

## **CHAPTER 9 WIND ENERGY ORDINANCE**

### **1.0 Title**

This ordinance shall be referred to as the Wind Energy System Ordinance.

### **2.0 Authority**

This ordinance is adopted pursuant to authority granted to Clark County by Title 67, Chapter 65 of Idaho Cod and Article 12, Section 2 of the Idaho Constitution.

### **3.0 General Provisions and Guidelines**

General provisions for all classification wind turbines (unless otherwise specified in their individual classification section, herein):

- 7.0.1 Wind measurement for Commercial Generating facilities. A wind study using an anemometer shall be performed for the five-month prime wind period of May to September as the proposed site prior to the hearing application filing. Any certified study within a one-half mile distance of the proposed installation shall meet the requirements of this Section.
- 7.0.2 Zones Allowed: Personal and hobbyist private pole mounted non-guyed wind turbine towers are permitted in all zones.
- C. Interference: Wind turbine tower facilities shall not be installed in any location where its proximity would produce electromagnetic interference with signal transmission, retransmission or reception of the following:
  - 1. Existing microwave communications link(s).
  - 2. An existing fixed broadcast antenna used for radio, television, retransmission, wireless phone, or other personal communication systems.
  - 3. Retransmission or reception antenna, including residential reception antenna.
- D. Equipment Use Processes: No equipment or processes shall be used in such wind farm project which creates noise, vibration, glare, fumes, odors or electrical interference, detectable to the normal senses off the lot upon which the proposed use is to be sited, except as defined in subsection F of this section. In case of electrical interference, no equipment or process shall be used that creates or causes fluctuations in the voltage off the premises.
- F. Compliance With National Electric Code: Building permit applications for wind energy systems shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the national electrical code. All wind energy systems must comply with the applicable provisions of the national electric code.
- G. Utility Notification: No wind energy system of any size shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer owned turbine. Off grid systems shall be exempt from this requirement.

- H. Noise: Wind turbine tower facilities shall be located with relation to property lines so that the level of noise produced during any wind turbine operation shall not exceed forty (40) dBA, measured at the boundaries of all adjacent parcels that are owned by non-site owner or at any point past the property line of the lot on which the turbine is to be erected.
- I. Siting: Detailed site plan shall be submitted with application identifying all property lines, existing buildings, proposed buildings, parking areas, utilities, signs, neighboring properties, proposed transmission lines, any other information that may be required to determine if use is within the intent and requirements of this chapter.
- J. Minimum Site Area: Hobbyist or personal wind turbine towers shall be allowed only on lands with a minimum lot area of one acre.
- K. Setbacks: Each wind turbine less than one hundred fifty feet (150') in height and nameplate less than one hundred (100) kilowatts shall comply with the following requirements:
  - 1. Communication And Electrical Lines: One hundred fifty percent (150%) of its total height plus the size of the rotor radius from the nearest aboveground public electric Clark line, telephone line or utility line of any kind.
  - 2. Property Line: One hundred fifty percent (150%) of its total height from the nearest property line
  - 3. Public Roads And Road Rights Of Way: One hundred fifty percent (150%) of its total height.
  - 4. Railroad Rights Of Way: One hundred fifty percent (150%) of its total height.
  - 5. Clearance: The minimum distance between the ground and any part of the rotor blade system shall be fifteen feet (15').
- L. Building Permit: A building permit is required and must comply with the International Building Code. Permit applications for wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings.
- M. Governmental Agency Approval: Upon proposal, and during development, construction and operation of a commercial turbine wind farm project, owner or operator shall have a continuing responsibility to obtain copies of all relevant and appropriate federal, state and local permits, and shall provide copies of such permits to the county building department within thirty (30) days of receiving the same.
- N. Appearance and Design: Turbines shall be painted a non-reflective, non-obtrusive color. The design of the buildings, tower(s) and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the facility to the natural setting and existing environment. All turbines shall be monopole in nature and not lattice towers.
- O. Advertising: Shall not be used for displaying any advertising except for reasonable identification of the manufacturer, installer or operator. Any such identification shall not appear on the blades or other moving parts or exceed six (6) square feet.
- P. Lighting: Lighting to satisfy tower facility lighting requirements for the FAA shall be required.

