Gustin Solar Energy Center

Special Use Permit – Harrisville Township



Revision 0 – June 15, 2026
Revision 1 – September 29, 2026

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A. Applicant Information

1. Company Profile

Consumers Energy is the principal subsidiary of Jackson-based CMS Energy Corporation and is Michigan's largest energy provider, providing electricity and gas to almost 7 million of the state's 10 million residents in all 68 counties in the Lower Peninsula. Consumers Energy provides electric service to 1.9 million customers. Consumers Energy operates three coal-fueled generating units, two oil/gas-fueled generating units, and six gas-fueled generating units, 13 hydroelectric plants, a pumped storage electric generating plant, four wind-powered energy parks, four solar photovoltaic (PV) generation systems, and several combustion-turbine plants that produce electricity when needed during peak demand periods. Consumers Energy also purchases power from several independent power producers through long-term Power Purchase Agreements (PPAs).

2. Project Contacts

The following contacts are authorized representatives of Consumers Energy for the Gustin Solar Energy Center ("Project").

- Peter Wyckoff, P.E. – Project Development Manager
- Basel Djazmati – Principal EPC Project Manager
- Joseph Lawson – Senior Permit and Zoning Agent
- Carlin Smith – Community Affairs Manager
- Dena Isabell – Stakeholder Engagement Manager

Email: POBoxGustinSolar@cmsenergy.com

3. Participating Parcels

Consumers Energy has acquired land and secured agreements with landowners for the land rights necessary to construct and operate the Project on the land included in this application. The agreements allow Consumers Energy to operate the Project for up to 30 years from the commercial operation date. Copies of the deeds and recorded memorandums are included in **Exhibit A**.

B. Introduction

1. Project Summary

i. Project Location

The Project spans land located in Gustin and Harrisville Townships. Figure 1 shows the portion of the project located in Harrisville Township.

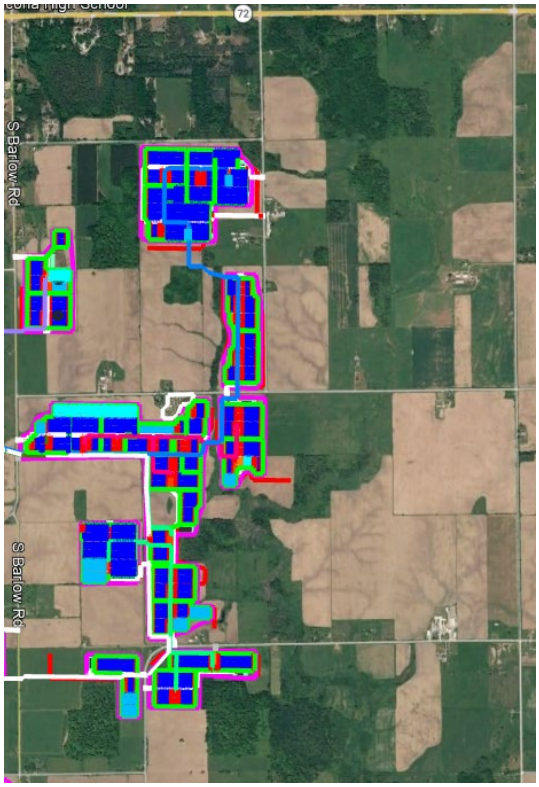


Figure 1: Site Layout

ii. Project Overview

Consumers Energy intends to construct and operate the Gustin Solar Energy Center. The Harrisville Township portion of the Project will generate 116.5 megawatts direct current (MW_{DC}) and 94 megawatts alternating current (MW_{AC}). The Project will be connected via underground cables to a 34.5 kilovolt (kV) to 138 kV collector substation, located in Gustin Township, which will be connected to a switchyard owned and operated by METC, the grid transmission operator.

Consumers Energy anticipates construction starting in the second quarter (Q2) of 2027 with an anticipated in-service date (Commercial Operation Date) of December 31, 2028.

iii. Application Revisions

The following sections of Consumers Energy's application narrative have been revised to address questions posed during the July 29, 2026, public hearing:

- 3.22.C.1.a. – Ground water testing
- 3.22.C.4 – Screening
- Section 15.03.2. – Address
- Section 16.04.7 – Glare
- Section 18.01 – Parking Requirement
- Exhibit C – Glare Study
- Exhibit H – Decommissioning Plan
- Exhibit I – Permit Matrix

2. Design Approach

The Project has been designed to minimize impacts to natural resources and adjoining properties and to maximize habitat value. To achieve these goals, the Project incorporates the following design considerations:

- Racking piles are spaced to create meadow-like vegetative strips having sufficient width to allow stormwater to be filtered and infiltrated, resulting in improved water quality and reduced runoff as compared to existing conditions.
- Inverters are sited within the interior of the solar arrays to minimize sound emissions.
- Vegetative buffers are sited in designated areas to screen the arrays from adjacent residences and public roadways.
- The buffer design incorporates materials, colors, textures, vegetative and landscape elements that blend with the natural landscape and existing environment.
- The ground within the permanent fence line will be pre-seeded with a pollinator-friendly seed mix. The vegetated ground cover will be maintained throughout the life of the Project.

