

LINCOLN/LANCASTER COUNTY PLANNING STAFF REPORT

for February 18, 2015, PLANNING COMMISSION MEETING

PROJECT #: Text No. 15001

PROPOSAL: Add to Section 27.02.040 General Definitions a definition of Commercial Solar Energy Conversion System, add to Section 27.06.090 Utilities Use Group Commercial Solar Energy Conversion Systems as a permitted use in the I Industrial districts and a Specially Permitted use in the AG Agricultural district. Add conditions of approval for Commercial Solar Energy Conversion Systems as Section 27.63.830 of the Special Permit Chapter.

CONCLUSION: Addition of Commercial Solar Energy Conversion System as a specially permitted use in the AG Agricultural district supports the goals of the 2040 Comprehensive Plan for increasing renewable energy resources and the conditions proposed protect the public health, safety and welfare.

<u>RECOMMENDATION:</u>	Approval
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GENERAL INFORMATION:

Current text allows Commercial Solar Energy Conversion Systems as permitted uses in the I Districts.

ASSOCIATED APPLICATIONS: SP15004

COMPREHENSIVE PLAN SPECIFICATIONS:

Vision and Plan: Environmental Stewardship and Sustainability

Efforts are made to attract new and expanding industries that serve the emerging market for more sustainable products and services. (p. 1.5)

Energy and Utilities: Energy Guiding Principles

Promote renewable energy sources.

Energy and Utilities: Strategies for Renewable Energy:

- Continue to encourage and expand wind and solar access to buildings and other land uses.
- Incorporate the use of alternative fuels into local government and institutional operations.
- Incorporate the use of alternative fuels when feasible.

ANALYSIS:

1. This text amendment would define Commercial Solar Energy Conversion Systems (CSECS), show them as Permitted Uses in the I-1, I-2 and I-3 Industrial districts and add as Specially Permitted Use in the AG Agricultural District, and identify conditions of approval for the Special Permit.

2. Currently, the Use Group description for the Utilities Use Group includes the following language “ In addition, such uses include but are not limited to broadcast stations and towers, commercial wind energy conversion system, personal wireless services facilities, and alternative and renewable energy generation systems.” The table does not specifically show these alternative and renewable resource generation systems, but does show “All other uses in this Use Group” as being permitted in the I-1, I-2 and I-3 Industrial districts. Solar Energy Conversion Systems are one type of alternative and renewable generation system. This change would highlight CSECS as one of the uses in the Utilities Use Group and would add them to the table of uses.
3. Alternative and renewable energy sources are part of the 2040 Lincoln and Lancaster County Comprehensive Plan overall Vision and a Guiding Principle for Energy and Utilities. Wind and solar energy systems that serve the on-site needs of a property are allowed uses in all districts, provided they meet building code. Wind energy conversion systems that serve the on-site needs, but exceed the height restrictions, can be conditionally allowed. Commercial wind energy conversion systems are allowed by special permit in the AG district.
3. The proposed definition of Commercial Solar Energy Conversion Systems (CSECS) is modeled on the definition for Commercial Wind Energy Conversion Systems. It specifies that these systems are intended to produce energy that is meant to be used offsite, differentiating them from the on-site systems allowed as described above.
4. The change proposed to Chapter 27.06 includes the addition of “commercial solar energy conversion system” to the list of possible uses and adds it to the table with designation as a “P” (permitted) use in the I-1, I-2, and I-3 districts and as an “S” (special permitted) use in the AG district. The designation of the use as “P” in the industrial districts is reflective of the current designation for “All other uses in this Use Group” as “P” shown in the table. Solar photovoltaic systems are generally less impactful to adjacent land uses than many other typical industrial uses and should not require any more regulation than other typical permitted industrial uses. In the Agricultural district however, one can anticipate impacts to adjacent properties that would not normally be expected in the AG district and these impacts should be reviewed through the special permit process.
5. The proposed addition of Section 27.63.830 outlines the conditions for recommendation of approval of a CSECS facility in the AG district.
 - (a) The system uses photovoltaics to convert solar energy into electricity. Photovoltaic conversion utilizes solar panels which convert solar energy directly into electrical energy. There are also systems in use that convert solar energy to heat which is then, directly or indirectly, used to turn a generator. While these systems are also considered CSECS, they do have additional impacts that would need to be addressed regarding noise, moving parts and possibly emissions. No such system has been proposed, and such systems are not as common as photovoltaics. Should such a system be proposed in the future additional research would have to be conducted to determine whether this type of system is appropriate in the AG district and under what conditions.

