	010-01024-0400
Spence	Russell M. Spence, Jr.	010-01024-0300

3.0 DESCRIPTION OF THE SCOPE OF WORK

This Section 3.0 addresses Pierce County Zoning Code § 240-41 D (3)(d)[3]

Western Mustang is proposing to construct, install, operate and maintain a 74-megawatt (MW) alternating current (AC) solar energy generating facility known as the Western Mustang Solar, LLC Project ("Project") to be located within the Town of Gilman, Pierce County, Wisconsin. The Project will consist of an east-west tracking solar panel system and associated facilities, with a generating capacity of approximately 74 MW AC. The Project will be a large solar energy system (SES) which directly converts and then transfers solar energy into usable forms of electrical energy intended for offsite consumption.

The power generated by the Project will be transmitted by a 34.5 kV collection system to a substation which will be developed as part of the Project. A pad-mounted step-up transformer within the Project substation will increase the voltage to match the nearby 161 kV transmission line which will then transmit the power to another substation / switching yard adjacent to the Project substation that will be developed, owned and operated by Dairyland Power Cooperative. Additional Project facilities to be constructed within the Project footprint include access roads to facilitate the erection and maintenance of the solar arrays and panels, temporary parking and an equipment laydown yard to be used during construction, and a fence surrounding the perimeter of the Project.

The Project will create significant environmental, social, and economic benefits, including new local jobs during construction, new local long-term jobs, utility aid payments, annual pollution reductions, and substantial contributions towards meeting Wisconsin's renewable energy goals.

The Project is seeking a recommendation from Gilman Township and approval from Pierce County for a conditional use permit to be valid throughout the useful life of the Project in accordance with the Pierce County ordinance.

The figures and information contained in this application are estimates based on desktop and field analyses performed to date. They are subject to change based on final siting of the solar arrays and associated facilities, and the ultimate procurement of Project equipment.

December 6, 2019

3.1 COUNTY ORDINANCE STANDARDS

Pierce County has established Zoning Code § 240-41 D (3)(b) [1-8] which lists eight standard requirements for large SES.

These standards include the following:

1. Setbacks. Any portion of the SES shall not encroach within 10 feet of any property line or road right-of-way.

Western Mustang confirms that no portion of the SES proposed shall encroach within 10 feet of any property line or road right-of-way. The final design of the project will maintain these setbacks. Reference Section 5 for a listing of setbacks incorporated into the preliminary design.

2. Height Restrictions. A SES shall not exceed 35 feet in height.

Western Mustang confirms that no portion of the proposed SES shall exceed 35 feet in height. Please reference Section 4.0 for technical characteristics of the SES.

3. Glare. The SES shall be positioned so that the glare does not create any unsafe conditions.

The proposed design for Western Mustang will not create unsafe conditions from glare. Glare is not predicted for any airports, drivers of vehicles on roads adjacent to the project, or for any sensitive receptor observation points such as homes that were evaluated for the analysis at any time of the day or any time of the year. See Section 9.12 for discussion regarding the glare analysis performed for the Project.

4. Installer. All SES shall be installed by a North American Board of Certified Energy Practitioners (NABCEP) Certified Solar Installer or other person qualified to perform such work.

An installer has not yet been selected at this time. Western Mustang will select an NABCEP Certified Solar Installer or other person/firm qualified to perform the work. See Section 6.0 for discussion regarding Installer certification and qualifications.

5. Code Compliance. A SES shall comply with all applicable State of Wisconsin electrical codes and the National Electrical Code. A SES that will connect to a commercial structure or multi-unit dwelling shall comply with the State of Wisconsin Commercial Building Code, when necessary; other applicable SES shall comply with the Uniform Dwelling Code.

Western Mustang will comply with all national electrical codes and State of Wisconsin electrical Commercial Building, and Uniform Dwelling Codes. See Section 4.0 for discussion regarding technical characteristics of the SES.

December 6, 2019

6. **Utility Notification.** A small SES that intends to connect to the electric utility shall not be permitted until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. A copy of the final agreement shall be submitted to the Zoning Office.

Western Mustang is in the MISO Interconnection Queue J801 and in the DPP-2017-August West Cluster. Western Mustang shall provide the Zoning Office with the final Generator Interconnection Agreement when available.

7. **Structural Integrity.** The structure upon which the proposed SES is to be mounted shall have the structural integrity to carry the weight and wind loads of the SES.

Western Mustang confirms that the structure upon which the proposed SES is to be mounted shall have the structural integrity to carry the weight and wind loads of the SES. See Section 4.2 for discussion regarding technical characteristics of the panel supports.

8. **Orderly Development.** Upon issuance of a Conditional Use Permit, all Large SES shall notify the Public Service Commission of Wisconsin.

Western Mustang confirms that the Wisconsin Public Service Commission will be notified upon issuance of a Conditional Use Permit from Pierce County.

3.2 DESCRIPTION OF PRELIMINARY SOLAR DESIGN

The full Project nameplate capacity of 74 MW AC can be achieved with the single axis tracking systems proposed for the Project. At the time of construction several PV module offerings from different suppliers will be evaluated and a selection will be made based on the most cost-effective option. The technologies that may be considered are polycrystalline, monocrystalline and bi-facial PV modules, and the final supply of modules may contain a mix of several similar wattages. PV modules produced by a wide range of manufacturers are under consideration for the Project, including Canadian Solar, Hanwha Qcells, JA Solar, Jinko, Longi, Risen, SunPower, and Trina. The models selected will comply with all county ordinance requirements.

Major components of the Project include solar modules, racking, tracking system, inverters, transformers and a Project substation. Detailed description of each of these components is provided in Section 4.0. The Project area includes approximately twenty panel array areas that are separately fenced with the panels comprising a total area of 478.66 acres.

3.3 PROJECT SITING

Western Mustang identified Wisconsin as a promising potential market for solar farms in 2017, due to the low number of such facilities in the state at that time and the need for new, clean electricity generation. One of the most significant factors enabling solar development in this region has been the dramatic decline in the cost of large solar systems, due to a combination of improving technology, equipment and installation methods.

December 6, 2019

Wisconsin has an aging fleet of fossil-fuel power plants, many of which are scheduled to come offline over the next several years according to announcements by large utilities. Solar is one of the lowest cost forms of new energy generation for the region, with low operating costs and no fuel costs.

Western Mustang initiated a preliminary site review to identify potential locations for development of a solar facility based on the following siting criteria:

Phase I

The first phase of assessment eliminates areas of poor resource or other siting flaws as described below.