Additionally, to achieve the desired objectives, vegetation best management practices (BMPs) will be employed throughout the construction and operational life of the Project. Implementation of these practices will provide habitat for pollinators, grassland bird species, and small mammals.

3. Project Description

i. Solar Modules and Tracking System

Approximately 165,321 Trina Solar TSM-NEG21C.20 700-715 W PV modules (or equivalent solar PV modules) will be installed on approximately 2,175 Array Technologies OmniTrack single-axis tracker rows (or equivalent tracking system). Use of the terrain-following tracking system will result in minimal on-site grading.

No exterior lighting is required or proposed.

ii. Electrical Collection System

The solar PV modules are connected in serial groups ("strings") with approximately 0.25-inch diameter cable. Each string of modules is connected in parallel with surrounding strings via a "Big Lead Assembly" (BLA) system produced by Shoals. The BLA system consists of cables approximately one inch in diameter. The BLA system is routed to disconnect switches through an above-ground cable management system produced by CAB Solar. The CAB system routes the cables through hangers attached to a messenger wire running along the tracker rows.

The CAB system contains cables from multiple circuits and is supported on the tracker rows or standalone pile foundations. From the disconnect switches, DC circuits connect to an inverter skid via approximately one-inch-diameter cables buried at a minimum depth of 30 inches. The maximum voltage of the DC system is approximately 1500 volts (V). The Project includes 25 inverters, with one inverter for approximately every 6,613 modules and 85 tracker rows.

The alternating current (AC) collection system's 34.5 kV cables connect each inverter skid to the collector substation. These cables are between 1.5 and 3 inches in diameter and buried at a minimum of 36 inches deep. The AC cables are routed with direct-buried fiber optic cables, which are used to control the inverters and for communications.

iii. Perimeter Fencing

A 7-foot fence will be installed around the solar arrays to enclose and secure the perimeter. A mesh-fabric privacy screen will be hung from the fence to obscure view of the Project during construction and will be maintained until the vegetative screening is established. **Figure 3** below displays the mesh-fabric privacy screen. The fence height and openings are designed in accordance with the National Electric Safety Code (NESC). **Figure 2** below details the fence proposed for the Project. Fencing locations are shown on the Site Plan (**Exhibit B)**.

