

# CLAY COUNTY RENEWABLE ENERGY ORDINANCE

ORDINANCE 2018-02

## SECTION 1 TITLE

The title of this ordinance is the Clay County Renewable Energy Ordinance, and will be referred to herein as “this Ordinance”.

## SECTION 2 PURPOSE

1. This ordinance is established to set forth processes for permitting Renewable Energy from eligible energy technology as described in Minnesota Statutes 216B.1691, to promote the health, safety, and general welfare of the citizens of Clay County, and shall include the following:
  - A. Wind Energy Conversion Systems (WECS) with a rated capacity of less than 25,000 kilowatts (kW) or 25 megawatts (MW), and to regulate the installation and operation of WECS within Clay County not otherwise subject to siting and oversight by the State of Minnesota pursuant to Minnesota Statutes, Chapter 216F, Wind Energy Conversion Systems, as amended.
  - B. Large and small Solar Energy Systems, and to regulate the installation and operation of a Solar Energy System within Clay County pursuant to Minnesota Statutes Chapters 216C.25, 500.30, and Minnesota Rules Chapter 1325.1100, as amended.

## SECTION 3 JURISDICTION

The regulations of this Ordinance shall apply to all the area of Clay County outside the incorporated limits of municipalities.

## SECTION 4 INTERPRETATION

In interpreting and applying the provisions of this Ordinance, they shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare. Where the provisions of this Ordinance impose greater restriction than those of any statute, other ordinance or regulations, the provisions of this Ordinance shall be controlling. Where the provisions of any statute, other ordinance or regulation impose greater restrictions than this Ordinance, the provisions of such statute, other ordinance or regulation shall be controlling.

## SECTION 5 DEFINITIONS

The following words and phrases shall have the meanings ascribed to them in this Ordinance. If not specifically defined in this Section or in Chapter 8 of the Clay County Zoning Ordinance, terms used in this Ordinance shall have the same meaning as provided in the standards adopted by reference. Words or phrases that are not defined here or in the standards adopted by reference shall have common usage meaning. For purposes of this Ordinance, the words “must” and “shall” are mandatory and the words “may” and “should” are permissive.

1. **Accessory Use.** A use clearly incidental or subordinate to the principle use of a lot or a building located on the same lot as the principle use.
2. **Aggregated Project.** Aggregated projects are those which 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 included as part of the aggregated project.
3. **Array (Solar).** Any number of solar photovoltaic modules or panels connected together to provide a single electrical output.
4. **Board of Adjustment.** An officially constituted quasi-judicial body appointed by the County Board whose principle duties are to hear appeals from decisions of the Zoning Administrator and, where appropriate, grant variance from the strict application of this Ordinance.
5. **C-BED Project.** A C-BED Project is a Community Based Energy Development Project that must have local owners; no single owner may be allowed to own more than 15 percent of a project; must have a local resolution of support; and the Power Purchase Agreement must ensure levelized cash flow to the project owners. Based on their total name plate generating capacity, C-BED Projects are considered Micro-WECS, Non-Commercial WECS or Commercial WECS as defined in this Section.
6. **Commercial WECS.** A WECS of equal to or greater than 100 kW in total name plate generating capacity.
7. **Comprehensive Plan.** Comprehensive plan means the policies, statements, goals, and interrelated plans for private and public land and water use, transportation, and community facilities including recommendations for plan execution, documented in texts, ordinances and maps which constitute the guide for the future development of the unincorporated area of the county.
8. **Conditional Use.** A land use or development as is defined by the Clay County Zoning Ordinance that would not be appropriate generally but may be allowed with appropriate restrictions as provided by official controls upon the finding that: (1) certain conditions as detailed in the Zoning Ordinance exist, and (2) use or development conform to the comprehensive plan of the County and (3) is compatible with the existing neighborhood.
9. **County.** Clay County, Minnesota.
10. **County Board.** Includes the County Commissioners, the Board of County Commissioners or any other word or words meaning the Clay County Board of Commissioners.