- Transmission and Injection Capacity – nearby electric transmission infrastructure is necessary to connect a project to the power grid. A project substation and additional transmission lines are often necessary, however the cost required to connect a project to the grid increases with the distance over which project-specific transmission must be built.
- With respect to the grid analysis, Western Mustang looks for injection points where the existing electrical infrastructure is robust. This way, Western Mustang minimizes the interconnection facility costs and network upgrades frequently attributed to new generating facilities. In addition, Western Mustang prioritizes projects where land is available adjacent to the point of interconnection, to minimize the length of high voltage transmission generation tie lines and the number of structures that support them. At Western Mustang Solar, the projected cost to interconnect the project to the transmission system is expected to be less than \$5M. The project will not require any additional upgrades to the transmission system to inject its power. The project substation will be located adjacent to an existing 161kV transmission line, minimizing the need for additional high voltage infrastructure.

Phase II

The second phase of assessment is a more focused evaluation of land availability in the areas identified as feasible in Phase I.

- Land use – large tracts of open land must be available to support the responsible siting of solar panels. Undeveloped, vacant land is ideally suited for solar farms. The Project area consists primarily of open land with gently rolling topography, thus providing suitable conditions for siting a solar facility. Wooded areas are present within the Project area and have been avoided to the extent practicable.
- Community – Western Mustang values working with communities that welcome solar projects and responsible economic development opportunities. Western Mustang places great importance on community-supported projects. In order to be a good neighbor, it is important that the project start on the right foot by being transparent and being in

December 6, 2019

constant communication with the public. The Western Mustang team engages local landowners, neighboring landowners, municipal leaders, and state legislators early on in its development process. Gilman Township and Pierce County expressed positive feedback after the Project was announced.

- Potential host landowners – Prospective landowners are visited to gauge interest in hosting project facilities. Prospective landowners in Gilman Township expressed interest and support of the Project.
- Environmental concerns – A site suitability tool was run to screen for environmental factors including, but not limited to, wetlands, waterways, trees, critical habitat, endangered species and animals, and hydric soils. The Project areas selected showed few environmental factors, and, those factors identified can be avoided by placement of the solar PV array.
 - Cultural and Historic Resources - Archaeological, cultural, and historical resources were considered during the site selection and Project design. The areas selected will not impact known archaeological, cultural, or historical resources.
 - Constructability – Topography (elevation and slope), as well as soils and subsurface geology are reviewed at a desktop level. Detailed field analyses are performed later in the development process.
 - Road infrastructure – Highways and roads within the proposed project area are reviewed for compatibility with large construction vehicles and delivery trucks. Main highways feeding into the area from major ports or rails are also considered for delivery of panels and other components.
 - With respect to suitability of available land, solar farms are best sited on tracts that are relatively flat or with a slight southern incline. The use of cleared land minimizes impacts from shading and the need to remove trees. It also significantly reduces the likelihood that sensitive flora or fauna inhabit the area. As stated above, the Project area consists primarily of open land with gently rolling topography. Some wooded areas are present within the Project area and have been avoided to the extent practicable.
 - With respect to receptiveness of the community, Western Mustang places great importance on community-supported projects. In order to be a good neighbor, it is important that the project start on the right foot by being transparent and being in constant communication with the public. The Western Mustang team engages local landowners, neighboring landowners, municipal leaders, and state legislators early on in its development process. Prospective landowners expressed interest and support of the Project. Gilman Township and Pierce County expressed positive feedback after the Project was announced.

December 6, 2019

The Town of Gilman and Pierce County both operate under a Comprehensive Plan and Pierce County administers an ordinance regulating Large SES. Section 3.1 provides a description of the Projects conformance with Pierce County Large SES ordinances and Section 9.4 provides discussion regarding the Project's consistency with local comprehensive plans.

The Project Area proposed within this application was evaluated based on topography, environmental concerns, land rights, willing landowner participation, and proximity to the point of interconnection to the existing Dairyland Power Cooperative 161kV transmission line that bisects the area.

3.4 EXPECTED PROJECT LIFESPAN

The expected useful life of the Project is approximately 30-40 years. All lease agreements have been negotiated to allow for that term of operation. Western Mustang understands that the value of a solar farm lies in its operation and anticipates a premium level of operation and maintenance service throughout its life. Based upon the needs of the marketplace, the community, the landowners, and Western Mustang, it is anticipated there will be an opportunity to extend the Project life beyond 40 years. The lease agreements would allow for a maximum operating period of 40 years; an extension beyond 40 years would require approval from landowners in the form of new land agreements as well as local approval.

3.5 SUMMARY OF DECOMMISSIONING PLAN

The expected lifetime of a utility-scale solar panel is approximately 30-40 years with an opportunity for a longer project lifetime with equipment replacement and repowering. Depending on market conditions and Project viability, the solar arrays may be retrofitted with updated components (e.g., panels, frame, tracking system, etc.) to extend the life of the project.

At the end of the Project's useful life, the Project would cease operation. At that time, the facilities would be decommissioned and dismantled, and the site restored to its preconstruction condition. Farmland could be used again for agricultural purposes with no anticipated long-term loss of soil productivity. Components of the solar facility that have resale value may be sold in the wholesale market. Components with no resale value will be salvaged and sold as scrap for recycling or disposed of at an approved offsite licensed solid waste disposal facility (landfill). The detailed decommissioning plan developed for the Project is included in Appendix I.

Western Mustang will be responsible for decommissioning the Project and associated facilities and has included an obligation to decommission the Project components in the Project's solar lease and easement agreements with participating landowners. Western Mustang will post decommissioning security 15 years into the operation of the facility to cover the net estimated cost to decommission the Project.

December 6, 2019

3.6 REGULATORY PERMITS AND APPROVALS

The necessary federal, state, and local permits and approvals will be obtained before commencing construction activities. In addition, the PSC will be notified upon receipt of the Conditional Use Permit from Pierce County.

4.0 SOLAR SYSTEM SPECIFICATIONS

This Section 4.0 addresses Pierce County Zoning Code § 240-41 D (3)(d)[4]

4.1 TECHNICAL CHARACTERISTICS OF PANELS

Western Mustang is considering the Jinko Eagle HC 72M 365-385-watt modules or similar model for the Project. Each module assembly (with frame) typically has a total weight of approximately 50 pounds. Typical modules are approximately 78 inches by 39 inches in size and are mainly comprised of non-metallic materials such as silicon, mono- or poly-crystalline glass, composite film, plastic, and epoxies, with an anodized aluminum frame. Final panel selection cannot be made at this time due to the ever-changing nature of the technology. Panel selection will be made during final design. Western Mustang will commit to follow up with the County when a specific panel type is selected. Refer to Appendix B for specification sheets of example panel types that may be considered for the Project.