- Q. **Underground Wiring:** Electrical controls, control wiring and wiring shall be wireless or underground where practical, unless otherwise approved by the planning and zoning commission. This applies to the wiring between the wind turbine and the on-site collector facility.
- R. **Construction Time Line:** A time line prior to the construction phase of the project shall be submitted to the planning and zoning administrator identifying the starting and completion date of all construction. If the project will be developed in phases, the phase lines must be identified on the detailed site plan. Each phase must be completed within a reasonable time line.
- S. **Climbable:** All wind turbines shall not be climbable up to 10 feet (10') above ground level.
- T. **Locked Access:** All access doors to the wind turbine towers and electrical equipment shall be lockable and locked when unattended.
- U. **Signage:** Appropriate warning signage shall be placed on all wind turbine towers, electrical equipment and facility entrances warning of high voltage and cautionary instructions to unauthorized persons to stay away from such structures.
- V. **Emergency Shutdown:** Procedures for emergency shutdown of Clark generation units shall be established and posted prominently and permanently within three feet (3') of the meter panel.
- W. **Documentation:** No experimental, home built, or prototype wind turbines shall be allowed without submitting documentation of their maximum probable blade throw distance and fall distance in the event of failure and set back an appropriate distance based on that documentation.
- X. **Removal Of Obsolete Personal Wind Turbine Facilities:** Obsolete or unused wind turbines and accessory structures shall be removed from any site within twenty four (24) months of discontinuance of the use thereof. Owner of the site shall notify the county in writing within thirty (30) days of the discontinuance of the use of such turbine tower or facility. Failure to notify and/or remove the obsolete or unused tower or facility or failure to restore their system to operating condition within six (6) months shall be a violation of this law. If the owner is not in compliance with this section he shall be required, at his expense, to remove the wind turbine from the tower.

If the owner fails to comply, the tower then would be subject to the dangerous building in the International Building Code. If the owner is in violation of this section the county may remove such facilities after the one hundred eighty (180) day period at the expense of the owner.

- Y. **Commencement Of Construction:** Approved project construction must be started within twelve (12) months of approval.
- Z. **Braking System:** All wind turbines must have an automatic braking, governing, or feathering system to prevent uncontrolled rotation creating excessive pressure on the tower structure, rotor blades, and turbine components.

AA. Wind Access Claims against Adjacent Parcels: Unless a prior wind access easement has been acquired, claims cannot be filed against neighbors for obstructing wind, based on either current or future improvements on their parcels.

#### 4.0 Large or Commercial Wind Farms:

In addition to the above requirements, the following shall apply:

- A. Rural Living Zone: Wind farms, commercial and large turbines and associated structures; allowed by conditional use permit in rural living zones only. The conditional use permit shall be valid for two (2) years from the issuance of the permit, with extensions available in one year increments upon a showing of reasonable cause for the extension.
- B. Governmental Agency Consultation and Approval: Construction and operation must comply with all applicable federal aviation administration (FAA) standards. Applicant must also consult and comply with US Fish and Wildlife Service, Idaho Department of Fish and Game, Idaho Department of Environmental Quality, and the appropriate fire department and proof of consultation and/or compliance must be submitted by the applicant to the planning and zoning department prior to the issuance of a building permit. Applicant shall consult with and follow the reasonable recommendations of the US Fish and Wildlife Service and the Idaho Department of Fish and Game concerning tower siting, location, and any wildlife studies to be conducted and followed prior to construction.
- C. Licenses, Approvals And Certifications: Prior to commencing operations, the owner/operator shall have in its possession all appropriate approvals, licenses, and certifications required by federal and state oversight agencies, and that copies of said approvals, licenses and certifications shall be filed with the county planning and zoning department.
- D. Setbacks From Property Line: Towers or other structures associated with the wind farm project shall be set back from the external boundaries of the project property a distance of not less than one and one-half ( $1\frac{1}{2}$ ) times the total overall height of the tallest structure. For purposes of this calculation, overall height shall include total tower height plus total blade length. Alternatively, if the external boundary in question is not along a public road right of way, then the permittee may obtain an easement from the adjoining landowner, which shall, at minimum, be calculated and designated on an arc with the center point being the tower site and the distance being one and one-half ( $1\frac{1}{2}$ ) times the total height of the tower plus the blade length and with arc end points being located on the boundary line between permittee and the adjoining landowner, such as to allow for a distance of one and one-half ( $1\frac{1}{2}$ ) times the total height of the tower plus blade length to the distant boundary of the easement.  
  
Towers shall be set back at least one (1) mile from any inhabited structure including schools, libraries, churches, hospitals, and places of business or industry. A siting permit shall be obtained from the county planning and zoning administrator ensuring compliance with this setback requirement.
- E. Minimum Ground Clearance: The tip of a blade shall, at its lowest point, have a ground clearance of no less than seventy five feet (75').

