

CASCADE PLANNING & ZONING COMMISSION
AGENDA
TUESDAY, FEBRUARY 20, 2024
6:00PM

NOTICE: Notice is hereby given that the Cascade Planning & Zoning Commission will hold a meeting on Tuesday, February 20, 2024 at 6:00 PM in the Cascade City Hall Council Chambers, 320 1st Ave W, Cascade, IA 52033. Any visual or hearing- impaired persons or persons with special accessibility needs should contact the City Clerk at 563-852-3114 prior to the meeting.

1. Call to Order
2. Roll Call
3. Approve the Agenda as Presented
4. Meeting Minutes – Review & approve the October 19, 2023 minutes
5. Appointment of Chairperson and Vice-Chairperson
6. Open Public Hearing on Proposed Zoning Code Amendments
 - a. Visibility at Intersections with an Alley and Street Intersections
 - b. Solar Systems
7. Close Public Hearing
8. Consideration on Recommendation to the City Council on Ordinance #05-24, 15-foot visibility at intersections triangle for alley and street intersections
9. Consideration on Recommendation to the City Council on Ordinance #06-24, for Small Solar Systems to Not Require a Special Exception
10. Adjournment

PLANNING & ZONING COMMISSION MEETING
THURSDAY, October 19, 2023
Meeting Minutes

The Cascade Planning & Zoning Commission met on Thursday, October 19, 2023, at 6:00p.m. in the Cascade City Hall Council Chambers, 320 1st Ave W, Cascade, IA 52033.

Present: Moriarity, Conlin, Steffen, Kerper, Otting and Moran.

Motion by Conlin, second by Moran to approve the agenda as presented. Motion carried, ayes.

Motion Conlin, second Moran to nominate Bob Moriarity as Chairperson and Naomi Steffen as Vice-Chairperson. Motion carried, all ayes.

Motion Steffen, second Moriarity to approve the June 1, 2023 minutes. Motion carried, all ayes.

The Commission discussed the Oak Hill #18 Plat that split one parcel of condos into six separate parcels. This will allow them to be sold off and have separate owners.

Motion Otting, second Moran to recommend approval of the Final Plat of Oak Hill No. 18 to the City Council. Motion carried, all ayes.

The Commission discussed a proposed amendment to the Urban Renewal Plan that includes a reconstruction at 109 1st Avenue West for ROSO Properties, a building at 120 Industrial Street for NJCallahan, the south end Highway 136 project debt and administrative costs for TIF covering wages and benefits for three City employees.

Motion Moran, second Conlin to recommend to the City Council adoption of the proposed Urban Renewals Amendment as the Commission reviewed the plan and confirms the amendment conforms to and is consistent with the City's Comprehensive Plan. Motion carried, all ayes.

Motion Steffen, second Moran to adjourn at 6:44pm. Motion carried.

Lisa A. Kotter
City Administrator

ORDINANCE #05-24

**AN ORDINANCE AMENDING THE ZONING CODE OF ORDINANCES OF THE CITY OF
CASCADE, IOWA BY AMENDING SECTION 165.12 SUPPLEMENTARY DISTRICT
REGULATIONS**

NOW, THEREFORE, BE IT ENACTED by the City Council of the City of Cascade, Iowa, that Section 165.12 of the Zoning Code is amended as follows:

Section I. SECTION MODIFIED. 165.12 Supplemental District Regulations of the Ordinances of the City of Cascade, Iowa is amended as follows:

165.12 Supplementary District Regulations. Subject to Section 165.11, the following provision, regulations, or exceptions shall apply equally to all districts except as hereinafter provided:

1. Visibility At Intersection. On a corner lot in any district except the C-2 General Retail District, no fence, wall, hedge, or other planting or structure that will obstruct vision between a height of two (2) feet and ten (10) feet above the centerline grades of the intersecting streets shall be erected, placed or maintained within the triangular area formed, by connecting the right-of-way lines at points which are twenty-five (25) feet distant from the intersection of the right-of-way lines, and measured along the right-of-way lines. **In the instance where a street shall intersect with an alley, the same shall apply as listed above, except that the distance shall instead be 15 feet of distance (not 25) for the intersection right of way lines.**

Section II. Severability Clause. If any section, provision or part of the ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

Section III. When Effective. This ordinance shall be in effect from and after its final passage, approval and publication as provided by law.

PASSED, ADOPTED AND APPROVED this ___ day of _____, 2024

Steven Knepper, Mayor

ATTEST:

Kathy Goerd, City Clerk

First Reading:

Second Reading:

Third Reading:

Publication Date:

Sent to American Legal:

ORDINANCE NO. 06-24

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF CASCADE, IOWA, TO AMEND SOLAR ENERGY SYSTEMS.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CASCADE, IOWA:

SECTION 1. PURPOSE. The purpose of this Ordinance is to amend the requirements to install a small solar energy system and no longer require the small systems to be subject to a special exception permit process. The Board of Adjustment will continue to review the large small solar energy system.

