

Fillmore County Planning Commission Minutes of Meeting
August 18, 2025

The Fillmore County Planning Commission convened, as required by statute, in open and public session at 8:00 p.m. August 18, 2025, in Fillmore County East 1320 G St, Geneva NE 68361

Members present: Elznic, Girmus, Hafer, Noel, Stuckey, Williams

Absent: Harre

Also, present: Planning and Zoning Administrator- Shaundee Graham, Nextera Reps- Devon Pishalski and Stephen Chase, Wade Sluka, Gerald Slezak, Joe Tucker, Ron Tucker, Bev Filipi, Loren Filipi, Bill Slezak.

Notice of the meeting was given by publication. A copy of the publication is on file in the Zoning office. All proceedings hereinafter shown were taken while the convened meeting was open to the public. Secretary Sharon Elznic was present to record minutes.

Vice Chairman R. Noel noted that the public meeting guidelines are posted as required by law and available for public distribution if requested.

Motion to approve agenda for August 18, 2025, made by Williams, second by Girmus

Upon Roll call, vote is as follows:

Ayes: Elznic, Girmus, Hafer, Noel, Stuckey, Williams

Nays: None

Chairman declared motion passed 6-0

Motion to approve minutes from July 21, 2025, meeting made by Girmus, seconded by Hafer

Upon roll call, vote is as follows:

Ayes: Elznic, Girmus, Hafer, Noel, Stuckey, Williams

Nays: None

Chairman declared motion passed 6-0

8:10 Public Hearing – CUP filed by Gerald Slezak to engage in agricultural establishments for sales and services for recreational vehicles and equipment and agricultural equipment.

Location: WNE & ENW LESS RR ROW Section 33, Township 7, Range 1- Rural Milligan, NE

Gerald was present to voice his reasoning for needing the zoning approval to engage in agricultural sales and services. He stated that some auctions require a dealership license to finalize a purchase, the State requires a number of steps to obtain a dealership license, and a zoning permit approval is required. 6 (six) members of the public attended to voice their concerns about the property.

After discussion and public comments, a motion to close the public hearing made by Hafer, Seconded by Williams.

Upon roll call, vote is as follows:

Ayes: Elznic, Girmus, Hafer, Noel, Stuckey, Williams

Nays: None

Motion carried 6-0

After continued discussion by the Committee a motion to deny and not recommend to approve the CUP filed by Gerald Slezak to engage in agricultural establishments for sales and services by Hafer and seconded by Stuckey.

Upon roll call vote is as follows:

Ayes: Elznic, Girmus, Hafer, Noel, Stuckey

Nays: Williams

Vice Chairman declared passed 5-1

Fillmore County Board of Supervisors will hold a public hearing for the CUP filed by Gerald Slezak Tuesday August 26, 2025, at 11:30 in the Fillmore County Courthouse, Boardroom.

8:40 Public Hearing – Zoning Regulation Amendment. Amendment to the Fillmore County Zoning Regulations amending Section 9.15 Small Wind Energy Systems and Section 9.16 Commercial/Utility Grade Wind Energy Systems

Discussion regarding WECS proposed amendments for setbacks from dwellings, property lines, participating, non-participating landowners, churches, cemeteries, roads agreement, decommission plan, Shadow flicker, noise, light. Continued discussion on property evaluations, change of ownership liability, and required upfront bonds. Comments from the public were made by Gerald Slezak and Nextera Energy Reps. The proposed updates were reviewed by Daniel Werner, attorney. Werner provided feedback and the proposed regulations were updated accordingly.

After discussion, a motion to close the public hearing made by Williams, Seconded by Noel.

Upon roll call, vote is as follows:

Ayes: Elznic, Girmus, Hafer, Stuckey, Noel, Williams

Nays: None

Motion carried 6-0

After continued discussion by the Committee a motion for recommendation to approve the proposed changes to Section 9.15 SMALL WIND ENERGY SYSTEMS and Section 9.16 COMMERCIAL/UTILITY GRADE WIND ENERGY SYSTEMS (entire section with proposed updates attached) to the Fillmore County Board of Supervisors, made by Stuckey and seconded by Elznic.

Upon roll call vote is as follows:

Ayes: Elznic, Girmus, Noel, Williams

Nays: Hafer, Stuckey

Vice Chairman declared passed 4-2

8:40 Public Hearing – Zoning Regulation Amendment. Amendment to the Fillmore County Zoning Regulations amending Section 9.24 Solar Energy Conversion Systems

Discussion regarding ISCS, NSCS, and CSCS proposed amendments for setbacks for height, decommissioning plan, bond and letter of credit. Comments from the public were made by Nextera Energy Reps and Gerald Slezak. The proposed updates were reviewed by Daniel Werner, attorney. Werner provided feedback and the proposed regulations were updated accordingly.

After discussion, a motion to close the public hearing made by Williams, Seconded by Noel.

Ayes: Elznic, Girmus, Hafer, Noel, Stuckey, Williams

Nays: None

Motion carried 6-0

After continued discussion by the Committee a motion for recommendation to approve the proposed changes to Section 9.24 SOLAR ENERGY CONVERSION SYSTEMS (entire section with proposed updates attached) to the Fillmore County Board of Supervisors, made by Williams and seconded by Girmus.

Ayes: Elznic, Girmus, Noel, Stuckey, Williams

Nays: Hafer

Vice Chairman declared passed 5-1

Fillmore County Board of Supervisors will hold a public hearing for the recommended changes on Tuesday August 26, 2025, at 11:15 in the Fillmore County Courthouse, Boardroom.

MEETING ADJOURNED AT 9:40 PM

Next meeting September 15, 2025, at 8:00PM

9.15 SMALL WIND ENERGY SYSTEMS

9.15.01 PURPOSE: It is the purpose of this regulation to promote the safe, effective and efficient use of small wind energy systems installed to reduce the on-site consumption of utility supplied electricity. Fillmore County finds that wind energy is an abundant, renewable energy source. **The County, through this regulation, will permit small wind energy systems for individual "Net Metering" use.**

9.15.02 DEFINITIONS: The following are defined for the specific use of this section.

1. Battery Energy Storage Systems (BESS): shall mean devices that enable energy to be stored and then released when the power is needed, not including standard car batteries.

2. Small Wind Energy System shall mean a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 100 kW, and which is intended to primarily reduce on-site consumption of utility power.

3. Tower shall mean the vertical structures that support the electrical equipment or rotor blades.

4. Tower Height shall mean the height above grade of the first fixed portion of the tower, excluding the wind turbine itself.

5. Total Height shall mean the highest point, above ground level, reached by a rotor tip or any other part of the Wind Energy Conversion System.

6. Fall Zone shall mean the area, defined as the furthest distance from the tower base, in which a tower will collapse in the event of a structural failure.

7. Feeder Line shall mean any power line that carries electrical power from one or more wind turbines or individual transformers associated with individual wind turbines to the point of interconnection with the project distribution system, in the case of interconnection with the high voltage transmission systems the point of interconnection shall be the substation serving the wind energy conversion system.

8. Net Metering shall mean a system of metering electricity in which a local distribution utility buys excess power from customer-generator facilities with a rated capacity at or below twenty-five kilowatts.

9. Rotor Diameter shall mean the diameter of the circle described by the moving rotor blades.

10. Transmission Line shall mean the electrical power lines that carry voltages of at least 69,000 volts (69 kV) and are primarily used to carry electric energy over medium to long distances rather than directly interconnecting and supplying electric energy to retail customers.

11. Wind Energy Conservation Systems shall mean an electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transformers, and substations that operate by converting the kinetic energy of wind into electrical energy of blowing wind into electrical energy. The energy may be used on-site or distributed into the electrical grid.

12. Wind Turbines shall mean any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy using airfoils or similar devices to capture wind.

9.15.03 Requirements:

Small wind energy systems shall be permitted as an Accessory Use within any district where the use is listed and allowed. Certain requirements as set forth below shall be met:

Exemptions: Small wind energy systems shall be permitted as an exception within the Agricultural Districts. Zoning Permits are required.

1. Tower

a. The tower and foundation must be approved by a certified Engineer competent in disciplines of Wind Energy Conversion Systems.

