

**TO:** Planning and Zoning Commission  
**FROM:** Matt Wyant  
**DATE:** September 8, 2023  
**RE:** Case #ZTA-2023-03

**APPLICANT:** Pottawattamie County

**REQUEST:** Zoning text to amend the Pottawattamie County, Iowa, Zoning Ordinance, Chapter 8 by adding Wind Energy System and Solar Energy System.

**ZONING DISTRICTS** [Revise each applicable zoning district]

8.01\_0\_0 **CONDITIONAL USES:** The following *conditional* uses shall be permitted in a Class [A-2, A-3] District:

.0\_\_ *Wind Energy Systems, Commercial, subject to the requirements of 8.004.230.*

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**DEFINITIONS** [Add new definitions to Chapter 8.002]

**WIND ENERGY SYSTEM, COMMERCIAL (CWES):** A wind energy system that generates electricity from wind energy primarily for sale to an electric utility or other third-party commercial or industrial user. CWES shall include but are not limited to wind turbine generators, support structures, inverters/transformers, operations and maintenance buildings, meteorological towers, electrical collector systems, energy storage technologies, wiring, communications, roads, substations and other equipment necessary for the generation, storage and delivery of electricity. [Replace existing "Wind Farm, Commercial" definition]

**WIND ENERGY SYSTEM, NON-COMMERCIAL (WES):** A wind energy system that generates electricity from wind energy primarily for use on the same site or the same land use with which the system is associated. [Replace existing "Wind Farm, Non-Commercial" definition]

**PARTICIPATING LANDOWNER:** Any landowner under lease, easement or other property agreement(s) with the owner or operator of a solar energy system or wind energy system.

**NON-PARTICIPATING LANDOWNER:** Any landowner not under agreement with the owner or operator of a solar energy system or wind energy system.

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**8.004.230 WIND ENERGY SYSTEMS, COMMERCIAL (CWES)** [Replace existing section]

- .01 **PURPOSE:** This ordinance provides uniform and comprehensive standards for the installation and use of CWES. CWES shall include but are not limited to wind turbine generators, support structures, inverters/transformers, operations and maintenance buildings, meteorological towers, electrical collector systems, energy storage technologies, wiring, communications, roads, substations and other equipment necessary for the generation, storage and delivery of electricity. The intent of these regulations is to protect the public health, safety, and community welfare while allowing development of utility-scale wind energy resources for utility, commercial and industrial purposes.
- .02 **CONSTRUCTION; CONFLICT:** This section does not repeal, abrogate, annul, impair or interfere with any existing ordinance. If this section 8.004.230 conflicts with any other provision of the Pottawattamie County, Iowa, Zoning Ordinance, this section 8.004.230 shall control.

- .03 **CONDITIONAL USE:** CWES shall require a conditional use permit within the A-2 and A-3 zoning districts. This use is prohibited in all other zoning districts in the County. Where CWES are part of a unified plan or aggregated project, the applicant may submit a single conditional use permit application and may sign the application in lieu of individual property owner(s). The applicant shall provide reasonable documentation evidencing the property owner(s) authorize the applicant to construct and operate a CWES on the property or to seek a conditional use permit for such purpose.
- .04 **SETBACKS:** CWES shall not be located less than three (3) times the total height from the closest exterior wall of any occupied non-participating dwelling. CWES may be setback less than three (3) times the total height from any occupied participating dwelling or any dwelling for which the property owner signs a waiver agreeing to reduce the setback distance; provided, however, in no event shall a CWES be located less than one and one-tenth (1.1) times the total height to any dwelling. In no event shall a CWES be located less than one and one-tenth (1.1) times the total height to any lot line or public right-of-way; provided, however, there shall be no side or rear yard setback for any lot line where the CWES is located on abutting participating parcels.
- .05 **SPECIAL REQUIREMENTS:** CWES are subject to the following requirements:
- A. **SUBMITTAL REQUIREMENTS:** The applicant shall submit all materials contained in this section at the time of the application for a conditional use permit.
- B. **PERMITTING PROCESS:** The applicant shall go through the following process for conditional use permit approval:
1. Applicant shall meet with the Development Director and submit all required documents.
  2. Development Director will submit all documents to the Pottawattamie County Department Approval Committee. Said Committee shall consist of the Board of Supervisors and the Development Director along with the department head or the designated employee from the following departments: Conservation, County Engineer/Secondary Roads, and Sheriff's Department. All identified departments must approve with signature that all requirements pertaining to that department are met prior to submission to the Zoning Board of Adjustment.
  3. The conditional use permit application will be presented to the Zoning Board of Adjustment for a public hearing and decision on the conditional use permit.
  4. Board of Supervisors shall consider a decommissioning plan, decommissioning agreement (including financial security), Public Roads Damage Avoidance and Mitigation Plan and related agreement. The CWES may not proceed to construction until the Board of Supervisors has approved these plans and the Chairperson and the applicant have executed these agreements.