4.2 TECHNICAL CHARACTERISTICS OF PANEL SUPPORTS

In accordance with Pierce County Zoning Ordinance Chapter 240: Zoning § 240-41D (3)(b)[7] the structure upon which the proposed SES is to be mounted shall have the structural integrity to carry the weight and wind loads of the SES.

The solar panels will be mounted on a steel racking frame that is positioned three to seven feet from the finished ground with a +/- 60-degree range of motion (single axis tracking) driven by electric motors. The single axis tracking system is anticipated to be mounted on support posts driven or screwed into the ground with steel piles or helical piles. The horizontal tracker would be in its highest position during the morning and evening hours when the trackers are tilted at their maximum angle and would be a maximum of 10 to 12 feet above the ground surface. The bottom edge of the modules will be a minimum of one foot above grade at maximum tilt, and up to four feet above grade when tilted flat at mid-day.

In summary:

- Approximate height of tracker rotation shaft – 3 to 7 feet.
- Minimum tracker height (module edge to ground at maximum tilt) – 2 to 4 feet.
- Maximum tracker height (module edge to ground at maximum tilt) – 10 to 12 feet.

December 6, 2019

- Range of tracking angle - +/-60 degrees.

The variability in height is due to the panel configuration on the racking system. Some systems are designed with a single row of panels arranged in a portrait configuration relative to a viewer east or west of the row. The long axis of the panels would be perpendicular to the axis of the tracking system. The panels would be approximately four feet above grade when tilted flat at mid-day in this design. A racking system with a two-portrait design may also be selected. This system holds two panels in portrait configuration with an axis that is perpendicular to the tracker. The two-portrait configuration requires taller piles and results in a taller overall system, but also provides for wider aisles. Racking system design will be selected prior to construction.

In the case of extreme weather conditions, Western Mustang has reviewed the closest weather station's climate history, as verified by the Solar America Board for Codes and Standards. Potential tracking technologies will be assessed in the context of other project attributes, such as resource forecast and expected operating profile. The final selection could assume an operating scenario where equipment can operate in the most extreme heat and cold, or potentially pause tracking operation until these conditions pass.

The complete tracker system will be arranged into rows of individual trackers with an estimated length of 270 feet for three strings and 183 feet for two strings. Both three and two string trackers would be 6.7 feet in width when the panels are horizontal with gaps placed between sections or groups of sections to allow for maintenance personnel to access the whole site. The piles will run north to south along the row to support each section of the steel structure and will likely include an integrated cable management solution in order to support the insulated copper DC string cabling which interconnects each of the PV modules.

4.3 TECHNICAL CHARACTERISTICS OF INVERTERS

The Project facility will consist of solar panels producing DC voltage which must be changed to AC voltage through a series of inverters. The inverters will be spaced several hundred feet apart from each other. Approximately 39 inverters will be installed throughout the Project area (subject to final site design). A manufacturer brochure of an inverter which is used for the basis of the preliminary design included with this submission is provided in Appendix B. The inverters are typically part of a skid assembly with the inverter and the assembly being mounted on a driven pile foundation.

4.4 TECHNICAL CHARACTERISTICS OF COLLECTOR CIRCUITS

In accordance with Pierce County Zoning Ordinance Chapter 240: Zoning § 240-41D (3)(b)[4] the SES will be developed in compliance with all applicable State of Wisconsin electrical codes, the National Electrical Code, and State of Wisconsin Commercial Building Code.

The preliminary design assumes the conductor will be aluminum. Insulation: 35kV TRXLPE, 100% insulation, (1/6, 1/3 and 2/3 concentric neutral depending on wire size), PVC Jacket

December 6, 2019

overall. Cables are MV-105. Final specifications will be determined during the detailed engineering phase.

The collection system will either be buried at a depth of 36 inches to the top of the cables or will be enclosed within a conduit and buried at a depth of 24 inches. The trench for the cable will be one foot wide. Where multiple cables are installed parallel to each other, the cable separation will be two feet apart, therefore the width of the trench will vary depending on the number of circuits within the trench

Methods of Installation of the collection system within uplands may include vibratory plow, or direct trenching. Underground horizontal directional drilling (HDD) or direct trenching will be utilized in environmentally sensitive areas, such as wetlands and waterways. If direct trenching is used, the pre-existing surface contours will be reestablished once work is complete. In addition, there are several underground HDD drilling areas that will be used to cross roadways (under County Trunk Highway (CTH) BB, 410th St., and 850th Avenue).

4.5 CONSTRUCTION OF PROJECT

4.5.1 Types of Construction Equipment / Delivery Vehicles

Construction equipment will include the following: graders, bulldozers, excavators, forklifts, trailers, plows, trenchers, pile drivers and directional boring rigs. It is anticipated that most equipment will be initially delivered to the Project temporary laydown areas. Equipment will be transported from the laydown yard to the appropriate construction site, as needed.

Additional deliveries of construction materials and components will be made directly to the construction sites. The materials and delivery vehicles include the following:

- Culvert sections and road fabric (flatbed semis);
- Reinforced steel for foundation, anchor bolts and padmount transformers (flatbed semis);
- Ready-mixed concrete at the substation only (traditional ready-mix trucks);
- Large equipment and main substation main transformer (heavy/oversize load tractor trailers); and
- Fiber optic spools, electrical cable and electrical conductors (lowboy or flatbed semis).

Except for the main power transformer, vehicles used for delivery will be standard over-the-road semitrucks and flatbed trailers having standard turning radius and ground clearance.

4.5.2 Gross Weight of Vehicles

Vehicles used for transporting Project components will consist of legal load (80,000lb or less) over-the-road flatbed and box trucks, other than the oversize load delivery vehicle used for the main step-up transformer for the Project substation.

The site will receive an average of approximately five to seven box trucks (modules) a day throughout the module delivery period and five to seven flatbed trucks a day (inverters, piles, racking, misc.) during the pile driving period. The shipping weight of the main transformer will be approximately 317,550 lb and may be transported via rail to the nearest railyard or via barge to the nearest port and then using special multi-axle trucking as necessary to the site. If there becomes a need for a larger vehicle, Western Mustang's construction contractor will work with state and local authorities to obtain the applicable oversize-overweight permits.

4.5.3 Probable routes for Delivery of Equipment / Heavy and Oversized Equipment

The most suitable access to the Project site will be via I-94 to United States Highway (USH) 63 approximately 0.75-mile west of the site. The Project site may be accessed from USH 63 by State Trunk Highway (STH) 29 on the south boundary of the site, 890th Avenue on the north boundary or 850th Avenue which bisects the Project site. Roads traversing the site north to south include County Highway BB, 220th Street/Viking View Road, 330th Street and 410th Street. Access routes for vehicles arriving at the site that provide the most direct access and avoid cross traffic will be chosen. Furthermore, roads that consist of higher capacity, four-lane divided highway will be used as much as possible.

