

STAFF REPORT FOR PLANNING COMMISSION MEETING OF OCTOBER 25, 2017

FILE NO: ZCA-17-157

AGENDA ITEM: E-5

STAFF AUTHOR: Hope Sullivan, Planning Manager

REQUEST: To make a recommendation to the Board of Supervisors regarding an ordinance amending Title 18, Zoning, Chapter 18.05 General Provisions, Section 18.05.080 Private Use Wind Energy Conversion Systems to eliminate prescriptive height limitations and to add supplemental review standards. (Hope Sullivan)

APPLICANT: Carson City Planning Division

RECOMMENDED MOTION: "I move to recommend to the Board of Supervisors approval of ZCA-17-157, an ordinance amending Title 18, Chapter 18.05, General Provisions, Section 18.05.080 Private Use Wind Energy Conversion Systems to eliminate prescriptive height limitations, to add supplemental review standards, and providing other matters properly relating thereto."

LEGAL REQUIREMENTS: CCMC 18.02.050 (Review); 18.02.075 (Zoning Map Amendments and Zoning Code Amendments); NRS 278.260.

KEY ISSUES:

The proposed ordinance would eliminate prescriptive height limitations and provide for supplemental review standards with respect to Private Use Wind Energy Conversion Systems consistent with Senate Bill 314, signed by the Governor on May 31, 2017.

DISCUSSION:

Senate Bill 314 deletes the provision which specifies that the governing body of the City may impose reasonable restrictions on the use of a system for obtaining wind energy which are related to the height of the system, and provides instead that the governing body is not precluded from denying a permit if, based on the size, height or configuration of the system, the installation of the system (1) represents a danger to the health, safety or welfare of the public; or (2) is not compatible with the character of the area in which the system is located.

CCMC 18.05.080 provides specific standards regarding Private Use Wind Energy Conversion Systems. As currently written, the total height of a Wind Energy Conversion System is limited to 60 feet. Consistent with Senate Bill 314, this limitation is proposed to be deleted.

A new standard is proposed to be added (CCMC 18.05.080.2.n) recognizing that a special use permit, which would be necessary in the case of variations from the standards, may be denied based on height, if it is found that (1) it represents a danger to health, safety or welfare of the public; or (2) it is not compatible with the character of the area in which the system is located.

PUBLIC COMMENTS:

Public notice of this proposed Zoning Code Amendment was published in the newspaper and posted on the City's website pursuant to the provisions of NRS and CCMC. As of the writing of this staff report, no public comments were received. Any comments that are received after this report is complete will be submitted prior to or at the Planning Commission meeting, depending on their submittal date to the Planning Division.

FINDINGS:

The Commission, in forwarding a recommendation to the Board for approval of a Zoning Code Amendment, shall make the findings of fact found in CCMC 18.02.075(5). The following findings are recommended by staff:

- 1. That the proposed amendment is in substantial compliance with and supports the goals and policies of the Master Plan.**

Master Plan Policy 1.1f discusses energy conservation. The policy states, in part, "Encourage the use of new and emerging technologies that lead to increased energy conservation for both residential and non-residential uses." The inclusion of the Private Use Wind Energy Conversion Systems is consistent with this policy. The proposed modifications are necessary to create consistency with State law.

- 2. That the proposed amendment will provide for land uses compatible with existing adjacent land uses and will not have detrimental impacts to other properties in the vicinity.**

The proposed amendment will not compromise land use compatibility, and will not have a detrimental impact to other properties in the vicinity. Wind energy conversion facilities are allowed as an accessory use in all zoning districts. All existing standards, with the exception of the prescriptive height limitation, will remain in effect. Although the prescriptive height limitation will be removed, wording will be added that will allow for denial of a special use permit based on height if the use represents a danger to health, safety or welfare of the public, or if it is not compatible with the character of the area in which the system is located. A special use permit is required if there is variation from the standards. With the addition of these findings along with the existing standards, the amendment will provide for land use compatibility with adjacent land uses, and avoid detrimental impacts to properties in the vicinity.

- 3. That the proposed amendment will not negatively impact existing or planned public services or facilities and will not adversely impact the public health, safety and welfare.**

The proposed amendment will not negatively impact existing or planned public services or facilities, and will not adversely impact public health, safety and welfare. Wind energy conversion facilities have minimal impact on public services and facilities. Additionally, the existing standards with the proposed findings regarding the City having the ability to deny a special use permit if it represents a danger to health, safety or welfare of the public will allow this finding to be met.