(b) On-site transmission lines shall, to the maximum extent practicable, be placed underground. On-site transmission lines are those that run from the solar panel structure to the public utility connection. These lines, if placed above ground with supporting poles, could present an unsightly condition. As long as there is no technical, environmental or other justification for these lines remaining above ground, they should be placed underground in order to minimize the visual impact of the system.

(c) Where said use is adjacent to residential zoned land, park land, school property, or major entryways or corridors into the city, town, or village, visual screening through setbacks, berming, and other techniques may be required by the Planning Commission as appropriate and necessary to address the site-related impacts of the CSECS on adjacent property and major entryways or corridors. This proposed language is based on screening requirement language in the Excavation special permit and is meant to protect views along major public corridors and adjacent to public and residential uses. The requirement of screening is at the discretion of the Planning Commission.

(d) Each CSECS facility shall have a decommissioning plan outlining the means, procedure, and costs of removing the machines and all related supporting infrastructure and a bond or equivalent enforcement resource to guarantee removal and restoration upon discontinuance, decommissioning, or abandonment. This language is similar to a requirement in the CWECs Special Permit. This ensures that, should the CSECS facility cease to be operational, the costs of removal of the structures are covered and the removal occurs.

6. The proposed inclusion of Commercial Solar Energy Conversion System as a permitted use in the I districts and a specially permitted use in the AG district is appropriate and supports the goals of the 2040 Comprehensive Plan. The conditions proposed are reasonable and protect the health, safety and welfare of the community.

Prepared by:
Sara S. Hartzell, Planner

DATE: February 3, 2015

APPLICANT: Holdrege Solar Center, LLC
PO Box 2055
Charlottesville, VA 22902

CONTACT: Zach Starsia
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Charlottesville, VA 22902
(434)566-0122

TEXT AMENDMENT NO. 15001

TEXT AMENDMENT NO. 15001,
AMENDING TITLE 27 OF THE
LINCOLN MUNICIPAL CODE RELATING TO
COMMERCIAL SOLAR ENERGY CONVERSION SYSTEMS
IN THE AG DISTRICT.
PUBLIC HEARING BEFORE PLANNING COMMISSION:

February 18, 2015

Members present: Lust, Hove, Beecham, Cornelius, Corr, Harris, Sunderman, and Weber; Scheer absent.

Staff recommendation: Approval.

There were no ex parte communications disclosed.

Staff presentation: **Sara Hartzell of the Planning Department** explained that this proposed amendment will add commercial Solar Energy Conversion System (SECS) to the text in three separate places -- (1) add SECS to the general definitions; (2) include a new category for SECS as a specific use in the Utilities Use Group Table as specially permitted in the AG district and adding as a permitted use category in the table for permitted use in all industrial districts; and (3) add a new section 27.63.830 to Chapter 27.63 to set forth the conditions for permitting a SECS in the AG District.

Sara indicated that there are a number of conditions being recommended. The first condition requires that photovoltaic systems be used as opposed to solar thermal systems, which generally require turbine-type generators. The latter type of system would require additional language to the code to address the sound and moving equipment that would be required. The second condition requires that the on-site transmission lines be buried to the maximum extent possible. This will eliminate visual impacts that might be caused by poles and wires. The third condition relates to screening. Where they are adjacent to public uses and residential uses, screening would be required along the frontages. The final condition is to establish a decommissioning plan and bonding enforcement structure that could be used when the structures are no longer used and need to be removed to return the land to its original use.

Sara noted that the Comprehensive Plan identifies the city's vision to encourage and set forth efforts for renewable energy sources. She believes that with the conditions identified are appropriate and protects the public interest. Staff is recommending approval.

Staff Questions

Lust asked about the status of plans to amend the county text for these types of systems. Sara indicated that there are very few industrial use groups in the county but they would likely be allowed. If such a proposal were submitted, similar language would likely be considered at that time.

Corr asked if a separate amendment would be needed to allow for a solar energy system that uses a turning generator as opposed to the voltaic-type panel system. Sara indicated that these two types of systems are very distinct and would likely involve some separation in terms of a text amendment, i.e. identify solar energy as the umbrella, with separate text for each distinct system.