Final routes for equipment have not been chosen at this time although most loads will approach the Project area via STH 29 and 890th Avenue from the west, and County Highway BB from the south. Although some highways are listed as 'high-clearance' or 'oversize-over weight', these ratings do not remove the requirement for application for a permit for a load which exceeds the standard limits for size and weight. Additionally, the lack of a 'high-clearance' or 'oversize-over weight' rating does not preclude a highway from use for loads which exceed state limits. Finally, temporary restrictions are placed on many roads during Spring thaw and Winter Frozen Road Period. The WisDOT Oversize-Overweight Permit section will be contacted for additional information when specific loads and routes are known.

4.5.4 Roads most likely to be affected by construction and materials delivery

The area roads are primarily hot-mix asphalt pavement. The roads serve the general traveling public, area agriculture industry traffic, and local vehicle traffic. Each possible route considered for delivery and transportation of construction materials will be evaluated individually for potential mitigation requirements prior to construction. To determine the sub-surface load bearing capacities of local roads, past maintenance requirements are often an accurate indicator of future performance.

December 6, 2019

In general, except for entrance/exit locations, haul vehicles that have axle and wheel loads similar to standard highway vehicles should not have an adverse impact on bridges and structures that have been designed for modern highway loadings. This would apply to State and County Trunk Highways and other major roadways that have been designed for and routinely carry this type of traffic. Also, this would apply to minor roads with newer structures designed in accordance with current codes. Driveway locations may reveal localized roadway deficiencies due to the increased stresses of vehicle braking, turning, and accelerating. Minor roads with older and smaller structures would require investigation and evaluation of individual structures.

Vehicles used for transporting Project components will consist of legal load (80,000lb or less) over-the-road flatbed and box trucks except for the delivery of the main step-up transformer for the Project substation. Western Mustang's construction contractor will work with state and local authorities to obtain the applicable oversize-overweight permits.

Road damage during the construction phase of the Project is unlikely. Vehicles used for transporting Project components will consist primarily of legal load over-the-road flatbed and box trucks. Prior to commencement of construction, a survey of road conditions within routes used for the Project will be performed. If necessary, roads will be video-taped both before and after construction and assessed by an independent consultant acceptable to Western Mustang. If direct damage results from the Project traffic loads, it will be repaired and returned to conditions mutually agreed upon by the affected jurisdictions as determined by the pre-construction survey. Alternatively, Western Mustang and the affected jurisdictions may agree on a rate of compensation directly caused by and related to the Project traffic. Deliveries to Project sites will be compliant with statutory heavy-haul axle loading requirements.

4.5.5 Duration of typical traffic disturbance / time of day

Road use during construction for materials delivery will include USH 63, STH 29, CTH BB, 850th Avenue and 890th Avenue. Section 4.5.3 discusses how each road will be used during the construction phase.

The Project is in a rural area and thus general traffic congestion will be limited. During construction little to no interference with local traffic patterns is anticipated and closures of state, county or local town roads are not planned. Most of the work and transportation activities will occur during low volume and off-peak times. Signage will be posted during construction to notify local traffic of construction vehicles entering and exiting the roadway and presence of workers.

The first phase of construction will include delivery of earth-moving equipment. Delivery trucks will bring steel posts, racks and solar modules, followed by equipment and personnel to install them. This will be followed by installation of the electrical system which will be installed by trenching equipment as described in Section 4.4. Construction activities will be conducted primarily during daylight hours, during off-peak times Monday through Friday. Smaller vehicles for personnel arriving on-site may continue through later hours if needed to maintain the Project's construction schedule.

December 6, 2019

4.5.6 Laydown areas

As construction progresses, the solar panels and other equipment will generally be delivered directly to the installation locations in a standard over-the-road truck. Forklifts are used to unload pallets from the truck and place the pallets throughout the site. Some equipment will be delivered to the laydown area and then distributed as needed.

The laydown areas will be established throughout the Project sites with main laydown areas being close to site entrances and secondary laydown as required in areas local to the performance of the construction work. The specific location of the laydown areas within Project sites will be established during the detailed design and construction planning of the Project. These areas will be used to stockpile racking system components, PV modules, cable reels, and other components until they are needed. Larger components such as inverters, transformers and substation equipment will be delivered directly to the final installed location wherever possible.

4.5.7 Internal Access Roads

Internal site roads will be 16 feet wide during construction and operation of the facility. Construction matting may be used to a limited extent during construction in areas with soil strength limitations for construction vehicles that will be traversed a minimum number of times (i.e. one or two times). In these areas, the existing soil surface will remain intact, planted in perennial vegetation and maintained for operation and maintenance once construction is completed. Most internal access roads are anticipated to remain as the existing soil surface. Vegetation will be maintained on these roads throughout the life of the Project

If areas are identified as having soil strength limitations to support construction vehicles where vehicle traffic will be more frequent (i.e. site approaches), aggregate materials may be used. In these areas, topsoil will be stripped and stored for use during reclamation. Geotextile matting will be installed prior to placement of aggregate to prevent mixing with native subsoil. The aggregate would be maintained for the life of the Project. During decommissioning at the end of the Project's life, these areas will be restored by removing the aggregate, decompacting the soil if required, restoring the topsoil and either seeding to permanent perennial vegetation or returning the area to agricultural production.

4.5.8 Project Fencing

The fence that will be used to surround and provide security to the photovoltaic panel areas will consist of deer exclusion fencing at a height as required by electrical code and/or local and state ordinance. The Project substation will require a seven to eight-foot high chain link fence which may include barb wire at the top which will be 10 feet as stipulated by the Pierce County Zoning Ordinance. Each fenced area will have at least one secured entrance gate. A typical of the fence design that could be used for the Project is included in Appendix B.

December 6, 2019

4.5.9 Construction Site Lighting

Construction is planned to be conducted during daylight hours and therefore not require additional site lighting. In the event that site lighting is needed to accommodate safe working conditions for construction, portable lighting and generators may be used as needed.