2. Tower Height

a. For property sizes between ½ acre and one acre the tower height shall be limited to 80 feet.

b. For property sizes of one acre or more, there is no limitation on tower height, except as imposed by FAA regulations.

c. The height shall be determined by the fall zone requirement and shall not exceed one hundred (100) feet. FAA approval is required.

3. Noise/Sound

a. Small wind energy systems shall not exceed ~~60 dBA~~ 40 dBA, as measured at the closest neighboring inhabited dwelling unit. An Acoustical Analysis that certifies that the noise requirements within the regulation can be met.

b. The noise level may be exceeded during short-term events such as utility outages and/or severe wind storms.

4. Approved Wind Turbines

a. Small wind turbines must have been approved under the small wind certification program recognized by the American Wind Energy Association. (AWEA).

5. Compliance with Building and Zoning Codes

a. Applications for small wind energy systems shall be accomplished by standard drawings of the wind turbine structure, including the tower base, and footings.

b. An engineering analysis of the tower showing compliance with official building code of the governing body and/or the State of Nebraska and certified by a licensed professional engineer shall also be submitted. The manufacturer frequently supplies the analysis. Wet stamps shall not be required.

6. Compliance with FAA Regulations

a. Small wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.

7. Compliance with National Electrical Code

a. Permit applications for small wind energy systems 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 National Electrical Code. The manufacturer frequently supplies this analysis.

8. Utility Notification

a. No small wind energy system 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.

b. Off-grid systems shall be exempt from this requirement.

9. Setbacks

a. All towers shall adhere to the setbacks established in the following table (most restrictive shall apply):

	Wind Turbine Non-Commercial WECS	Meteorological Towers
Property Lines	One Times the total height	One times the tower height
Neighboring Dwelling Units*		One times the tower height
Road Rights-of-Way **	One times the tower height	One times the tower height
Other Rights-of-Way	One times the tower height	One times the tower height
Wildlife Management Areas and State Recreational Areas	NA	600 feet
Wetlands, USFW Types III, IV, and V	NA	600 feet
Other Structures adjacent to the applicant's sites	NA	One times the tower height
Other existing WECS not owned by the applicant	NA	NA
River Bluffs	NA	NA

~~*The setback for dwelling units shall be reciprocal in that no dwelling unit shall be constructed within the same distance required for a commercial/utility Wind Energy Conversion System.~~

~~** The setback shall be measured from any future Rights-of-Way if a planned change or expanded right-of-Way is known.~~

	Wind Turbine- Small WECS
Property Lines	One Times the Total Height
Distance Between Multiple Units	One Times the Total Height
Road Rights-of-Way	One Times the Total Height
Road Easements*	One Times the Total Height
Public Conservation Land	NA
Wetlands and Rivers as Identified by the National Wetlands Inventory	NA
N/A-not applicable	

* * The setback for dwelling units shall be reciprocal in that no dwelling unit shall be constructed within the same distance required for a commercial/utility Wind Energy Conversion System

** The setback shall be measured from any future Rights-of-Way if a planned change or expanded Right-of-Way is known

10. Tower Setbacks

- a. No part of the wind system structure may extend closer than 10 feet to the property lines of the installation site. Setback shall be the "Total Height" plus ten (10) feet.

11. Aesthetics

- a. Free Standing Towers (No towers with guyed wires)

12. Multiple Towers

- a. Multiple towers will be considered based on these same regulations.

13. Abandonment

- a. The owner of an inoperable turbine for a period of twelve (12) months will be notified by the zoning administration that they have six (6) months from the notice date to restore their small wind energy system to operating condition. If the tower is not in operating condition after that time, the owner of the tower will then have ninety (90) days to have it removed. If the owner fails to remove the wind tower within the allowable time, the county will have it removed at the owner's expense and a lien will be filed against the property on which the small wind energy system is located.

14. Application minimum requirements

- a. Legal Description and address of project site.
- b. Tower Type, height, rotor diameter, and total height of wind turbine and means of interconnecting with the feeder lines.
- c. Site layout, including the location of property lines, wind turbine, electrical grid, and all related accessory structures. This site layout shall include distance and be drawn to scale.
- d. Certification from Engineer.
- e. Documentation of land ownership or legal control of property.
- f. The latitude and longitude of wind turbine.
- g. Location of any wetland, scenic, and natural acres within 1000 feet.
- h. An Acoustical Analysis certifying that the noise requirements within the regulations can be met.
- i. Evidence that there will be no interference with any commercial or public safety communication towers.
- j. All approved wind turbines are to be completed within two (2) years of the date of approval.

9.16 COMMERCIAL/UTILITY GRADE WIND ENERGY SYSTEMS

9.16.01 PURPOSE: It is the purpose of this regulation to promote the safe, effective and efficient use of commercial/utility grade wind energy conversion systems within Fillmore County.

9.16.02 DEFINITIONS: The following are defined for the specific use of this section.

- 1. AGGREGATE PROJECT** shall mean projects that are developed and operated in a coordinated fashion, but which have multiple entities separately owning one or more of the individual WECS within the larger project. Associated infrastructure such as power lines and transformers that service the facility may be owned by a separate entity but are also part of the aggregated project.
- 2. BATTERY ENERGY STORAGE SYSTEMS (BESS)** shall mean devices that enable energy to be stored and then released when the power is needed, not including standard car batteries.
- 3. COMMERCIAL WECS** shall mean a wind energy conversion system of equal to or greater than 100 kW in total name plate generating capacity.
- 4. DECIBEL** shall mean the unit of measure used to express the magnitude of sound, pressure, and sound intensity.
- 5. HUB HEIGHT** shall mean the distance from ground level as measured to the centerline of the rotor.
- 6. FALL ZONE** shall mean the area, defined as the furthest distance from the tower base, in which a guyed or tubular tower will collapse in the event of a structural failure. This area may be less than the total height of the structure.
- 7. FEEDER LINE** shall mean any power line that carries electrical power from one or more wind turbines to the point of interconnection with the project distribution system, in the case of interconnection with the high voltage transmission systems the point of interconnection shall be the substation serving the wind energy conversion system.
- 8. METEOROLOGICAL TOWER** shall mean, for purposes of this regulation, a tower which is erected primarily to measure wind speed and directions plus other data relevant to siting a Wind Energy Conversion System. Meteorological towers do not include towers and equipment used by airports, the Nebraska Department of Roads, or other applications to monitor weather conditions.
- 9. PROPERTY LINE** shall mean the boundary line of the area over which the entity applying for a Wind Energy Conversion System permit has legal control for the purpose of installing, maintaining and operating a Wind Energy Conversion System.
- 10. PUBLIC CONSERVATION LANDS** shall mean land owned in fee title by State or Federal agencies and managed specifically for conservation purposes, including but not limited to State Wildlife Management Areas, State Parks, federal Wildlife Refuges and Waterfowl Production Areas. For purposes of this regulation, public conservation lands will also include lands owned in fee title by non-profit conservation organizations, Public conservation lands will also include private lands upon which conservation easements have been sold to public agencies or non-profit conservation organizations.
- 11. ROTOR DIAMETER** shall mean the diameter of the circle described by the moving rotor blades.

12. SMALL WIND ENERGY SYSTEM shall mean a wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power.

13. SUBSTATIONS shall mean any electrical facility to convert electricity produced by wind turbines to a higher voltage for interconnection with high voltage transmission lines.

14. TOTAL HEIGHT shall mean the highest point, above ground level, reached by a rotor tip or any other part of the Wind Energy Conversion System.

15. TOWER shall mean the vertical structures, including the foundation, that support the electrical generator, rotor blades, or meteorological equipment.

16. TOWER HEIGHT shall mean the total height of the Wind Energy Conversion System exclusive of the rotor blades.

17. TRANSMISSION LINE shall mean the electrical power lines that carry voltages of at least 69,000 volts (69 KV) and are primarily used to carry electric energy over medium-to-long distances rather than directly interconnecting and supplying electric energy to retail customers.

18. WIND ENERGY CONVERSION SYSTEM (WECS) shall mean an electrical generating facility comprised of one or more wind turbines and accessory facilities, including but not limited to: power lines, transformers, substations and meteorological towers that operate by converting the kinetic energy of wind into electrical energy. The energy may be used on-site or distributed into the electrical grid.

19. WIND TURBINES shall mean any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy using airfoils or similar devices to capture the wind.