Attachment:

- 1) Draft ordinance
- 2) Senate Bill 314

Summary: An ordinance removing prescriptive height limitations and adding supplemental review standards for Wind Energy Conversion Systems so as to create consistency with Senate Bill 314.

BILL NO. _____

ORDINANCE NO. 2017 - _____

AN ORDINANCE AMENDING TITLE 18, ZONING, CHAPTER 18.05, GENERAL PROVISIONS, SECTION 18.05.080 PRIVATE USE WIND ENERGY CONVERSION SYSTEMS, TO ELIMINATE PRESCRIPTIVE HEIGHT LIMITATIONS, TO ADD SUPPLEMENTAL REVIEW STANDARDS, AND OTHER MATTERS PROPERLY RELATED THERETO.

The Board of Supervisors of Carson City do ordain:

SECTION I:

That Title 18 (Zoning), Chapter 18.05 (General Provisions), Section 18.05.080 (Private Use Wind Energy Conversion Systems) is hereby amended, in part, as follows (**bold, underlined** text is added, ~~{stricken}~~ text is deleted:

18.05.080 Private Use Wind Energy Conversion Systems. In order to balance the need for clean, renewable energy resources with the protection of the health, safety and welfare of the community, the purpose of this section is to regulate private use wind energy conversion systems (WECS) for the production of electricity for use on the subject site and for net metering through the power company.

1. Applicability and Definition.

- a. Private Use Wind Energy Conversion Systems (WECS). A private use wind energy conversion system consists of a wind turbine, tower, and associated control or conversion electronics for the purpose of providing electrical power to a lawful principle use. A system having a rated capacity of 10 kilowatts (kW) or less for residential use or 100 kW or less for non-residential uses shall be considered a private system for the purposes of these regulations. Not more than one machine shall be allowed per parcel of land when the size of the parcel is less than one acre in size. WECS are considered accessory uses as stated in CCMC 18.03.010 (Words and Terms Defined), Accessory Building or Accessory Structure and Accessory Use, and are allowed in all zoning districts.

- b. Wind Machine. The individual component of a Wind Energy Conversion System that converts kinetic energy from the wind into electrical energy, independent of the electrical conductors, electrical storage system, electrical metering, or electrical inverters. This term shall include the towers or supporting structures.
 - c. Building Code(s). All codes, ordinances, policies and procedures, and standards adopted and enforced by the Carson City Building Division.
 - d. Fire Code(s). All codes, ordinances, policies and procedures, and standards adopted and enforced by the Carson City Fire Department.
 - e. FAA. The use of this acronym shall denote the Federal Aviation Administration, or any other applicable authority that regulates air safety within the Carson City jurisdiction.
 - f. Private use wind energy conversion systems shall be allowed as accessory uses in all Public zoning districts without the requirement of Special Use Permit approval provided the system meets all other requirements of this section.
 - g. All proposed Private Use Wind Energy Conversion Systems located within the Carson City Historic District must receive review and approval from the Historic Resources Commission, in addition to any other required approvals, prior to submission of a building permit.
2. Standards. All Wind Energy Conversion Systems are subject to and must comply with the following provisions of this section:
- a. Location. A minimum parcel size of one acre is required for the placement of any horizontal axial wind turbine. Vertical axial wind turbines are permitted on any parcel. No part of a wind energy conversion system shall be located within or over drainage, utility or other established easements.
 - b. Number per parcel. A maximum of one wind machine per parcel is permitted on parcels less than one acre in size; a maximum of one wind machine per acre is permitted on parcels greater than one acre in size.
 - c. Setbacks. Minimum setbacks for private use wind machines shall be:
 - i) A minimum of 1.1 times the total extended height from the project property lines adjacent to a residential, Conservation Reserve or Agricultural zoning district.