SECTION 2. SECTIONS AMENDED. The following sections of Chapter 165 of the Code of Ordinances of the City of Cascade, Iowa, are amended as follows:

165.11 Schedules of District Regulations.

A-1 AGRICULTURAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

3. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

R-1 SINGLE-FAMILY RESIDENTIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

5. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

R-2 MIXED RESIDENTIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

4. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

R-3 MULTIPLE/MOBILE RESIDENTIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

2. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

R-4 MULTIPLE RESIDENTIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

3. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

C-1 HIGHWAY COMMERCIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

4. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

C-2 GENERAL RETAIL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

5. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

M-1 LIGHT INDUSTRIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

5. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

M-2 HEAVY INDUSTRIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

9. Large Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

ARTICLE 6. SOLAR ENERGY SYSTEMS

165.56 Review and Approval of Application. Within sixty (60) days of receiving the application for ~~an~~ a large SES, the City shall schedule a public hearing before the Board of Adjustment. Notice shall be given to the public no less than four (4) days and no more than twenty (20) days prior to the public hearing by publication in the official City newspaper and to all owners of property within two-hundred feet (200') of the proposed SES site by ordinary mail. Approval of a Special Exception for an SES shall be valid for a period no longer than two (2) years from the date of such permit, unless construction has commenced or the Board of Adjustment specifically grants a longer period of time for the zoning permit. The approval and issuance of a Special Exception for the construction or installation of any SES, under this ordinance, shall not relieve any permittee, applicant, or owner from compliance with all legal requirements nor relieve the permittee, applicant, or owner of any liability for damage or loss resulting from the placement, construction, or maintenance of such SES. The City assumes no liability whatsoever by virtue of the issuance of a Special Exception for an SES.

SECTION 4. REPEALER. All other sections of this Ordinance in conflict with these provisions shall be repealed.

SECTION 5. SEVERABILITY. If any section, provision, or part of this Ordinance shall be adjudged invalid or unconstitutional, such adjudication shall have no effect on the validity of the Ordinance as a whole or any section, provision, or part thereof not adjudged invalid or unconstitutional.

SECTION 6. EFFECTIVE DATE. This Ordinance shall be in full force and effect from and after its adoption and publication as provided by law.

Passed by the Council on the _____ day of _____, 2024.

Steve Knepper, Mayor

ATTEST:

Kathy Goerdts, City Clerk

ORDINANCE NO. 03-18
GIVING YOU THIS TO USE TO COMPARE

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF CASCADE, IOWA, TO PROVIDE FOR SMALL WIND ENERGY CONVERSION SYSTEMS AND SOLAR ENERGY SYSTEMS.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CASCADE, IOWA:

SECTION 1. PURPOSE. The purpose of this Ordinance is to establish requirements for the construction, maintenance, and regulation of small wind energy conversion systems and solar energy systems on private property within the City of Cascade, Iowa, in order to maintain the visual appeal of properties within the City and preserve public health, safety, and welfare.

SECTION 2. SECTIONS AMENDED. The following sections of Chapter 165 of the Code of Ordinances of the City of Cascade, Iowa, are amended as follows:

165.11 Schedules of District Regulations.

A-1 AGRICULTURAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. Sanitary landfill or waste disposal area, provided it is not used for disposal of dead animals; that refuse shall be covered with dirt daily if it contains raw garbage, that a nuisance due to smoke, odor, or blowing of trash and debris shall not be created, and that the site shall be restored to a condition compatible with the adjacent area upon conclusion of the dump operation. An access road having at least a graveled surface and five (5) parking spaces shall be provided. No landfill or waste disposal area shall be located closer than one-fourth (1/4) mile to any dwelling, park, school, or place of public assembly.
2. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.
3. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

R-1 SINGLE-FAMILY RESIDENTIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. Private kindergartens, day nurseries, and pre-schools, one (1) parking space plus one (1) parking space per employee be provided.

2. A private garage, not to be used for commercial purposes, on a nonconforming vacant lot in the district.
3. A non-auto sales, non-auto service, and/or non-auto repair commercial business in an existing non-conforming building where all the business's products, furnishings, fixtures, and equipment are wholly contained and confined within the building; limited to 50 gallons of onsite fuel storage; no storage of hazardous chemicals; and two off-street parking spaces provided on the premises.
4. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.
5. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

R-2 MIXED RESIDENTIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. Rest, nursing, and convalescent homes; homes for the orphaned and aged on sites of one (1) acre or more and that one (1) parking space for each two beds be provided.
2. In a nonconforming lot, a home occupation may continue in existence if the occupant no longer resides on the premises.
3. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.
4. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

R-3 MULTIPLE/MOBILE RESIDENTIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. None.
2. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.
3. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

R-4 MULTIPLE RESIDENTIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. Apartment buildings with more than twelve (12) housing units, provided the applicant clearly demonstrates the development has adequate off-street parking as required by Section B; sufficient fire protection as determined by the Fire Chief; and that the street providing ingress and egress for the building is capable of handling the projected traffic as determined by the City Engineer.
2. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.
3. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

C-1 HIGHWAY COMMERCIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. Dwelling unit within a building housing a commercial use for the occupancy of a single family, provided that an open yard area of at least 2,400 sq. ft. is reserved and maintained for the occupants and two (2) parking spaces are provided.
2. An on-site free-standing business identification sign up to 75 feet in height, provided the sign is a distance equal to one-half its height from neighboring buildings, maintains 7.5 feet horizontal clearances and 12.5 feet vertical clearance from overhead power lines, and the sign is designed and built to withstand 100 mph winds. Applicant must demonstrate a clear and compelling need for the special exception.
3. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.
4. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

C-2 GENERAL RETAIL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. Manufacturing, assembly, and processing uses, except the manufacture, warehousing, storage, or blending of fertilizers, pesticides, insecticides, or other chemicals that are combustible, explosive, or of a toxic nature potentially dangerous to the health, safety, and general welfare of the people of Cascade. All operations must be contained within the limits of the buildings. Minimum required off-street parking of one (1) space per employee plus one (1) space per vehicle used by the industry.
2. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.

3. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

M-1 LIGHT INDUSTRIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. Communications stations and towers, provided that they are not closer to a dwelling or place of public assembly than a distance equal to one-half their height, that will not interfere with the operation of any airport or landing strip, and that one (1) off-street space for each vehicle used by the facility be provided.
2. An on-site free-standing business identification sign up to 75 feet in height, provided the sign is a distance equal to one-half its height from neighboring buildings, maintains 7.5 feet horizontal clearances and 12.5 feet vertical clearance from overhead power lines, and the sign is designed and built to withstand 100 mph winds. Applicant must demonstrate a clear and compelling need for the special exception.
3. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.
4. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

M-2 HEAVY INDUSTRIAL DISTRICT

D. SPECIAL EXCEPTION USES AND STRUCTURES. Subject to Section 165.34(2) and other requirements contained herein, the Board of Adjustment may permit the following:

1. Stockyards, loading pens, slaughter houses, and handling or processing of animal by-products, poultry processing plants, buying stations, and/or sale barns and yards, provided that it is not closer than one-fourth (1/4) mile to any dwelling unit other than that of the owner or operator, or any park, school, church, or place of public assembly; that the provisions for drainage, sanitation, waste disposal, and fly control are approved by the County Health Officer; that it is located so that prevailing winds will not cause dust or odors to create a nuisance for developed properties in the vicinity; and that one (1) parking space for each employee and one (1) space for each vehicle used by the industry be provided. An additional 25 parking spaces shall be provided for sale barns.
2. Bulk storage of petroleum products, liquid fertilizers, and agricultural chemicals, provided that such use is not closer than 300 feet to a dwelling or place of public assembly and that one (1) parking space for each vehicle used by the industry be provided.
3. The following uses, provided that they are not closer than 1000 feet to any dwelling unit other than that of the owner or operator, or any park, school, church, or place of

public assembly; that one (1) off-street parking space for every two employees and one (1) off-street space for each company vehicle shall be provided.

- A. Chemical plants.
 - B. Explosive manufacture or storage.
 - C. Fertilizer blending and manufacture.
 - D. Garbage, offal, or dead animal reduction.
 - E. Refining of petroleum and natural gas and their products.
4. Auto wrecking and junkyards on sites of five (5) acres or more, provided that the front yard be maintained as an open space free of weeds and debris; that the site be enclosed with a 6-foot high fence or a suitable landscape planting that must screen the operation from the view of adjacent public streets and places of public assembly, parks, recreation areas, and residential properties; and that a minimum of one (1) off-street parking space for each employee and one (1) off-street space for each vehicle used by the facility be provided.
 5. Communications stations and towers, provided that they are not closer to a dwelling or place of public assembly than a distance equal to one-half their height, that they will not interfere with the operation of any airport or landing strip, and that one (1) off-street space for each vehicle used by the facility be provided.
 6. An on-site free-standing business identification sign up to 75 feet in height, provided the sign is a distance equal to one-half its height from neighboring buildings, maintains 7.5 feet horizontal clearance and 12.5 feet vertical clearance from overhead power lines, and the sign is designed and built to withstand 100 mph winds. Applicant must demonstrate a clear and compelling need for the special exception.
 7. An adult-oriented establishment, provided the establishment is not in or within sixteen hundred (1,600) feet of the borders of a residential district; any church, synagogue, mosque, temple, or other place of religious worship; any public or private school offering general education for students between the years of Kindergarten and Twelfth grade; any daycare home or daycare business; or any public park or playground. For purposes of this Section, bike paths, trails, waterways, and boat launches shall not be deemed a public park; any other adult entertainment business; or any existing establishment selling alcoholic beverages for consumption on premises. The above cited distances shall be measured by following a straight line, without regard to intervening buildings, from the nearest point of the property parcel upon which the proposed adult entertainment business is to be located, to the nearest point of the parcel of property or zoning district boundary line from which the proposed adult entertainment business is to be separated. The definitions of adult-oriented establishments in Section 124.02 of the Cascade Code of Ordinances are hereby incorporated by reference.
 8. Small wind energy conversion systems in accordance with the requirements of §§ 165.45–165.50 of this Code of Ordinances.

9. Solar energy systems in accordance with §§ 165.51–165.56 of this Code of Ordinances.

165.12 Supplementary District Regulations. Subject to Section 165.11, the following provision, regulations, or exceptions shall apply equally to all districts except as hereinafter provided:

5. Height Regulation Exception. The height limitations contained in Section 165.11, Schedules of District Regulations, do not apply to grain storage bins, grain elevators, feed mills, or to spires, belfries, cupolas, chimneys, antennas, water tanks, ventilators, elevator housing, solar energy systems, small wind energy conversion systems, or other structures placed above the roof level and not intended for human occupancy.

SECTION 3. SECTIONS ADDED. Chapter 165 of the Code of Ordinances of the City of Cascade, Iowa, is amended to add Articles 5 and 6 applicable to small wind energy conversion systems and solar energy systems within City limits, respectively:

ARTICLE 5. SMALL WIND ENERGY CONVERSION SYSTEMS

165.45 Intent. The intent of this Article is to balance the need for clean, renewable energy resources and the necessity to protect the public health, safety, and welfare of the community. The City finds these regulations are necessary to ensure that small wind energy conversion systems (SWECS) are appropriately designed, sited, and installed.

165.46 Definitions. For the purpose of this Article, certain terms and words are hereby defined. Words used in the present tense shall include the future; the singular number shall include the plural and the plural the singular; and the word “shall” is mandatory and not directory.