9.16.03 REQUIREMENTS: Commercial/Utility Grade Wind Energy Systems may be permitted as a Conditional Use within any district where the use is listed and allowed. The following minimum requirements and information shall be met and supplied:

1. The name(s) and contact information of project applicant and project owner(s).

~~2. The name of the project owner.~~

2. The legal description and address of the project.

3. A description of the project including: Number, type, name plate generating capacity, tower height, rotor diameter, and total height of all wind turbines and means of interconnecting with the electrical grid.

a. Include the name of turbine manufacturers and models, and BESS specifications if any.

b. Provide point of contact for general contractors (when selected)

~~(4.) Site layout plan(s): including the location of property lines, wind turbines, feeder lines, and all related accessory structures.~~

~~This site layout shall include distances and be drawn to scale.~~

a. The site plan(s) shall be drawn so that North is to the top, and including:

i. Legal description, including tax identification/parcel numbers,

ii. Location of property lines and setbacks,

iii. Location of wind turbine towers, indicating the location, height, and distance to nearest existing or proposed structures and property lines,

iv. Direction of prevailing winds,

v. Electrical grid, including one-line diagram of the interconnection,

vi. Location of all underground structures including septic tanks and wells,

vii. Easements, right-of-way (names included), building locations, setback lines, and overhead utilities lines on project property,

viii. Proposed Road access points,

ix. Related accessory structures including and proposed battery systems.

b. The site plan shall show adjacent property and structures, noting existing structures, land use and zoning designations, to extent of required setbacks.

c. The latitude and longitude of individual wind turbines shall be noted.

d. Site layout shall be drawn to scale, stamped and sealed by a Professional Engineer or Licensed Surveyor authorized and certified to do business in Nebraska.

~~3. Certification by an Engineer competent in disciplines of WEC's.~~

5. A USGS topographical map, or maps showing:

a. Any other WECS or turbines within 1 mile of the proposed WECS facility;

b. Location of all known Communication Towers within two miles of the proposed WECS facility

c. Location of water bodies, waterways, wetlands, historic sites, parks, and wildlife management areas within two miles of the proposed WECS facility.

6. Acoustical and Infrasound Analysis certifying the noise requirements within this regulation can be met, conducted by an INCE-USA board certified Noise Control Engineer, authorized and certified to do business in Nebraska.

- ~~7. Documentation of land ownership or legal control of the property.~~
- ~~8. The latitude and longitude of individual wind turbines; included with this shall be an area or zone in close proximity that meets all setbacks; where actual WEC will be considered.~~
- ~~9. A USGS topographical map, or map with similar data, of the property and surrounding area, including any other Wind Energy Conversion System, within 10 rotor distances of the proposed Wind Energy Conversion System not owned by the applicant.~~
- ~~10. Location of wetlands, scenic, and natural areas (including bluffs) within 1,320 feet of the proposed Wind Energy Conversion System.~~
- ~~11. An Acoustical Analysis that certifies that the noise requirements within this regulation can be met~~
 7. The applicant shall supply the emergency management agency and/or fire departments with a basic emergency response plan.
 8. FAA and FCC permit, if necessary. Applicant shall submit permit or evidence that the permit has been filed with the appropriate agency.
 9. Decommissioning Plan including proposed the financial guarantee, as required by Section 9.16.09 below.
 10. Description of potential impacts on nearby WECS facilities and wind resources on adjacent properties.
 11. Documentation required by Section 9.16.07 below of:
 - a. Land ownership and/or legal control of the property.
 - b. Easement agreements.
 - c. Copies of required federal permits and notifications.
12. Shadow Flicker Analysis required by **Section 9.16.07 (8)** below.
13. Professional Engineer's certification required by **Section 9.16.07 (10)** below.
14. Roads Reports required by **Section 9.16.08** below.
15. The CWECS operator shall procure and maintain a current insurance policy (that) will cover liability, installation, operation, and any possible damage or injury that might result from the failure of a tower or towers or any other part or parts of the generation and transmission facility. The amount of said policy shall be established as a condition of approval. The CWES shall be warranted against any system failures reasonably expected in severe weather operation conditions. Annual proof of such insurance shall be provided to the County Board of Supervisors.
16. Escrow Account for Compliance
 - a. Applicant shall be required to fund an escrow account for investigation of complaints for but not limited to, shadow flicker, stray voltage, noise and signal interference, with the amount of funds to be set at the discretion of the Fillmore County Board of Supervisors.
 - b. When the escrow account balance is below \$5,000, Fillmore County shall notify the Applicant. The Applicant shall replenish within 45 days of the notification.
 - c. When a complaint is filed regarding a violation of items listed in item A of this section, the process shall start with a written complaint to the Zoning Administrator specifying the complaint subject(s). The Zoning Administrator has 30 days from the date the complaint is submitted to investigate the matter or hire someone to investigate if special equipment is needed and issue a written report to the complainant and the Board of Supervisors. If there is no violation found by the Zoning Administrator, the complainant has 30 days to hire an independent source qualified to investigate and submit a finding. If not done so, the complaint is deemed waived, and the complainant may not file another complaint for 6 months. Should a violation be determined by the Zoning Administrator or an independent source, the owner/operator of the CWECS has 30 days to remedy the matter or the tower will be shut down. If no action is taken by the Zoning Administrator or the Board of Supervisors within 60 days from the date of complaint, the complainant may file suit to force action to be taken by the County.

9.16.04 AGGREGATED PROJECTS:

1. Aggregated projects may jointly submit a single Wind Farm application with multiple WECS and supporting equipment, and be reviewed under joint proceedings, including notices, public hearings, reviews and as appropriate approvals.
2. Permits may be issued and recorded separately.
3. Joint projects will be assessed fees as if on the same parcel.
4. The Zoning Administrator's substantive review may take at least 90 days before a public hearing is scheduled, to allow sufficient time for technical analysis and public process.

9.16.05 SETBACKS:

All towers shall adhere to the setbacks (measured from the edge of the tower) established in the following table:

	Wind Turbine – Commercial/Utility WECS	Meteorological Towers
Property Lines Participating Landowner Property Line	1.5x TOTAL HEIGHT from PROPERTY LINE; however, the setback may be reduced to 150 feet when two adjoining property owners are within the AGGREGATED PROJECT. 1.1 x Total Unit Height	One times the tower height. The greater of: The fall zone, as certified by a professional engineer, + 10 feet or a distance equal to total height.
Distance between multiple units	1.1 x total unit height	Monopoles: 750 feet Lattice/Guyed 1,500 feet
Distance to surveyed right-of-way	1.5 x Total Unit Height from County Road *	The greater of: The fall zone, as certified by a professional engineer + 10 feet or a distance equal to total height.
Distance to non-participating Landowner Property Line	1.0 Mile & 40dBA	The greater of: The fall zone, as certified by a professional engineer + 10 feet or a distance equal to total height.
Distance to non-participating inhabitable dwelling	1.0 Mile & dBA	The greater of: The fall zone, as certified by a professional engineer + 10 feet or a distance equal to total height.
Distance to any participating inhabitable dwelling	1.1 x Total Unit Height **	The greater of: The fall zone, as certified by a professional engineer + 10 feet or a distance equal to total height.
Distance to any municipality	1.0 Miles & 40dBA From Municipal limits	The greater of: The fall zone, as certified by a professional engineer + 10 feet or a distance equal to total height.
Distance to any school, church, or cemetery	1.0 Mile & 40dBA	The greater of: The fall zone, as certified by a professional engineer + 10 feet or a distance equal to total height.
Distance to any US/State Highway right-of-way	1.0 Mile & 40dBA	The greater of: The fall zone, as certified by a professional engineer + 10 feet or a distance equal to total height.
Neighboring Dwelling Units*	1,000 feet 2, 640 feet, however, may be reduced to a minimum of 1.5 x TOTAL HEIGHT at discretion of the adjoining landowner.	One times the tower height.
Road Rights-of	One times the tower height. 1.5x TOTAL HEIGHT	One times the tower height.
Other Rights-of-Way	One times the tower height. 1.5x TOTAL HEIGHT	One times the tower height.
Wildlife Management Areas and State Recreational Areas	600 feet*** 1.5x TOTAL HEIGHT***	600 feet***
Wetlands, USFW Types III, IV, and V Wetlands and Rivers as identified by the National	600 feet*** 1.5x TOTAL HEIGHT*** 1.0 Mile & 40dBA	600 feet