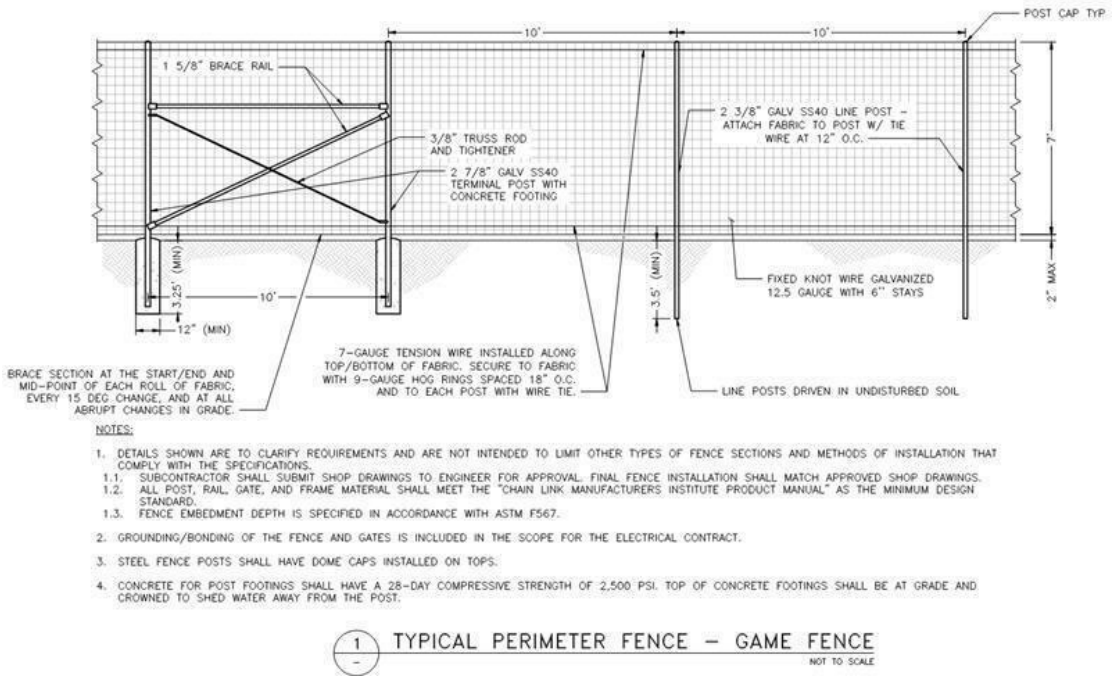


Figure 2: Permanent Fence Detail

iv. Construction Sequence

Construction is expected to follow the sequence described below with some steps occurring in parallel:

- Install temporary stormwater BMPs per Erosion & Sediment Control Plans and SESC permit.
- Pre-seed the area with a low-grow and pollinator friendly seed mix.
- Install driveways, access roads and staging areas to receive and store construction materials, equipment, and trailers, and to provide parking for personnel and construction-related vehicles.
- Deliver and install security fencing and gate materials to secure future deliveries and equipment.
- Fencing will be installed with mesh-fabric privacy screen and vegetative screening as required to screen the project from the public prior to installation of piles to allow maximum growth of vegetative screen prior to operations.
- Complete localized grading activities.
- Re-seed areas upon achieving final grade.
- Deliver equipment, including piles, aluminum supports, mounting structures, tracking systems, solar PV modules, and inverters.
- Construct the Project in blocks, with multiple blocks constructed simultaneously, in accordance with the steps below.
- Drive pile foundations and install aluminum supports and mounting structures.
- Deliver and install the electrical collection system using trenching and directional drilling.
- Install solar PV modules.
- Conduct interconnection inspections, testing, and Project commissioning.
- Reclaim staging areas, demobilize all construction equipment.
- Commence final restoration and re-seed and re-vegetate staging areas and other disturbed areas.
- Begin commercial operation of the Project.

C. Compliance with Applicable Zoning Regulations

1. Compliance with Zoning Ordinance Section 3.22

The following demonstrates the Project's compliance with the commercial solar energy system regulations contained in Section 3.22 of the Zoning Ordinance. For ease of review, applicable subsections of Section 3.22 are reproduced below with responsive information immediately following in blue:

- *Section 3.22.A General Requirements - Solar Energy Systems*

1. 3.22.A.1 All Solar Energy Systems must conform to the provisions of this Ordinance and all County, State, and Federal regulations and safety requirements as well as applicable industry standards.

   As summarized in this narrative and appended materials, the Project has been designed to comply with all provisions of the Zoning Ordinance, along with applicable county, state, and federal regulations and safety requirements. As demonstrated by the Permit Matrix included as **Exhibit I**, The Project will conform to all County, State and Federal regulations. Further, the Project's design is consistent with applicable industry standards.

   As is customary, local land use permitting is the first step in the development process. Consumers Energy will obtain all necessary permits from other regulatory authorities prior to commencing work for which a county, state or federal permit may be required. The Planning Commission may include as a conditional of approval that Consumers Energy submit copies of all permits obtained from other regulatory authorities with the Zoning Administrator.

2. 3.22.A.2 Solar Energy Systems shall be located or placed so that concentrated solar glare shall not be directed toward or onto nearby properties or roadways at any time of the day.

   Included as **Exhibit C** is a glare modeling and analysis ("Glare Study") performed by Burns & McDonnell.

   The Glare Study, which assumes sunlight 365 days a year, predicts visible, but inconsequential glare at one of the 40 modeled receptors in Harrisville Township. The potential for glare occurs between 8:15 am and 8:45 a.m. in the month of December; if visible, the duration will be less than 5 minutes daily. The potential for glare is considered inconsequential because it occurs within one hour of sunrise and from the same direction as the sun. Due to the conservative approach of the study, the actual duration and intensity of glare experienced at each receptor is expected to be less than reported in the study. Planned visual screening will reduce the visibility of glare, including glare that is inconsequential.