Proponents:

1. **Zach Starsia of HelioSage, Charlottesville, VA**, came forward but was advised that the public hearing on the special permit application will be held separately following the text amendment.
2. **Clinton Bruhn, Lincoln Electric System, 1040 "O" Street, Lincoln**, testified in support of this project. He indicated that LES believes this is a very valuable project for LES and its customers. He further stated that LES has a community solar program and there is a lot of support for renewable energy sources and solar photovoltaic systems in particular. LES is looking forward to working the HelioSage on this project.

There was no testimony in opposition.

ACTION BY PLANNING COMMISSION:

February 18, 2015

Beecham moved to approve the staff recommendation of approval, seconded by Hove.

Beecham reported that she once served on the LES Board and was involved in some of the initial discussions regarding solar energy. She believes there is a tremendous community support for these types of projects.

Corr stated that this is a good opportunity for Lincoln to diversify it's power mix and supports the amendment.

Motion for approval carried 8-0; Lust, Hove, Beecham, Cornelius, Corr, Harris, Sunderman, and Weber; Scheer absent.

HELIO SAGE

Monday, January 19, 2015

Lincoln, Nebraska Planning Department
Attn: David Cary, Acting Planning Director & Sara Hartzell, Planner
555 S 10th St, Suite 213
Lincoln, NE 68508

RE: Text Amendment | 27.02, 27.06, and 27.63

No waivers are requested.

Dear Mr. Cary,

HelioSage is a national developer of commercial and utility scale solar energy projects. Over the last decade, our management team has delivered over 450 megawatts of renewable energy projects nationwide, representing over \$500MM in financed projects. We look forward to working with the City of Lincoln to provide the State of Nebraska with a solar facility that further adds to the state's diverse energy mix. To this point, please find a application for a Text Amendment in regards to permitting the use of solar photovoltaic energy conversion systems to be sited on Agricultural (AG)-zoned properties.

HelioSage was selected by Lincoln Electric System through a competitive RFP process to design, and build a 5.00 megawatt (5.00 MW_{DC}) solar photovoltaic system within the City. The system will be ground-mounted, located on a 40 acre site currently zoned "AG: Agricultural" and will be interconnecting to the distribution grid of Lincoln Electric System (LES). HSC will sell electricity via a 20-year Power Purchase Agreement (PPA) to LES and is part of the Lincoln Electric System SunShares Project, whereby the public can voluntarily purchase the energy produced by this system at a predetermined rate by LES.

HelioSage Energy looks forward to working with the City of Lincoln to make the Holdrege Solar Center the largest solar photovoltaic system in the State of Nebraska. Please do not hesitate to contact our office with any questions.

Best regards,



Zach T. Starsia
Analyst & Project Developer
HelioSage Energy
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HelioSage, LLC (Solar Energy Developer)

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Ben Combs (Sr. Project Engineer) bcombs@heliosage.com (434) 446-1459

Lincoln, Nebraska Planning Department

Attn: David Cary, Acting Planning Director & Sara Hartzell, Planner

555 S 10th St, Suite 213

Lincoln, NE 68508

Recommended Text Amendment Language

Add to 27.02 General Definitions:

Commercial Solar Energy Conversion System: Commercial solar energy conversion system shall mean a commercial grade solar energy conversion system (SECS) intended to be used primarily to provide off-site power.

27.06.090 – Use Groups

Please add Commercial Solar Energy Conversion System to the Utilities Use Group Table as an “S” in the AG district and “P” in the three “I” districts.

27.63.XXX

A Commercial Solar Energy Conversion System (CSECS) may be allowed in the AG District by special permit under the following conditions:

- a) The system uses photovoltaics to convert solar energy into electricity.
- b) On-site transmission lines shall, to the maximum extent practicable, be placed underground.
- c) Visual screening through setbacks, berming and other techniques may be required where adjacent to residential or park land, school property, or at major entryways or corridors into the city, town or village at the discretion of the Planning Commission.
- d) Each CSECS facility shall have a decommissioning plan outlining the means, procedure and costs of removing the machines and all related supporting infrastructure and a bond or equivalent enforcement resource to guarantee removal and restoration upon discontinuance, decommissioning, or abandonment.