F. Use Of Public Roadways: Routes of public travel to be used during the construction phase shall be specified in the permitting process. The public travel route will be inspected prior to the commencement of construction by the county highway department, routinely inspected throughout the construction process to determine ongoing or intermittent damage, and re-inspected thirty (30) days after project completion. If any significant damage above normal wear and tear is found during or at the end of construction by county road and bridge department, they shall give written notice of said damage to the owner and operator of the facility. Any and all repairs must be completed within thirty (30) days of said notice and paid by the developer.

**Note:**

***It is the intent of the Clark County Board of County Commissioner that all Large or Commercial Wind Farms provide a site plan following requirements similar to a platted subdivision. The following requirements are intended to meet that requirement.***

G. Contents of Preliminary Site Plan: The preliminary site plan, together with all application forms, deeds, maps, and other documents reasonably required, shall constitute a complete a Large or Commercial Wind Farm application. The preliminary site plan shall show the following (unless otherwise indicated):

1. The site plan shall have dimensions of not less than twenty four inches by thirty six inches (24" x 36"), shall be drawn to a scale of not less than one inch to one hundred feet (1" = 100'), and shall show the drafting date and north arrow.
2. Four (4) sets of preliminary engineering plans (not meant to be cross sections or detailed designs) for streets, water, sewers, support structures, lay down areas, utility lines, and security fencing.
3. Two (2) electronic copies of the preliminary site plan and preliminary engineering plans.
4. The name of the proposed Wind Farm Project, which shall not be the same or confusing with the name of any other Wind Farm Project in Clark County, Idaho,
5. The name and address of the owner of record, the developer, and the engineer, surveyor, or other person preparing the site plan,
6. Legal description of the area(s) included in the site plan,
7. The names and the intersection boundary lines of adjoining parcels of property,
8. A contour map of the site with contour lines and a maximum interval of five feet to show the configuration of the land based upon the United States Geodetic Survey data, or other data as requested by the Clark County Planning and Zoning Commission; the map should show soil types and wetlands, flood hazard areas, and potential geological hazards; the map will also depict the presence of any Threatened or Endangered species as recognized by the US Fish and Wildlife Service and any state sensitive species and wildlife corridors as recognized by the Idaho Department of Fish and Game,

9. The scaled location of existing buildings, water bodies and courses and location of the adjoining or immediately adjacent dedicated streets, roadways, and easements, public and private,
10. Boundary description and the area of the tract,
11. Existing zoning of the tract,
12. The boundaries of record of the tract, area of the tract, the proposed location, approximate grade, right-of-way width and width of roads; the proposed location of each wind tower, easements, including all approximate dimensions and including all proposed road names,
13. The location, approximate size, and proposed use of all land intended to be dedicated for public use or for common use of all future property owners within the proposed tract,
14. The approximate location of proposed or existing buildings with approximate distances shown to proposed property lines, water bodies or courses,
15. The location, size, and type of sanitary and storm sewers, water mains, culverts and other surface or subsurface structures existing within or immediately adjacent to the proposed sanitary or storm sewers (a minimum distance of 100 feet), water mains, and storage facilities, road improvements, and all proposed utilities (may be shown only on the engineering plans),
16. The direction of drainage, flow, and approximate grade of all roads (may be shown only on the engineering plans),
17. The location of all drainage canals and structures, the proposed method of disposing of runoff water, and the location and size of all drainage easements relating thereto, whether they are located within or outside of the proposed site, The approximate location, size and type of all irrigation ditches, channels, pipes, structures within and immediately adjacent, a minimum distance of 100 feet, to the proposed site (may be shown only on the engineering plans);
18. All percolation tests and/or exploratory pit excavations required by district health authorities for sanitary waste systems,
19. Verification that all outstanding taxes and assessments levied by political subdivisions have been paid on the property included in the application,
20. Vicinity Map. An 8-1/2" x 11" vicinity map, suitable for public presentation drawn to a scale of 1" = 300' or larger (i.e., 1" = 200', etc.) which includes the proposed wind farm and sufficient area around it to provide adequate orientation and landmark identification for someone unfamiliar with the vicinity. All the following elements are to be included:
  - a. A minimum distance of 600' beyond all boundaries of the proposed development.
  - b. A north point.
  - c. Location and names of all streets and roadways, including the nearest collector or arterial in both north/south and east/west directions.