- *Section 3.22.C Commercial Solar Energy Systems*

Commercial Solar Energy Systems shall only be allowed in the Agricultural-Residential District or the Industrial District as a special use approved by the Planning Commission. In addition to any other requirements for special use approval, Commercial Solar Energy Systems shall be ground mounted and are subject to the following requirements:

- 3.22.C.1 The property owner or applicant for a Commercial Solar Energy System shall provide the Planning Commission with proof of ownership of the subject property, a copy of any lease agreement for a commercial solar energy system, together with an operations agreement, which shall set forth the operations parameters, the name and contact information of the certified operator, inspection protocol, emergency procedures and general safety documentation.

  Applicable ownership documents are included in **Exhibit A**.

Consumers Energy will own and operate the facility. Because there is no operations agreement with a third-party, Consumers Energy's "Solar PV Station O&M Manual" is included in **Exhibit D**. The Solar PV Station O&M Manual discusses Consumers Energy's parameters for operating and maintaining solar facilities. In addition, a "Solar PV Station Emergency Response Plan" is included in **Exhibit E**. The Solar PV Station Emergency Response Plan describes emergency procedures and contact information. Consumers Energy operations and emergency response plans are developed at an enterprise level, rather than project level. Uniformity in operations and emergency response protocols enhances reliability, safety and efficiency. Generally, the only aspect of these plans that are project-specific are contract information (telephone numbers, email addresses, street addresses).

- 3.22.C.1.a. Ground water test submitted to Zoning Administrator prior to installation, upon completion of installation and annually until site restoration is completed.

  This requirement is superseded by applicable provisions of Part 31 and Part 201 of the Natural Resource and Environmental Protection Act (NREPA), as described in **Exhibit F** Groundwater Memo, which, among other things, require the Project to meet all applicable requirements of the Department of Environment, Great Lakes, and Energy (EGLE) spill prevention controls and countermeasures (SPCC) program during construction and operations. Consumers Energy will file a copy of its SPCC plan with the Zoning Administrator prior to the start of construction. Despite the lack of jurisdiction, the Project has also committed to completing groundwater testing of wells within the Project on an annual basis for the eight minerals and chemicals that EGLE uses to assess general water quality and safety, if landowners sign agreements.

- 3.22.C.2 The Commercial Solar Energy System, all Photovoltaic (PV) systems and support structures associated with such facilities (excluding perimeter fencing) shall be setback a minimum of forty (40) feet from a side or rear property line and a minimum of fifty (50) feet from any road right-of-way. Setbacks should be measured when the panel is at minimum tilt.

  As shown on the Site Plan (**Exhibit B**), the Project will be setback at least 40 feet from all side and rear property lines and a minimum of 50 feet from any road rights-of-way.

- 3.22.C.3 The height of the Commercial Solar Energy System and any mounts shall not exceed fifteen (15) feet when oriented at maximum tilt.

  The anticipated maximum height 9'10.5" of the solar arrays and associated equipment are shown in the Collector System ISA Elevation View and the Collector System CAB Details included in the Site Plan (**Exhibit B)**.

- 3.22.C.4 Solar devices shall be screened year-round from view from any existing residential use and the public right-of-way by use of a screening wall of native shrubbery, trees, or other native, non-invasive plant species that provide a visual screen of effectiveness and quality, as determined by the Planning Commission. Screening shall be installed which screens the facility fully from view from the time of planting or installation. Screening shall be

maintained throughout the life of the facility including replacing dead vegetation within six (6) months or at the earliest feasible time of the year dependent on the weather.

A vegetative buffer is proposed along the Project perimeter in locations where existing vegetation does not adequately screen views of the Project from the perspective of adjacent residences and public rights-of-way. In addition, a mesh-fabric privacy screen will be attached to the Project's permanent fence. The image below illustrates the mesh-fabric privacy screen that will be maintained in place until the vegetative screening is fully established.

Proposed vegetative buffer locations are shown on the Site Improvements & Grading Landscape Plan page of the Site Plan (**Exhibit B**).



Figure 3: Privacy Fence Representative Image

- 3.22.C.5 The sound pressure level of a solar energy facility and all ancillary solar equipment shall not exceed forty-five (45) dBA (Leq (1 hour)) at the property line of an adjacent non-participating lot at 2 a.m. The site plan shall include modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard. The applicant is responsible for testing d.BA levels annually and submitting the results to the Zoning Administrator.

  Included as **Exhibit G** is a Sound Study for the Project. The sound study demonstrates the Project will not exceed 45 dBA at any property line of an adjacent non-participating parcel, at any time of the day or night. The Site Plan includes modeled isolines extending from the sound source to the property lines.

