

COUNCIL ACTION FORM

SUBJECT: ZONING TEXT AMENDMENT RELATING TO HEIGHT OF SOLAR ENERGY SYSTEMS

BACKGROUND:

In 2009 the City Council adopted an ordinance allowing and regulating solar energy systems (SES), and in 2015 the standards for SES were updated. The zoning ordinance considers SES as accessory to the principal use of a lot, and allows for these systems to be placed on roof tops or on the ground with accessory support structures. Typically, the systems must comply with zoning standards, such as height, setbacks and yard areas, as well as with the SES specific standards in Section 29.1309.

City Council authorized Scott Renaud of FOX Engineering, representing Iowa State Ready-mix, to proceed with a text amendment to allow free-standing systems in industrial areas to extend up to 20 feet in height. Currently, Section 29.1309 (3)(c) limits overall height at 6 feet for panels located in the rear or side yard and 4 feet within a front yard. There is an allowance for ground mount systems over parking areas to be up to 20 feet in height. The current standards also prohibit front yard placement of panels except with the approval of a special use permit.

The proposed amendment increases the maximum height of free-standing solar energy systems to 20 feet in the front, side, and rear yards outside of the required setbacks for land zoned General Industrial, exempts the systems from certain size limitations in relation to principal buildings (Attachment A), and clarifies that all standards apply regardless of visibility from a street.

The applicant also seeks an amendment allowing greater coverage of a lot by solar panels. Currently, Section 29.1309 (3)(d)(ii) limits the area of free-standing solar panels to be no larger than the footprint of the principal buildings. This is a common restriction on accessory structures.

The proposed amendment retains the lot coverage limitations for most zoning districts, but removes that lot coverage limit for General Industrial, subject to yard and setback limits. Any development would still be responsible for meeting minimum landscaping (15 percent of the lot area) and any parking lot and mechanical unit landscaping.

The proposed changes primarily relate to two planning and zoning issues. The first is the size and design of the structures and their compatibility with the surroundings. Staff has determined that the increased size of systems in General Industrial zones would not lead to any compatibility issues compared to what may already be built on a property in such a zoning district. The base zone requirements of landscape percentage would still apply to the SES.

The second issue is whether to promote or incent the use of land with accessory solar structures on the ground versus roof top installed systems. In some instances, ground mount systems may be easier and cheaper to install than roof mounted systems. The tradeoff is the use of land on a site that may otherwise be put to another productive use. For industrial areas, many sites are large enough to allow for business expansion compared to commercial and residential areas. The City places the greatest priority on creating employment opportunities with efficient use of land for economic needs in industrial areas. This is of a greatest priority in areas where we desire a high concentration of employment, such as the Research Park. In these areas it would be beneficial to efficiently use land with roof top solar installations rather than ground mounted free standing facilities. However, this issue of efficiency has less relevance for General Industrial areas that may have many types of uses that need a lot of land or space to operate a business, but are not employee intensive compared to office uses. This is the situation for the applicant, which has a lot of land for the ready-mix plant, but not a lot of building area.

The proposed amendments would only apply to the General Industrial zoned areas and would not apply to Planned Industrial or Research Park Innovation District. A mark-up copy of the proposed changes can be found in *Attachment A*.

Planning and Zoning Commission Recommendation:

At its March 15, 2017 meeting, the Planning and Zoning Commission voted 4-0 to recommend approval of the proposed ordinance changes. The Commission was interested to learn whether the changes were adequate for other users and what the size of such systems would be. There was a reference to the ISU solar installation by CyRide that is approximately 10-12 feet in height. Mr. Renaud spoke about the issue, noting that wind load requirements would likely limit panel heights to no more than 20 feet.

ALTERNATIVES:

1. The City Council can adopt the proposed amendments regarding solar energy systems.
2. The City Council can decline to adopt the proposed amendments regarding solar energy systems.
3. The City Council can direct staff to develop alternative language for the proposed amendments regarding solar energy systems.

CITY MANAGER'S RECOMMENDED ACTION:

The proposed change is limited to General Industrial zoned areas and requires consistency with the base zone development standards. The proposed changes help to promote the installation of new solar energy systems without undermining compatibility with the surroundings. The new free standing SES allowance is not meant to diminish any required landscaping associated with site development.

Therefore, it is the recommendation of the City Manager that the City Council accept Alternative #1, thereby adopting the proposed amendments.

ATTACHMENT A: PROPOSED AMENDMENTS

PROPOSED NEW SECTION 29.1309 (3)

(3) Freestanding Solar Energy Systems:

(a) Setbacks

(i) Front. Solar Energy Systems shall not be located within any required front setback. They may be located in a front yard (beyond the required front setback line) subject to approval of a Solar Energy System Special Use Permit by the Zoning Board of Adjustment, except as noted in (d), below.

(a) Front yard, as used in this section, is the space between the principal building on the lot and the front lot line. See definition and graphic in Section 29.406(7)(e).

(ii) Side and Rear. Six (6) feet from all property lines and other structures.

(iii) Corner and Through Lots. The definition and requirements for a front yard in Section 29.406(7)(e) shall prevail when the subject lot is not an interior lot.

(iv) Easements, Utilities, Rights of Way. No portion of any solar energy system shall extend into any easement, right of way or public way, regardless of above stated exceptions and regulations for setback and yard requirements.

(b) Location. Systems shall be located on the same lot as the building being served. Where there is no principal building, the system is not allowed.