5. The use(s) outlined in the application shall be established in accordance with the draft plans considered by the approving authority within five (5) years of approval. "Commencing Construction" is determined by disturbance of soil at project site that is not part of a primary farming operation. Any portion of the development plan not completed within five (5) years of approval by the approving authority shall not be installed until the development has been reauthorized by the approving authority. Reauthorization shall be subject to the regulations in effect at the time reauthorization is requested.
- C. SECURITY; FENCING: CWES shall be equipped with anti-climbing devices. Tower climbing apparatus shall be at least ten (10) feet above ground level. At the discretion of the approving authority, critical electrical and communications equipment may be fenced with the chain-link fence topped with barbed wire when such measures are deemed necessary to ensure public safety.
- D. AGRICULTURAL IMPACT MITIGATION PLAN: The applicant shall submit a plan with the conditional use permit application detailing the mitigation strategy to support agricultural use of the land. The plan will be reviewed by the Development Director and shall include, but is not limited to:
1. Results of a soil analysis conducted and assessed by a qualified professional to determine topsoil depths, as well as identify any limitations for construction and mitigation that may require special consideration.
  2. General list of project components and construction timeline.
  3. Describe best practices and methods to be used during each stage of construction for protecting and preserving topsoil. Practices and methods should address, at minimum, avoidance of removal of topsoil. However, if removal of topsoil is necessary, applicant should plan for segregation, stockpiling, replacement during backfill and respreading, grading minimization, compaction prevention and decompaction of otherwise undisturbed topsoil impact by heavy equipment or storage of materials and wet weather conditions.
  4. Describe environmental monitoring that will be used during construction to ensure adherence to the best practices contained in the plan. The monitoring should be done by an environmental professional at the expense of the developer. The monitoring results should be submitted to the County every thirty (30) days during construction.
  5. Describe the general procedures to be used for identification, avoidance and repair of any underground drainage tile lines located within the project site before, during and after construction.
- E. SOIL EROSION AND SEDIMENT CONTROL: The applicant shall conduct all roadwork and other site development work in compliance with Chapter 10.15 of

the Pottawattamie County, Iowa, Code (Grading and Excavation), and a national pollutant discharge elimination system (NPDES) permit as required by the Iowa Department of Natural Resources and comply with requirements as detailed by local jurisdictional authorities during the plan submittal. If subject to NPDES requirements, the applicant must submit the permit to the Development Director for review and comment along with an erosion and sediment control plan before the "Commencement of Construction", which is determined by disturbance of soil at project site, not considered for a primary farming operation. The plan must include both general "best management practices" for temporary erosion and sediment control (both during and after construction) and permanent drainage and erosion control measures to prevent both damage to local roads/adjacent areas and sediment laden run-off into waterways.

- F. LIGHTING: Lighting shall be shielded to that greatest extent possible such that the light does not project directly onto the adjacent parcels. If permitted by the FAA, all CWES shall utilize an aircraft detection lighting system (ADLS).
- G. DESIGN: CWES color and finish shall be white, gray or another non-obtrusive, non-reflective finish. There shall be no advertising, logo, or other symbols painted on the wind turbine generator other than those required by the FAA or other governing body. Each wind turbine generator shall have a name plate which is clearly legible from the public right-of-way and contains contact information of the operator of the CWES.
- H. SOUND: Sound levels caused by the CWES measured at the closest exterior wall of any occupied non-participating dwelling shall not exceed fifty (50) decibels (A-weighted). Each application shall include a professional third-party pre-construction sound study which includes all property within at least one (1) mile of each wind turbine generator and must be able to demonstrate compliance with the noise standards in this section.
- I. SHADOW FLICKER: For any wind turbine generator which is within half mile of any occupied non-participating dwelling, applicant shall provide shadow flicker modeling data showing the expected effect of shadow flicker on non-participating properties. Shadow flicker shall not fall upon any occupied non-participating dwelling, or other building which is occupied by humans, for more than a total of 30 hours per any calendar year.
- J. UTILITY CONNECTIONS: Applicant shall make reasonable efforts to place all collection lines within the CWES underground, depending on appropriate soil conditions, shape and topography of the site, distance to the connection, or other conditions or requirements. High-voltage lines between the CWES and substations may be above ground.
- K. OUTDOOR STORAGE: Only the outdoor storage of materials, vehicles, and equipment that directly support the operation and maintenance of the CWES shall be allowed.

- L. ENDANGERED SPECIES AND WETLANDS: Applicant shall consult with the Iowa Department of Natural Resources.
  - M. WEED CONTROL: Applicant must present an acceptable weed/grass control plan for property outside of the fenced area for the entire CWES. The CWES operator must maintain the fence and adhere to a weed control plan. The plan must be approved by the Development Director, County Engineer and Conservation Department.
  - N. WASTE: All solid wastes, whether generated from supplies, equipment parts, packaging, operation, grazed animals, farming operation or maintenance of the CWES, shall be removed from the site and disposed of in an appropriate manner. All hazardous waste shall be removed from the site immediately and disposed of in a manner consistent with all local, state and federal requirements.
  - O. MAINTENANCE, REPAIR OR REPLACEMENT OF A FACILITY: Maintenance shall include, but not limited to, painting, structural repairs, and integrity of security measures. Any retrofit, replacement or refurbishment of equipment shall adhere to all applicable local, state and federal requirements.
  - P. STORM WATER MANAGEMENT. Prior to receiving a building permit, for the purposes of pollutant removal, storm water and runoff management, flood reduction and associated impacts, the applicant shall provide a detailed storm water management plan in compliance with Chapter 10.15 of the Pottawattamie County, Iowa, Code (Grading and Excavation).
  - Q. AVIATION PROTECTION. Wind turbine generators shall meet all FAA requirements, including but not limited to, lighting and radar interference issues. Applicant must provide evidence of notice and no response and/or non-objection from FAA and Offutt Air Force Base that the CWES will not affect commercial or military flights.
  - R. ADMINISTRATION AND ENFORCEMENT: Development Director and any necessary personnel may enter any property for which a conditional use permit or building permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in the permit have been met as specified by statute, ordinance, and code. Failure to provide access shall be deemed a violation of this ordinance.
- .06 SAFETY: All CWES shall provide the following at all locked entrances:
- A. A visible "High Voltage" warning sign.
  - B. Name(s) and phone number(s) for the electric utility provider(s).
  - C. Name(s) and phone number(s) for the site operator(s).