4.6 PRELIMINARY CONSTRUCTION SEQUENCE

The following provides a description of the staging and construction sequence for the Project:

- Stabilize construction entrances and exits;
- Receive security fencing and gate materials;
- Install perimeter security fencing and gates;
- Remove vegetation in areas of construction and perform limited and localized grading as needed for transformer substation;
- Develop the staging and lay-down areas for receiving of construction materials and equipment, storage of the construction materials and equipment containers, location of construction trailers and parking for personnel and construction-related vehicles;
- Survey and stake the access roads and panel locations;
- Develop the access roads (limited grading is anticipated as roads will be constructed at grade when possible);
- Delivery of equipment, including piles and potentially helical piers, aluminum supports/mounting structures, tracking systems and inverters. Because the Project will be constructed in blocks and multiple blocks will be constructed simultaneously as well as over time, deliveries will continue over time in advance of construction of the blocks;
- Install driven piles or helical piers for a given block;
- Install aluminum supports/mounting structures on to piles for a given block;
- Install inverter pads for a given block;
- Install tracking systems for a given block;
- Delivery of PV modules and collection system equipment;
- Install solar PV modules;
- Install collection system by means of trenching and directional drilling;
- Electrical testing and equipment inspections for each block and the collection system;
- Receive materials and equipment for step-up transformer substation;

December 6, 2019

- Install step-up transformer substation and connect collection system to transformer substation;
- Electrical testing and equipment inspections of transformer substation and connections to substation;
- Install and inspect tie-in to DPC substation;
- Conduct interconnection inspections and testing and Project commissioning;
- Vacate and restore staging and lay-down areas. De-compact the subsoil, with windrowed topsoil re-distributed and de-compacted again as needed; and
- Reseed and revegetate disturbed areas if needed consistent with revegetation and restoration plan.

The duration of construction for this project is estimated to be 12-18 months.

4.7 OPERATION AND MAINTENANCE

Western Mustang will hire and train contractors to safely operate and maintain the facility. All equipment including the substation will be monitored by Western Mustang Solar and its contractors. All services will comply with all federal, state, and local laws. The facility will be remotely monitored 24/7. Maintenance activities will include mowing as needed to control weeds or invasive species. Western Mustang may locate an operations and maintenance building within the Project area that will be of a Conex box type construction. A Conex box is a steel container of varying sizes. The placement of the structure on the site will be in conformance with all local and state building codes.

5.0 SITE LAYOUT

This Section 5.0 addresses Pierce County Zoning Code § 240-41 D (3)(d)[5]

Major components of the Project include solar modules, racking, tracking system, inverters, transformers and a Project substation. Detailed description of each of these components is provided in Section 4.0. The Project area includes approximately twenty panel array areas that are separately fenced with the panels comprising a total area of 478.66 acres. A Preliminary Site Layout is provided as Figure 3 in Appendix A.

The setbacks considered as part of the project design are provided in Table 5.0-1.

December 6, 2019

TABLE 5.0-1 SETBACKS

Setback Description	Setback Value
Setback from Navigable Waterways	35 feet ¹
Setback from 890th Ave [Town Road]	42 feet from edge of ROW / 75 feet from Centerline
Setback from Bee Road (870th Ave) [Town Road]	75 feet from Centerline of Road
Setback from BB Highway [County Highway]	67 feet from edge of ROW / 100 feet from Centerline
Setback from State Highway 29 [State Highway]	77 feet from edge of ROW / 132 feet from Centerline
Minimum Setback from any Road ROW	10 feet
Minimum Setback from any Property Line	10 feet
Setback for Substation to any dwellings	75 feet
Setback for Substation from any residential lot line	50 feet

6.0 INSTALLERS QUALIFICATIONS

This Section 6.0 addresses Pierce County Zoning Code § 240-41 D (3)(d)[6]

An installer has not yet been selected at this time. Western Mustang will select an NABCEP Certified Solar Installer or other person/firm qualified to perform the work. Upon selection of an installer, the installer's qualifications and signature certifying that the SES will be installed in compliance with this section and all other applicable codes will be provided to the County.

7.0 UTILITY NOTIFICATION

This Section 7.0 addresses Pierce County Zoning Code § 240-41 D (3)(d)[7]

Western Mustang is in the MISO Interconnection Queue J801 and in the DPP-2017-August West Cluster. Western Mustang completed Phase I of the MISO Definitive Planning Phase (DPP) on October 24, 2019. The report showed no ERIS or NRIS Network Upgrades and the estimated cost for interconnection was \$3.4M for a new three-ring bus to be constructed by Dairyland Power Cooperative. MISO kicked off the Phase II study on October 29, 2019, and Western Mustang expects to see results and a draft report in January 2020. The current MISO schedule shows the DPP Phase III being completed on August 25, 2020, and our final Generator Interconnection Agreement being executed in January 2021. Western Mustang shall provide the Zoning Office with the final Generator Interconnection Agreement.

¹ As per discussions with Brad Roy, Pierce County, Department of Land Management and Records

December 6, 2019

8.0 ALL ADDITIONAL INFORMATION REQUIRED FOR A LAND USE PERMIT

This Section 8.0 addresses Pierce County Zoning Code § 240-41 D (3)(d)[3]

Information required for a Land Use Permit includes identification of the property owner, property location, description of the proposed project, a description of the structures to be constructed, setback distances from lot lines and road ways, driveways, easements, floodplains, location of existing structures, and a plot plan. All of these items have been provided within this application.

9.0 ADDITIONAL APPLICATION REQUIREMENTS FOR A LARGE SES

This Section 9.1 addresses Pierce County Zoning Code § 240-41 D (3)(e)

9.1 SURROUNDING PROPERTY USES

This Section 9.1 addresses Pierce County Zoning Code § 240-41 D (3)(e)[1]

The property surrounding the Project is primarily used for agricultural purposes and consists of cultivated cropland, hay/pastureland, and rural residential.

9.2 PERCENTAGE OF LAND COVERAGE BY THE SES.

This Section 9.2 addresses Pierce County Zoning Code § 240-41 D (3)(e)[2]

The Project boundary is 1,055 acres in size before consideration of siting restrictions, with the project footprint being approximately 478.66 acres. The Project footprint constitutes approximately 45 percent of the total Project Boundary. These figures are based on currently available technology and the precise project footprint number will be only be known when the final design is produced. The final design will be comparable to the acreage listed here and significantly less than the 1,055 leased acres.

9.3 EFFECTS OF THE PROPOSED PROJECT ON COUNTY / TOWNSHIP BUDGETS AND BENEFITS TO THE COMMUNITY

The impacts to the local government budgets will be positive. Western Mustang has committed to replacing any revenues for Spring Valley Schools that are lost as a result of property tax collection declines due to the Project.

December 6, 2019

The Wisconsin Shared Revenue Utility Aid Program administered by the Department of Revenue provides for a capacity-based payment to be distributed annually to the communities hosting an electric generating facility. As proposed, the 74MW solar project would be eligible for the standard generator payment, as well as a payment for energy derived from an “alternative energy source.”

In aggregate, the Western Mustang Solar Project will provide an estimated \$296,000 in annual payments through the State of Wisconsin Shared Revenue Utility Aid program. Modern PV solar facilities are expected to have useful lives in excess of 30 years. A conservative estimate of 25 years of shared revenue would result in \$7,400,000 to Pierce County and the Town of Gilman for hosting the Project.