11. **Eligible Energy Technology.** As defined in Minnesota Statutes 216B.1691.
12. **Fall Zone.** The area, defined as the furthest distance from the tower base, in which a guyed tower will collapse in the event of a structural failure. This area is less than the total height of the structure.
13. **Feeder Line.** Power lines that transport electrical power from one or more wind turbines to the point of interconnection with a high voltage transmission line.
14. **Generator nameplate capacity.** The maximum rated output of electrical power production of a generator under specific conditions designated by the manufacturer with a nameplate physically attached to the generator.
15. **High-voltage transmission line.** A conductor of electric energy and associated facilities designed for and capable of operation at a nominal voltage of 100 kilovolts or more and is greater than 1,500 feet in length.
16. **Large Solar Energy System.** A solar farm, where the primary land use of the parcel is for a solar array. Solar farms are composed of multiple solar panels on multiple mounting systems (poles or racks), and generally have a Direct Current (DC) rated capacity greater than 100 kilowatts.
17. **Meteorological Tower.** For the purposes of this Ordinance, meteorological towers are those towers which are erected primarily to measure wind speed and directions plus other data relevant to siting WECS. Meteorological towers do not include towers and equipment used by airports, the Minnesota Department of Transportation, or other similar applications to monitor weather conditions.
18. **Micro-WECS.** Micro-WECS are WECS of 1 kW nameplate generating capacity or less and utilizing supporting towers of 40 feet or less.
19. **Module (Solar).** A number of individual solar cells connected together in an environmentally protected housing producing a standard output voltage and power. Multiple modules/panels can be assembled into an array for increased power and/or voltage.
20. **Native Prairie Plan.** The plan shall address steps to be taken to identify native prairie within the project area, measures to avoid impacts to native prairie, including foundations, access roads, underground cable and transformers, shall not be placed in native prairie unless addressed in the prairie protection and management plan.
21. **Non-Commercial WECS.** A WECS of less than 100 kW and greater than 1 kW in total name plate generating Capacity.
22. **Photovoltaic Array.** A group of solar photovoltaic modules connected together to increase voltage and/or power to the level required for a given system.
23. **Photovoltaic Device.** A system of components that generates electricity from incident sunlight by means of the photovoltaic effect, whether or not the device is able to store the energy produced for later use.
24. **Power Purchase Agreement.** A legally enforceable agreement between two or more persons where one or more of the signatories agrees to provide electrical power and one or more of the signatories agrees to purchase the power.

25. **Project Boundary/Property line.** The boundary line of the area over which the entity applying for a WECS permit has legal control for the purposes of installation of a WECS. This control may be attained through fee title ownership, easement, or other appropriate contractual relationship between the project developer and landowner.
26. **Public conservation lands.** Land owned in fee title by State or Federal agencies and managed specifically for [grassland] conservation purposes, including but not limited to State Wildlife Management Areas, State Parks, State Scientific and Natural Areas, federal Wildlife Refuges and Waterfowl Production Areas. For the purposes of this section public conservation lands will also include lands owned in fee title by non-profit conservation organizations. Public conservation lands do not include private lands upon which conservation easements have been sold to public agencies or non-profit conservation organizations.
27. **Renewable Energy.** Energy from sources that are not easily depleted such as moving water (hydro, tidal and wave power), biomass, geothermal energy, solar energy, wind energy, and energy from solid waste treatment plants.
28. **Rotor diameter (RD).** The diameter of the circle described by the moving rotor blades.
29. **Small Solar Energy System.** A solar array that is an accessory use.
30. **Solar cell.** The basic unit of a photovoltaic solar panel.
31. **Solar Easement.** A right, whether or not stated in the form of a restriction, easement, covenant, or condition, in any deed, will, or other instrument executed by or on behalf of any owner of land or solar skyspace for the purpose of ensuring adequate exposure of a solar energy system as defined in Section 216C.06, Subdivision 17, to solar energy. Required contents of a Solar Easement are defined in Minnesota Statute Section 500.30.
32. **Solar energy system.** A set of devices whose primary purpose is to collect solar energy and convert and store it for useful purposes including heating and cooling buildings or other energy-using processes, or to produce generated power by means of any combination of collecting, transferring, or converting solar-generated energy.
33. **Substations.** Any electrical facility designed to convert electricity produced by wind turbines to a voltage for interconnection with transmission lines.
34. **Total height.** The highest point, above ground level, reached by a rotor tip or any other part of the WECS.
35. **Total name plate capacity.** The total of the maximum rated output of the electrical power production equipment for a WECS project.
36. **Tower.** Towers include vertical structures that support the electrical generator, rotor blades, or meteorological equipment.
37. **Tower height.** The total height of the WECS exclusive of the rotor blades.
38. **Tracking Solar Array.** A solar array that follows the path of the sun during the day to maximize the solar radiation it receives.