- 3.22.C.6 Prior to installation, the applicant shall submit a descriptive site plan (reference article 15 for site plan requirements) to the Planning Commission which includes where and how the Commercial Solar Energy System will connect to the power grid.

  The Project will connect to the grid via a switchyard owned and operated by METC that is located in Gustin Township. The location of the switchyard

relative to the Project is shown on the Key Plan on Sheet CV-240-001 of the Site Plan (**Exhibit B**).

- 3.22.C.7 No Commercial Solar Energy System shall be installed until evidence has been given to the Planning Commission that the electric utility company has agreed to an interconnection with the electrical grid or a power purchase agreement. Any such agreement shall be furnished to the Planning Commission.

  The Project will be owned by Consumers Energy and will be connected to the transmission grid by METC, the transmission operator. Consumers Energy has two pending generator interconnection requests for the Project with the Mid-Continent System Operator (MISO), the regional grid operator for the central United States. The generator interconnection requests have been assigned project numbers (J2611 and N3451) and are under study. At the completion of the studies, MISO will provide generator interconnection agreements that specify the terms for interconnecting to the grid via the METC transmission system. Consumers Energy will provide interconnection updates and evidence of a final interconnection agreement once received. The Planning Commission may condition its approval of the Project on Consumers Energy providing final interconnection agreements with METC.

- 3.22.C.8 Developer/applicant shall provide verification of operation (solar energy used by or purchased by utility company) annually to the zoning administrator.

  Consumers Energy will provide annual verification of operation to the zoning administrator.

- 3.22.C.9 A condition of every approval of a Commercial Solar Energy System shall have an adequate provision for the removal of the system whenever it ceases to be used for one (1) year or more. In the event that a system has been abandoned (meaning not having been in operation for a period of one (1) year). Either the zoning administrator or the property owner and developer/applicant shall notify the Township that the SES is abandoned, and the property owner and developer/applicant shall remove the system within one (1) year from the date of abandonment. Removal includes the proper receipt of a demolition permit from the Building Official and proper restoration of the site to the satisfaction of the Zoning Administrator. The site shall then be filled and covered with topsoil and restored to a state compatible with the surrounding vegetation.

  Based on its agreement with landowners participating in the project, Consumers Energy expects the Project to be in service for at least 30 years. A Decommissioning Plan for the Project prepared by Black & Veatch is included in **Exhibit H**. The Decommissioning Plan details the process of decommissioning, removing Project components from the property, and restoring the site to a state compatible with a restoration of agricultural cultivation.

- 3.22.C.10 To ensure proper removal of a Commercial Solar Energy System upon discontinued use or abandonment, applications shall include a description of the financial security guaranteeing removal of the system which must be posted with the Township within fifteen (15) days after

approval or before a construction permit is issued for the facility. The financial security shall be a performance bond (surety bond), in a form approved by the Township. The amount of such a guarantee shall be no less than 150% of the estimated cost of removal and may include a provision for inflationary cost adjustments. The estimate shall be prepared by the engineer for the developer and shall be approved by the Township. The applicant shall be responsible for the payment of any costs or attorney fees incurred by the Township in securing removal.

The Decommissioning Plan included as **Exhibit H** includes an estimate of the cost of removal of Project components and restoration of the site. Consumers Energy will provide a decommissioning bond in an amount equal to 150% of the decommissioning estimate. Upon ceasing operations, Consumers Energy will decommission and remove Project components pursuant to the Decommissioning Plan.

2. Compliance with Other Applicable Zoning Ordinance Regulations

The zoning designations of all participating parcels are shown on the Existing Conditions & Clearing Parcel Identification & Zoning Plan within the Site Plan (Exhibit B). All participating parcels are zoned as A Agricultural. Commercial solar energy systems are a special land use in the A Agricultural district.

The following sections demonstrate the Project's compliance with other applicable general regulations and design standards of the Zoning Ordinance. For ease of review, applicable sections are reproduced below with responsive information immediately following in blue:

- *Section 3.5 General Land Use Limitations*
    - *Section 3.05B – Grading*

No premises shall be so filled or graded as to discharge surface runoff on abutting premises in such manner as to cause ponding or standing accumulation of such runoff thereon.

Use of the terrain-following tracking system to which the PV modules will be mounted will result in minimal on-site grading. Site Plan, Site Improvements & Grading Plan on Sheets CV-241-001 through -007 show the location and limited extent of proposed grading changes. Unlike traditional development, the Project will convert predominantly agricultural cropland to a vegetated condition consisting of perennial grass beneath elevated solar panels. This land cover functions similarly to meadow conditions, promoting infiltration and evapotranspiration of stormwater rather than causing additional discharge or ponding. Because grading will be minimal, existing drainage patterns will be maintained, preventing concentration or redirection of stormwater flows.