From this aggregate, the Town of Gilman will receive an estimated \$123,333 annually and Pierce County will receive an estimated \$172,667 annually through the State of Wisconsin Shared Revenue Utility Aid Program.

TABLE 9.3-1 ESTIMATE OF REVENUE

	Total	Town of Gilman	Pierce County
MW based Payment	\$148,000	\$49,333	\$98,667
Incentive Payment	\$148,000	\$74,000	\$74,000
Total	\$296,000	\$123,333	\$172,667

Additional benefits to the community and surrounding area include the possible hiring of local Project construction, commissioning, operations and maintenance staff. Jobs may be created to accommodate services, such as snow plowing, landscape maintenance, and Project access road maintenance. Additional economic benefits include significant financial stability benefits to farmland owners that are participating as land lessors to the Project. Other economic benefits not directly controlled by Western Mustang include ancillary jobs and local support positions in areas such as food service, housing/lodging, hospitality, fuel, fuel delivery, sanitation, gravel, asphalt, road repair and other resource requirements.

9.4 CONSISTENCY WITH LOCAL COMPREHENSIVE PLANS AND COMMUNITY ENGAGEMENT

The Town of Gilman and Pierce County both operate under a Comprehensive Plan. For zoning decisions involving Towns like the Town of Gilman that have adopted a Comprehensive Plan, as stated in the Pierce County Comprehensive Plan, the “County acknowledges that the responsibility for accomplishing planning objectives set forth in plans developed by towns subject to county zoning lies jointly with the Town and Pierce County. The County further

December 6, 2019

acknowledges that it will seek to further each Town's planning goals and objectives when considering the establishment of conditionally permitted uses."²

This section addresses how the Project is consistent with the goals, objectives and policies of the Town of Gilman Comprehensive Plan and the Pierce County Comprehensive Plan. The narrative will focus on those respective comprehensive plan provisions relevant to the Project, as many plan provisions are not directly applicable to a solar energy generation facility.

9.5 PROJECT CONSISTENCY WITH TOWN OF GILMAN COMPREHENSIVE PLAN

The Project as proposed provides an opportunity for the Town of Gilman, and is consistent with the overall goals, objectives and policies set forth in the Town of Gilman Comprehensive Plan.

9.5.1 Utilities and Community Facilities:

The Town of Gilman Comprehensive Plan includes a Utilities and Communities section. The third goal within Utilities and Communities section is directly applicable to the Project and it states (with emphasis added): ***Encourage the development of alternative energy sources within the Town of Gilman.***³ Specific objectives related to this goal include (with emphasis added):

1. Support ***alternative energy sources that will decrease energy costs.***
2. Support ***alternative energy sources that may be more environmentally sound*** than burning fossil fuels.
3. Support opportunities ***for residents to develop alternative energy sources*** that will be self-sustaining.

The policies and recommendations related to this objective include (with emphasis added):

1. Work with Pierce County to allow the development of wind turbines and alternative fuel processing facilities.
2. Support and regulate the development of wind turbines/wind energy.
3. Support and regulate the conversion of animal waste gasses and other biomass sources into useable fuels
- 4. Support and regulate the use of solar panels and solar energy.**

² Pierce County Comprehensive Plan, p. 11.

³ Town of Gilman Comprehensive Plan, p. 24.

December 6, 2019

Solar energy generation can be used by electric utilities to reduce reliance on fossil-fuel burning power plants. A large solar energy system fits directly within these objectives and will help the town achieve these planning goals.

9.5.2 Land Use

Although the land use section of the Gilman Township Comprehensive Plan is not specific to solar, it does set goals to preserve and protect farmland. Moreover, it “is the expressed intent of this Comprehensive Plan to maintain the agrarian and rural character of the Town of Gilman.”⁴

Western Mustang Solar will preserve and protect the land on which its solar farm will be located and will help maintain the agrarian and rural nature of the area. First, the Project's anticipated useful life of approximately 30-40 years represents a ***temporary*** land use and will not result in a permanent loss of farmland. Second, the site will be restored with a vegetative cover that over the life of the project will improve soil health. This vegetative cover will improve soil tilth through the incorporation of organic matter through its rooting structure and will stabilize the soil from erosive forces. These activities support the harmony of surrounding agricultural activities and area landowners. Third, following the end of the Project's useful life, the Project will be decommissioned and the underlying property restorable to its prior agricultural use, as outlined in the proposed Decommissioning Plan. Fourth, since large SES may be permitted by County ordinance in all zoning districts (except the shoreland-wetland district), the Project area need not be rezoned and can remain a Primary Agriculture and General Rural district. This is important since, once the Project is decommissioned and the property is restored, the land is available for future agricultural use. Moreover, while the property remains in solar panels, it is protected and preserved as farmland and not susceptible to conversion for housing development, subdivision or other intensive and irreversible development. Fifth, there will be limited soil disturbance associated with the Project, and agricultural soils will be preserved resulting in fertile soils post-decommissioning. During project operation, the ground cover will be maintained as native or pasture grasses and legumes, which will improve water retention and allow the soil nutrient base to regenerate. Accordingly, the Project design, construction, operation, and decommissioning methods will actually support future agricultural activities similar to the resting of agricultural lands and amounts to "land banking" of the properties, which will ultimately facilitate resumption of farmland activity after the useful life of the Project.

In addition to preserving and protecting farmland, the plan also encourages compatible land use development and recommends a policy of maintaining a balance between the public interest and private property rights. The Project is highly compatible with the town's goal and public interest in preserving farmland, supporting the development of solar energy in the town and balancing the property rights of landowners who've chosen to lease property to the Project for panels.

⁴ Town of Gilman Comprehensive Plan, p. 44.

December 6, 2019

9.5.3 Economic Development

The economic development section of the Gilman Township Comprehensive Plan articulates a goal of supporting “economic development activities which strengthen the local economy while maintaining the town’s agricultural base, rural character, and healthy environment”⁵ and recommends avoiding the encroachment of commercial and industrial development in actively farmed areas. The Project will support this goal by providing direct economic impacts from the Wisconsin Shared Revenue Utility Aid Program, while also reducing air pollution and providing competitively priced on-peak electricity. In addition, when solar farms are hosted on agricultural land, local farmers benefit from stable income diversification. Combining traditional agriculture production with stable solar lease payments makes farms more resilient to shifts in crop prices and yields. While the plan does not include a definition of commercial and industrial development, solar development like the Western Mustang project is ***not*** a commercial or industrial development as those terms are commonly used, such as commercial buildings, factories, and other resource intensive industrial activities. The Project will not have any of the impacts of such commercial and industrial development such as impacts pollution, water use, permanent conversion of land and presence of toxic and/or hazardous chemicals on site.

