

LE SUEUR COUNTY PLANNING COMMISSION WORK SESSION

AGENDA

MEETING DATE: January 30, 2020

PLACE: Le Sueur County Environmental Services Building
515 South Maple Ave, Le Center, MN

TIME: 5:30 P.M.

1. Summary October 8, 2019 Worksession

Documents:

[10-08-19 SUMMARY.PDF](#)

2. Solar Ordinance Requirements

Documents:

[HANDOUT.PDF](#)

[SOLAR PERFORMANCE STANDARDS.PDF](#)

3. Solar Definitions

Documents:

[SOLAR DEFINITIONS.PDF](#)

4. Other Ordinance Revisions

5. Future Worksession/Open House/Public Hearing

Planning & Zoning Commission Public Hearing Procedure: The Chairman calls the meeting to order, then calls the item to be heard and asks the Applicant or representative present to come to the podium to answer any questions or present any comments. The Chairman opens the meeting to the public. Each speaker comes to the podium and states their name for the record prior to making a statement or posing a question. **All questions or comments are to be directed to the board, NOT THE APPLICANT.** After the public comments the Planning Commission publicly discusses the information and reviews the findings before making a motion. All meetings are recorded.

Planning Commission Work Session Summary 10-08-19

Topic: SOLAR

1. Solar Energy System. Ground Mounted – A solar energy system mounted on a rack or pole that sits on the ground or has its own foundation and is not attached to a structure.
2. Solar Energy System. Roof-top or wall – A solar energy system mounted on the roof or wall of a structure and is accessory to the principal land use.
3. Solar Energy System - A set of devices whose primary purpose is to collect solar energy and convert and store it for useful purposes including heating and cooling buildings or other energy-using processes, or to produce generated power by means of any combination of collecting, transferring, or converting solar-generated energy through the use of photovoltaic an non-concentrating collectors.
4. Large Solar Energy System - A solar array or system with a power capacity equal to or greater than 100 kilowatts
5. Small Solar Energy System - A solar array that is a minimum of 120 square feet in size with a power capacity of less than 100 kilowatts
6. ARRAY (SOLAR) – Any number of solar photovoltaic modules or panels connected to provide a single electrical output.
7. Non-concentrating collector-The collector area (the area that intercepts the solar and radiation) is the same as the absorber area (the area absorbing the radiation).
8. Photovoltaic Solar Energy System - A system of components that generates electricity from incident sunlight by means of the photovoltaic effect, whether or not the device is able to store the energy produced for later use.
9. Separation Distance-750 feet to dwelling and residential district, reciprocal, same as WECS.
10. Signage. No advertising signage is allowed. Manufacture and equipment information, warning, security or indication of ownership signage on the site shall comply with this Ordinance.
11. Interconnection. The owner, developer or operator of the Community Solar Energy System must submit an executed interconnection agreement with the electric utility in whose service territory the system is located prior to the County issuing any building permits associated with the System. Off-grid systems are exempt from this requirement.
12. An itemized decommissioning plan with cost estimates for each item shall be required to ensure that facilities are properly removed after their useful life. Decommissioning of Solar Energy Systems must occur within 180 days of either the end of the system's serviceable

life, or the system's discontinued use. A system shall be considered a discontinued use after **twelve (12)** consecutive months without energy production. The Board shall require the posting of a bond to ensure proper decommissioning. Decommissioning shall consist of the following:

- a. The removal of all structures and foundations.
 - b. The removal and disposal of all cables/wiring, electrical devices and structures and/or foundations associated with the project shall meet the provisions of the LSC Ordinance.
 - c. The removal of all access roads and parking areas
 - d. The permanent restoration of the site to its pre-development state including the following:
 1. Site cleanup followed by general surface grading and, if necessary, restoration of surface drainage swales, ditches, and tile drains (if present).
 2. Any excavation and/or trenching caused by the removal of building or equipment foundations, rack supports and underground electrical cables will be backfilled with the appropriate material and leveled to match the ground surface.
 3. The roads and parking areas will be removed completely, and filled with suitable sub-grade material and leveled.
 4. Further restoration of soil and vegetation of the site as necessary to minimize erosion.
13. Maximum Height. Ground mounted systems shall not exceed twenty (20) feet in height at maximum design tilt.
14. Setbacks. All equipment and structures shall meet the front, side and rear yard setbacks for principal structures for the zoning district in which the system is located.
15. Fencing. All boundary line fencing shall be located entirely upon the property of the System. Fences shall consist of 7 feet of chain link with 3 strands of barbed wire, 8 feet total.
16. Screening. Josh and Michelle bring back screening proposal.
17. Application. Josh and Michelle bring back application proposal.
18. Foundations. The manufacturer's engineer or another qualified engineer shall certify that the foundation and design of the solar panels is within accepted professional standards, given local soil and climate conditions.

1-30-2020-Discusstion Items.

A. Definitions Handout

B. Performance Standards Handout

C. Additional standards and discussion items.

1. **Roof mounted**-restrict additional height beyond roof height. See Performance Standards hand out, highlighted in yellow.