39. **WECS - Wind Energy Conversion System.** A device such as a wind charger, windmill, or wind turbine and associated facilities that converts wind energy to electric energy, including, but not limited to: power lines, transformers, substations, and meteorological towers. The energy may be used on-site or distributed into the electrical grid.
40. **Wind Easement.** A right, whether or not stated in the form of a restriction, easement, covenant, or condition, in any deed, will, or other instrument executed by or on behalf of any owner of land or air space for the purpose of ensuring adequate exposure of a wind power system to the winds. Required contents of a Wind Easement are defined in Minnesota Statutes Section 500.30.
41. **Wind Turbine.** Any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy through the use of airfoils or similar devices to capture the wind.
42. **Windmill, Functional.** A structure utilizing wind power for the pumping of water for agricultural use on the parcel of property on which the windmill is located.
43. **Windmill, Ornamental.** A non-functional windmill used for decoration.
44. **Zoning Ordinance.** The Clay County Zoning Ordinance.

## SECTION 6 PROCEDURES

### SUBDIVISION 1 PERMIT APPLICATION FOR WECS

Land Use Permits, Conditional Use Permits and Variances shall be applied for and reviewed under the procedures established in the Clay County Zoning Ordinance and Minnesota Statutes Chapter 394, except where noted below. An application to the County for a permit under this section is not complete unless it contains the following:

1. Letter from the State Agency responsible for size determination of a project, pursuant to Minnesota Statutes, Chapter 216F.011, as amended.
2. The names and addresses of project applicant.
3. The names and addresses of the project owner. For C-BED projects, must provide percent of ownership for each of the project owners.
4. The legal description and address of the project.
5. A description of the project including: Number, type, total name plate generating capacity, tower height, rotor diameter, total height of all wind turbines, and means of interconnecting with the electrical grid.
6. Site layout, including the location of project area boundaries (purchased wind rights), property lines, roads, wind turbines, electrical wires, interconnection points with the electrical grid, and all related accessory structures. The site layout shall include distances and be drawn to scale.
7. Documentation of land ownership or legal control of the property and current land use on the site and surrounding area.
8. Signed copy of the Power Purchase Agreement or documentation that the power will be utilized on-site.
9. The latitude and longitude of all WECS and Meteorological towers.
10. A USGS topographical map, or map with similar data, of the property and surrounding area, including any other WECS within 10 rotor diameters of the Proposed WECS.
11. Location of wetlands, scenic, and natural areas including bluffs within 1,320 feet of the proposed WECS.
12. Copies of all permits or documentation that indicates compliance with all other applicable State and Federal Regulatory Standards:
  - A. Uniform Building Code, as amended.
  - B. The National Electrical Code, as amended.
  - C. Federal Aviation Administration (FAA), as amended.
  - D. Minnesota Pollution Control Agency (MPCA)/Environmental Protection Agency (EPA), as amended.
  - E. Microwave Beam Path Study
  - F. Acoustical Analysis

13. Location of all known Communications Towers within 2 miles of the proposed WECS.
14. Location of all known public or private Airports or Heliports within 5 miles of the proposed WECS.
15. Detailed Decommissioning Plan including how decommissioning costs would be covered. Applicant may be required to establish an escrow account to fund decommissioning costs.
16. Description of potential impacts on nearby WECS and wind resources on adjacent properties. A Wake Loss Study may be required if the county determines the proposed project may have a significant impact on nearby WECS.
17. Additional information stated in Minnesota Rules, part 7836.0500 (subpart 1), as amended.
18. Identification of Haul Routes to be utilized for material transportation and construction activities: State, Federal, County and/or Township roads. Must provide written documentation that all haul routes have been approved by each of the road authorities with jurisdiction.
19. Locations and site plans for all temporary, non-residential construction sites and staging areas.

## **SUBDIVISION 2. PERMIT APPLICATION FOR SOLAR ENERGY SYSTEMS**

Land Use Permits, Conditional Use Permits and Variances shall be applied for and reviewed under the procedures established in the Clay County Zoning Ordinance and Minnesota Statutes Chapter 394, except where noted below. An application to the County for a permit under this section is not complete unless it contains the following:

1. A site plan of existing conditions showing the following:
  - A. Existing property lines and property lines extending 100 feet from the exterior boundaries, including the names of the adjacent property owners and current use of those properties.
  - B. Existing public and private roads, showing widths of the roads and any associated easements.
  - C. Location and size of any abandoned wells, sewage treatment systems and dumps.
  - D. Existing buildings and any impervious surface.
  - E. Topography at 2' intervals and source of contour interval. A contour map of the surrounding properties may also be required.
  - F. Existing vegetation (list type and percent of coverage; i.e. grassland, plowed field, wooded areas, etc.)
  - G. Waterways, watercourses, lakes and public water wetlands.
  - H. Delineated wetland boundaries.
  - I. The 100-year flood elevation and Regulatory Flood Protection Elevation, if available.
  - J. Floodway, flood fringe, and/or general flood plain district boundary, if applicable.
  - K. The shoreland district boundary, if any portion of the project is located in a shoreland district.
  - L. In the shoreland district, the ordinary highwater level and the highest known water level.
  - M. In the shoreland district, the toe and top of any bluffs within the project boundaries.
  - N. Mapped soils according to the Clay County Soil Survey.
  - O. Surface water drainage patterns.
  
2. Site Plan of Proposed Conditions.
  - A. Location and spacing of solar panels.
  - B. Location of access roads.
  - C. Planned location of underground or overhead electric lines connecting the solar farm to the building, substation or other electric load.
  - D. New electrical equipment other than at the existing building or substation that is the connection point for the solar farm.
  - E. Proposed erosion and sediment control measures.
  - F. Proposed stormwater management measures.
  - G. Sketch elevation of the premises accurately depicting the proposed solar energy conversion system and its relationship to structures on adjacent lots (if any).
  
3. Manufacturer's specifications and recommended installation methods for all major equipment, including solar panels, mounting systems and foundations for poles or racks;
  
4. The number of panels to be installed.
  
5. A description of the method of connecting the array to a building or substation.
  
6. A copy of the interconnection agreement with the local electric utility or a written explanation outlining why an interconnection agreement is not necessary.
  
7. A decommissioning plan shall be required to ensure that facilities are properly removed after their useful life. Decommissioning of solar panels must occur in the event they are not in use for 12

consecutive months. The plan shall include provisions for removal of all structures and foundations, restoration of soil and vegetation and a plan ensuring financial resources will be available to fully decommission the site. Disposal of structures and/or foundations shall meet the provisions of the Clay County Solid Waste Ordinance; or successor ordinance. The Board may require the posting of a bond, letter of credit or the establishment of an escrow account to ensure proper decommissioning.

## SECTION 7 DISTRICT REGULATIONS

### SUBDIVISION 1 PERMITTED AND CONDITIONAL USES FOR WECS

WECS will be permitted, conditionally permitted or not permitted based on the generating capacity and land use district as established in the table below (P=Permitted, C=Conditionally Permitted, NP=Not Permitted):

District	Micro-WECS	Non- Commercial < 100 kW	Commercial ≥ 100 kW	Meteorological Tower
1. Special Protection	C	C	NP	NP
2. Agricultural	P	P	C	P
3. Rural Residential	C	C	C	P
4. General Business	C	C	C	P
5. Industry	C	C	C	P
6. Floodplain Management	C	C	C	P
7. Shoreland	C	NP	NP	NP
8. RP – Wellhead Protection	P	P	C	P
9. RP – Biologically Significant Areas	C	NP	NP	NP
10 RP – Aggregate Resources	C	NP	NP	NP

### SUBDIVISION 2 PERMITTED AND CONDITIONAL USES FOR SOLAR ENERGY SYSTEMS

Solar Farms will be permitted, conditionally permitted or not permitted based on the generating capacity and land use district as established in the table below (P=Permitted, C=Conditionally Permitted, NP=Not Permitted):

District	Large Solar Energy System	Small Solar Energy System
1. Special Protection	C	P
2. Agricultural	C	P
3. Rural Residential	C	P
4. General Business	C	P
5. Industry	C	P

6. Floodplain Management	C	P
7. Shoreland (not including Floodplain Management)	NP	P
8. RP – Wellhead Protection	C	P
9. RP – Biologically Significant Areas	NP	NP
10. RP – Aggregate Resources	NP	NP

## SECTION 8 SETBACKS FOR WECS

All towers shall adhere to the setbacks established in the following table.