- D. The facility's 911 address and GPS coordinates.
  - E. The site operator will coordinate with the local fire department and Emergency Management to provide training on an annual basis for the first five (5) years the CWES is complete and in operation. Said training will commence within six (6) months prior to the completion of the CWES. After that, offered on an annual basis for the life of the project. All emergency responding agencies will sign off that said training was completed or offered.
- .07 REPOWERING: At the discretion of the Development Director, proposals to replace more than twenty-five percent (25%) of the wind turbine generators in a CWES within a twelve (12) month period may be required to submit a plan for review and approval with all associated costs assigned to the applicant and/or the property owner(s).
- .08 ROADS: The applicant, owners and their contractors shall avoid damaging public roads to the greatest practicable extent and shall be responsible for repair of damage to public roads. A Public Roads Damage Avoidance and Mitigation Plan shall be in accordance with the following standards and approved by the Board of Supervisors before the applicant commences construction:
- A. IDENTIFICATION OF POTENTIAL ROADS USAGE: The applicant shall identify, in consultation with the County Engineer, all state and local public roads to be used within the County to transport equipment, parts and material for construction, operation or maintenance of the CWES and related components.
  - B. DOCUMENTATION OF ROAD CONDITIONS: Prior to construction, decommissioning or implementation of a repowering plan, the County Engineer or a third-party consultant selected by the County Engineer shall document the current conditions of the roads identified for use, with all associated costs paid for by the applicant or the owners of the CWES. The County Engineer shall document road conditions again thirty (30) days after the CWES construction is complete or as weather permits with physical documents, as well as video documentation.
  - C. ROAD PREPARATION AND DAMAGE: Any road preparation or maintenance necessitated by the CWES as identified by the County Engineer or the third-party consultant shall be promptly completed at the applicant's expense. Any damage caused by the applicant, owner of the CWES or its contractors during construction, decommissioning, or the implementation of a repowering plan shall promptly be repaired at the applicant or CWES owner's expense and to the reasonable satisfaction of the County Engineer based on applicable standards and code.
  - D. FINANCIAL SECURITY: Applicant shall demonstrate appropriate financial assurance to ensure the repair of the damaged roads. At the direction of the Board of Supervisors, the applicant or the owner of the CWES may also be required to provide a financial surety instrument or bond to cover all costs of potential damage to roads at the time of permitting consideration.

.09 DECOMMISSIONING AND RECLAMATION PLAN: The applicant shall submit a decommissioning and reclamation plan to the Development Director with the conditional use permit application. The Development Director shall review the plan for completeness and refer it to the Board of Adjustment for review in conjunction with the conditional use permit and the Board of Supervisors for final consideration and approval prior to the applicant commencing construction. The plan shall include:

- A. A description of the life of the CWES; the anticipated manner which the project will be decommissioned, including plans to recycle components; the anticipated site restoration actions; the estimated decommissioning costs in current dollars; and the method for ensuring that funds will be available for decommissioning and restoration.
- B. Estimates for the total cost for decommissioning at the current value at site as determined by a licensed engineer. Decommissioning cost estimates shall take salvage and resale value into account.
- C. A description of the means to remove the CWES and restore the land to its previous use upon the end of its life, as stated in the conditional use permit or this ordinance.
- D. Provisions to remove structures, debris and associated equipment on the surface and to a level of not less than six (6) feet below the surface, and the timeline/sequence in which removal is expected to occur.
- E. Provisions to restore the soil, vegetation, and disturbed earth, which shall be graded and reseeded and/or the property may be returned to agricultural use. Avoidance of topsoil is preferred. The plan shall include environmental monitoring at the cost of the developer to be used in returning the project area back to agricultural use. Environmental monitoring shall include best practices to address at minimum invasive species prevention, erosion, sediment control and debris removal.
- F. A provision that the terms of the decommissioning plan shall be binding upon the owner or operator of the CWES and any of their successors, assigns or heirs, and that the landowner has granted permission for access and easements of the property for decommissioning.
- G. FINANCIAL SURETY: After the tenth (10th) year of operation, the applicant or CWES owner shall provide a financial surety instrument to cover the cost of decommissioning in accordance with the following:
  - 1. Decommissioning funds or financial surety shall be in an amount equal to the net cost for decommissioning the site, plus a ten percent (10%) contingency.
  - 2. The financial surety shall be maintained in the form of cash, certificate of deposit, performance bond, escrow account, surety bond, letter of credit,



corporate guarantee or other form of financial assurance acceptable to the Board of Supervisors. Any document evidencing the maintenance of the financial surety shall include provisions for releasing the funds to the County in the event decommissioning is not completed in a timely manner.