2. **Setbacks.** Additional setbacks to discuss.

a. The following table is for WECS.

Public Conservation Lands/Wildlife Management Areas	75 feet	600 feet	600 feet
Wetlands, Types 3-8	75 feet	600 feet	600 feet
Minnesota Scenic Byway	2640 feet	2640 feet	2640 feet

b. The setback shall be measured from future rights-of-way if a planned change or expanded right-of-way is known.

c. Prohibit/Restrict/Allow SES within 2-mile jurisdiction of City limits, or within a distance from any incorporated municipality.

3. **Glare study**- All proposed projects shall conduct and submit a glare study to identify potential impacts and mitigation strategies. To complete this glare study, the applicant can use the Solar Glare Hazard Analysis Tool (SGHAT). Once installed, if the solar energy system creates glare onto neighboring properties and/or streets and highways and the County determines that such glare constitutes a nuisance, the County shall require a more detailed glare study - prepared by a third-party consultant mutually acceptable to the County, Township and applicant - to identify additional actions and/or screening that may be required to substantially eliminate or block the glare from entering the neighboring property and/or street and highway.

4. Finish performance standards. Left of on page 11 of previous packet.

a. The conversion of existing wooded areas for the placement of systems is prohibited.

b. The total collector surface of ground-mounted or pole-mounted systems shall not exceed fifty (50) percent of the building footprint of the principal structure in the Rural Residence and Rural Townsite Districts.

- c. Ground-mounted and pole-mounted systems shall have permanent vegetation under and between the collectors and surrounding the system's foundation or mounting device.
- d. Roof-mounted solar energy systems. No construction permit required except where otherwise noted.
- e. Roof-mounted systems shall not exceed the maximum allowed height in any zoning district and shall not extend greater than four (4) feet above the existing structure's roof height in the Rural Residence and Rural Townsite Districts.
- f. In addition to the structure setback, the collector surface and mounting devices for roof-mounted systems shall not extend beyond the exterior perimeter of the structure on which the system is mounted or built, except for when such an extension is designed as an awning. A construction permit is required for awnings 120 square feet or larger.
- g. The collector and racking for roof-mounted systems that have a greater pitch than the roof surface shall be set back from all roof edges a minimum of two (2) feet.
- h. Exterior piping for roof-mounted solar hot water systems may extend beyond the perimeter of the structure on the side and rear yards.
- i. Roof-mounted systems, excluding building-integrated systems, shall not cover more than eighty percent (80%) of the south-facing or flat roof upon which the collectors are mounted.
- j. Wall-mounted solar energy systems. No construction permit required.
- k. Wall-mounted systems shall cover no more than twenty-five percent (25%) of any exterior wall facing the front yard in the Rural Residence and Rural Townsite Districts.
- l. A vegetation/seeding plan shall be submitted with the application for large solar energy systems.
- m. Solar arrays shall be constructed within the buildable area of the property and meet all applicable structure setbacks.
- n. Reflecting Solar Energy Systems. Systems shall be designed and operated to limit the misdirection of reflected solar radiation onto adjacent or nearby property, public roads, or other areas open to the public.

***Also a proposed definition in the definitions handout.*

01-30-2020

SOLAR PERFORMANCE STANDARDS:

1. **Purpose.**

The intent of this Subdivision is the establishment of regulations to provide for the installation and operation of Solar Energy Systems (SES) up to a maximum of 5 Mega Watts (MW) within Le Sueur County.

2. **Procedure.** The application for all SES shall include the following information:

3. **District Regulations.**

- a. Ground mount SES prohibited in Urban/Rural Residential District (R1) and Recreational Residential (RR) District.
- b. SES will be permitted, conditionally permitted, or prohibited as indicated in the following table:

DISTRICT	SMALL SOLAR ENERGY SYSTEM	LARGE SOLAR ENERGY SYSTEM
Agriculture (A)	Permitted	Conditional
Conservancy (C)	Permitted	Prohibited
Special Protection (SP)	Permitted	Prohibited
Recreational/ Commercial (RC)	Permitted	Prohibited
Recreational/ Residential (RR)	Permitted	Prohibited
Urban/Rural Residential (R1)	Permitted	Prohibited
General Business (B)	Permitted	Conditional
Industry (I)	Permitted	Conditional
Flood Plain Overlay	Permitted	Prohibited
Airport Zoning Overlay	Permitted	Conditional
Mineral Resources Overlay	Permitted	Conditional

4. **Setbacks.** All equipment and structures shall meet the following setbacks.

- a. **Small SES.** Shall meet all the front, side and rear yard setbacks for principal structures for the zoning district in which the system is located.

b. **Large SES.**

1. Shall meet ~~all the front, side and rear yard~~ setbacks for principal structures for the zoning district in which the system is located.
2. Shall be set back 100 feet from all road rights-of-way.
3. Shall be set back seven hundred fifty (750) feet from dwellings, and conversely all new dwellings shall be set back seven hundred fifty (750) feet from Large SES. [Dwelling on the same parcel as the system is exempt from this standard.](#)
4. Shall be set back seven hundred fifty (750) feet from residential zoning districts, and conversely all new residential zoning districts shall be set back seven hundred fifty (750) feet from all Large SES.

