

City of Independence

Consideration of a Text Amendment to the Zoning Ordinance to Consider Allowing Solar Energy Systems in the City

To: Planning Commission
From: Mark Kaltsas, City Planner
Meeting Date: May 17, 2016

Request:

A proposed text amendment to the City of Independence Ordinances as follows:

- Chapter 5, Sections 510 and 530;
 - a. Consideration of the establishment of regulations pertaining to solar systems

Discussion:

At the last Planning Commission Meeting staff presented information pertaining to decision points that could be considered by the City in adopting a solar energy ordinance. Commissioners provided staff with direction relating to the types of systems that would be considered and in what districts they would be permitted. Based on that discussion, staff has prepared additional information and draft text language for consideration by the Planning Commission. The applicant has also submitted additional information for the City to consider (see attached letter).

The City will want to develop both qualifying site and system/site specific design criteria. The City will need to consider performance standards and placement guidelines which further define the criteria pertaining to the installation of solar energy systems. The following draft definitions and ordinance language will be further discussed by the Planning Commission.

Community Solar Garden – A community solar energy system that generates electricity by means of a ground-mounted or building-integrated solar energy system and that provides retail electric power (or a financial proxy for retail power) to multiple households or businesses residing or located off-site from the location of the solar energy system in accordance with the requirements of Minnesota Statutes 216B.1641 or successor statute.

Solar Energy System (SES) - A device or structural design feature, a substantial purpose of which is to provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generating, or water heating.

Solar Energy System, Building Integrated - A solar energy system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or substituting for an architectural or structural component of the building, examples of which are roofing materials, windows, skylights, and awnings.

Solar Energy System, Ground-Mounted – A freestanding solar system mounted directly to the ground using a rack or pole rather than being mounted on a building.

Solar Farm - A commercial facility that converts sunlight into electricity, whether by photovoltaic (PV), concentrating solar thermal devices (CST), or other conversion technology, for the principal purpose of wholesale sales of generated energy.

Draft Solar Performance Standards and Placement Guidelines.

(a) Solar Energy Systems are permitted in accordance with the following table:

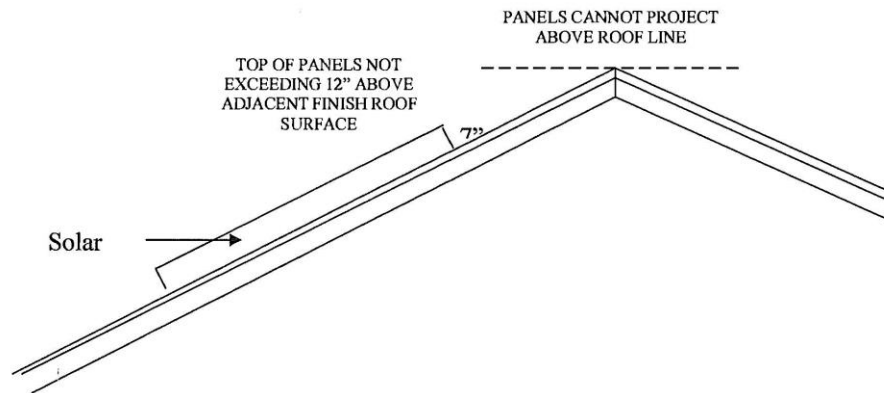
Type of Use	Zoning Districts				
	AG- Agriculture	RR-Rural Residential	UR-Urban Residential	CLI-Commercial - Light Industrial	UC-Urban Commercial
Building Integrated Solar Energy System	A	A	A	A	A
Ground Mounted Solar Energy System	C	C	C	C	C

P - Permitted
A - Accessory
C - Conditional
I - Interim

(b) The following guidelines are to be used in the design and placement of solar energy systems:

1. Building Integrated Solar Energy Systems - shall conform to the following provisions:
 - a. Solar panels (photovoltaic and solar thermal systems) can be located on pitched and flat roofs of all principle and accessory buildings within the City:
 - b. Solar panels shall be low profile and parallel with the slope of the pitched roof.

- c. Panels cannot project above the roof ridge line and cannot exceed the maximum structure or accessory building height for the structure they are mounted on.
- d. Set solar panels and solar devices back from the edge of a flat roof to minimize visibility.
- e. Select solar panels, solar devices, mechanical equipment and mounting structures with non-reflective finishes such as an anodized finish.
- f. Color of panel frames and support structures should be neutral and compatible with the roof surface color.
- g. Placement of panels should be uniform. Consider the panels as part of the overall roof configuration. Match the slope and proportions of the array with the shape and proportions of the roof.



2. Ground-Mounted Solar Energy Systems - shall be subject to the following provisions:

- a. Shall be located only in rear or side yards. Ground-mounted systems shall **not** be located in the Shoreland Overlay District (may want to consider allowing as an IUP).
- b. Shall be wholly screened from view from the public right of way or adjacent residential structure. Methods for screening shall include berming, fencing, landscaping and/or combination thereof.
- c. Shall be located on a parcel of at least _____ acres.
- d. Shall be setback _____ feet from the rear yards.
- e. Shall be setback _____ feet from the rear yards.
- f. Shall have a maximum area of _____ SF. (Consideration should take into account that the average panel size is 1m x 1.5m or approximately 15 SF per panel. The cost of a ground mounted system may be prohibitive unless you install a larger system. 25 panels at 300w per panel would equal 7.5kw which

would be considered a substantial residential system. This system would occupy an area of approximately 340 SF)

- g. The system, structure, and support apparatus shall comply with applicable accessory building setbacks as determined by the underlying zoning district.
- h. The maximum height for any component of the system shall be 15 feet.
- i. Shall be in compliance with any applicable local, state and federal regulatory standards, including building, electrical and plumbing codes.]
- j. Shall be designed by a certified professional to meet applicable professional standards for the local soil and climate conditions.

Staff is seeking Planning Commission feedback pertaining to the draft language and standards presented above. Many of the criteria can be further discussed and considered with a final draft being brought back to the Commission prior to being forwarded to the City Council.

Recommendation:

Staff is seeking discussion and direction from the Planning Commission and City Council for the requested Text Amendment.

Attachments:

1. Letter from Applicant