3. Financial surety shall be maintained for the life of the CWES.
  4. Every five (5) years, the CWES owner or operator shall retain an independent licensed engineer to re-estimate the total cost of decommissioning and attest that the value of the financial surety instrument is appropriate. This report shall be filed with the Planning and Development department and the Auditor. The decommissioning surety shall match the re-estimated cost of decommissioning plus a ten percent (10%) contingency. Within ninety (90) days of filing the re-estimation report with the County, the CWES owner or operator shall cause the fund balance of the financial surety instrument to be adjusted, if applicable.
  5. **RELEASE OF FINANCIAL SECURITY:** Financial surety shall only be released by the Development Director, after inspection that all conditions of the decommissioning plan have been met.
- .10 **INDEMNIFICATION AND LIABILITY:** The applicant, owner and/or operator of the CWES shall defend, indemnify, and hold harmless the County and its officials from and against any and all claims, demands, losses, suits, causes of action, damages, injuries, costs, expenses, and liabilities whatsoever, including attorneys' fees, without limitation, arising out of acts or omissions of the applicant, owner, and/or operator associated with the construction and/or operations of the CWES.
- .11 **CESSATION OF OPERATIONS:** Any CWES that has not been in operation and producing electricity for at least one hundred and eighty (180) consecutive days, unless caused by a natural catastrophic event, shall be decommissioned. The Development Director shall notify the owner to remove the CWES. Within two hundred and seventy (270) days thereafter, the owner shall either submit evidence showing that the CWES has been operating and producing electricity or remove it. If the owner fails to or refuses to remove the CWES, the violation shall be referred to the County Attorney. In the case of a natural catastrophic event, a detailed restoration plan to return to operational status must be provided to the Development Director.
- .12 **VIOLATIONS & PENALTIES:** Violations and penalties of this Section are set forth in Chapter 1.75 of the Pottawattamie County, Iowa, Code (Violations and Penalties).
- .13 **RELATED RULES AND REGULATIONS:** Each CWES shall comply with all applicable local, state and federal requirements.
- .14 **SEVERABILITY:** The provisions of this ordinance are severable, and the invalidity of any section, subdivision, paragraph, or other part of this ordinance shall not affect the validity or effectiveness of the remainder of the ordinance.

- .15 **CONDITIONAL USE PERMIT FEE(S) FOR CWES:** The conditional use permit application fee(s) will be approved and adopted by resolution of the Board of Supervisors and shall be set forth in Chapter 1.50 of the Pottawattamie County, Iowa, Code (Schedule of Fees).

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**8.004.240 WIND ENERGY SYSTEMS, NON-COMMERCIAL (WES) [replace existing section]**

- .01 **PURPOSE:** This section provides uniform and comprehensive standards for the installation and the use of WES for on-site home, farm and small commercial use that are used primarily to reduce on-site consumption of utility power. The intent of this section is to protect the public health, safety and community welfare without unduly restricting the development of WES.
- .02 **CONSTRUCTION; CONFLICT:** This section does not repeal, abrogate, annul, impair or interfere with any existing ordinance. If this section 8.004.240 conflicts with any other provision of the Pottawattamie County, Iowa, Zoning Ordinance, this section 8.004.240 shall control.
- .03 **ACCESSORY USE:** WES shall be considered an accessory use to a permitted principal or conditional use in any zoning district.
- .04 **SETBACKS:** WES shall not be located closer than a distance equal to one and one-tenth (1.1) times the total height to an occupied dwelling, a property line, or a utility easement. Such distance shall be defined relative to the nearest surface of the WES as measured at grade.
- .05 **SPECIAL REQUIREMENTS:** WES shall be subject to the requirements included in this section:
- A. **MINIMUM LOT SIZE:** WES shall not be placed on a parcel of land or lot which is less than one (1) acre in size.
  - B. **NO INTERFERENCE:**
    - 1. WES shall not cause interference to the radio and television reception on adjoining property and in the event of any such interference the WES owner shall remedy such interference.
    - 2. WES shall not cause interference with emergency communication transmissions of the County. Applicant shall request documentation from the County Sheriff to verify the same and submit said documentation with any building permit application. Any cost associated therewith shall be at the applicant's expense.
- .06 **BUILDING CODES:** All county, state and federal construction codes shall be followed.

- .07 USE: WES shall provide electricity for on-site use by the owner. This does not prohibit an owner from making excess power available for net metering.
- .08 BUILDING PERMIT: Before a building permit is issued, the following shall be submitted to the Development Director for review Reference.
- A. Site Plan Showing:
1. Address, email address, and phone number of the property owner;
  2. Parcel lines;
  3. All existing structures with heights clearly marked;
  4. Sanitary infrastructure (i.e., septic field);
  5. Setback measurements;
  6. Easements present on the property, including those for utilities;
  7. Septic field tile location;
  8. Floodplain location, if applicable;
  9. Topography lines (2-foot contours);
  10. Location of all wind turbine generators and associated equipment; and
  11. Location of the electrical disconnect for the WES.
- B. Evidence that the local electric utility has been informed of the customer's intent to install a customer-owned WES.
- C. Evidence that the site plan has been submitted to the local fire protection district.
- D. Evidence that all contact information for site has been provided to Emergency Management.
- E. After a review and acceptance of site plan and required information, a building permit authorizing construction shall be issued.

**ZONING DISTRICTS** [Revise each applicable zoning district]

8.01\_0\_0 **CONDITIONAL USES:** The following *conditional* uses shall be permitted in a Class [A-2, A-3, R-1, C-1, C-2, C-3, I-1, I-2] District:

.0\_\_ *Solar Energy Systems, Commercial, subject to the requirements of 8.004.210.*

[Note: Ordinance will require a new section for solar energy as one does not currently exist. County may use "Reserved" section 8.004.210 or new section 8.004.260.]

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**DEFINITIONS** [Add new definitions to Chapter 8.002]

**CONCENTRATED SOLAR ENERGY SYSTEMS:** A solar energy system that generates power by using mirrors or lenses to concentrate a large area of sunlight, or solar thermal energy, unto a small area.

**SOLAR ENERGY SYSTEM, COMMERCIAL (CSES):** A solar energy system that generates electricity from solar energy primarily for sale to an electric utility or other third-party commercial or industrial user. CSES shall include but are not limited to solar panels, support structures, inverters/transformers, operations and maintenance buildings, electrical collector systems, energy storage technologies, wiring, communications, roads, substations and other equipment necessary for the generation, storage and delivery of electricity.