Wetlands Inventory		
Other structures and cemeteries adjacent to the applicant's sites	One times the tower height. 1.5x TOTAL HEIGHT	One times the tower height.
Other existing WECS not owned by the applicant.	6,000 lineal feet	NA
River Bluffs	1,320 feet	NA

~~* The setback for dwelling units shall be reciprocal in that no dwelling unit shall be constructed within the same distance required for a commercial/utility Wind Energy Conversion System.~~

~~** The setback shall be measured from any future Rights of Way if a planned change or expanded Right of Way is known. Such rights of way shall be verified with the Nebraska Department of Roads and County Roads Department.~~

~~*** Setback may be reduced to a distance of no less than 100 feet based on review of proposed distance and approval by Nebraska Game & Parks Commission, U.S. Fish and Wildlife, and Army Corps of Engineers. Such reduction shall not be less than 100 feet and be based on certified engineer reports showing no effects on the identified areas. Applicant shall submit report and approval or evidence that the study has been performed and the request for approval has been submitted to the appropriate agency prior to the issuance of a zoning permit. Such permit would be conditional and contingent upon such approval.~~

* ROW setback shall be measured from edge of the road easement for a County Road or the edge of a platted street, road, or highway.

** The setback for dwelling units shall be **reciprocal** in that no dwelling unit shall be constructed within the same distance required for a commercial/utility Wind Energy Conversion System.

2. Impact Easements. Recorded documents shall specifically identify the legal description of the subject property.

a. A non-participating property owner may request to build closer than allowed in this section by signing and recording an Impact Easement from any operations within the required separation distance.

b. A WECS owner may encroach on the required setback distance to non-participating property lines with a recorded Impact Easement signed by the affected property owner.

9.16.06 ~~SPECIAL SAFETY AND DESIGN STANDARDS:~~ **PERFORMANCE STANDARDS:** All WECS facilities shall adhere to the following performance standards:

1. Site Area: Located on a lot or parcel of at least 10 acres in size.
2. Noise: No commercial/utility WECS shall exceed 40 dBA at the nearest inhabitable dwelling.
 - a. Noise may exceed 40 dBA during periods of severe weather as designated by the US Weather Service.
3. Height Requirement: No Commercial WECS may exceed 650ft above ground level in total height.
4. Monopole: All wind turbines which are a part of a commercial/utility WECS shall be installed with a tubular, monopole type tower.
5. Clearance: Rotor blades or airfoils must maintain a minimum of 30 feet of clearance between their lowest point and the ground.
6. Lighting: Lighting, including lighting intensity and frequency of strobe, shall adhere to but not exceed requirements established by the Federal Aviation Administration (FAA) permits and regulations.
 - a. All CWECS projects, which require notice to the FAA via 14CFR, Part 77 obstruction evaluation process, will be required by Fillmore County to submit to the FAA a request for Aircraft Detection Lighting System (ADLS) Marking and Lighting (M&L) study.
 - i. Upon completion of the M&L Study, the ADLS shall be installed, commissioned, and maintained to the extent allowed by the FAA. ADLS shall be operational within 12 months of the start of construction.
 - ii. If ADLS system is not operational within 12 months, as required by subsection 6.A, above, the Conditional Use Permit shall be considered immediately revoked, in accordance with procedures in Article 6 of this regulation. Any construction shall cease and a new CUP application will be required for the entire project.
 - b. Lighting should be positioned or shielded to avoid visual impact to neighboring properties to the extent possible conforming to FAA rules. Red strobe lights shall be used during nighttime illumination to reduce impacts on neighboring uses and migratory birds. Red pulsating incandescent lights should be avoided.

- ~~1. Clearance of rotor blades or airfoils must maintain a minimum of 12 feet of clearance between their lowest point and the ground.~~
- ~~2. All Commercial/Utility WECS shall have a sign or signs posted on the tower, transformer and substation, warning of high voltage. Other signs shall be posted on the turbine with emergency contact information.~~
- ~~3. All wind turbines, which are a part of a commercial/utility WECS, shall be installed with a tubular, monopole type tower.~~
- ~~4. Height: The total height shall be determined by the fall zone requirement *and shall not exceed six hundred (600) feet. Total height shall not exceed 600 feet.* FAA approval is required.~~
- ~~5. Consideration shall be given to painted aviation warnings on all towers more than 200 feet.~~
- ~~6. Color and finish: All wind turbines and towers that are part of a commercial/utility WECS shall be white, grey, or another non-obtrusive color. Blades may be black in order to facilitate deicing. Finishes shall be matte or non-reflective.~~
- ~~7. Lighting: Lighting, including lighting intensity and frequency of strobe, shall adhere to but not exceed requirements established by the FAA permits and regulations. Red strobe lights shall be used during nighttime illumination to reduce impacts on neighboring uses and migratory birds. Red pulsating incandescent lights should be avoided.~~
- ~~8. Other signage: All other signage shall comply with the sign regulations found in these regulations.~~
9. **Feeder Lines:** All communications and feeder lines associated with the project distribution system installed as part of a WECS shall be buried, where physically feasible. Where obstacles to the buried lines create a need to go above ground, these lines may be placed above ground only to miss the obstacle. All distribution and/or transmission lines outside of the project distribution system may be above ground. **Feeder Lines: All electrical lines equal to or less than 34.5 kV in capacity installed as part of a WECS shall be buried at least six feet below finished grade, unless proven infeasible. Feeder lines installed as part of a WECS shall not be considered an essential service.**
- ~~10. Waste Disposal: Solid and Hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oils and lubricants, shall be removed from the site promptly and disposed of in accordance with all applicable local, state and federal regulations.~~
- ~~11. Discontinuation and Decommissioning:~~
 - ~~a. A WECS shall be considered a discontinued use after one year without energy production, unless a plan is developed and submitted to the Zoning Administrator outlining the steps and schedule for returning the WECS to service. All WECS and accessory facilities shall be removed to four feet below ground level within 180 days of the discontinuation of use. The 180 days may be extended if proof of weather delays is provided.~~
 - ~~b. Each Commercial/Utility WECS shall have a Decommissioning plan outlining the anticipated means and cost of removing WECS at the end of their serviceable life or upon being discontinued use. The cost estimates shall be made by a competent party; such as a Professional Engineer, a contractor capable of decommissioning or a person with suitable expertise or experience with decommissioning. The plan shall also identify the financial resources that will be available to pay for decommissioning and removal of the WECS and accessory facilities.~~
- ~~12. Noise: No Commercial/Utility WECS shall exceed 50 dBA at the nearest structure or use occupied by humans. Such structures or uses include dwelling units, churches, daycares, and the like, but do not include barns, sheds, or agricultural, commercial or industrial uses.~~
- ~~13. Interference: The applicant shall minimize or mitigate interference with any commercial or public safety electromagnetic communications, such as radio, telephone, microwaves, or television signals caused by any WECS. The applicant shall notify all communication tower operators within five miles of the proposed WECS location upon application to the county for permits.~~
- ~~14. Roads: Applicants shall:~~
 - ~~a. Identify all county, municipal or township roads to be used for the purpose of transporting WECS, substation parts, cement, and/or equipment for construction, operation or maintenance of the WECS and obtain applicable weight and size permits from the impacted jurisdictions prior to construction.~~
 - ~~b. Conduct a pre construction survey, in coordination with the appropriate jurisdictions to determine existing road conditions. The survey shall include photographs and a written agreement to document the condition of the public road.~~
 - ~~c. Be responsible for restoring the road(s) and bridges to preconstruction conditions.~~
 - ~~d. Roads agreements must be approved before any construction can begin.~~
- ~~15. Drainage System: The applicant shall be responsible for immediate repair of damage to public drainage systems stemming from construction, operation or maintenance of the WECS.~~
- ~~16. Shadow Flicker: Applicant will represent that the flicker impact on any occupied resident or community building will not exceed 30 hours per year and will provide a mitigation plan in the case this tolerance is exceeded. Shadow flicker impact analysis will be provided by a 3rd party, at the applicant's expense.~~
- ~~17. Post Construction as-built survey, provided by a 3rd party, at the applicant's expense.~~

9.16.07 SAFETY AND DESIGN STANDARDS AND ADDITIONAL REQUIREMENTS

All WECS facilities shall adhere to the following safety and design standards:

1. Signage: All Commercial/Utility WECS shall have a sign or signs posted on the tower, transformer and substation, warning of high voltage. Other signs shall be posted on the turbine with emergency contact information.
 - a. All other signage shall comply with the sign regulations found in these regulations.
2. Waste Disposal: Solid and Hazardous wastes, including but not limited to crates, packaging materials, damaged or worn parts, as well as used oils and lubricants, shall be removed from the site within 60 days and disposed of in accordance with all applicable local, state, and federal regulations.
3. Interference: The Applicant shall minimize or mitigate interference with electromagnetic communications, such as radio, telephone, microwaves, or television signals caused by an WECS. The applicant shall notify all communication tower operations within five miles of the proposed WECS location upon application to Fillmore County for a Conditional Use Permit.
4. Drainage System: The applicant shall be responsible for immediate repair of damage to public drainage systems stemming from construction, operation, or maintenance of the WECS.
5. FAA: Applicant shall provide copies of FAA notices of determination of no hazard to air navigation.
6. FCC: Applicant shall provide evidence appropriate FCC permits have been filed.
7. Easements: Easement agreements for transmission lines, feeder lines and substations required for the operation of the WECS, shall be in place prior to application for a permit.
 - a. Easements shall be filed with the Fillmore County Register of Deeds.
 - b. Voluntary easements for the crossing of any form of neighboring properties shall be required and filed with the Application.
8. Shadow Flicker: Applicant shall conduct an analysis on potential shadow flicker at any occupied building with direct line-of-sight to the WECS.
 - a. The analysis shall identify the locations of shadow flicker that may be caused by the project line and expected durations of the flicker at these locations from sun-rise to sun-set over the course of a year.
 - B .The analysis shall identify situations where shadow flicker may affect the occupants of the buildings for more than 30 hours per year and describe measures that shall be taken to eliminate or mitigate the problems.
 - c. Shadow Flicker on an occupied building shall not exceed thirty (30) hours per year.
9. Incident Plan: Applicant shall prepare an Incident Response Plan which ensures their employees have the necessary equipment and training to effectively handle emergencies such as oil spills, turbine fires, turbine structural damage (or collapse) or equipment, including access to heavy equipment needed for rescue of rapped personnel.
 - a. The Fire Chief, EMS Captain, County Sheriff, and County Emergency Management shall sign-off on the Incident Response Plan prior to beginning operations.
 - b. Any and all changed to the Incident Plan shall be reviewed by Fire, EMS, Law Enforcement, and Emergency Management.
10. Engineer's Certification: Certification shall be provided by a Professional Engineer registered in the State of Nebraska competent in disciplines of wind energy conversion systems and approved by Fillmore County Planning Commission and Fillmore County Board of Supervisors, including the following:
 - a. Design specifications of the wind energy unit, including the tower, base, footings, and unit components.
 - b. For buildings or structurally- mounted units, the certified and sealed engineering plans prepared by a Professional Engineer registered in the State of Nebraska must show how the wind energy unit will be installed for the portions of the structural proposed for use in the mounting of the unit, and must state and show that the proposed wind energy unit is compatible with the portions of the mounting structure proposed for use, and does not impose a safety hazard to the main structure or adjacent property or their occupants.
 - c. Drawings that indicate the Total Height from the grade level of each structure prior too any modifications and including any engineered break points on the tower.
 - d. The wind survival speed of the entire unit, including the supporting structure, turbine, rotor blades, covers, and other components.
 - e. Data pertaining to the tower or supporting structure's safety and stability, including any safety results from test facilities.
11. Additional Safety Review: The Board of Supervisors may, at their, discretion, request an independent Third-party commissioning report be provided to the County to assure that all components of the aggregate CWES project have been installed and perform in accordance with all local, State, and federal jurisdictions and regulatory code requirements. All commissioning reports expenses will be paid by the developer at no cost to the County. The report shall verify that the CWES complies with all submitted drawings and specifications provided to the Board of Supervisors at the time the conditional use permit was approved.

9.16.08 Roads and WECS Projects

1. Each WECS tower shall apply for a unique 911 address.

a. The 911 address shall be posted at the road entrance for each tower, and on or at each tower, no higher than fifteen feet above ground level.

2. Applicants shall prepare road reports and secure permits as follows:

a. Identify haul routes for all municipal, township, or county roads to be used for the purpose of transporting WECS, substation parts, cement, and/or equipment for construction, operation, or maintenance of the WECS, and obtain applicable weight and size permits from the impacted jurisdictions prior to construction.

b. Conduct a pre-construction survey, in coordination with the County Road Department, to determine existing road conditions.

I. The survey shall include photographs and a written agreement to document the condition of the public facility.

II. A cash escrow account shall be created to cover the total cost of repairing the road(s) and bridges to pre-construction conditions.

III. The escrow amount will be maintained and kept available until all road(s) and bridge repairs are completed and all debts are paid in full with the Superintendent of the Department of Roads.

c. BE responsible for restoring or paying damages as agreed to by the applicable jurisdiction sufficient to restore the road(s) and bridges to pre-construction conditions within 30 days.

d. Applicant shall provide material safety data sheets (MSDS) to the Zoning Administrator pertaining to materials utilized on the project.

9.16.09 WECS Discontinuation and Decommissioning

1. A WECS shall be considered a discontinued use after one year without energy production, unless a continuation plan is developed and submitted to the Zoning Administrator outlining the steps and schedule for returning the WECS to service, including repowering.

a. Repowering shall be considered regular maintenance, and no permit would be required, only when no tower or blade, or other equipment is extended. Turbines may be replaced with a higher-rating nameplate if the total height does not increase.

b. An amended permit is required when the height of any tower is changed, or when BESS or additional towers are added to the project.

2. Each Commercial/Utility WECS shall have a Decommissioning Plan outlining the anticipated means and cost of removing WECS at the end of their serviceable life or upon being discontinued use.

a. The Decommissioning Plan shall include at minimum:

i. The manner in which the facility will be decommissioned—the facility will be dismantled and no explosive will be used.

ii. A decommissioning schedule;

1. All above-ground structures, including Meteorological Towers, shall be removed within one year of the discontinuation of use as defined.

iii. Detailed estimate of the cost of decommissioning a wind generation facility by a professional engineer licensed in the State of Nebraska, including:

1. dismantling and removal of all towers, turbine generators, transformers, overhead cables and debris of the facility;

2. removal of

a. underground cables to a depth forty-eight (48) inches;

b. removal of foundations, buildings, and ancillary equipment to a minimum depth of forty-eight (48) inches below grade;

c. site restoration and reclamation to the approximate original topography that existed prior to the construction of the facility with grading, topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance, and reseeding to achieve the same utility of native vegetation of the surrounding area to prevent adverse hydrological effects,

d. Sections 9.16.09(2)A(iii)2(a,b,c) immediately above may be waived by the Board with a signed request by the applicable landowner, identifying the underground cables; foundations, buildings, and ancillary equipment; and/or surface features the landowner prefers to remain in place explaining a valid reason the landowner prefers those features to remain.

3. repairs and reconstruction from damage to public roads, culverts and natural drainage ways resulting directly from the decommissioning of a wind generation facility;

4. the current salvageable value of the facility, as determined by an independent evaluator.

- b. All access roads shall be removed, cleared, and graded, unless a property owner agreement indicates otherwise, or the County through official action of the County Board agrees to keep the road.
- c. The cost estimates shall be made by a competent party as determined or approved by the Fillmore County Supervisors.
 - i. The plan shall also identify the financial resources available to pay for decommissioning and removal of the WECS and accessory facilities.
 - ii. Expenses related to the decommissioning shall be the responsibility of the WECS facility owner, including any expenses related to releasing any easements.
- d. Applicant shall provide as-built plans including structural and electrical drawings of all facilities and all disturbances associated with the wind generation facility. The as-built plans must be certified by a professional engineer licensed in the State of Nebraska that the information included on depicted as-built plans is complete and accurate.
- e. The Board, after hearing the Supervisor's recommendation, may reject a decommissioning plan if:
 - i. it finds that the plan does not provide for decommissioning as defined in this section; and
 - ii. the plan does not adequately describe the cost of decommissioning.
- f. The form of financial resources will be a cash escrow account deposited in a Fillmore County fund. The amount deposited shall be 120% of the decommissioning cost estimate determined appropriate by the Board of Supervisors. The Decommissioning plan must be updated every five years and the financial resources must be updated to account for any new decommissioning cost. Moneys from this fund may also be used to decontaminate a property that has debris from a turbine structure that has failed or/and is being decommissioned. A request must be submitted in writing to use funds to decontaminate from the affected property prior to total completed decommissioning of the structure including elements required in 9.16.09 (2) A. (iii) (2)a-d.