- *Section 3.05C – Road and Highway Intersections*

No structures or vegetation exceeding three (3) feet in height, except open fences through which there shall be clear visions, shall be erected, planted or maintained less than twenty (20) feet from the intersection of the right-of-way lines of any public road or highway with that of any other road or highway.

Site Plan, Site Improvements & Grading Plan on Sheets CV-241-001 through -007 show that no structures or landscape screening will be installed within 20 feet from any intersections of public rights-of-way, to preserve clear visibility at such intersections.

- *Section 15.03- Site Plan Data Requirements*

  Each site plan submitted shall contain the following information:

  1. The date, north arrow, graphic scale and name of individual or firm responsible for preparing said plan. The scale must be at least one (1) inch=twenty (20) feet for parcels under three (3) acres and not less than one (1) inch= (100) feet for parcels three (3) acres or more.

     See Site Plan, General Cover & Index, Existing Conditions & Clearing Plan, Site Improvements & Grading Plan, and Erosion & Sediment Control Plan. Given the project's large footprint, a scale of 1 inch = 200 feet was selected to provide a clear and comprehensive depiction of the site. The Planning Commission may waive strict compliance with informational requirements where it aids their review of an application.

  2. The boundary lines of the property are to include all dimensions, legal property description, and property address.

     See Site Plan, Existing Conditions & Clearing Parcel Identification & Zoning Plan on Sheet CV-221-002 and Site Improvements & Grading Sheets CV-241-001 through -007. Property addresses for Project entrances will be obtained and provided to Harrisville Township prior to construction. The Planning Commission can compel compliance by including this a condition of approval.

  3. The location of all structures on the site, including proposed drives, walkways, signs, exterior lighting, parking (show the dimensions of a typical parking area), loading and unloading areas, common use areas, recreational areas and facilities.

     Drives are shown on Site Plan, Site Improvements & Grading Plan on Sheets CV-240-001 and CV-241-001 through -007. Signs are shown on Site Plan Sheet CV-245-004.

     No walkways, parking, exterior lighting, loading and unloading areas, common use areas, recreational areas and facilities are proposed. The project specific sign detailed Project name and information will not be located in Harrisville Township.

  4. The location and widths of all abutting rights-of-way (streets, alleys, or easements).

     See Site Plan, Existing Conditions & Clearing Plan on Sheets CV-221-001 through -003.

  5. The location of unusual environmental features, such as streams, wetlands, shorelines, mature specimen trees and wooded areas.

     See Site Plan, Existing Conditions & Clearing Plan on Sheets CV-221-001 through -003.

6. The location and identification of all existing structures within a two hundred (200) foot radius of the site, and the zoning district designation of adjacent properties.

   See Site Plan, Site Improvements & Grading Plan on Sheets CV-241-001 through -007, and the Existing Conditions & Clearing Parcel Identification & Zoning Plan on Sheet CV-221-002.

7. The name and address of the property owner.

   See Site Plan, General Cover & Index on Sheet CV-200-001.

8. The existing zoning district in which the site is located and, in the case of a request for a zoning change, the classification of the proposed new district.

   See Site Plan, Existing Conditions & Clearing Parcel Identification & Zoning Plan on Sheet CV-221-002. The Project does not require a request for a zoning change.

9. The location of all existing and proposed landscaping, as well as all existing and proposed fences or walls.

   See Site Plan, Existing Conditions & Clearing Plan on Sheets CV-221-001 through 003, the Site Improvements & Grading Sheet Plan on Sheets CV-240-001 and CV-241-001 through -007, the Landscape Plan on Sheet CV-242-001, and the Vegetative Buffer Details on Sheets CV-245-002 and -003.

10. A locational sketch of the proposed use or structure.

    See Site Plan, Site Improvements & Grading Plan on Sheets CV-240-001 and CV-241-001 through -007.

11. The type, location, and size of all utilities existing and proposed for the site.

    See Site Plan, Existing Conditions & Clearing Plan on Sheets CV-221-001 through -003.

    No utilities are proposed for the operational facility.

12. The location, size and slope of all surface and subsurface drainage facilities.

    See Site Plan, Site Improvements & Grading Plan on Sheets CV-240-001 and CV-241-001 through -007 for the existing surface drainage. The Project has been designed to preserve existing surface flow. No additional surface or subsurface drainage facilities are proposed.