**SOLAR ENERGY SYSTEM, NON-COMMERCIAL (SES):** A solar energy system that generates electricity from solar energy primarily for use on the same site or the same land use with which the system is associated.

**PARTICIPATING LANDOWNER:** Any landowner under lease, easement or other property agreement(s) with the owner or operator of a solar energy system or wind energy system.

**NON-PARTICIPATING LANDOWNER:** Any landowner not under agreement with the owner or operator of a solar energy system or wind energy system.

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**8.004.210 SOLAR ENERGY SYSTEMS** [Replace existing "Reserved" section 8.004.210]

.01 **PURPOSE:** The purpose of this ordinance is to facilitate the construction, installation, and operation of solar energy systems in Pottawattamie County in a manner that promotes economic development, protects property values, and ensures the protection of health, safety, and welfare while also avoiding adverse impacts to important areas such as agricultural lands, conservation lands, and other sensitive lands.

.02 **CONSTRUCTION; CONFLICT:** This ordinance does not repeal, abrogate, annul, impair or interfere with any existing ordinance. If this section 8.004.210 conflicts with any other provision of the Pottawattamie County, Iowa, Zoning Ordinance, this section 8.004.210 shall control.

.03 SOLAR ENERGY SYSTEMS, COMMERCIAL (CSES):

- A. **PURPOSE:** This section provides uniform and comprehensive standards for the installation and use of CSES. CSES shall include but are not limited to solar panels, support structures, inverters/transformers, operations and maintenance buildings, electrical collector systems, energy storage technologies, wiring, communications, roads, substations and other equipment necessary for the generation, storage and delivery of electricity. The intent of this section is to protect the public health, safety, and community welfare while allowing development of utility-scale solar energy resources for utility, commercial and industrial purposes.
- B. **CONDITIONAL USE:** CSES shall require a conditional use permit within the A-2, A-3, R-1, C-1, C-2, C-3, I-1 and I-2 zoning districts. This use is prohibited in all other zoning districts in the County. Concentrated solar energy systems are prohibited in the County. Where CSES are part of a unified plan or aggregated project, the applicant may submit a single conditional use permit application and may sign the application in lieu of individual property owner(s). The applicant shall provide reasonable documentation evidencing the property owner(s) authorize the applicant to construct and operate a CSES on the property or to seek a conditional use permit for such purpose.
- C. **SPECIAL REQUIREMENTS:** CSES are subject to the following requirements:
1. **HEIGHT:** A solar panel shall be no less than two (2) feet off the ground. A solar panel shall not exceed twenty (20) feet in height above grade at maximum tilt of the solar panel.
  2. **SETBACKS:** CSES shall be setback from lot lines as set forth in underlying zoning district. CSES shall not be located less than three hundred (300) feet from the closest exterior wall of any occupied non-participating dwelling. There shall be no setback to any participating dwelling. There shall be no side or rear yard setback for any lot line where the CSES is located on abutting participating parcels.
  3. **SUBMITTAL REQUIREMENTS:** The applicant shall submit all materials contained in this section at the time of the application for a conditional use permit.
  4. **PERMITTING PROCESS:** The applicant shall go through the following process for conditional use permit approval:
    - a. Applicant shall meet with the Development Director and submit all required documents.
    - b. Development Director will submit all documents to the Pottawattamie County Department Approval Committee. Said Committee shall consist of the Board of Supervisors and the Development Director along with the department head or the designated employee from the following departments: Conservation, County Engineer/Secondary Roads, and Sheriff.

All identified departments must approve with signature that all requirements pertaining to that department are met prior to submission to the Zoning Board of Adjustment.

- c. The conditional use permit application shall be presented to the County Zoning Board of Adjustment for a public hearing and decision on the conditional use permit.
  - d. Board of Supervisors shall consider a decommissioning plan, decommissioning agreement (including financial security), Public Roads Damage Avoidance and Mitigation Plan and related agreement. The CSES may not proceed to construction until the Board of Supervisors has approved these plans and the Chairperson and the applicant have executed these agreements.
  - e. The use(s) outlined in the application shall be established in accordance with the draft plans considered by the approving authority within five (5) years of approval. "Commencing Construction" is determined by disturbance of soil at project site that is not part of a primary farming operation. Any portion of the development plan not completed within five (5) years of approval by the approving authority shall not be installed until the development has been reauthorized by the approving authority. Reauthorization shall be subject to the regulations in effect at the time reauthorization is requested.
5. SECURITY; FENCING: The CSES shall be fenced with a minimum eight-foot (8') tall security fence, unless the Board of Adjustment allows something different. "Warning/No Trespassing" signs, as well as contact information for emergency purposes, shall be posted within sight of all points of fence line or no greater than one hundred fifty feet (150') apart. At the discretion of the approving authority, critical electrical and communications equipment may be fenced with the chain-link fence topped with barbed wire when such measures are deemed necessary to ensure public safety.
6. AGRICULTURAL IMPACT MITIGATION PLAN: The applicant shall submit a plan with the conditional use permit application detailing the mitigation strategy to support agricultural use of the land. The plan will be reviewed by the Development Director and shall include, but is not limited to:
- a. Results of a soil analysis conducted and assessed by a qualified professional to determine topsoil depths, as well as identify any limitations for construction and mitigation that may require special consideration.
  - b. General list of project components and construction timeline.
  - c. Describe best practices and methods to be used during each stage of construction for protecting and preserving topsoil.