1. Shadow Flicker: Changing light intensity caused by sunlight through the moving blades of a wind energy conversion system.
2. Small Wind Energy Conversion System, Building Mounted: An SWECS which is securely fastened to any portion of a principal building in order to achieve desired elevation, whether attached directly to the principal building or attached to a tower structure which is in turn fastened to the principal building.
3. Small Wind Energy Conversion System, Freestanding: An SWECS which is elevated by means of a monopole tower only and is not located on another supporting structure, except that the tower shall have an appropriately constructed concrete base. Guyed, lattice, or other non-monopole style towers shall not meet this definition.
4. Small Wind Energy Conversion System, Horizontal Axis: A small wind energy conversion system that has blades which rotate through a horizontal plane.
5. Small Wind Energy Conversion System (SWECS): A wind energy conversion system which has a nameplate rated capacity of up to fifteen (15) kilowatts for residential uses

and districts and which is incidental and subordinate to a principal use on the same parcel. A system is considered an SWECS only if it supplies electrical power solely for use by the owner on the site, except that when a parcel on which the system is installed also receives electrical power supplied by a utility company, excess electrical power generated and not presently needed by the owner for on-site use may be used by the utility company pursuant to § 199, Chap. 15.11(5) of the Iowa Administrative Code, as amended from time to time.

6. Small Wind Energy Conversion System, Vertical Axis: A small wind energy conversion system that has blades which rotate through a vertical plane.
7. Tower: The vertical component of a wind energy conversion system that elevates the wind turbine generator and attached blades above the ground.
8. Wind Energy Conversion System (WECS): An aggregation of parts, including the base, tower, generator, rotor, blades, supports, guywires, and accessory equipment, such as utility interconnect and battery banks, etc., in such configuration as necessary to convert the power of wind into mechanical or electrical energy, e.g., wind charger, windmill, or wind turbine.
9. Wind Turbine Generator: The component of a wind energy conversion system that transforms mechanical energy from the wind into electrical energy.

165.47 General Regulations.

1. Special Exception: A small wind energy conversion system (SWECS) may be permitted by the Board of Adjustment only if accessory to a permitted principal use and designated as a special exception use and structure in a specified district.
2. Permit Required: It shall be unlawful to construct, erect, install, alter, or locate any SWECS within the City of Cascade, unless the owner/operator has first obtained a building permit from the City pursuant to the provisions of Chapter 155 and Section 165.28 of this Code of Ordinances. The permitted Special Exception may be revoked by resolution of the Board of Adjustment any time the approved system does not comply with the rules set forth in this Article and the conditions imposed by the Board of Adjustment. The owner/operator of the SWECS must also obtain any other permits required by other federal or state agencies/departments prior to erecting the system.
3. Tower: Only monopole towers shall be permitted for freestanding SWECS. Lattice or guyed towers or towers of any other type shall not be considered to be in compliance with this Section.
4. Installation: Installation must be done according to manufacturer's recommendations. All wiring and electrical work must be completed according to the Uniform Building Code and National Electric Code ("NEC"). All electrical components must meet code-recognized test standards.

5. Number of Systems Per Zoning Lot: No more than one SWECS may be placed on any single-family residential zoned lot. Building mounted SWECS shall be prohibited on any parcel or lot containing a single-family or two-family dwelling unit.
6. Engineer Certification: Applications for any SWECS shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. An engineering analysis of the tower showing compliance with the applicable regulations, certified by an Iowa licensed professional engineer, shall also be submitted.
7. Location:
 - A. No part of an SWECS shall be located within or over drainage, utility, or other established easements, or on or over property lines.
 - B. An SWECS shall be located entirely in the rear yard.
 - C. SWECS shall not be located in any required setback.
 - D. An SWECS shall be located in compliance with the guidelines of applicable federal aviation administration (“FAA”) regulations as amended from time to time.
 - E. No SWECS shall be constructed within twenty (20) feet laterally of an overhead electrical power line (excluding secondary electrical service lines or service drops). The setback from underground electric distribution lines shall be at least five (5) feet.
 - F. No part of an SWECS may be located closer than ten (10) feet to any property line.
8. Color: The SWECS shall be a neutral color, such as white or light gray. Other colors may be allowed at the discretion of the Board of Adjustment. The surface shall be nonreflective.
9. Shadow Flicker: No SWECS shall be installed and operated so as to cause a shadow flicker to fall on or in any existing residential structure or portion of a residential lot upon which a residential structure may be constructed.
10. Lighting: No lights shall be installed on the tower, unless required to meet FAA regulations.
11. Fencing: A privacy screen fence eight (8) feet in height shall surround the SWECS and any equipment structure in commercially or industrially zoned properties. A six (6) foot privacy fence enclosing the rear yard of a residentially zoned property shall be deemed appropriate to address this provision.