### SUBDIVISION 1 SETBACKS FOR WECS

	Micro- WECS	Non-Commercial < 100 kW	Commercial ≥ 100 kW	Meteorological Tower
1. Project Boundary/ Property lines	An amount equal to the height of the structure.	1.1 times the total height.	3 RD on east-west axis and 5 RD on north-south axis.	1.1 times the total height. Minimum 250 feet. Any guy wires must meet the setbacks of the District.
2. Dwelling(s), other than project owners	Not applicable if setbacks are met.	500 feet and/or sufficient distance to meet state noise standards, whichever is greater.	1000 feet and/or sufficient distance to meet state noise standards, whichever is greater.	1.1 times the total height. Minimum 250 feet.
3. Noise Standard	Minnesota Rule 7030, as amended.	Minnesota Rule 7030, as amended.	Minnesota Rule 7030, as amended.	N/A
4. Road Rights-of-Way	1.1 times the total height.	1.1 times the total height.	1.1 times the total height.	1.1 times the total height. Minimum 250 feet. Any guy wires must meet the setbacks of the District.
5. Other Rights-of-Way (Recreational Trails, power lines, Etc.)	1.1 times the total height.	1.1 times the total height.	1.1 times the total height.	1.1 times the total height. Minimum 250 feet.
6. Public conservation lands managed as grasslands	An amount equal to the height of the structure.	1.1 times the total height.	3 RD on east-west axis and 5 RD on north-south axis.	1.1 times the total height. Minimum 250 feet.
7. Wetlands, USFW Types III, IV and V	An amount equal to the height of the structure.	1.1 times the total height.	3 RD on east-west axis and 5 RD on north-south axis.	1.1 times the total height. Minimum 250 feet.
8. Other Structures	1.1 times the total height.	1.1 times the total height.	1.1 times the total height.	1.1 times the total height. Minimum 250 feet.
9. Other Existing WECS and Internal Turbine spacing	N/A	3 RD on east-west axis, and 5 RD on north-south axis.	3 RD on east-west axis, and 5 RD on north-south axis.	N/A

## **SUBDIVISION 2 ADDITIONAL SETBACK REQUIREMENTS FOR WECS**

1. Based on their total name plate generating capacity, C-BED Projects are considered Micro-WECS, Non-Commercial WECS or Commercial WECS as defined in this Ordinance, and will follow the setbacks established for the category for which they fall under, as listed in Section 8 of this Ordinance.
2. Native Prairie – Turbines and associated facilities shall not be placed in native prairie unless approved in native prairie protection plan. Native prairie protection plan shall be submitted if native prairie is present. The permittee shall, with the advice of the DNR and any others selected by the permittee, prepare a prairie protection and management plan and submit it to the County and DNR Commissioner 60 days prior to the start of construction.
3. Sand and Gravel Operations – No turbines, towers or associated facilities in active sand and gravel operations.
4. Aviation (public and private airports) – No turbines, towers or associated facilities shall be located so as to create an obstruction to navigable airspace of public and private airports in Clay County. Setbacks or other limitations determined in accordance with Mn/DOT Department of Aviation and Federal Aviation Administration (FAA) requirements.
5. Setbacks – All Essential Service Lines and Structures must meet the setback requirements of Section 17, Subdivision 4, Subpart 3 of the Clay County Zoning Ordinance.
6. The setback for new dwellings shall be reciprocal in that no dwelling shall be constructed within the same setback as a new turbine would need to meet to an existing dwelling.
7. No wind turbines allowed within Shoreland Districts, except Micro Towers may be allowed by permission of the Clay County Planning Commission through the conditional use process and only in areas where electricity is not presently available.

## **SECTION 9 REQUIREMENTS AND STANDARDS FOR WECS**

### **SUBDIVISION 1 SAFETY DESIGN STANDARDS**

1. Engineering Certification. For all WECS, the manufacturer's engineer or another qualified engineer shall certify that the turbine, foundation, and tower design of the WECS is within accepted professional standards, given local soil and climate conditions.
2. Clearance. Rotor blades or airfoils must maintain at least 30 feet of clearance between their lowest point and the ground.
3. Warnings.
  - A. For all Commercial WECS, a sign or signs shall be posted on the tower, transformer, and substation warning of high voltage. Signs with emergency contact information shall also be posted on the turbine or at another suitable point.
  - B. For all guyed towers, visible and reflective objects, such as plastic sleeves, reflectors, or tape, shall be placed on the guy wire anchor points and along the outer and innermost guy wires up to a height of 8 feet above the ground. Visible fencing shall be installed around anchor points of guy wires. Aviation warning shall be painted on meteorological towers of less than 200 feet.
  - C. All WECS and Meteorological towers more than 100 feet in overall height shall be required to have safety lighting.