- ii) Guy wire anchors may not extend closer than 10 feet from any property line.
 - iii) A 10 foot minimum setback from any part of the machine, rotors or guy wires to the property line of any other non-residential zoning district.
 - iv) Wind machines shall not be located within the front yard setback nor within the street-side setback of any parcel of land in residential zoning districts.
- d. Height. The maximum total extended height of Wind Energy Conversion Systems is ~~[60 feet]~~ **per the zoning district unless a Special Use Permit is issued.**
- i) Tower Height shall mean the height above adjacent grade of the fixed portion of the tower, excluding the wind turbine itself.
 - ii) Total Extended Height shall mean the height above adjacent grade to a blade tip at its highest point of travel and including any other portion of the Wind Energy Conversion System.
- e. Lighting. Wind system towers shall not be artificially lighted unless required, in writing, by the Federal Aviation Administration (FAA) or other applicable authority that regulates air safety. Where the FAA requires lighting, the lighting shall be the lowest intensity allowable under FAA regulations; the fixtures shall be shielded and directed to the greatest extent possible to minimize glare and visibility from the ground; and no strobe lighting shall be permitted, unless expressly required by the FAA.
- f. Access. All wind machine towers must comply with the following provisions:
- i) The tower shall be designed and installed so that there shall be no exterior step bolts or a ladder on the tower readily accessible to the public for a minimum height of 12 feet above the ground. For lattice or guyed towers, sheets of metal or wood or other barrier shall be fastened to the bottom tower section such that it cannot readily be climbed; and
 - ii) All ground-mounted electrical and control equipment shall be labeled or secured to prevent unauthorized access.
- g. Rotor Safety. Each wind machine shall be equipped with both manual and automatic controls to limit the rotational speed of the blade within the design limits of the rotor. An external, manual shut-off switch shall be

included with the installation. The minimum distance between the ground and any protruding blades utilized on a private wind machine shall be 10 feet as measured at the lowest point of the arc of the blades.

- h. Noise. All wind machines shall comply with the noise requirements in this section. These levels, however, may be exceeded during short-term events such as utility outages and severe wind storms. A manufacturer's sound report shall be required with a building permit application.
 - i) No wind machine or combination of wind machines on a single parcel shall create noise that exceeds a maximum of 25 decibels (dBA) at any property line where the property on which the wind machine is located or the abutting property is one acre or less or a maximum of 50 decibels (dBA) at any other property line. Measurement of sound levels shall not be adjusted for, or averaged with, non-operating periods. Any wind machine(s) exceeding these levels shall immediately cease operation upon notification by Carson City and may not resume operation until the noise levels have been reduced in compliance with the required standards and verified by an independent third party inspector, approved by Carson City, at the property owner's expense. Upon review and acceptance of the third party noise level report, Carson City will allow operation of the affected wind machine(s). Wind Energy Conversion System(s) unable to comply with these noise level restrictions shall be shut down immediately and removed upon notification by Carson City, after a period established by Carson City.
 - ii) Sound below 20 Hertz. No wind machine or combination of wind machines shall be operated so that impulsive sound below 20 Hertz adversely affects the habitability or use of any off-site dwelling unit, hospital, school, library or nursing home.
- i. Aesthetics and Maintenance.
 - i) Appearance. Wind machines, unless subject to any applicable standards of the FAA, shall be a non-reflective, non-obtrusive color such as tan, sand, gray, black or similar colors. Galvanized steel or metal is acceptable for the support structures. Any painting or coating shall be kept in good repair for the life of the wind machine. In addition, any changes to the approved color shall result in notification by Carson City that the affected wind machine(s) shall cease operation until a color correction has been made. If the affected wind machine(s) are not repainted, using an approved color, within the period established by Carson City, the

owner shall remove the affected Wind Energy Conversion System(s).

- ii) Electrical Wires. All electrical wires leading from the tower to electrical control facilities shall be located underground.
 - iii) Maintenance. Wind machines shall be maintained in good repair, as recommended by the manufacturer's scheduled maintenance or industry standards, and shall be free from rust.
 - j. Signs/Labels. The only advertising sign allowed on the wind machine shall be a manufacturer's label, not exceeding one square foot in size, located on the generator housing.
 - k. Compliance with FAA Regulations. All wind machines shall comply with applicable FAA regulations, including any necessary approvals for installations.
 - l. Ice Throw. The potential ice throw or ice shedding from the proposed wind machine shall not cross the property lines of the site.
 - m. Certified Safe. Evidence shall be submitted with a building permit application that the wind machine has been constructed in accordance with accepted industry standards and certified safe.
 - n. **Special Use Permit review standards. A Special Use Permit shall not be denied based on the height of a Wind Energy Conversion System unless the Planning Commission or Board of Supervisors determines, based on the size, height or configuration of the system, that the installation of the system:**
 - i) **Represents a danger to the health, safety or welfare of the public; or**
 - ii) **Is not compatible with the character of the area in which the system is located.**
3. Repair and Removal of Wind Machines. Any wind machine found to be unsafe by an official of the Carson City Building Division shall immediately cease operation upon notification by Carson City and shall be repaired by the owner to meet federal, state, and local safety standards or be removed within six months. Wind machines that are not operated for a continuous period of 12 months shall be removed by the owner of the wind machine.
- a. When a wind machine is removed from a site, all associated and ancillary equipment, batteries, devices, structures or support(s) for that system shall also be removed. For the purposes of this section, non-operation shall be deemed to include, but shall not be limited to, the blades of the wind

machine remaining stationary so that wind resources are not being converted into electric or mechanical energy, or the wind machine is no longer connected to the public utility electricity distribution system.