9.24 Solar Conversion Systems

9.24.01 Purpose

No solar panel, neighborhood solar or Commercial Solar shall be installed or constructed within the zoning jurisdiction of Fillmore County unless a Conditional Use Permit, if applicable, and a Zoning Permit have been issued. All solar units shall be constructed in conformance with all state and national building and fire codes. For those devices that include electrical, plumbing and/or heating construction, the applicable permits shall also be obtained. Photo-voltaic solar panels shall conform to the requirements of the National Electrical Code and/or other applicable regulatory standards and requirements.

9.24.02 GENERAL SOLAR DEFINITIONS:

1. ACCESSORY SOLAR ENERGY SYSTEMS: shall mean any photo-voltaic, concentrated solar thermal, or solar hot water devices that are accessory to, and incorporated into the development of an authorized use of the property, and which are designed for the purpose of reducing or meeting on-site energy needs.
2. BATTERY ENERGY STORAGE SYSTEMS (BESS): are devices that enable energy to be stored and then released when the power is needed, not including standard car batteries.
3. CONCENTRATED SOLAR POWER: shall mean a solar conversion system (SCS) that generates power by using mirrors or lenses to concentrate a large area of sunlight, or solar thermal energy, unto a small area. These include but are not limited to the following technologies: Parabolic trough, Solar power tower, enclosed trough, Fresnel reflectors and Dish Stirling.
4. DEVELOPMENT: shall mean any plat, subdivision, or planned unit development created under the Fillmore County subdivision and zoning regulations.
5. ELECTRIC UTILITY: shall mean the public electric utility providing retail service to a given area.
6. NET EXCESS GENERATION: shall mean, on an ISCS, the net amount of energy, if any, by which the output of a qualified facility exceeds a customer- generator's total electricity requirements during a billing period.
7. NET METERING: shall mean a system of metering electricity in which a local distribution utility;
 - a. Credits a customer-generator at the applicable retail rate for each kilowatt-hour produced by a qualified facility during a billing period up to the total of the customer-generators electricity requirements during that billing period. A customer-generator may be charged a minimum monthly fee that is the same as other non customer-generators in the same rate class but shall not be charged any additional standby, capacity, demand, interconnection, or other fee or charge, and
 - b. Compensates the customer-generator for Net Excess Generation during the billing period at a rate equal to the electric utility avoided cost of electric supply over the billing period. The monetary credits shall be applied to the bills of the customer- generator for the preceding billing period and shall offset the cost of energy owned by the customer-generator. If the energy portion of the customer-generators bill is less than zero in any month, monetary credits shall be carried over to future bills of the customer-generator until the balance is zero. At the end of each annualized period, any excess monetary credits shall be paid out to the coincide with the final bill of that period;

8. PHOTO-VOLTAIC (PV) CELL: shall mean a solid-state device incorporating semi-conductor materials designed and engineered to convert the energy of sunlight directly into electrical energy without use of mirrors, pumps, liquids or conversion of sunlight to thermal energy.
9. PHOTO-VOLTAIC (PV) MODULE: shall mean a collection of inter-connected PV cells within a weather-tight enclosure with high-strength tempered glass.
10. PHOTO-VOLTAIC (PV) PANEL: shall mean an inter-connected collection of PV modules held together in a framework. Typically connected to and held together in a larger framework with other PV panels. May be mounted to a post of posts to hold it above the ground. The mounting system may incorporate a motorized tracking system to automatically tilt the PV panel to optimize the capture of sunlight falling on it as the sun moves throughout the day and thereby maximize the conversion of the sunlight to electrical energy.
11. PHOTO-VOLTAIC (PV) ARRAY: shall mean a group of inter-connected PV panels held together in a framework and mounted on posts, usually driven into the ground. The mounting system may incorporate a motorized tracking system to automatically tilt the PV array to optimize the capture of sunlight falling on the array the sun moves throughout the day and thereby maximize the conversion of the sunlight to electrical energy.
12. REPOWERING: shall mean the combined activity of dismantling or refurbishing existing renewable energy facilities and commissioning new ones. Any change from approved permits shall require amended or new permits from Fillmore County.
13. SOLAR ACCESS: shall mean the ability to receive sunlight across real property for any solar energy device.
14. SOLAR ACCESS EASEMENT: shall mean a right, expressed as an easement, covenant, condition, restriction or other property interest in any deed, will or other instrument executed by or on behalf of any landowner or in any order of taking, appropriate to protect the solar skyspace of a solar collector at a particularly described location to forbid or limit any or all of the following here detrimental to access to solar energy: structures on or above the ground; vegetation on or above ground; or other activities. Such right shall specifically describe a solar skyspace in three-dimensional terms in which the activity, structures or vegetation are forbidden or limited or in which such an easement shall set performance criteria for adequate collections of solar energy at a particular location.
15. SOLAR CONVERSION SYSTEM (SCS): shall mean an assembly, structure, or design, including passive elements, used for gathering, concentrating or absorbing direct or indirect solar energy, specifically designed for holding a substantial amount of useful thermal energy and to transfer that energy to a gas, solid or liquid or to use that energy directly; this may include, but is not limited to, a mechanism or process used for gathering solar energy through thermal gradients, or a component used to transfer thermal energy to a gas, solid or liquid or to convert into electricity.
16. SOLAR CONVERSION SYSTEM, COMMERCIAL: shall mean a commercial solar conversion system (CSCS) is a series of solar panels and equipment connected together in order to commercially supply the converted energy to a community and/or power grid. A CSCS shall have a one-way connection to the power grid and may include a battery system or other Solar Storage Mechanism to store power for later dispatch to the utility company as needed.
17. SOLAR CONVERSION SYSTEM, GROUND-MOUNTED: shall mean any SCS which is directly supported and attached to the ground.
18. SOLAR CONVERSION SYSTEM, INDIVIDUAL: shall mean an individual solar conversion system (ISCS) shall be for the specific use of an individual residential, commercial, public or industrial use.
19. SOLAR CONVERSION SYSTEM, NEIGHBORHOOD: shall mean a neighborhood solar conversion system (NSCS) is a series of solar panels and equipment connected together in order to supply converted energy to a specific neighborhood and its uses.
20. SOLAR CONVERSION SYSTEM, STRUCTURE-MOUNTED: shall mean any SCS which is directly connected to and supported by a building.
21. SOLAR ENERGY: shall mean radiant energy received from the sun at wavelengths suitable for heat transfer, photosynthetic use, or photo-voltaic use.
22. SOLAR ENERGY SYSTEM: shall mean a system that uses the power of the sun to capture and store energy and reduce on site consumption of utility power and/or to supply electricity to a utility company or cooperative.
23. SOLAR ENERGY SYSTEM, FREESTANDING: shall mean a solar energy system that is not mounted on a building or attached to another structure and is ground mounted using rammed-posts or other stand-alone support systems.
24. SOLAR SKYSPACE: shall mean the maximum three-dimensional space extending from a solar collector to all positions of the sun necessary for efficient use of the collector.
- a. Where a solar energy system is used for heating purposes only, solar skyspace shall mean the maximum three-dimensional space extending from a solar energy collector to all positions of the sun between nine o'clock (9:00) A.M. and three o'clock (3:00) P.M. local apparent time from September 22 through March 22 of each year.
 - b. Where a solar energy system is used for cooling purposes only, solar skyspace shall mean the maximum three-dimensional space extending from solar collector to all positions of the sun between eight o'clock (8:00) A.M. and four o'clock (4:00) P.M. local apparent time from March 23 through September 21 of each year.
25. SOLAR OR SOUTH FACING: shall mean true south, or 20 degrees east of magnetic south.
26. SOLAR STORAGE MECHANISM: shall mean equipment or elements such as piping and transfer mechanisms, containers, heat exchangers or controls thereof and gases, solids, liquids or combinations thereof, including batteries, that are utilized for storing solar energy, gathered by a solar conversion system (SCS), for subsequent use.