Practices and methods should address, at minimum, avoidance of removal of topsoil. However, if removal of topsoil is necessary, applicant should plan for segregation, stockpiling, replacement during backfill and respreading, grading minimization, compaction prevention and decompaction of otherwise undisturbed topsoil impact by heavy equipment or storage of materials and wet weather conditions.

- d. Describe environmental monitoring that will be used during construction to ensure adherence to the best practices contained in the plan. The monitoring should be done by an environmental professional at the expense of the developer. The monitoring results should be submitted to the County every thirty (30) days during construction.
  - e. Describe the general procedures to be used for identification, avoidance and repair of any underground drainage tile lines located within the project site before, during and after construction.
7. **SOIL EROSION AND SEDIMENT CONTROL:** The applicant shall conduct all roadwork and other site development work in compliance with Chapter 10.15 of the Pottawattamie County, Iowa, Code (Grading and Excavation), and a national pollutant discharge elimination system (NPDES) permit as required by the Iowa Department of Natural Resources and comply with requirements as detailed by local jurisdictional authorities during the plan submittal. If subject to NPDES requirements, the applicant must submit the permit to the Development Director for review and comment along with an erosion and sediment control plan before the "Commencement of Construction", which is determined by disturbance of soil at project site, not considered for a primary farming operation. The plan must include both general "best management practices" for temporary erosion and sediment control (both during and after construction) and permanent drainage and erosion control measures to prevent both damage to local roads/adjacent areas and sediment laden run-off into waterways.
8. **VEGETATION MITIGATION PLAN:**
- a. A Vegetation Mitigation Plan must be provided to the Planning and Development Department with the conditional use permit application. The Vegetation Mitigation Plan will be reviewed by the Development Director.
  - b. Ground under and around the CSES shall be planted with a perennial vegetative ground cover as identified in the Vegetation Mitigation Plan. The ground cover plan shall be developed in accordance with the following standards:

- i. Avoid removal of topsoil to maximum extent possible during development and decommissioning unless part of a remediation effort.
  - ii. The vegetation shall be planted and maintained, per the Vegetation Mitigation Plan, for the full operational life of the CSES to prevent erosion, manage runoff and build soil. The Vegetation Mitigation Plan must include management methods and schedules for how the vegetation will be managed on an annual basis, with the particular attention given to the establishment period of approximately three (3) years. The Vegetation Mitigation Plan must include provisions for replacement of any required vegetation cover that fails to establish or dies during the life of the project.
  - iii. Plant materials for the ground cover area must not have been treated with systemic insecticides, particularly neonicotinoids.
  - iv. The application and Vegetation Mitigation Plan shall include the proposed seed mix specifications and growth guidelines to follow.
  - v. Seeding zones and their selected seed mixes should be clearly mapped on a site plan.
  - vi. Seed and/or planting mixes and maintenance practices should be consistent with recommendations made by qualified natural resource professionals, such as those from a state department of natural resources, county soil and water conservation services, or natural resource conservation service.
  - vii. Reporting to the County on ground cover management and maintenance activities shall be on an annual basis for a minimum of five (5) years after which point reduced frequency can be requested and approved at the discretion of the Development Director.
  - viii. At the discretion of the Development Director, other practices, such as small-scale farming, beekeeping operations or grazing, may be allowed in the ground cover area as part of the conditional use permit.
9. **LANDSCAPING BUFFER:** To mitigate potential negative effects and reduce the visual impact of the CSES, a landscaping buffer shall be installed and maintained during the life of the CSES. Determination of screening requirements will be made by the approving authority as part of the review of the conditional use permit and will be based on adjacent or nearby surrounding land uses and topography. Where the approving



authority finds that a landscaping buffer is appropriate, landscaping shall be installed within a planting area around the portions of the site specified by the approving authority in accordance with the standards as of this subsection. All applications for which this subsection applies shall submit a plan for review and approval. The landscaping buffer shall use trees, shrubs, grasses and forbs that are native to Iowa or where appropriate may include naturalized and non-invasive species or a combination thereof to provide a vegetation screen in all required areas.

10. LIGHTING: If lighting is provided for the CSES, lighting shall be shielded and downcast such that the light does not project directly onto the adjacent parcels.
11. SOUND: Sound levels caused by the CSES measured at the closest exterior wall of any occupied non-participating residence shall not exceed fifty (50) decibels (A-weighted).
12. GLARE; AVIATION PROTECTION. The CSES shall be designed and located to minimize glare towards any occupied buildings on adjacent properties. Applicant must complete and provide with the application the results of a Solar Glare Hazard Analysis Tool or most recent version adopted by the Federal Aviation Administration (FAA). Applicant must provide evidence of notice and no response and/or non-objection from FAA and Offutt Air Force Base that the CSES will not affect commercial or military flights.
13. UTILITY CONNECTIONS: Applicant shall make reasonable efforts to place all collection lines within the CSES underground, depending on appropriate soil conditions, shape and topography of the site, distance to the connection, or other conditions or requirements. High-voltage lines between the CSES and substations may be above ground.
14. OUTDOOR STORAGE: Only the outdoor storage of materials, vehicles, and equipment that directly support the operation and maintenance of the CSES shall be allowed.
15. ENDANGERED SPECIES AND WETLANDS: Applicant shall consult with the Iowa Department of Natural Resources.
16. WEED CONTROL: Applicant must present an acceptable weed/grass control plan for property outside of the fenced area for the entire CSES. The CSES operator must maintain the fence and adhere to a weed control plan. The plan must be approved by the Development Director, County Engineer and Conservation Department.
17. WASTE: All solid wastes, whether generated from supplies, equipment parts, packaging, operation, grazed animals, farming operation or maintenance of the CSES, shall be removed from the site and disposed of in an appropriate manner. All hazardous waste shall be removed from the site immediately and disposed of in a manner consistent with all local, state and federal requirements.