### **SUBDIVISION 2 HEIGHT STANDARDS**

1. Total height. Non-Commercial WECS shall have a total height of less than 200 feet.
2. In those districts where meteorological towers are a permitted use, meteorological towers of less than 200 feet shall be exempt from Conditional Use process established for structures exceeding height requirements

### **SUBDIVISION 3 TOWER CONFIGURATION STANDARDS**

1. All WECS must use self-supporting towers. The base for such towers shall be designed to anchor and support the tower for the site and shall be guarded against unauthorized climbing. The first twelve (12) feet of the tower shall be unclimbable by design or be enclosed by a six (6) foot high unclimbable fence with a secured access.
2. Meteorological towers may be guyed.
3. Color and Finish. All wind turbines and towers that are part of a WECS shall be white, grey or another non-obtrusive color. Blades may be black to facilitate deicing. Finishes shall be matt or non-reflective.
4. Lighting. Lighting, including lighting intensity and frequency of strobe, shall adhere to but not exceed requirements established by Federal Aviation Administration permits and regulations. Red strobe

lights are preferred for night-time illumination to reduce impacts on migrating birds. Red pulsating incandescent lights should be avoided.

#### **SUBDIVISION 4 OTHER APPLICABLE STANDARDS**

1. Other Signage. All signage on site shall comply with Chapter 3, Section 8-3-13 of the Clay County Development Ordinance. The manufacturer's or owner's company name and/or logo may be placed upon the nacelle, compartment containing the electrical generator, of the WECS.
2. All feeder lines subject to Clay County Authority equal to or less than 34.5 kV in capacity shall be buried and located on the back side of the right-of-way. Feeder lines installed as part of a WECS shall not be considered an essential service. If not buried, must apply for a variance, and shall follow Chapter 4, Section 8-4-5 of the Development Ordinance for variance procedures.
3. 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.
4. Discontinuation and Decommissioning. A WECS shall be considered a discontinued use after 1 year without energy production, unless a plan is developed and submitted to the Clay County Zoning Administrator outlining the steps and schedule for returning the WECS to service. All WECS and accessory facilities shall be removed four feet below ground level within 90 days of the discontinuation of use.
5. All WECS projects shall have a Decommissioning plan outlining the anticipated means and cost of removing WECS at the end of their serviceable life or upon becoming a discontinued use. A competent party shall make the cost estimates; 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 the decommissioning and removal of the WECS and accessory facilities. The plan shall also address road maintenance during and after completion of the decommissioning.
6. Orderly Development. Upon issuance of a conditional use permit, all WECS shall notify the Minnesota Public Utilities Commission (PUC) Energy Facilities Permitting Program Staff of the project location and details on the survey form specified by the PUC.
7. Noise. All WECS shall comply with Minnesota Rules 7030, as amended, governing noise.
8. Electrical codes and standards. All WECS and accessory equipment and facilities shall comply with the National Electrical Code and other applicable standards.
9. Federal Aviation Administration. All WECS shall comply with FAA standards and permits.

### **SUBDIVISION 5 INTERFERENCE**

1. The applicant shall minimize or mitigate interference with electromagnetic communications, such as radio, telephone, microwaves, or television signals caused by any WECS. The applicant shall notify all communication tower operators within two miles of the proposed WECS location upon application to the county for permits. No WECS shall be constructed so as to interfere with County or Minnesota Department of Transportation microwave transmissions.

### **SUBDIVISION 6 AVOIDANCE AND MITIGATION OF DAMAGES TO PUBLIC INFRASTRUCTURE**

1. Roads. Applicants shall:
  - A. Identify all public roads to be used for the purpose of transporting WECS, substation parts, materials, and/or equipment for construction, operation or maintenance of the WECS and obtain applicable weight and size permits from the impacted road authority(ies) prior to construction.
  - B. Contact the road authority for road closures, road signage removals, road signage re-locating, road signage restoring, moving permits, culverts, access/driveway permits, tile outlet permits, widening road intersections, standard utility permits and any other road activities that may require permits.
  - C. Contact the Clay County Dispatch prior to any road closures for the re-routing of emergency vehicles during the closure.
  - D. Contact the road authority to conduct an inspection of the road conditions of the haul routes prior to and after construction.
  - E. Provide a Performance Bond to be held by the county until the Township and/or County road authority(ies) have provided the County Auditor with a written release that all haul routes within their jurisdiction in Clay County have been returned to pre-construction condition.
2. Drainage System. The Applicant shall be responsible for immediate repair of damage to public and private drainage systems stemming from construction, operation, maintenance, or decommissioning.