12. Signage: No signage or advertising of any kind shall be permitted on the tower or any associated structures.
13. Climbing Apparatus: All climbing apparatus shall be located at least ten (10) feet above the ground, and the tower must be designed to prevent climbing within the first ten (10) feet.
14. Maintenance: Facilities shall be well maintained in an operational condition that poses no potential safety hazard.
15. Displacement of Parking Prohibited: The location of the SWECS shall not result in the net loss of required parking as required by any provision of this Code of Ordinances.
16. Utility Notification: No SWECS shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off grid systems shall be exempt from this requirement.
17. Interconnection: The SWECS, if interconnected to a utility system, shall meet the requirements for interconnection and operation as set forth by the utility and the Iowa Utilities Board.
18. Restriction on Use of Electricity Generated: An SWECS shall be used exclusively to supply electrical power for on-site consumption, except that excess electrical power generated by the SWECS and not presently needed for on-site use may be used by the utility company in accordance with § 199, chapter 15.11(5) of the Iowa Administrative Code.
19. Noise: Except during short-term events, including utility outages and severe wind events, an SWECS shall be designed, installed, and operated so that the noise generated does not exceed 55 decibels.
20. Safety Controls: Each SWECS shall be equipped with both an automatic and manual braking, governing, or feathering system to prevent uncontrolled rotation, over speeding, and excessive pressure on the tower structure, rotor blades, or turbine components. Said automatic braking system shall also be capable of stopping turbine rotation in the event of a power outage so as to prevent back feeding of the grid.
21. Shutoff: A clearly marked and easily accessible shutoff for the wind turbine will be required as determined by the State Fire Marshall.
22. Electromagnetic Interference: All SWECS shall be designed and constructed so as not to cause radio and television interference. If it is determined that the SWECS is causing electromagnetic interference, the operator shall take the necessary corrective action to eliminate this interference, including relocation or removal of the facilities,

subject to the approval of the appropriate City authority. A permit granting an SWECS may be revoked if electromagnetic interference from the SWECS becomes evident.

23. Wind Access Easements: The enactment of this Section does not constitute the granting of an easement by the City. The owner/operator shall acquire covenants, easements, or similar documentation to assure sufficient wind to operate the SWECS unless adequate accessibility to the wind is provided by the site.
24. Insurance: The owner/operator of an SWECS must carry liability insurance of not less than one million dollars (\$1,000,000.00) coverage and provide the City proof of coverage upon request.
25. Compliance With NEC: Applications for an SWECS shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the NEC.
26. Removal: If the SWECS remains nonfunctional or inoperative for a continuous period of at least one (1) year, the system shall be deemed to be abandoned. The owner/operator shall remove the abandoned system at their expense. Removal of the system includes the entire structure, transmission equipment, and fencing from the property, excluding foundations. Nonfunction or lack of operation may, but need not necessarily, be proven by reports from the interconnected utility. The City shall have the right to enter the property at its sole discretion to determine if an SWECS is generating power. Such generation may be proven by use of an amp meter. The owner/operator shall make available to the City Administrator or his/her authorized designee all reports to and from the purchaser of energy from the SWECS if requested. If removal of towers and appurtenant facilities is required, the City Administrator or his/her authorized designee shall notify the owner/operator.
27. Right of Entrance: As a condition of approval of a special exception, an applicant seeking to install an SWECS shall be required to sign a waiver agreement, which shall be recorded and run with the land, granting permission to the City of Cascade to enter the property to remove the SWECS or to assure compliance with this Article. Removal shall be at the expense of the owner/operator and the cost may be assessed against the property in the same manner as real estate taxes.

165.48 Bulk Regulations.

1. Setbacks:

- A. Freestanding SWECS. The minimum distance between a freestanding SWECS and any property line shall be a distance equivalent to the height of the system as measured in accordance with the methodology of § 165.48(3). The setback shall be measured from the closest property line to the point of the SWECS closest to such property line.

- B. Building Mounted SWECS. The required setback for any building mounted SWECS shall be equal to the required setback of the principal building to which the SWECS is to be attached.
- 2. Minimum Lot Size: The minimum lot size for an SWECS shall be one (1) acre.
- 3. Maximum Height:
 - A. Freestanding SWECS: Height shall be measured from the ground to the top of the tower, including the wind turbine generator and blades. Manmade earth berms, terraces, and retaining walls that elevate the wind turbine shall be considered a part of the turbine
 - 1) Lots of more than one (1) and fewer than three (3) acres: maximum height shall be sixty-five (65) feet.
 - 2) Lots of three (3) to seven (7) acres: maximum height shall be eighty (80) feet.
 - 3) Lots larger than seven (7) acres: maximum height shall be one hundred (100) feet.
 - B. Building Mounted SWECS. For a building mounted SWECS, the hub height shall not be more than ten (10) feet higher than the point of attachment to the building on which it is attached.
- 4. Maximum Blade Diameter: The maximum diameter of the blades for a SWECS shall be twenty (20) feet.
- 5. Clearance of Blade: No portion of a horizontal axis SWECS blade shall extend within thirty (30) feet of the ground. No portion of a vertical axis SWECS shall extend within ten (10) feet of the ground. No blades may extend over parking areas, driveways, or sidewalks. No blade may extend within twenty (20) feet of the nearest tree, structure, or aboveground utility facilities.

165.49 Application Required. Application for an SWECS shall be made on forms provided by the City of Cascade. No action may be taken regarding requests for an SWECS until completed applications have been filed and fees paid. All applications must include the following information:

- 1. A properly completed and signed application.
- 2. A statement from the applicant that the wind energy conversion system will be installed in compliance with manufacturer's specifications, and a copy of the manufacturer's specifications.

3. A statement indicating what hazardous materials will be used or stored on the site and how those materials will be stored.
4. A description of the wind energy conversion system's height and design, including a cross section, elevation, and diagram of how the wind energy conversion system will be anchored to the ground, prepared by a professional engineer licensed in the State of Iowa.
5. A site plan including the following information:
 - A. The legal description of the property and proof of legal ownership;
 - B. Parcel boundaries;
 - C. Existing buildings;
 - D. Easements;
 - E. Proposed safety fencing;
 - F. Proposed location of wind energy conversion system;
 - G. Setbacks;
 - H. Travel ways;
 - I. Overhead utility lines;
 - J. Contour map with contours at intervals of two feet, if the general slope is less than ten (10) percent, and at vertical intervals of five feet if the general slope is greater than ten (10) percent;
 - K. If connection to the publicly regulated utility grid is proposed, a copy of the contract between applicant and utility verifying the proposed connection is acceptable, and/or other evidence making clear that the utility is aware of the proposed connection and finds it acceptable; and
 - L. Shadow flicker model.
6. The owner/developer shall be responsible for obtaining and submitting to the City a list of the names and last known addresses of all owners of property within two hundred (200) feet of the perimeter of the project development site for the proposed SWECS.
7. The City may require that the application and site plan be reviewed by a City Engineer before the Board of Adjustment schedules a hearing on the application.