- d. Clear identification of the boundary of the proposed wind farm and its proposed roadway alignments labeled with proposed road names.
  - e. Large and Commercial Wind Farms shall provide a digital elevation model based project visibility map showing the impact of topography upon visibility of the project from other locations throughout the region, to a distance of five (5) miles from the center of the project. The scale used shall depict a three (3) mile radius no smaller than 2.7 inches, and the base map shall be a published topographic map showing cultural features and other landmarks. An engineering analysis of the tower showing compliance with the building code and certified by a licensed professional engineer shall be submitted with the application.
21. The boundaries of the floodplain, and floodway shall also be clearly delineated and marked on the site plan,
  22. Building envelopes shall be shown on the site plan, all or part of which is within a floodway and floodplain; or any lot that is adjacent to a waterway; or any lot a portion of which has a slope of twenty-five (25) percent or greater; or upon any lot which will be created adjacent to the intersection of two or more streets,
  23. Existing mature trees and established shrub masses,
  24. A current title report shall be provided at the time that the preliminary site plan is filed with the administrator together with a copy of the owner's recorded deed to said property,
  25. For multi-phase developments, the proposed boundaries of each phase and the sequence of phases to be developed.
  26. Approximate location and identification of known (to either the applicant or his representatives or the reviewing agency) potentially dangerous areas, including geologically hazardous areas, areas subject to inundations, or flood hazard, and areas of high groundwater.
  27. A plan that ensures that set back and splatter areas are adequately maintained.
  28. Any other information determined by the County to be necessary for review of the preliminary site plan application.
  29. A list of the owners of the properties within one (1) mile of the exterior boundaries of the proposed project. The owners list shall include the name of all owners, their addresses, and a general description of the property owned by each.
  30. Ten copies of the preliminary site plan and all required information shall be filed with the administrator. Copies shall be 24" x 36".
  31. The location and turnout area for solid waste pickup meeting the approval of the county road and bridge superintendent.
- H. Commission Action on Preliminary Site Plan: Consideration by the commission of a Large or Commercial Wind Farm application and data shall take place at a regularly scheduled commission meeting, unless a special meeting of the commission is requested by the developer and granted by the commission. At that meeting, the commission shall do the following:

1. Public Hearing. The commission shall hold a public hearing on all Large and Commercial Wind Farm applications.
  2. After the public hearing, the commission shall review the preliminary site and supporting data, recommendations of administrator, testimony of the developer, and the public. The commission shall recommend, recommend with specific conditions, or not recommend the preliminary site plan. If the preliminary site plan is not recommended, the reasons for such action shall be stated in writing, and a copy signed by the administrator attached to one copy of the preliminary site plan shall be returned to the applicant.
  3. Upon review by the commission of a preliminary site plan, the administrator shall transmit to the Board the Large or Commercial Wind Farm application, preliminary site plan and other data and a copy of the commission findings and report.
- I. Board Action on Preliminary Site Plan; Submission of a preliminary site plan upon review by the commission to the Board shall be mandatory. The Board shall consider the Large or Commercial Wind Farm application at its next available regular meeting. The developer, at his request, shall be entitled to at least one continuance. The Board shall consider the preliminary site plan, Large or Commercial Wind Farm application and data, the report and recommendations of the commission along with the commission's report of testimony from the developer, witnesses, interested citizens and representatives of the commission. At its discretion, the Board may hold an additional public hearing. If an additional hearing is held, procedure outlined in the land use ordinance shall be adhered to. Upon conclusion of its consideration of the preliminary site plan, the Board shall approve, conditionally approve, or disapprove the plat and make findings consistent with law and this Ordinance. Upon approval of the preliminary site plan by the Board, the developer shall prepare required improvement design plans in accordance with this ordinance and additional condition(s) imposed by the Board. Upon approval of the improvement designs by the Planning and Zoning Commission, the developer shall commence construction on the required improvements.
- J. Final Site Plan Procedures: After approval of the preliminary site plan, the developer shall cause the Wind Farm to be surveyed and a final site plan to be prepared in conformance with the preliminary site plan as approved, and Title 50, Ordinance 13, Idaho Code. Upon completion of said final site plan, the developer shall file same and all other documents required, with the administrator. Then the administrator shall place said final plat upon the Commissioner next available regular meeting agenda. In the event that the Board finds that final plat does not substantially conform to the approved preliminary site plan, the Board shall consider said site plan a revised preliminary site plan and remand the revised preliminary site plan to the commission for an additional public hearing and review.

The developer shall submit the final site plan and plan specifications of all required improvements together with a current title report showing proof of ownership in the land to be developed. When submitted to the administrator, the final site plan shall bear all required certificates, acknowledgments and signatures. Upon receipt of a final site plan in compliance with all requirements and all conditions placed upon the preliminary site

plan, the Board shall approve the final site plan and the Chairman of the Board shall affix the date of acceptance and his signature thereon.