13. A summary schedule and views should be affixed to site plans for proposed structures in applicable residential and commercial districts, giving the following information:

    Not applicable. The Project is not located in a residential or commercial district, and no Project-related activities will occur within residential or commercial districts.

14. The topography of the existing and finished site shall be shown by contours or spot elevations. Where the existing slope on any part of the site is ten (10) percent or greater, contours shall be shown at height intervals of two (2) feet or less.

See Site Plan, Site Improvements & Grading Plan on Sheets CV-240-001 and CV-241-001 through -007.

15. For uses where hazardous substances will be used, generated, or stored in quantities greater than twenty-five (25) gallons or two hundred-twenty (220) pounds [one hundred (100) kilograms] in one month, such substances shall be stored in both primary and secondary containment. The site plan shall include the location and design of such containers. A "Hazardous Substance Reporting Form for Site Plan Review" shall be included with site plan when applicable.

    The Project will not use, generate, or store hazardous substances at the site.

16. For uses where objectionable noises or noise levels are anticipated to be audible off site, a description of the control practices or devices proposed to minimize or eliminate the objectionable noises or noise levels.

    The Sound Study (**Exhibit G**) demonstrates that Project noise emissions during operations will not exceed 45 dBA at any property line of an adjacent non-participating parcel, in accordance with Section 3.22.C.5 of the Zoning Ordinance. The Project satisfies the applicable noise requirements of Section 3.22.C.5 and therefore will not generate noise at levels requiring the use of control practices or devices to minimize or eliminate noise levels.

    The 45 dBA sound contour lines are shown on the Site Plan, Site Improvements & Grading Plan on CV-241-001 through -007.

D. Compliance with Applicable Zoning Approval Standards

1. Section 16.04 Review Standards (Special Use Permit)

In reaching its determination, the Planning Commission shall consider the following:

1. All standards applicable to the district in which the development is to be located.

    All participating parcels in the Project are zoned A Agricultural. The Project is a Commercial Solar Energy System, which is a permitted special land use in the A Agricultural district under Section 3.22 of the Zoning Ordinance. As shown on the Site Plan (**Exhibit B**), the Project complies with all area and dimensional requirements applicable to the Project and within the district.

    The group of parcels comprising the Project satisfy the 40-acre minimum area requirement of Section 14.03. The requirement of Section 14.03 related to minimum ground floor area does not apply to the Project because no buildings or dwelling units are proposed.

    The Project also satisfies the more restrictive standards of Section 3.22, as the solar arrays and equipment will be setback at least 40 feet from side and rear property lines and at least 50 feet from any road right-of-way, and the height of the PV solar modules at full tilt will be approximately 9' 10 ½".

2. Any additional standards applicable under Article Seventeen-Development Standards for Special Permit Uses.

    Article 17 of the Zoning Ordinance does not contain development standards applicable to a Commercial Solar Energy System. The appliable development standards are provided in Section 3.22 of the Zoning Ordinance. As discussed in

detail in Section C.1 of this narrative, the Project complies with the development standards applicable to a Commercial Solar Energy System under Section 3.22 of the Zoning Ordinance.

3. Adequate location and design of driveways to provide vehicular ingress to and egress from the site.

   As depicted on the Site Plan (**Exhibit B**), each solar array will be served by a network of connected internal access roads and driveways to provide access to a public right-of-way for ingress to and egress from the site. Entrances to the facility have been selected and designed in accordance with the Alcona County Road Commission's design standards to ensure driveways are located a sufficient distance from existing driveways or intersections and to optimize line of sight from entrances.

4. Traffic Circulation features within the site and location of automobile parking areas which ensure safety and convenience of both vehicular and pedestrian traffic.

   Operation of the solar facility will generate minimal traffic because the facility will not generate daily employee or customer traffic. The network of internal access roads shown on the Site Plan (**Exhibit B**) has been designed to provide access for maintenance crews and emergency service vehicles. No permanent parking is needed or proposed as part of the Project. The internal access roads are designed to contain on-site traffic within the facility and provide on-site temporary parking for maintenance crews. Pedestrians will not be permitted to access the facility, and the internal access roads will be located behind the perimeter security fence and locked gates to restrict public access.

5. Safe and adequate sewage disposal facilities, water supply, storm water drainage, fire protection and other utility provisions.

   The proposed facility does not require public water, sewer, stormwater drainage, fire protection, or other utility services. Accordingly, the proposed use is consistent with the lack of public utility services at the site.