165.50 Review and Approval of Application. Within sixty (60) days of receiving the application for an SWECS, the City shall schedule a public hearing before the Board of Adjustment. Notice shall be given to the public no less than four (4) days and no more than twenty (20) days prior to the public hearing by publication in the official City newspaper and to all owners of property within two hundred (200) feet of the proposed wind energy site by ordinary mail. Approval of a Special Exception for an SWECS shall be valid for a period no longer than two (2) years from the date of such permit, unless construction has commenced or the Board of Adjustment specifically grants a longer period of time for the zoning permit. The approval and issuance of a Special Exception for the construction or installation of any SWECS, under this Chapter, shall not relieve any permittee, applicant, or owner from compliance with any other legal requirements nor relieve the permittee, applicant, or owner of any liability for

damage or loss resulting from the placement, construction, or maintenance of such SWECS. The City assumes no liability relative to an SWECS by virtue of the issuance of a Special Exception for the SWECS. The provisions of Section 165.31 of this Code of Ordinances shall apply to the review and approval of applications, except to the extent such provisions are in conflict with the provisions of this Section, in which event the provisions of this Section shall control.

ARTICLE 6. SOLAR ENERGY SYSTEMS

165.51 Intent. The intent of this Article is to balance the need for clean, renewable energy resources and the necessity to protect the public health, safety, and welfare of the community. The City finds these regulations are necessary to ensure that solar energy systems (SES) are appropriately designed, sited, and installed.

165.52 Definitions. For the purpose of this Article, certain terms and words are hereby defined. Words used in the present tense shall include the future; the singular number shall include the plural and the plural the singular; and the word “shall” is mandatory and not directory.

1. Collector Panel: An equipment assembly used for gathering, concentrating, or absorbing solar energy as useful thermal energy or to generate electric energy.
2. Height, Total Building Mounted System: The height above the roof surface measured perpendicular to the roof specific to the installation on a sloped roof or the height above the roof surface specific to the installation on a flat roof.
3. Height, Total Ground Mount System: The height above grade of the system from the highest point, including the supporting structure, related equipment, and the collector panels. Adjustable angle systems will be measured from the highest point when the system is at its maximum vertical extension.
4. Large Solar Energy System (LSES): A solar energy system which has a nameplate rated capacity of over fifteen (15) kilowatts in electrical energy or fifty (50) KBTU of thermal energy for nonsingle-family residential uses and districts and which is incidental and subordinate to a principal use on the same parcel. A system is considered an LSES only if it supplies electrical power or thermal energy solely for use by the owner on the site, except that when a parcel on which the system is installed also receives electrical power supplied by a utility company, excess electrical power generated and not presently needed by the owner for on-site use may be used by the utility company in accordance with § 199, chapter 15.11(5) of the Iowa Administrative Code, as amended from time to time.
5. Off Grid: An electrical system that is not connected to a utility distribution grid.
6. Small Solar Energy System (SSES): A solar energy system which has a nameplate rated capacity of up to fifteen (15) kilowatts in electrical energy or fifty (50) KBTU of thermal energy for residential uses and districts and which is incidental and subordinate

to a principal use on the same parcel. A system is considered an SSES only if it supplies electrical power or thermal energy solely for use by the owner on the site, except that when a parcel on which the system is installed also receives electrical power supplied by a utility company, excess electrical power generated and not presently needed by the owner for on-site use may be used by the utility company in accordance with § 199, chapter 15.11(5) of the Iowa Administrative Code, as amended from time to time.

7. Solar Access: A property owner's right to have sunlight shine on his land.
8. Solar Energy: Radiant energy received from the sun at wavelengths suitable for heat transfer, photosynthetic use, or photovoltaic use.
9. Solar Energy System, Building Integrated: A solar photovoltaic system that is constructed as an integral part of a principal or accessory building and where the collector component maintains a uniform profile or surface with the building's vertical walls, window openings, and roofing. Such a system is used in lieu of an architectural or structural component of the building. A building integrated system may occur within vertical facades, replacing glazing or other facade material; into semitransparent skylight systems; into roofing systems, replacing traditional roofing materials; or other building or structure envelope systems. To be considered a building integrated solar energy system, the appearance of the collector components must be consistent with the surrounding materials.
10. Solar Energy System, Building Mounted: An SES which is securely fastened to any portion of a building roof, whether attached directly to the principal or accessory building.
11. Solar Energy System, Ground Mounted: An SES which is not located on a building and is ground mounted.
12. Solar Energy System (SES): An aggregation of parts, including the base, supporting structure, photovoltaic, or solar thermal panels, inverters, and accessory equipment, such as utility interconnect and battery banks, etc., in such configuration as necessary to convert radiant energy from the sun into mechanical or electrical energy.
13. Utility Scale Solar Energy System: A solar energy system which supplies electrical power or thermal energy solely for use by off-site consumers.