9.24.03 GENERAL PROVISIONS APPLYING TO ISCS, NSCS, AND/OR CSCS

The following provisions shall apply, typically, to two or more of the different solar conversion systems in this Section.

1. Agriculture: Solar panels used to provide power to agricultural irrigation wells, potable drinking wells, and other agricultural uses (not residence, barns, sheds) shall be exempt from these regulations.

2. For Commercial and Neighborhood SCS: Applicant shall provide evidence that the project meets commonly accepted management practices for avian, wildlife, and environment protections in place at the time of application.

3. For Commercial and Neighborhood SCS: Applicant shall comply with specific requirements of the appropriate local fire department.

4. Maintenance: All systems and components shall be kept in operational condition, including appearance of all components; plus, the ground beneath the SCS shall be kept in a presentable manner based upon the ground cover decided.

5. Decommissioning: All systems, when they are no longer generating power and will no longer be used shall follow a decommissioning plan agreed to upfront by the Fillmore County Board, the electric utility, and the owner/developer.

6. Re-powering: If any operation of an SCS is suspended for purposes of repowering, replacement, or maintenance, decommissioning provisions will not apply for up to six months. However, an SCS that is not operating or is operating at a substantially reduced capacity for more than one year will be considered abandoned and Decommissioning provisions will apply.

a. Repowering does not require a new or amended permit if the footprint of the SCS is the same or reduced. Any increase in the footprint or height of structures at the facility will require permit amendment.

7. Other Requirements:

a. Any applicant for a SCS project shall demonstrate they have met the requirements of the electric utility and have in place an interconnection agreement with the electric utility.

b. Details shall be included of any proposed Battery Energy Storage Systems (BESS).

c. All NSCS and CSCS operations shall have located at key access points signage stating specific language as outlined by the electric utility. In addition, safety warning signage as required under the National Electrical Code and under any other applicable safety regulations or standards shall be displayed as necessary.

d. SCS may be installed in the floodway fringe subject to floodplain regulations, as may be amended from time to time, given that all components are installed a minimum of two feet (1') above base flood elevation and subject to written authorization of the Floodplain Administrator.

1) No SCS shall be constructed in the identified floodway.

e. Maintenance of all leased ground, including control of noxious weeds.

8. Concentrated Solar Power (CSP) systems are prohibited within Fillmore County jurisdiction.

9. Decommissioning Plan: Financial assurances shall be in place as part of a Decommissioning Plan.

9.24.04 INDIVIDUAL SOLAR CONVERSION SYSTEMS

1. General Requirements for ISCS:

• ISCS's shall conform to the required front, side and rear lot setback requirements except as provided herein:

a. The applicant for any ISCS shall provide evidence that they have a valid Net Metering agreement with the electric utility.

b. An ISCS which is attached to an integral part of the principal building shall meet all local, state, and federal codes for building, electrical, plumbing and accessibility.

c. A ground-mounted ISCS may be located only in the required rear yard provided it does not exceed 12-feet in height and is located not less than five feet from the rear lot line and not closer than one foot to any existing easement as measured from the closest point of the structure including its foundation and anchorage.

d. Setback: No ground-mounted SCS shall be located in the required rear yard, side or front yard.

e. Fillmore County has no responsibility to assure that any sunlight reaches the applicants proposed SCS and has no authority to prevent the applicants' neighbors from using their properties in any way that conforms with the Fillmore County Zoning regulations, including planting trees, constructing fences and building structures, all of which might shade the applicants proposed SCS. By signing the application form for the SCS the applicant acknowledges and agrees that the County does not have any responsibility to assure sunlight to the ISCS, SCS or NSCS, or to resolve any disputes that may arise.

2. Structural Requirements: The physical structure and connections to existing structures shall conform to the applicable local, state, and federal codes.

3. Site Plan: The application for a permit shall be accompanied by a site plan drawn to scale showing property lines, existing structures on the lot, proposed solar panel or array location with respect to property lines, and dimensions of the proposed solar panel or array(s).

4. Preexisting Solar Panels: Notwithstanding noncompliance with the requirements of this section, a solar panel erected prior to the adoption of these Regulations, pursuant to a valid zoning permit issued by Fillmore County, may continue to be utilized so as long as it is maintained in operational condition.

5. Decommissioning:

a. Whenever an SCS ceases operation on a property, it shall be required to report this to the Fillmore County Zoning Office and the electric utility.

b. Whenever a ground mounted SCS is no longer operating, the property owner shall have six months to completely remove the structure and wiring. The location of the SCS shall be returned to a usable state based upon the surrounding property.

9.24.05 NEIGHBORHOOD SOLAR CONVERSION SYSTEMS (NSCS)

1. General Requirements for NSCS: NSCS'S shall meet the following requirements as provided herein:

- a. An NSCS shall be set on its owned lot within the neighborhood/development; and shall meet underlying setbacks for principal structures.
- b. The NSCS shall be designed and constructed for no more than the anticipated maximum solar usage in the designated neighborhood or development.
- c. No excess power generated shall be sold or given to a user outside the agreed upon neighborhood or development, except via a Net metering agreement;
- d. The developer shall provide Fillmore County with all solar easements established; however, the County shall not be responsible for enforcing said easements.
- e. All solar easements shall be enforced by an established Homeowners Association for the development/neighborhood.
- f. A ground mounted NSCS shall be protected with fencing and/or bollards.
- g. All connections to the uses within the neighborhood shall be made underground.
- h. An access agreement between the developer, Homeowners Association, and any other necessary other entity and the electric utility shall exist in case of an emergency.
- i. A Net Metering agreement between the developer, Homeowners Association, and any other entity and the electric company shall exist in case of excess electricity; and
- j. All ground mounted NSCS's shall have an agreed solar access easement from any neighboring properties. Said easement shall be filed as an instrument to each property's deed and said easement shall stay in place as long as the ground- mounted NSCS is in place and operational.
- k. Fillmore County has no responsibility to assure that any sunlight reaches the applicants proposed SCS and has no authority to prevent the applicants neighbors from using their properties in any way that conforms with the County Zoning regulations, including planting trees, constructing fences and building structures, all of which might shade the applicants proposed SCS. By signing the application form for the SCS the applicant acknowledges and agrees that the County does not have any responsibility to assure sunlight to the ISCS, SCS or NSCS, or to resolve any disputes that may arise.

2. Structural Requirements:

The physical structure and connections to existing structures shall conform to the applicable local, state, and federal codes.

3. Solar Oriented Subdivision/ Site Plan:

- a. Whenever a NSCS is part of a proposed new subdivision, the developer shall outline the specific lot(s) or outlot(s) where the NSCS will be placed.
 - 1) Specific developments/neighborhoods initially designed with an NSCS shall identify all solar easements on the preliminary and final plats and shall be recorded the same as other utility easements. In addition, the subdivision plats shall indicate, in addition to all other requirements in the subdivision regulations, the location of all proposed underground conduits serving the other lots in said subdivision.
- b. The application for a permit shall be accompanied by a site plan drawn to scale showing property lines, existing structures on the lot, proposed solar panel location with respect to property lines, and dimensions of the proposed solar panel.
- c. The developer shall install all underground wiring as prescribed by the electric utility.
- d. All underground wiring shall be protected by a utility easement or located within prescribed rights-of-way.
- e. The developer shall provide the County Zoning Administrator with as-builts of the wiring locations within the subdivision.

4. Decommissioning

a. A decommissioning plan shall be required to ensure that facilities are properly removed after their useful life. Decommissioning of solar array(s) and panels must occur in the event they are not in use for 12 consecutive months, as outlined in Section 9.24.07 below.

9.24.06 COMMERCIAL SOLAR CONVERSION SYSTEM (CSCS)

1. Applicability

The purpose of this subsection is to provide standards for fixed- panel photovoltaic solar farms or CSCS consisting of ground-mounted solar panels capturing energy from the sun and converting it to electricity. The provisions of this section are based on a ground-mounted photovoltaic facility using a rammed post construction technique and panels supporting the flow of rainwater between each module and the growth of vegetation beneath the arrays and limiting the impacts of storm-water runoff. The rammed post construction technique allows for minimal disturbance to the existing ground and grading of the site. Based on the assumed solar farm design, Fillmore County finds the use to be low intensity with minimal trip generation, low amounts of impervious cover, and low emission, thus the use is compatible in urbanized, non- urbanized, or low-density areas with other uses.