4. Mounting of Wind Machines. Attachment of the wind machine, including any support or structural components, to any building or structure shall be in strict compliance with regulations of the Carson City Building Division.
5. Compliance with Regulations.
 - a. All systems shall comply with applicable fire and building codes.
 - b. All standards are absolute. Once wind machines are permitted, the owners have the option of compliance with the standards or discontinuation of operations. If the operation of the wind machine(s) does not comply with the provisions of this article, the operator shall promptly take all measures necessary to comply with these regulations, including, but not limited to, discontinued operation of one or more wind machines.
 - c. Variations to the regulations and standards of this section may only be permitted by special use permit, approval of which shall be pursuant to Title 18, Section 18.02 (Special Use Permits).

SECTION II:

That no other provisions of Title 18 of the Carson City Municipal Code are affected by this ordinance.

PROPOSED on _____, 2017.

PROPOSED by _____.

PASSED _____, 2017.

VOTE: AYES: _____

NAYS: _____

ABSENT: _____

ROBERT L. CROWELL, Mayor

ATTEST:

SUSAN MERRIWETHER, Clerk-Recorder

This ordinance shall be in force and effect from and after the _____ day of _____,
2017.

Senate Bill No. 314–Committee on
Commerce, Labor and Energy

CHAPTER.....

AN ACT relating to renewable energy; revising provisions concerning restrictions or requirements imposed by the governing body of a local government on the installation of a system for obtaining wind energy; specifying that a governing body is not precluded from denying the issuance of a permit for the installation of a system for obtaining wind energy under certain circumstances; and providing other matters properly relating thereto.

Legislative Counsel’s Digest:

Under existing law, the governing body of a city or county: (1) may enact zoning regulations and restrictions to promote the health, safety, morals or general welfare of the community; (2) is prohibited from adopting an ordinance or taking any other action which unreasonably prohibits or restricts an owner of real property from using a system for obtaining wind energy on his or her property; and (3) may impose a reasonable restriction on the use of a system for obtaining wind energy which is related to the finish, height, location, noise, safety or setback of the system. (NRS 278.020, 278.02077)

This bill deletes the provision which specifies that the governing body or a city or county may impose reasonable restrictions on the use of a system for obtaining wind energy which are related to the height of the system. This bill instead provides that the governing body of a city or county is not precluded from denying an application for a permit for the installation of a system for obtaining wind energy if based on the size, height or configuration of the system, the installation of the system: (1) represents a danger to the health, safety or welfare of the public; or (2) is not compatible with the character of the area in which the system is located.

EXPLANATION – Matter in *bolded italics* is new; matter between brackets ~~omitted material~~ is material to be omitted.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN
SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 278.02077 is hereby amended to read as follows:

278.02077 1. Except as otherwise provided in subsection 2:

(a) A governing body shall not adopt an ordinance, regulation or plan or take any other action that prohibits or unreasonably restricts the owner of real property from using a system for obtaining wind energy on his or her property.

(b) Any covenant, restriction or condition contained in a deed, contract or other legal instrument which affects the transfer or sale of, or any other interest in, real property and which prohibits or unreasonably restricts the owner of the property from using a system



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for obtaining wind energy on his or her property is void and unenforceable.

2. The provisions of subsection 1 do not ~~prohibit~~ :

(a) **Prohibit** a reasonable restriction or requirement:

~~{(a)}~~ (1) Imposed pursuant to a determination by the Federal Aviation Administration that the installation of the system for obtaining wind energy would create a hazard to air navigation; or

~~{(b)}~~ (2) Relating to the finish, ~~height,~~ location, noise, safety or setback of a system for obtaining wind energy ~~{-}~~ ; or

(b) **Preclude a governing body from denying an application for the issuance of a permit or special use permit for the installation of a system for obtaining wind energy if the governing body determines, based on the size, height or configuration of the system, that installation of the system:**

(1) **Represents a danger to the health, safety or welfare of the public; or**

(2) **Is not compatible with the character of the area in which the system is located.**