(c) Height in Zoning Districts other than General Industrial: Six (6) feet in height maximum in side and rear yards. Four (4) feet in height maximum in front yards. ~~There is an exception for systems in non-residential zoning districts, a SES may be twenty (20) feet in height and subject to setbacks if placed over a parking area. Otherwise, height and setback limits are the same as in residential zoning districts.~~ The height shall be measured from the grade at system base to the highest peak, including the highest position of any adjustable system.

(d) Height in General Industrial zones: Twenty (20) feet in height maximum in front yard provided the front setback of the zoning district is met. Twenty (20) feet in height maximum in side and rear yards provided the required side and rear setbacks (Section 3(a)2, above) are met. The height shall be measured from the grade at system base to the highest peak, including the highest position of any adjustable system.

(e) Height in Non-Residential zones if placed over a parking area: Twenty (20) feet in height provided the required setbacks of the zoning district are met.

(f) Freestanding System Size:

(i) Residential Properties. Systems shall not exceed one-tenth (1/10) the footprint of the principal building served or one hundred (100) square feet, whichever is greater.

(ii) Non-Residential Properties. Systems shall not exceed the footprint of the principal building served.- Within the General Industrial zones, the footprint of the SES may exceed the footprint of the principal building subject to meeting all other development standards.

(iii) Lot Coverage. Freestanding systems shall be included in the maximum lot ~~Coverage coverage or minimum landscaped area calculations~~ except that up to 40 square feet is allowed regardless of total lot coverage.

(iv) Measurement of the system shall be based upon the area of the solar receiving panel, regardless of the adjustment angle of the panel.

~~(v) A freestanding system, or portion thereof, not visible from abutting street rights of way at any time of the year is exempt from maximum size and coverage calculations.~~

ORDINANCE NO.

AN ORDINANCE TO AMEND THE MUNICIPAL CODE OF THE CITY OF AMES, IOWA, BY REPEALING SECTION 29.1309(3) AND ENACTING A NEW SECTION 29.1309(3) THEREOF, FOR THE PURPOSE OF HEIGHT OF SOLAR ENERGY SYSTEMS ; REPEALING ANY AND ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT TO THE EXTENT OF SUCH CONFLICT; PROVIDING A PENALTY; AND ESTABLISHING AN EFFECTIVE DATE.

BE IT ENACTED, by the City Council for the City of Ames, Iowa, that:

Section One. The Municipal Code of the City of Ames, Iowa shall be and the same is hereby amended by repealing Section 29.1309(3) and enacting a new Section 29.1309(3) as follows:

“**Sec. 29.1309 SOLAR ENERGY SYSTEMS (SES).**

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(3) Freestanding Solar Energy Systems:

(a) Setbacks

- (i)** Front. Solar Energy Systems shall not be located within any required front setback.

They may be located in a front yard (beyond the required front setback line) subject to approval of a Solar Energy System Special Use Permit by the Zoning Board of Adjustment, except as noted in (d), below.

(a) Front yard, as used in this section, is the space between the principal building on the lot and the front lot line. See definition and graphic in Section 29.406(7)(e).

- (ii)** Side and Rear. Six (6) feet from all property lines and other structures.

(iii) Corner and Through Lots. The definition and requirements for a front yard in Section 29.406(7)(e) shall prevail when the subject lot is not an interior lot.

(iv) Easements, Utilities, Rights of Way. No portion of any solar energy system shall extend into any easement, right of way or public way, regardless of above stated exceptions and regulations for setback and yard requirements.

- (b)** Location. Systems shall be located on the same lot as the building being served.

Where there is no principal building, the system is not allowed.

(c) Height in Zoning Districts other than General Industrial: Six (6) feet in height maximum in side and rear yards. Four (4) feet in height maximum in front yards. The height shall be measured from the grade at system base to the highest peak, including the highest position of any adjustable system.

(d) Height in General Industrial zones: Twenty (20) feet in height maximum in front yard provided the front setback of the zoning district is met. Twenty (20) feet in height maximum in side and rear yards provided the required side and rear setbacks (Section 3(a)(ii), above) are met. The height shall be measured from the grade at system base to the highest peak, including the highest position of any adjustable system.

(e) Height in Non-Residential zones if placed over a parking area: Twenty (20) feet in height provided the required setbacks of the zoning district are met.

(f) Freestanding System Size:

(i) Residential Properties. Systems shall not exceed one-tenth (1/10) the footprint of the principal building served or one hundred (100) square feet, whichever is greater.

(ii) Non-Residential Properties. Systems shall not exceed the footprint of the principal building served. Within the General Industrial zone: the footprint of systems may exceed the footprint of the principal building subject to meeting all other development standards.

(iii) Lot Coverage. Freestanding systems shall be included in the maximum lot coverage except that up to 40 square feet is allowed regardless of total lot coverage.

(iv) Measurement of the system shall be based upon the area of the solar receiving panel, regardless of the adjustment angle of the panel.”

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Section Two. Violation of the provisions of this ordinance shall constitute a municipal infraction punishable as set out by law.

Section Three. All ordinances, or parts of ordinances, in conflict herewith are hereby repealed to the extent of such conflict, if any.

Section Four. This ordinance shall be in full force and effect from and after its passage and publication as required by law.

Passed this _____ day of _____, _____.

Diane R. Voss, City Clerk

Ann H. Campbell, Mayor