- K. Contents of Final Site Plan: The final site plan shall be drawn at such a scale and contain such lettering as to enable same to be placed upon sheets of eighteen (18) inch by twenty-four (24) inch Mylar paper with no part of the drawing nearer to the edge than one-half inch, and shall be in conformance with the provisions of Title 50, Ordinance 13, Idaho Code.

The reverse side of said sheet shall not be used for any portion of the drawing, but may contain written matter as to dedications, certificates, signatures, and other information.

The contents of the final plat shall include all items required under Title 50, Ordinance 13, Idaho Code and also shall include the following:

1. Point of beginning of Wind Farm description tied to at least two governmental survey corners,
2. Location and description of monuments set,
3. Tract boundary lines, property lines, tower locations, road right-of-way and center lines, other rights-of-way and easement lines, building envelopes as required on the preliminary site plan, boundaries of floodplain and floodway, all with bearings, accurate dimensions in feet and decimals thereof, in degrees and minutes and radii, arcs, central angles, tangents, and chord lengths of all curves to the above accuracy,
4. Names and locations of all adjoining properties,
5. Name and right-of-way width of each road and other public rights-of-way,
6. Location, dimension, and purpose of all easements, public or private,
7. The towers numbered consecutively throughout the entire site,
8. The outline of any property other than a road or easement which is offered for dedication to public use, fully dimensioned by distances and bearings with the area marked "Dedicated to the County of Clark for Public Use", together with any other descriptive language with regard to the precise nature of the use of the land so dedicated,
9. The title which shall include the name of the Wind Farm, the name of the county and state, and the location and description of the Wind Farm referenced to section, township, range,
10. Scale, north arrow and date,
11. Location, width, names of all existing or dedicated roadways, and other public ways within or adjacent to the proposed Wind Farm,
12. Certificate by registered surveyor preparing the map certifying to the accuracy of surveying site plan,
13. A current title report of all property contained within the site plan,
14. Certification of owner(s) of record, and all holders of security interest(s) of record with regard to said property,

15. Certification and signature of reviewing surveyor verifying that the Wind Farm meets all County requirements,
  16. Certification and signature of the County Planning and Zoning Commission Chairman verifying that the Wind Farm and design standards meet all County requirements,
  17. Certification and signature of the County clerk of the County of Clark verifying that the Wind Farm has been approved by the Board,
  18. Certification and signature of the County treasurer of the County of Clark verifying that all County taxes are paid on the property.
  19. Notation of any additional restrictions imposed by the Board on the development of said Wind Farm to provide for the public health, safety, and welfare.
  20. Addresses shall be provided for each building on the final site plan, calculated per the Clark County Addressing System.
- L. Final Site Plan Copies: Ten copies of the final site plan shall be filed with the administrator prior to being placed upon the Board's agenda. Three copies shall be 24" x 36". The remaining copies may be 11" x 17". One copy of the final plat as approved by the Board and signed by the County clerk shall be filed with the administrator and retained by the County.
- M. Acceptance of Dedications: Approval of the final site plan by the Board shall constitute acceptance of all dedications for public roads, rights-of-way, easements, and other lands dedicated for public purpose or use as shown thereon. As a condition precedent to the acceptance of any roads or required improvements, the Board shall require that the developer install said improvements in accordance with the construction standards, and that condition shall be noted on the final site plan.
- The Site Plan shall also include all support structures, roadways, underground utility lines, wells, septic systems, maintenance lay down areas, and fencing. All Large Wind or Commercial Wind Project support facilities shall meet the requirements for industrial buffers set forth in this document and have security fencing installed.
- N. Liability Insurance: Prior to issuance of a building permit for a wind turbine tower and continuing after construction until such facility is removed from the site, the applicant shall provide documentation satisfactory to the county and at such reasonable intervals as determined by the county of the existence of liability insurance coverage with a minimum limit of one million dollars (\$1,000,000.00) covering property damage, injury or death resulting from the construction, placement, use, maintenance, operation of a wind generation facility.
- O. Decommissioning Bond Required:
1. Applicants are required to hold a performance bond, completion bond, decommissioning bond or other financial assurance with an A rated firm in the amount of five percent (5%) of the tower's value.
  2. A detailed decommissioning and reclamation plan in accordance with state and federal law. The owner/operator of commercial tower facilities is responsible for

removing the towers and related facilities when no longer useful. They must remove the towers and facilities within two (2) years of the end of use unless a new plan is proposed to reuse the towers. Reclamation shall be restored to its original state before tower facility site construction

3. Decommissioning requirements, transfer with ownership of the turbine or ownership of wind facility.

P. Compliance with Utility Transmission Requirements:

1. Wind farms requiring new or modified utility transmission systems shall comply with the requirements of this code governing utility transmission lines, structures and systems.