(Can have a table here also similar to WECS.)

5. **Signage.** No advertising signage is allowed. Manufacture and equipment information, warning, security or indication of ownership signage on the site shall comply with this Ordinance.
6. **Interconnection.** The owner, developer or operator of the Large Solar Energy System must submit an executed interconnection agreement with the electric utility in whose service territory the system is located prior to the County issuing any permits associated with the System. Off-grid and Small Solar Energy Systems are exempt from this requirement.
7. **Decommissioning.** *(For both Large and Small??)*
 - a. All Solar Energy Systems shall be considered a discontinued use after one (1) year without energy production.
 - b. All Solar Energy Systems and accessory facilities shall be removed within six (6) months of the discontinuance of use.
 - c. The Board shall require the posting of a bond to ensure proper decommissioning.
 - d. An itemized decommissioning plan shall consist of the following:
 1. Cost estimates for each item shall be required to ensure that facilities are properly removed after their useful life.
 2. The removal and proper disposal of all structures, foundations, cables/wiring, and electrical devices associated with the project and shall meet the provisions of the Le Sueur County Solid Waste Ordinance.
 3. Roads and parking areas shall be removed completely and filled with suitable sub-grade material and leveled.
 4. The permanent restoration of the site to its pre-development state.
 5. Site clean-up followed by general surface grading and, if necessary, restoration of surface drainage swales, ditches, and tile drains (if present).

6. Any excavation and/or trenching caused by the removal of structure or equipment foundations, rack supports and underground electrical cables will be backfilled with appropriate material and leveled to match the ground surface.
 7. Further restoration of soil and vegetation of the site as necessary to minimize erosion.
 8. The plan shall address road maintenance during and after completion of the decommissioning.
8. **Maximum Height.**
- a. Ground mounted systems shall not exceed twenty (20) feet in height at maximum design tilt.
 - b. Roof-mounted systems shall not exceed the maximum allowed height in any zoning district, and shall not extend greater than four (4) feet above the existing structure's roof height.
9. **Fencing.** All boundary line fencing shall be located entirely upon the property of the Solar Energy System. Fences shall consist of seven (7) feet in height of chain link with three (3) strands of barbed wire for a total eight (8) feet in height.
10. **Foundations.** The manufacturer's engineer or other qualified engineer shall certify that the foundation and design of the solar panels is within accepted professional standards, given local soil and climate conditions.
11. **Screening.**
- a. Adequate screening, including either natural and/or supplied screening in the form of plantings and fencing, and/or berming shall be provided.
 - b. Adequate screening shall be provided and maintained at all times around the perimeter of the fencing that faces a public road right-of-way, an existing dwelling site or farm site not on the subject property, residential zoning district or platted property, unless otherwise specified in the plan.
 - c. A continuous vegetative buffer shall be composed of conifer trees of a type which at time of planting shall be a minimum of four (4) feet in height and shall be maintained at maturity at a height of eight (8) feet in height to screen the fence. Density of alternating rows of conifer trees shall be not be planted more than six (6) feet apart on center.
 - d. Additional supplemental plant materials including trees, shrubs, and groundcover may be included in screening.
12. **Glare.** All Solar Energy Systems shall minimize glare that affects adjacent or nearby properties. Steps to minimize glare nuisance may include selective placement of the system, selective orientation of the panels, or site screening, berming, or buffering.

01-30-2020

DEFINITIONS:

Solar Energy System (SES) – A set of devices whose primary purpose is to collect solar energy and convert and/or store it for useful purposes including heating and cooling structures or other energy-using processes, or to produce generated power by means of any combination of collecting, transferring, or converting solar-generated energy through the use of photovoltaic and non-concentrating thermal collector, excluding reflecting SES.

Solar Energy System, Small – A solar array, or system, with a power capacity of less than 100 kilowatts.

Solar Energy System, Large – A solar array, or system, with a power capacity of 100 kilowatts or greater.

Solar Energy System, Ground Mount – A solar energy system mounted on a rack or pole that sits on the ground and has its own foundation and is not attached to a structure.

Solar Energy System, Roof-top or wall – A solar energy system mounted on the roof or wall of a structure and is accessory to the principal land use.

Solar Energy System, Photovoltaic – A system of components, that generates electricity from incident sunlight by means of photovoltaic effect, whether or not the device is able to store the energy produced for later use.

Solar Array – Any number of solar photovoltaic modules or panels connected to provide a single electrical output.

Non-concentrating Thermal Collector – The collector area (the area that intercepts the solar radiation) is the same as the absorber area (the area absorbing the radiation).

Solar Energy System, Reflecting – [A solar energy system that includes a device to reflect light onto the collector surface for the purposes of increasing the energy production of the system.](#)

Solar Module – [A number of individual solar cells connected together in an environmentally protected housing producing a standard output voltage and power. Multiple modules/panels can be assembled into an array for increased power and /or voltage.](#)

Solar Cell – [The basic unit of a photovoltaic solar panel.](#)

Solar Energy System, Off-Grid – [Need definition.](#)