### **SUBDIVISION 7 PRE-CONSTRUCTION MEETING**

1. Applicant will conduct a Pre-Construction meeting prior to construction commencement with a written notice sent the following individuals a minimum of one week prior to said meeting:
  - A. Township Chairman
  - B. Clay County Highway Engineer
  - C. Clay County Sheriff
  - D. Clay County Zoning Administrator
  - E. Area Hydrologist, Minnesota Department of Natural Resources
  - F. Minnesota Pollution Control Agency
  - G. United States Farm Service Agency
  - H. Clay County Soil & Water Conservation District
  - I. US Fish & Wildlife Service
  - J. Minnesota State Historical Society
  - K. Two Planning Commission Members: Chair and County Board Representative
  - L. MN/DOT

## SECTION 10 SETBACKS AND STANDARDS FOR SOLAR ENERGY SYSTEMS

### SUBDIVISION 1. STANDARDS FOR LARGE SOLAR FARMS

1. Solar farms are the primary land use for the parcel on which the array is located and are distinguished from solar arrays that are a secondary or accessory use. Solar farms are composed of multiple solar panels on multiple mounting systems (poles or racks), and generally have a Direct Current (DC) rated capacity greater than 100 kilowatts.
2. Location within Lot. Structures and solar panel installations within large solar farms shall meet a minimum setback from property lines of one-hundred (100) feet, unless otherwise permitted by the County Board in the issuance of a conditional use permit.
3. Height. Structures in Large Solar Farms are subject to the following height requirements:
  - A. Solar systems shall not exceed the maximum allowed height in any zoning district. For purposes of height measurement, solar systems other than building-integrated systems shall be considered to be mechanical devices and are restricted consistent with other building-mounted mechanical devices for the zoning district in which the system is being installed.
  - B. Ground- or pole-mounted solar systems shall not exceed 15 feet in height when oriented at maximum tilt.
4. Stormwater Management and Erosion and Sediment Control shall meet the requirements of the MPCA Construction Stormwater Permit requirements.
5. Foundations. The manufacturer's engineer or another qualified engineer shall certify that the foundation and design of the solar panels is within accepted professional standards, given local soil and climate conditions.
6. Other standards and codes. All solar farms shall be in compliance with any applicable local, state and federal regulatory standards, including the State of Minnesota Uniform Building Code, as amended; and the National Electric Code, as amended.
7. Power and communication lines. Power and communication lines running between banks of solar panels and to electric substations or interconnections with buildings shall be buried underground. All electrical equipment and installations shall meet applicable codes.
8. Vegetation requirements and management. The following provisions shall be met related to the clearing of existing vegetation and establishment of vegetated ground cover. Additional requirements may apply as required by the Board.
  - A. Large-scale removal of mature trees on the site is discouraged. Restrictions on tree clearing, or mitigation for cleared trees may be required by the Board.
  - B. The project site design shall include the installation and establishment of ground cover meeting the beneficial habitat standards consistent with Minnesota Statutes, section 216B.1642, or successor statutes and guidance as set by the Minnesota Board of Water and Soil Resources.

- 1) Beneficial habitat standards shall be maintained on the site for the duration of operation, until the site is decommissioned.
- 2) The applicant shall submit a financial guarantee in the form of a letter of credit, cash deposit or bond in favor of the County equal to one hundred twenty-five (125) percent of the costs to meet the beneficial habitat standard. The financial guarantee shall remain in effect until vegetation is sufficiently established.

#### **SUBDIVISION 2. STANDARDS FOR SOLAR ENERGY SYSTEMS, ACCESSORY**

Solar energy systems are a permitted accessory use in all zoning districts, subject to the following standards:

1. Accessory Building Limit. Solar systems, either roof or ground-mounted, do not count as an accessory building for the; purpose of meeting limits on the number of accessory structures allowed per residential lot or the coverage limits, as set forth in the Clay County Zoning Ordinance.
2. Height. Active solar systems are subject to the following height requirements:
  - A. Building- or roof- mounted solar systems shall not exceed the maximum allowed height in any zoning district. For purposes of height measurement, solar systems other than building-integrated systems shall be considered to be mechanical devices and are restricted consistent with other building-mounted mechanical devices for the zoning district in which the system is being installed.
  - B. Ground- or pole- mounted solar systems shall not exceed 15 feet in height when oriented at maximum tilt.
3. Location within Lot. Accessory solar energy systems must meet the accessory structure setback for the zoning district.
  - A. Roof-mounted Solar Systems. In addition to the building setback, the collector surface and mounting devices for roof-mounted solar systems that are parallel to the roof surface shall not extend beyond the exterior perimeter of the building on which the system is mounted or built. The collector and racking for roof-mounted systems that have a greater pitch than the roof surface shall be set back from all roof edges by at least 2 feet. Exterior piping for solar hot water systems shall be allowed to extend beyond the perimeter of the building on a side yard exposure.
  - B. Ground-mounted Solar Systems. Ground-mounted solar energy systems may not extend into the side-yard, rear, or road right-of-way setback when oriented at minimum design tilt.
  - C. Large Ground-mounted Systems. Ground-mounted solar systems that result in the creation of one or more acres of impervious surface, must comply with the MPCA Construction Stormwater Permit Requirements.
4. Maximum Coverage. Roof or building mounted solar systems, excluding building-integrated systems, shall not cover more than 80% of the south-facing or flat roof upon which the panels are mounted. The total collector surface area of pole or ground mount systems in non-agricultural district shall not exceed one percent of the lot area.
5. Approved Solar Components. Electric solar system components must have a Underwriters Laboratory (UL) listing.
6. Compliance with State Electric Code. All photovoltaic systems shall comply with the Minnesota

State Electric Code.

7. Utility Notification. No grid-interconnected photovoltaic system shall be installed until evidence has been given to the Department that the owner has notified the utility company of the customer's intent to install an interconnected customer-owned generator. Off-grid systems are exempt from this requirement.

## **SECTION 11 ENFORCEMENT, VIOLATIONS, REMEDIES, PENALTIES, AND FEES**

### **SUBDIVISION 1. ENFORCEMENT, VIOLATIONS, REMEDIES, AND PENALTIES**

Enforcement of this Ordinance shall be done in accordance with process and procedures established in Section 26 of the Clay County Zoning Ordinance.

### **SUBDIVISION 2. FEES**

1. The fees for a zoning certificate, variance, amendment, or conditional use permit, shall be established by the Board. The Board may review and revise the fee schedule periodically. The Zoning Administrator shall issue the Zoning Certificate only after the fee has been paid and a determination has been made that the building plans, together with the application comply with the terms of this Ordinance. Any person filing a petition for an amendment to this Ordinance or requesting a variance shall pay the prescribed fees according to the schedule established by the Board before any work proposed may commence. The fee is payable at the time of filing a petition and is not refundable.
  
2. Municipal corporations and governmental agencies shall be exempt from the fee requirements as prescribed by this Ordinance.

## **SECTION 12 VALIDITY**

### **SUBDIVISION 1. VALIDITY**

Should any section or provisions of this Ordinance be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the Ordinance as a whole or any part thereof other than the part so declared to be invalid.

## SECTION 13 REPEAL AND DATE OF EFFECT

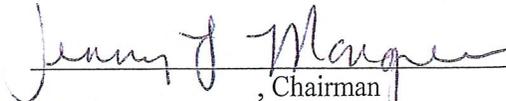
### SUBDIVISION 1. REPEAL

The Clay County Wind Energy Ordinance, adopted July 21, 2009, and its amendments are hereby repealed.

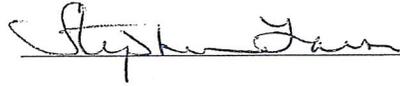
### SUBDIVISION 2. DATE OF EFFECT

This Clay County Renewable Energy Ordinance shall be in full force and effect from and after its passage and publication according to law.

Passed and Approved the 13<sup>th</sup> day of November, 2018

  
\_\_\_\_\_, Chairman  
Clay County Board of Commissioners

ATTEST:

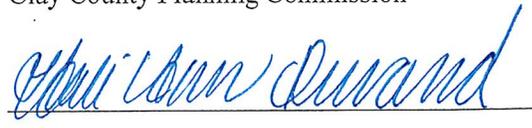
  
\_\_\_\_\_  
Clay County Administrator

Recommended by: The Clay County Planning Commission

Date: Sept. 15, 2018

  
\_\_\_\_\_, Chairman  
Clay County Planning Commission

ATTEST:

  
\_\_\_\_\_  
Clay County Zoning Administrator