18. **MAINTENANCE, REPAIR OR REPLACEMENT OF A FACILITY:** Maintenance shall include, but not limited to, painting, structural repairs, and integrity of security measures. Any retrofit, replacement or refurbishment of equipment shall adhere to all applicable local, state and federal requirements.
19. **CLEANING CHEMICALS AND SOLVENTS:** During operation of the CSES, all chemicals or solvents used to clean photovoltaic panels shall be low in volatile organic compounds and the operator shall use recyclable or biodegradable products to the extent possible. Any on-site storage of chemicals or solvents shall be referenced on the site plan.
20. **STORM WATER MANAGEMENT.** Prior to receiving a building permit, for the purposes of pollutant removal, storm water and runoff management, flood reduction and associated impacts, the applicant shall provide a detailed storm water management plan in compliance with Chapter 10.15 of the Pottawattamie County, Iowa, Code (Grading and Excavation).
21. **ADMINISTRATION AND ENFORCEMENT:** Development Director and any necessary personnel may enter any property for which a conditional use permit or building permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in the permit have been met as specified by statute, ordinance, and code. Failure to provide access shall be deemed a violation of this ordinance.

D. **SAFETY:** All CSES shall provide the following at all locked entrances:

1. A visible "High Voltage" warning sign.
2. Name(s) and phone number(s) for the electric utility provider(s).
3. Name(s) and phone number(s) for the site operator(s).
4. The facility's 911 address and GPS coordinates.
5. The site operator will coordinate with the local fire department and Emergency Management to provide training on an annual basis for the first five (5) years the CSES is complete and in operation. Said training will commence within six (6) months prior to the completion of the CSES. After that, offered on an annual basis for the life of the project. All emergency responding agencies will sign off that said training was completed or offered.

E. **REPOWERING:** At the discretion of the Development Director, proposals to replace more than twenty-five percent (25%) of the panels in a CSES within a twelve (12) month period may be required to submit a plan for review and approval with all associated costs assigned to the applicant and/or the property owner(s).

F. **ROADS:** The applicant, owners and their contractors shall avoid damaging public roads to the greatest practicable extent and shall be responsible for repair

of damage to public roads. A Public Roads Damage Avoidance and Mitigation Plan shall be in accordance with the following standards and approved by the Board of Supervisors before the applicant commences construction:

1. IDENTIFICATION OF POTENTIAL ROADS USAGE: The applicant shall identify, in consultation with the County Engineer, all state and local public roads to be used within the County to transport equipment, parts and material for construction, operation or maintenance of the CSES and related components.
  2. DOCUMENTATION OF ROAD CONDITIONS: Prior to construction, decommissioning or implementation of a repowering plan, the County Engineer or a third-party consultant selected by the County Engineer shall document the current conditions of the roads identified for use, with all associated costs paid for by the applicant or the owners of the CSES. The County Engineer shall document road conditions again thirty (30) days after the CSES construction is complete or as weather permits with physical documents, as well as video documentation.
  3. ROAD PREPARATION AND DAMAGE: Any road preparation or maintenance necessitated by the CSES as identified by the County Engineer or the third-party consultant shall be promptly completed at the applicant's expense. Any damage caused by the applicant, owner of the CSES or its contractors during construction, decommissioning, or the implementation of a repowering plan shall promptly be repaired at the applicant or CSES owner's expense and to the reasonable satisfaction of the County Engineer based on applicable standards and code.
  4. FINANCIAL SECURITY: Applicant shall demonstrate appropriate financial assurance to ensure the repair of the damaged roads. At the direction of the Board of Supervisors, the applicant or the owner of the CSES may also be required to provide a financial surety instrument or bond to cover all costs of potential damage to roads at the time of permitting consideration.
- G. DECOMMISSIONING AND RECLAMATION PLAN: The applicant shall submit a decommissioning and reclamation plan to the Development Director with the conditional use permit application. The Development Director shall review the plan for completeness and refer it to the Board of Adjustment for review in conjunction with the conditional use permit and the Board of Supervisors for final consideration and approval prior to the applicant commencing construction. The plan shall include:
1. A description of the life of the CSES; the anticipated manner which the project will be decommissioned, including plans to recycle components; the anticipated site restoration actions; the estimated decommissioning costs in current dollars; and the method for ensuring that funds will be available for decommissioning and restoration.

2. Estimates for the total cost for decommissioning at the current value at site as determined by a licensed engineer. Decommissioning cost estimates shall take salvage and resale value into account.
3. A description of the means to remove the CSES and restore the land to its previous use upon the end of its life, as stated in the conditional use permit or this ordinance.
4. Provisions to remove structures, debris and associated equipment on the surface and to a level of not less than six (6) feet below the surface, and the timeline/sequence in which removal is expected to occur.
5. Provisions to restore the soil, vegetation, and disturbed earth, which shall be graded and reseeded and/or the property may be returned to agricultural use. Avoidance of topsoil is preferred. The plan shall include environmental monitoring at the cost of the developer to be used in returning the project area back to agricultural use. Environmental monitoring shall include best practices to address at minimum invasive species prevention, erosion, sediment control and debris removal.
6. A provision that the terms of the decommissioning plan shall be binding upon the owner or operator of the CSES and any of their successors, assigns or heirs, and that the landowner has granted permission for access and easements of the property for decommissioning.
7. FINANCIAL SURETY: After the tenth (10th) year of operation, the applicant or CSES owner shall provide a financial surety instrument to cover the cost of decommissioning in accordance with the following:
  - a. Decommissioning funds or financial surety shall be in an amount equal to the net cost for decommissioning the site, plus a ten percent (10%) contingency.
  - b. The financial surety shall be maintained in the form of cash, certificate of deposit, performance bond, escrow account, surety bond, letter of credit, corporate guarantee or other form of financial assurance acceptable to the Board of Supervisors. Any document evidencing the maintenance of the financial surety shall include provisions for releasing the funds to the County in the event decommissioning is not completed in a timely manner.
  - c. Financial surety shall be maintained for the life of the CSES.
  - d. Every five (5) years, the CSES owner or operator shall retain an independent licensed engineer to re-estimate the total cost of decommissioning and attest that the value of the financial surety instrument is appropriate. This report shall be filed with the Planning and Development department and the Auditor. The decommissioning surety shall match the re-estimated cost of decommissioning plus a ten percent (10%) contingency. Within ninety (90) days of filing the re-estimation report with the County,