As has been discussed in sections 9.4 and 9.5, the Project is consistent with the economic development goals and recommendations in the comprehensive plan. Moreover, in addition to the economic benefits that will accrue to the Town and surrounding communities during project construction, the Town will also benefit from the increased Utility Aids from the State Shared Revenue program (which is described in section 9.3)

9.6 PROJECT CONSISTENCY WITH PIERCE COUNTY COMPREHENSIVE PLAN

The Project as proposed is also consistent with the goals, objectives and policies set forth in the Pierce County Comprehensive Plan.

9.6.1 Agricultural Resources⁶

The Pierce County Comprehensive Plan’s principal agricultural goals, objectives and policies are focused on maintaining the operational efficiency, viability and productivity of the County’s agricultural areas for current and future generations. The Western Mustang Project is consistent with and supports these goals, objectives and policies since it will preserve and enhance agricultural land areas in the County.

First, the Project's anticipated useful life of at least 30-40 years represents a ***temporary*** land use and will not result in a permanent loss of land for agriculture. Second, the Project area amounts to less than one-half of one percent (0.50%) of the land area used for agricultural purposes in the County, a small portion of agricultural land relative to what is

⁵ Town of Gilman Comprehensive Plan, p. 40

⁶ Pierce County Comprehensive Plan, p. 14.

December 6, 2019

available. Third, the site will be restored with a vegetative cover that over the life of the project will improve soil health. This vegetative cover will improve soil tilth through the incorporation of organic matter through its rooting structure and will stabilize the soil from erosive forces. These activities support the harmony of surrounding agricultural activities and area landowners. Fourth, following the end of the Project's useful life, the Project will be decommissioned and the underlying property restorable to its prior agricultural use, as outlined in the proposed Decommissioning Plan. Fifth, since large SES may be permitted by County ordinance in all zoning districts (except the shoreland-wetland district), the Project area need not be rezoned and can remain a Primary Agriculture and General Rural district. This is important since, once the Project is decommissioned and the property is restored, the land is available for future agricultural use. Moreover, while the property remains in solar panels, it is protected and preserved as agricultural land and not susceptible to conversion for housing development, subdivision or other intensive and irreversible development. Sixth, there will be limited soil disturbance associated with the Project, and agricultural soils will be preserved resulting in fertile soils post-decommissioning. During project operation, the ground cover will be maintained as native or pasture grasses and legumes, which will improve water retention and allow the soil nutrient base to regenerate. Accordingly, the Project design, construction, operation, and decommissioning methods will actually support future agricultural activities similar to the resting of agricultural lands and amounts to "land banking" of the properties, which will ultimately facilitate resumption of agricultural activity after the useful life of the Project.

9.6.2 Natural Resources⁷

The comprehensive plan natural resources policies focus principally on using county's land resources within their environmental limits and promote stewardship of the county's land and water resources; the plan objectives aim to manage stormwater, encourage preservation to unique geological or physical significance and land uses that minimize pollution; and the plan policies encourage the preservation of open space and protection of natural resource before, during and after development.

The Project is consistent with the natural resources goals, activities and policies. Consistent with existing land uses, the Project will result in minimal new additional impervious surface areas that could affect stormwater runoff. Moreover, once the vegetation management plan activities are complete and panels installed, the native plantings and vegetation management practices will limit runoff and migration of topsoil and nutrients into surface waters. The Project is also sited to avoid impacts to sensitive natural areas and wetlands thereby preserving the natural features adjacent to the Project area.

⁷ Pierce County Comprehensive Plan, p. 14

December 6, 2019

9.6.3 Economic Development

The comprehensive plan goal for economic development is as follows: “Develop a strong, diversified, base of industry, commerce, agriculture, and education that provides a broad range of job opportunities, a healthy tax base, and improved quality of services to county residents.”

The Project adds to the diversity of economic activity in the County with innovative, non-polluting renewable energy. It also provides participating landowners with stable lease payments which help to diversify landowners' income, support continued agricultural operations and multi-generational family land ownership, and prevent other uses of the land, like subdivision or clustered development. Moreover, the Project is not expected to adversely affect land uses on adjacent agricultural or residential purposes. As is described in Section 9.3. of the application, the Project will generate additional revenue for the County in the form of Utility Aids from the state shared revenue program which can be used to fund other County services and programs.

9.6.4 Countywide Policies -- Use of Renewable Energy Systems⁸

The Pierce County Comprehensive Plan contains a section described are as follows:

Some of the policies governing both the planning and management of “growth and change” within the county are not specific to individual management areas listed in the “Management Goals, Objectives, and Policies” element. To refrain from repeating the broad county-wide policies that intersect each subsection of the “Management Goals, Objectives, and Policies,” those overarching policies have been grouped together here.

Included in the list under Countywide Policies is the following policy statement related to renewable energy systems: “Encourage energy efficiency and the use of alternative/renewable energy systems.”⁹

9.7 COMMUNITY ENGAGEMENT SUMMARY

Local Residents – Western Mustang has been meeting with prospective landowners, their tenants, and nearby residents since early 2017 to determine local interest to participate in the Project

Local Units of Government – The Project has also met with local Town and County elected officials and staff to advise them of project activities, to gauge interest in a solar facility, as well as to understand permitting requirements and potential concerns:

- Town of Gilman board members and Plan Commission Chair
- Pierce County representatives (County Board members, Land Management Committee, Zoning Administrator, Highway Commissioner);

⁸ Pierce County Comprehensive Plan, p. 47

⁹ Pierce County Comprehensive Plan, p. 47

December 6, 2019

- Spring Valley Village Board

State Elected Representatives and Regulatory Agencies – The Project has also met with state elected representatives.

Public – In addition, the Project has engaged in outreach activities to share information and gather feedback from a broader public audience, including:

- One-on-one communication with Project neighbors and community leaders
- Presentations at public meetings of local units of government
- Established a dedicated website (www.westernmustangsolar.com) that provides information about the Project along with contact information
- Actively monitors an informational e-mail address and toll-free phone number
- Hosted an Open House on September 10, 2019, with over 70 attendees. (Over 140 invitations were sent, and the list included landowners within a 1/4 to 1/2 mile of the facility).
- The project has worked with local media to facilitate coverage of plans for the project, resulting in coverage in the local area, including front-page print articles in the Spring Valley Sun Argus.

9.8 WETLAND AND WATERWAY STUDIES

Western Mustang retained the services of Stantec to identify wetlands and waterways within the Project Area. Detailed information on wetlands and waterways is provided in the Wetland Delineation Report provided in Appendix C.