2. Site Developments Standards:

- a. Lot coverage: No more than one percent of the gross site area shall be occupied by enclosed buildings and structures other than the panel arrays and inverters.
- b. Setbacks: A thirty-foot (30') foot setback shall be provided from all non-participating property lines and road/access easements.
 - i. A fifty-foot (50') setback shall apply measured from a lot line that abuts a residential zoning district.
 - ii. Power inverters or other sound-producing equipment (producing in excess of 40 dBA) shall be a minimum set back of one hundred fifty (150) feet from all property lines.
- c. Height: Solar panel arrays shall not exceed 20 feet in height; otherwise, height requirements of the district shall apply.
- d. Landscaping Buffer: The primary use of the property shall determine the buffer requirement. Where a ground-mounted photovoltaic solar farm is the primary use the property shall be considered industrial or agricultural for the purposes of buffer requirements, there are no requirements for screening from public streets.
- e. Stormwater Management: Fixed panel solar arrays shall be considered pervious and the property shall be designed to absorb or detain specific runoff. The impervious cover calculation shall include the support posts of the panels, any roads or impervious driveway surfaces, parking areas and buildings on the site.
- f. Signage: shall conform to the Fillmore County Sign Regulations.
- g. Power Lines: Customer owned on-site power lines shall be buried except where connecting to existing overhead utility lines. This requirement shall not apply to fiber optic connections.
- h. Fencing: Due to the unique security requirements of this land use, and to facilitate the educational value of seeing this land use, fencing up to eight feet in height is permitted provided the fencing material is predominantly open.
- i. Incident Plan: Applicant shall prepare an Incident Response Plan which ensures their employees have the necessary equipment and training to effectively handle emergencies such as equipment fires, structural damage (or collapse), and materials spills, including access to heavy equipment needed for rescue or trapped personnel.
 - i. The Fire Chief, EMS Captain, and County Sheriff shall sign-off on the Incident Response Plan prior to beginning operations.
- j. Other Codes: All State and Federal codes and provisions not specified in this subsection are required including but not limited to tree preservation, traffic impact analysis, and historic preservation.

3. Submittal Requirements:

All Plans shall contain the following:

- a. These requirements shall apply to both the Conditional Use Permit and Zoning Compliance Permit
- b. The site plan, drawn to scale, of the property indicating the total site acreage, landscape and buffer areas, tree preservation, location of all structures, the proposed location of the solar panels, the distances of the solar panels to structures on the property as well as distances to the property lines.
- c. The site plan shall include any roads, electric lines and/or overhead utility lines.
- d. A description of the electrical generating capacity and means of interconnecting with the electrical grid as coordinated and pre-approved with the appurtenant Power District.
- e. A copy of the interconnection agreement with the local electric utility.
- f. Drawings or blueprints of solar panels and arrays in conjunction with the application for a zoning permit for a solar farm/powerplant;
- g. Structural engineering analysis for a solar panel, array and its foundation, as applicable.
- h. Manufacturers recommended installation instructions and requirements, if any.
- i. Documentation of landownership and/or legal authority to construct on the property.
- j. A decommissioning plan.

4. Compliance with other Regulations:

- a. A Conditional Use permit applications for CSCS's shall be accompanied by a single line drawing of electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the State's adopted electrical code and that has been pre-approved by the associated power district meeting their Distribution Generation Requirements and Guidelines; and
- b. This subsection does not waive any requirements of any State or Federal codes, electrical codes or other technical code as applicable.

5. Discontinuation:

- a. A CSCS shall be considered abandoned after one year without energy production. The solar equipment owner shall remove all SCS equipment and appurtenances within one year of abandonment, as outlined in Section 9.24.07 below.

9.24.07 SOLAR FACILITY DECOMMISSIONING PLAN

1. A NSCS or CSCS shall be considered a discontinued use after one year without energy production, unless a continuation plan is developed and submitted to the Zoning Administrator outlining the steps and schedule for returning the facility to service.
 - a. An amended permit is required when the footprint of solar panels is expanded, or when BESS is added to the project.
2. Each NSCS or CSCS shall have a Decommissioning Plan outlining the anticipated means and cost of removing the facility at the end of their serviceable life or upon being discontinued use.
 - a. The Decommissioning Plan shall include at minimum:
 - i. The manner in which the facility will be decommissioned.
 - ii. A Decommissioning schedule;
 1. All above-ground structures shall be removed within one year of the discontinuation of use as defined.
 - iii. Detailed estimate of the cost of decommissioning a solar facility by a professional engineer licensed in the State of Nebraska, including:
 1. dismantling and removal of all solar panels, support structures, transformers, overhead cables and debris of the facility;
 2. removal of
 - a. underground cables to a depth forty-eight (48) inches;
 - b. removal of foundations, buildings, and ancillary equipment to a minimum depth of forty-eight (48) inches below grade; site restoration and reclamation to the approximate original topography that existed prior to the construction of the facility with grading, topsoil respread over the disturbed areas at a depth similar to that in existence prior to the disturbance, and reseeding to achieve the same utility of native vegetation of the surrounding area to prevent adverse hydrological effects,
 - c. Sections 9.24.07(2)A(i, ii, and iii) immediately above may be waived by the Board with a signed request by the applicable landowner, identifying the underground cables; foundations, buildings, and ancillary equipment; and/or surface features the landowner prefers to remain in place explaining a valid reason the landowner prefers those features to remain.
 - d. repairs and reconstruction from damage to public roads, culverts and natural drainage ways resulting directly from the decommissioning of a solar generation facility;
 - e. the current salvageable value of the facility, as determined by an independent evaluator.
 - b. All access roads shall be removed, cleared, and graded, unless a property owner agreement indicates otherwise, or the County through official action of the County Board agrees to keep the road.
 - c. The cost estimates shall be made by a competent party as determined or approved by the Fillmore County Supervisors.
 - i. The plan shall also identify the financial resources available to pay for decommissioning and removal of the NSCS or CSCS and accessory facilities.
 - ii. Expenses related to the decommissioning shall be the responsibility of the facility owner, including any expenses related to releasing any easements.
3. Applicant shall provide as-built plans including structural and electrical drawings of all facilities and all disturbances associated with the solar generation facility. The as-built plans must be certified by a professional engineer licensed in the State of Nebraska that the information included on depicted as-built plans is complete and accurate.
4. The Board of Supervisors, after hearing of the Planning Commissions recommendation, may reject a decommissioning plan if:
 - a. it finds that the plan does not provide for decommissioning as defined in this section; and
 - b. the plan does not adequately describe the cost of decommissioning.

5. Letter of Credit

A decommissioning Standby Letter of Credit (SBLC) is required upon approval of a conditional use permit granted for the installation of NSCS or CSCS facilities. All SBLC documentation is to be presented to the County Attorney and County Treasurer for review prior to approval of the CUP.

a. Letter of Credit Requirements

- i. The SBLC is required prior to construction commencing.
- ii. The SBLC must be issued or confirmed by a bank with AA or equivalent rating by one of the three major rating agencies (Fitch, Moody's, or S & P) in the United States of America.
- iii. The SBLC shall be Irrevocable, Clean and contain an Evergreen clause (automatically renews annually).
- iv. Eighteen months prior to the end of the power purchasing agreement, a professional engineer and/or decommissioning company shall evaluate the current decommissioning costs and the SBLC shall be no less than the current estimated costs.
- v. If a new power purchasing agreement is put in place, then the SBLC shall be reviewed and reset based upon the new agreement.

b. Determination of Letter of Credit amount

- i. The amount of the SBLC shall be determined by a professional engineer licensed in the State of Nebraska.
- ii. The dollar amount metric shall include the current decommissioning costs compounded by the average inflation rate for similar decommissioning, reclamation work over the life of the power purchasing agreement.

c. Penalties for Failure to Submit Letter of Credit

- i. If Applicant does not submit an acceptable SBLC to Fillmore County within the timeframe required by this regulation, the CUP shall be revoked by the Board.
- ii. The project owner shall submit a new application for approval prior to resuming operations.