the CSES owner or operator shall cause the fund balance of the financial surety instrument to be adjusted, if applicable.

- e. **RELEASE OF FINANCIAL SECURITY:** Financial surety shall only be released by the Development Director, after inspection that all conditions of the decommissioning plan have been met.
  
  - H. **INDEMNIFICATION AND LIABILITY:** The applicant, owner and/or operator of the CSES shall defend, indemnify, and hold harmless the County and its officials from and against any and all claims, demands, losses, suits, causes of action, damages, injuries, costs, expenses, and liabilities whatsoever, including attorneys' fees, without limitation, arising out of acts or omissions of the applicant, owner, and/or operator associated with the construction and/or operations of the CSES.
  
  - I. **CESSATION OF OPERATIONS:** Any CSES that has not been in operation and producing electricity for at least one hundred and eighty (180) consecutive days, unless caused by a natural catastrophic event, shall be decommissioned. The Development Director shall notify the owner to remove the CSES. Within two hundred and seventy (270) days thereafter, the owner shall either submit evidence showing that the CSES has been operating and producing electricity or remove it. If the owner fails to or refuses to remove the CSES, the violation shall be referred to the County Attorney. In the case of a natural catastrophic event, a detailed restoration plan to return to operational status must be provided to the Development Director.
  
  - J. **VIOLATIONS & PENALTIES:** Violations and penalties of this section are set forth in Chapter 1.75 of the Pottawattamie County, Iowa, Code (Violations and Penalties).
  
  - K. **RELATED RULES AND REGULATIONS:** Each CSES shall comply with all applicable local, state and federal requirements.
  
  - L. **SEVERABILITY:** The provisions of this ordinance are severable, and the invalidity of any section, subdivision, paragraph, or other part of this ordinance shall not affect the validity or effectiveness of the remainder of the ordinance.
  
  - M. **CONDITIONAL USE PERMIT FEE(S) FOR CSES:** The conditional use permit application fee(s) will be approved and adopted by resolution of the Board of Supervisors and shall be set forth in Chapter 1.50 of the Pottawattamie County, Iowa, Code (Schedule of Fees).
- .04 **SOLAR ENERGY SYSTEMS, NON COMMERCIAL (SES):**
- A. **PURPOSE:** This section provides uniform and comprehensive standards for the installation and the use of SES for on-site home, farm and small commercial use that are used primarily to reduce on-site consumption of utility power. The intent of this section is to protect the public health, safety and community welfare without unduly restricting the development of SES.

- B. **ACCESSORY USE:** SES shall be considered an accessory use to a permitted principal or conditional use in any zoning district.
- C. **SPECIAL REQUIREMENTS:** SES shall be subject to the requirements included in this section:
1. **GROUND MOUNTED SES HEIGHT:** Shall not be greater than fifteen (15) feet at maximum tilt of the solar panel(s).
  2. **STRUCTURE MOUNTED SES HEIGHT:** Shall not be greater than the allowable height of any structure within the zoning district in which the SES is to be installed.
  3. **SETBACKS:** The ground mounted SES shall maintain perimeter setbacks including side and rear yard setbacks of ten (10) feet measured at full horizontal tilt and ten (10) feet from any other building or structure on the same lot. No solar panels within the SES may be located in the required front yard setback unless at least fifty (50) feet back from the edge of the county road right-of-way or at least eighty (80) feet back from the edge of state or federal road right-of-way.
  4. **BUILDING CODES:** All county, state and federal construction codes shall be followed.
  5. **USE:** SES shall provide electricity for on-site use by the owner. This does not prohibit an owner from making excess power available for net metering.
- D. **BUILDING PERMIT:** Before a building permit is issued, the following shall be submitted to the Development Director for review:
1. **Site Plan Showing:**
    - a. Address, email address, and phone number of the property owner;
    - b. Parcel lines;
    - c. All existing structures with heights clearly marked;
    - d. Sanitary infrastructure (i.e., septic field);
    - e. Setback measurements;
    - f. Easements present on the property, including those for utilities;
    - g. Septic field tile location;
    - h. Floodplain location, if applicable;
    - i. Topography lines (2-foot contours);
    - j. Location of all solar panels and associated equipment; and
    - k. Location of the electrical disconnect for the SES.
  2. Evidence that the local electric utility has been informed of the customer's intent to install a customer-owned SES.
  3. Evidence that the site plan has been submitted to the local fire protection district.

4. Evidence that all contact information for site has been provided to Emergency Management.
5. After a review and acceptance of site plan and required information, a building permit authorizing construction shall be issued.