The Project Area does not contain sensitive wetlands as defined by 2015 Wisconsin Act 387, including state or federally listed waterways, trout streams, fisheries, wilderness areas, recreational areas, sensitive resources of state or federal concern, or other areas of special natural resource interest as outlined in NR 103.04, Wisc. Adm. Code.

No permanent wetland fill is proposed as part of the construction of the Project. The Project will require temporarily impacting wetlands due to placement of both panel facilities and access roads. Construction / access within wetlands will be done through the use of low ground pressure equipment, under frozen ground conditions, or through the use of construction matting in order to minimize impact. Additionally, the collection system will require crossing wetlands by either HDD or trench methods. These impacts will also only be temporary in nature, as the ground surface will be returned to pre-existing condition if trenching methods are utilized. Permits for these temporary impacts will be obtained from the U.S. Army Corps of Engineers and the Wisconsin Department of Natural Resources during the final design stages of the Project.

Waterways have been avoided to the extent practicable. The Project facilities that will require waterway crossings include access roads and the collection system. These crossings would impact waterways via the placement of culverts and backfill. Other project facilities such as the

December 6, 2019

panels and associated facilities and substation will not impact waterways. Crossings for the collector system would be completed by HDD methods to avoid impacting waterways. The need for land clearing at waterway crossings is expected to be limited and no downstream impacts to waterways are expected during construction of the Project. A Chapter 30 culvert permit will be obtained from the Wisconsin Department of Natural Resources if deemed necessary during final design stages of the Project.

9.9 CULTURAL RESOURCES

Stantec contracted with Commonwealth Heritage Group to complete a review of known cultural resources (archaeological / historical) sites within and around the project limits of the Western Mustang development. In accordance with Wisconsin Statutes §44.40, if the Project will utilize state funding or require state permitting, previously recorded archaeological sites and above-ground resources that would be directly or indirectly affected by the Project would need to be field checked and reassessed. Once the extent of wetland / waterway impacts are determined on the project and if any of these impacts are deemed jurisdictional by the U.S. Army Corps of Engineers, the permit process through this agency will require a field check for cultural resources in the immediate area surrounding the proposed impact. It is believed that the extent of impacts for the Project that will be considered jurisdictional and require this field check will be for culvert installations for internal access roads on defined waterways.

The Commonwealth Heritage Group study did not find any historical or archeological cultural resources that they believed would be considered eligible for listing on the National Register within or surrounding the Project area. This will be confirmed during state and federal permitting process. Western Mustang will site the Project facilities so as to avoid directly or indirectly affecting any sites or above-ground resources that are determined eligible for listing on the National Register and will maintain federal and state required buffers for these resources.

9.10 ENDANGERED SPECIES

Western Mustang conducted an informal consultation with the USFWS through the Information for Planning and Consultation online system on October 18, 2019. The gray wolf, northern long-eared bat, Karner blue butterfly and prairie bush clover were identified on the list provided.

An ER Review was conducted for the Project to identify whether any state or federally-listed rare species, natural communities, or other natural features with element occurrence records may occur within one-mile of the Project area. A Certified Endangered Resources (ER) review was submitted to the WDNR on October 28, 2019. The results of the ER Review concluded that no actions need to be taken to comply with state and/or federal endangered species laws. The WDNR approved the ER review and provided concurrence and recommendations on October 30, 2019. Because ER review indicates that there are no required actions to “maintain compliance with State and Federal Endangered Resources laws,” no habitat assessment is needed for the Project.

December 6, 2019

The Wisconsin Natural Heritage Inventory (NHI Portal) database contains all current Northern Long-eared Bat roost sites and hibernacula in Wisconsin. The NHI Portal was consulted for this project, and per U.S. Fish and Wildlife Service's 4(d) rule, it was determined that this project is more than 150 feet from a known maternity roost tree and is more than 1/4 mile from a known hibernaculum. Tree clearing as a result of Project activities is a covered activity of the Broad Incidental Take Permit and Authorization for Wisconsin Cave Bats. However, it is recommended that the Project avoid tree clearing, particularly snags or dying trees, from June 1 to August 15.

9.11 EROSION CONTROL AND STORM WATER MANAGEMENT PLAN

Once the Project is authorized, Western Mustang will submit a Water Resource Application for Project Permits (WRAPP) to the WDNR in accordance with Wis. Admin. Code § NR 216. The application will include a site-specific Erosion Control and Storm Water Management Plan. The Plan will include technical drawings and descriptions of the best management practices that will be followed in compliance with WDNR technical standards.

9.12 SUMMARY OF GLARE / GLINT STUDY

In accordance with the Pierce County Zoning Code, Western Mustang commissioned a glare hazard analysis to analyze the potential for glare from the Project. Glare is not predicted and therefore does not create unsafe conditions for any airports, drivers of vehicles on roads adjacent to the project, or for any sensitive receptor observation points such as homes at any time of the day or any time of the year. The Glare Hazard Analysis Report is provided in Appendix E.

9.13 SUMMARY OF SOUND STUDY

Western Mustang commissioned a sound analysis for the Project to determine level of sound generated by the substation transformer and inverters. This study found that the maximum sound level that would be experienced at the nearest sound sensitive area (NSA) does not exceed the Wisconsin Public Service Commission defined daytime and nighttime standards. For full report please refer to the Pre-Construction Sound Report included in Appendix F of this application.

9.14 ESTIMATE OF MAGNETIC PROFILE CREATED BY COLLECTOR CIRCUITS

Western Mustang commissioned an Electromagnetic Field Study for the Project to determine electric and magnetic fields that may be expected as a result of the Project and found that potential magnetic and electric fields generated by project components do not represent a negative impact to the human environment. Furthermore, the Public Service Commission of Wisconsin has concluded that there is no correlation between magnetic fields and negative

Western Mustang Solar, LLC
Conditional Use Permit Application

December 6, 2019

health effects. The Electromagnetic Field Study completed for the Project is provided in Appendix J.

APPENDIX A FIGURES

**APPENDIX B ENGINEERED
SCHEMATICS**

**APPENDIX C WETLAND / WATERWAY
DELINEATION REPORT**

**APPENDIX D CULTURAL RESOURCE
REVIEW LETTER**

APPENDIX E GLARE / GLINT STUDY

**APPENDIX F PRE-CONSTRUCTION
SOUND REPORT**

**APPENDIX G PRELIMINARY
GEOTECHNICAL REPORT**

APPENDIX H VEGETATION MANAGEMENT PLAN

APPENDIX I DECOMMISSIONING PLAN

**APPENDIX J ELECTRO / MAGNETIC
FREQUENCY STUDY**

APPENDIX K VISUAL SIMULATIONS