   Commercial solar energy facilities are not unusually susceptible to fire, and the Project will not pose a significant fire hazard. The facility has been designed to incorporate adequate spacing between equipment. While fires are unlikely, use of vegetative strips throughout the Project assist in containing fires to localized areas. The Solar PV Station Emergency Response Plan (**Exhibit E**) details emergency procedures and provides contact information in the unlikely event of a fire.

6. Any development modifications necessary to ensure the nature of the operation will not be in conflict with the primary permitted uses in the district or neighborhood.

   The Project is consistent with the Zoning Ordinance because the Site Plan (**Exhibit B**) and facility layout comply with all applicable zoning regulations. Use of the site for the Project will not conflict with the nature and operation of the other primary permitted uses in the surrounding A Agricultural District because the Project will be entirely self-contained and will not generate daily customer or employee traffic. The facility will be surrounded by a perimeter fence utilizing wire mesh that resembles agricultural fencing and obscures views

of the equipment. Where views of the facility from adjacent residences and public roadways are not obscured by existing vegetation, vegetative buffers are proposed. The perennial grass and native pollinator ground cover proposed for the footprint of the solar arrays will be visually consistent with the agricultural character of the surrounding area.

The Project is also consistent with the intent of the A Agricultural district, which is to encourage retention of farmland in large enough parcels to support and encourage agricultural production until such time as further non-farm development is warranted. Commercial solar energy facilities – which are best suited for large parcels – represent a land use that can be decommissioned and the land restored to a condition that supports the resumption of agriculture in the future.

7. Adequate mitigation of any conditions objectionable to adjacent and nearby properties by reason of traffic, noise, vibration, dust, fumes, erosion, pollution, or negative effects upon significant environmental features.

   Solar energy generation is a passive land use that does not involve any activities or equipment that generate noxious or offensive noise, vibration, dust, fumes, erosion, pollution or traffic. As demonstrated by the Sound Study included as **Exhibit G**, noise generated by the facility will not exceed 45 dBA at any property line of an adjacent non-participating parcel. The Glare Study included as **Exhibit C** shows that the Project is anticipated to have one inconsequential instance of potential glare during the month of December. Proposed vegetative buffers will eliminate the occurrences of consequential glare in the areas modeled to experience such glare. The Project will not produce traffic, as its operation will not generate daily employee or customer traffic. The solar PV modules and ancillary electrical equipment do not generate fumes, dust, or odor, and no hazardous materials or waste are proposed to be handled at the site.

   The facility has also been designed to minimize impacts on significant environmental features. The Project's use of terrain-following tracking systems will result in minimal on-site grading, and the Project has been designed to avoid the use of delineated wetlands and streams. To address potential erosion, a soil erosion and sedimentation control plan will be prepared and a permit obtained from the Alcona County Building Department. Upon completion of construction, the perennial grass and native pollinator ground cover proposed for the footprint of the solar arrays is designed to prevent erosion.

8. That the use will not discourage or hinder appropriate development and use of adjacent premises and neighborhood.

   The Project will not discourage or hinder appropriate development and use of adjacent premises because it has been designed to comply with all applicable regulations. As shown on the Site Plan (**Exhibit B**), the Project will be entirely self-contained, and the facility will not require on-site employees or direct traffic to the predominantly agricultural area. The Project is surrounded by existing agricultural land that is either actively farmed or used for rural residential purposes. The facility will not limit or otherwise diminish the opportunity for adjacent property owners to continue to utilize their properties for agricultural purposes or develop their properties in accordance with all applicable regulations.

2. Article 17 Development Standards for Special Use Permits

The various land uses and activities requiring special consideration and more intense review are listed herein although the list is not all-inclusive. The standards specified under each type of use are meant to be utilized by the Planning Commission as general guidelines for determining whether a proposed use is acceptable. In addition, all permits must meet and follow all state and federal regulations and requirements.

The development standards for a Commercial Solar Energy System are not listed in Article 17 of the Zoning Ordinance; the applicable development standards are provided in Section 3.22. Section C.1 of this narrative demonstrates the Project's compliance with the development standards applicable to a Commercial Solar Energy System. The facility is designed to comply with all applicable state and federal regulations and requirements. Consumers Energy will obtain all necessary permits prior to beginning construction of the facility.

3. Article 18 Off-street Parking, Loading and Unloading Requirements and Standards

1. Section 18.01 Parking Requirement

No permanent parking areas are proposed as part of the Project. As such, no snow piling or snow removal is anticipated as part of the Project. Snow will be cleared from site roads on an as needed basis.