165.53 General Regulations.

1. Allowances: Allowances for solar energy systems (SES) shall be as follows:
 - A. A building integrated system.

- B. A building mounted system attached to the roof of an accessory or primary structure.
 - C. A ground mounted system as a detached accessory structure to a primary structure.
 - D. Large solar energy systems (LSES) are not allowed in single-family residential used or zoned property.
 - E. Utility scale solar energy systems are not allowed.
2. Permit Required: It shall be unlawful to construct, erect, install, alter, or locate any solar energy system (SES) within the City of Cascade, unless the owner/operator:
 - A. Obtains the necessary building permit; and
 - B. The owner/operator of the SES also obtains any other permits required by other federal or state agencies/departments prior to erecting the system.
 3. Installation: Installation must be done according to manufacturer’s recommendations. All work must be completed according to the applicable building, fire, and electric codes. All wiring and electrical work must be completed according to the Uniform Building Code and National Electric Code (“NEC”). All electrical components must meet code recognized test standards.
 4. Number of Systems Per Zoning Lot: No more than one SES may be placed on any zoned lot or parcel, unless otherwise specifically approved by the Board of Adjustment.
 5. Engineer Certification: Applications for any SES shall be accompanied by standard drawings of the receiving structure if newly constructed, including the supporting frame and footings. For systems to be mounted on existing buildings, an engineering analysis showing sufficient structural capacity of the receiving structure to support the SES per the applicable code regulations, certified by an Iowa licensed professional engineer, shall be submitted.
 6. Color: The SES shall be a neutral color. All surfaces shall be nonreflective to minimize glare that could affect adjacent or nearby properties. Measures to minimize nuisance glare may be required, including modifying the surface material, placement or orientation of the system, and if necessary, adding screening to block glare.
 7. Lighting: No lighting other than required safety lights or indicators shall be installed on the SES.
 8. Signage: No advertising or signage other than required safety signage and equipment labels shall be permitted on the SES.

9. Displacement of Parking Prohibited: The location of the SES shall not result in the net loss of required parking as specified by any chapter of this Code of Ordinances or other state/federal law.
10. Utility Notification: No SES that generates electricity shall be installed until evidence has been given that the utility company has been informed of and is in agreement with the customer's intent to install an interconnected customer-owned generator. Off grid systems shall be exempt from this requirement.
11. Interconnection: The SES, if interconnected to a utility system, shall meet the requirements for interconnection and operation as set forth by the utility and the Iowa Utilities Board.
12. Restriction on Use of Energy Generated: An SES shall be used exclusively to supply electrical power or thermal energy for on-site consumption, except that excess electrical power generated by the SES and not presently needed for on-site use may be used by the utility company in accordance with § 199, chapter 15.11(5) of the Iowa Administrative Code.
13. Shutoff: A clearly marked and easily accessible shutoff for any SES that generates electricity will be required as determined by the State Fire Marshal.
14. Electromagnetic Interference: All SESs shall be designed and constructed so as not to cause radio and television interference. If it is determined that the SES is causing electromagnetic interference, the operator shall take the necessary corrective action to eliminate this interference, including relocation or removal of the facilities, subject to the approval of the appropriate City authority. A Special Exception granting an SES may be revoked if electromagnetic interference from the SES becomes evident.
15. Solar Access Easements: The enactment of this Section does not constitute the granting of an easement by the City. The owner/operator may need to acquire covenants, easements, or similar documentation to assure sufficient solar exposure to operate the SES, unless adequate accessibility to the sun is provided by the site. Such covenants, easements, or similar documentation are the sole responsibility of the owner/operator. Should the owner/operator pursue a solar access easement, the extent of the solar access should be defined and the easement document executed in compliance with the regulations contained in chapter 564A (access to solar energy) of the Iowa Code.
16. Compliance with National Electric Code ("NEC"): Applications for SESs shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the NEC.
17. Maintenance and Removal: Facilities shall be well-maintained in an operational condition that poses no potential safety hazard. Should the SES fall into disrepair and be in such dilapidated condition that it poses a safety hazard or would be considered generally offensive to the senses of the general public, the SES may be deemed a public

nuisance and may be abated in accordance with Chapter 50 of this Code of Ordinances. If the SES remains nonfunctional or inoperative for a continuous period of one year, the system shall be deemed to be abandoned. The owner/operator shall remove the abandoned system at their expense. Removal of the system includes the entire structure, collector panels, and related equipment from the property, excluding foundations. Should the owner/operator fail to remove the system, the SES will be considered a public nuisance and will be abated in accordance with Chapter 50 of this Code of Ordinances. The City shall have the right to enter the property at its sole discretion to determine if an SES is generating power. Such generation may be proven by use of an amp meter. The owner/operator shall make available to the City Administrator or his/her authorized designee all reports to and from the purchaser of energy from the SES, if requested. If removal of appurtenant facilities is required, the City Administrator or his/her authorized designee shall notify the owner/operator. Nothing in this Section shall be deemed to prevent the strengthening or restoring to a safe condition any SES or associated building or structure, or part thereof, declared to be unsafe by the appropriate authority.

18. Nonconforming Systems: An SES that has been installed on or before the effective date of this Section and is in active use and does not comply with any or all of the provisions of this Section shall be considered a legal nonconforming structure and will be regulated by the corresponding provisions of this Code of Ordinances.

165.54 Bulk Regulations.

1. Location:

- A. Ground mounted SES:

- 1) No part of an SES shall be located within or over drainage, utility, or other established easements, or on or over property lines.
 - 2) The SES shall be located in accordance with the regulations for detached accessory structures allowed in the applicable zoning district or not less than one (1) foot from the property line for every one (1) foot of the system height measured at its maximum height, whichever is most restrictive.
 - 3) An SSES cannot be located in front of the rear wall of the primary structure, even if it meets the front yard setback requirements. An LSES cannot be located in the front yard setback.
 - 4) An SES shall not be located in any required buffer.
 - 5) The setback from underground electric distribution lines shall be at least five (5) feet.

- 6) No SES shall be located which may obstruct vision between a height of thirty (30) inches and ten (10) feet on any corner lot within a vision triangle of twenty-five (25) feet formed by intersecting street right-of-way lines.

B. Building mounted SES:

- 1) The SES shall be set back not less than one (1) foot from the exterior perimeter of the roof for every one (1) foot the system extends above the parapet wall or roof surface, provided that in no event shall the SES be setback less than three (3) feet.
- 2) Should the SES be mounted on an existing structure that does not conform to current setback requirements, the SES shall be installed to meet the current setback requirements applicable to the receiving structure.
- 3) Shall be designed to minimize its visual presence to surrounding properties and public thoroughfares. Panel arrangement shall take in account the proportion of the roof surface and place the panels in a consistent manner without gaps unless necessary to accommodate vents, skylights, or equipment.
- 4) Access pathways for the SES shall be provided in accordance with all applicable building, fire, and safety codes.
- 5) Shall be located in such a manner that fall protection railings are not required or are not visible from the public thoroughfare.

C. Building integrated SES:

- 1) No setback required.
- 2) Access pathways for the SES shall be provided in accordance with all applicable building, fire, and safety codes.
- 3) Shall be located in such a manner that fall protection railings are not required or are not visible from the public thoroughfare.

- D. No SES shall be constructed within twenty (20) feet laterally of an overhead electrical power line (excluding secondary electrical service lines or service drops).

2. Height:

A. Ground mounted SES:

- 1) The maximum height of the SES shall not exceed twelve (12) feet in height as measured from existing grade.

B. Building mounted SES:

- 1) The collector panel surface and mounting system shall not extend higher than eighteen (18) inches above the roof surface of a sloped roof.
- 2) The collector panel surface and mounting system shall not extend higher than seven (7) feet above the roof surface of a flat roof.

C. Building integrated SES:

- 1) The collector panel shall maintain a uniform profile or surface with the building's vertical walls, window openings, and roofing.

3. Size:

- A. Size of the SES is calculated by measuring the total surface area of the collector panels for the system.
- B. Ground mounted SES: In all zoning districts, the SES is restricted in size to no more than fifty percent (50%) of the area of the primary structure(s) footprint.
- C. Building mounted SES: System size will be determined by the available roof area subject to the installation minus the required setbacks or access pathways.
- D. Building integrated SES: System size will be determined by the available building surface area subject to the installation minus the required access pathways.
- E. In no case shall an SSES exceed the nameplate rated capacity of fifteen (15) kilowatts or fifty (50) KBTU.

165.55 Application Required. Application for an SES shall be made on forms provided by the City of Cascade. No action may be taken regarding requests for SESs until completed applications have been filed and fees paid. All applications must include the following information:

1. A properly completed and signed application.
2. A statement from the applicant that the SES will be installed in compliance with manufacturer's specifications, and a copy of the manufacturer's specifications.
3. A statement indicating what hazardous materials will be used or stored on the site and how those materials will be stored.

4. A description of the SES height and design, including a cross section, elevation, and diagram of how and where the SES will be anchored to the structure or ground, prepared by a professional engineer licensed in the State of Iowa.
5. A site plan including the following information:
 - A. The legal description of the property and proof of legal ownership
 - B. Parcel boundaries
 - C. Existing buildings
 - D. Easements
 - E. Proposed safety screening, if applicable
 - F. Setbacks and compliance with the setback requirements of this Chapter
 - G. If connection to the publicly regulated utility grid is proposed, a copy of the contract between applicant and utility verifying the proposed connection is acceptable, and/or other evidence making clear that the utility is aware of the proposed connection and finds it acceptable.
6. The owner/operator shall be responsible for obtaining and submitting to the City a listing of the names and last known addresses of all owners of property within two-hundred feet (200') feet of the perimeter of the project development site containing such SES(s).

165.56 Review and Approval of Application. Within sixty (60) days of receiving the application for an SES, the City shall schedule a public hearing before the Board of Adjustment. Notice shall be given to the public no less than four (4) days and no more than twenty (20) days prior to the public hearing by publication in the official City newspaper and to all owners of property within two-hundred feet (200') of the proposed SES site by ordinary mail. Approval of a Special Exception for an SES shall be valid for a period no longer than two (2) years from the date of such permit, unless construction has commenced or the Board of Adjustment specifically grants a longer period of time for the zoning permit. The approval and issuance of a Special Exception for the construction or installation of any SES, under this ordinance, shall not relieve any permittee, applicant, or owner from compliance with all legal requirements nor relieve the permittee, applicant, or owner of any liability for damage or loss resulting from the placement, construction, or maintenance of such SES. The City assumes no liability whatsoever by virtue of the issuance of a Special Exception for an SES.

SECTION 4. REPEALER. All other sections of this Ordinance in conflict with these provisions shall be repealed.

SECTION 5. SEVERABILITY. If any section, provision, or part of this Ordinance shall be adjudged invalid or unconstitutional, such adjudication shall have no effect on the validity of the Ordinance as a whole or any section, provision, or part thereof not adjudged invalid or unconstitutional.

SECTION 6. EFFECTIVE DATE. This Ordinance shall be in full force and effect from and after its adoption and publication as provided by law.

Passed by the Council on the _____ day of _____, 2018.

Greg Staner, Mayor

ATTEST:

Deanna McCusker, City Administrator