

CHAPTER 19
LARGE WIND ENERGY SYSTEMS

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19-1. Purpose.

The purpose of this ordinance is to establish minimum requirements and regulations for the placement, construction, and modification of large wind energy systems. The intent of this chapter to:

- (a) preserve and protect the public health and safety;
- (b) reasonably preserve and protect natural and cultural resources;
- (c) to protect the quality of life for nearby property owners;
- (d) facilitate economic opportunities for County residents;
- (e) allow for the orderly development of land.

19-2. Applicability.

These regulations govern the siting of large wind energy systems, with their associated meteorological towers and equipment. Large Wind Energy Systems may be located in the following zone districts as a conditional use: MU-40, MU-80, MU-160, A-40, M-G, and MG-EX. It is unlawful for any person to construct, install, maintain, modify, operate or abandon a large wind energy system and/or wind farm that is not in compliance with this article or with any condition contained in a wind energy permit or other land use permit issued pursuant to this article or any other applicable law or regulation. (Ord 2013-12, 9/3/13)

19-3. Definitions.

As used in this chapter:

1) Abandoned: A wind energy system or project shall be considered abandoned when, once installed it fails to operate for 12 consecutive months. Exceptions may be made for catastrophic circumstances such as a natural disaster or "force majeure."

2) Development Plan: A general description of the Large Wind Energy System project including maps and preliminary engineering information sufficient to describe all facilities, roads, transmission lines, wind turbine tower, meteorological towers, lay down areas, temporary construction camps, road access and other such site information to document compliance with this ordinance.

3) Height, Tower: The height of the tower as measured from the foundation to the base of the nacelle.

4) Height, Tip: The height of a wind turbine measured from natural grade to the tip of the rotor blade at its highest point.

5) Landowners:

- a) Participating: Those who have signed agreements with a Wind Energy Company or Power Company.
- b) Non-Participating Landowners: Those who have no agreement with a Wind Energy Company or Power Company.

6) Land Use Authority: Body designated by Tooele County to act upon a land-use application.

7) Large Wind Energy System: All equipment, machinery, and structures utilized in connection with the conversion of wind to electricity. This includes, but is not limited to, storage, electrical collection and supply equipment, meteorological towers, as part of an approved project, transformers, substations, service and access roads, and one or more wind turbines which has a rated nameplate capacity greater than 100 kilowatts (kW).

8) Permanent Meteorological Tower: A meteorological tower constructed as a permanent and integral part of the large wind system project to measure and monitoring wind velocity, direction, shear, duration, intensity and regularity as part of the instrument and control system to manage and operate the large wind system project. Such tower may be guyed or un-guyed.

9) Rated Nameplate Capacity: The maximum rated output of electric power production equipment. This output is typically specified by

the manufacturer with a "nameplate" on the equipment rated in Watts (W) or British Thermal Units (BTUs). Due to the nature of wind energy systems, Watts will be used as the standard unit in this ordinance.

10) Shadow Flicker: means alternating changes in light intensity caused by the moving blade of a wind energy system casting shadows on an object.

11) Temporary Meteorological Tower: A temporary tubular or lattice guyed tower, housing, and associated wind-measuring equipment used for the purpose of establishing the viability of wind-generated energy by measuring and monitoring wind velocity, direction, shear, duration, intensity, and regularity. (Ord 2013-12, 9/3/13)

19-4. Design Standards.

(1) Location: All wind energy projects will avoid areas/locations with a high potential for biological conflict; known sensitive historical, cultural, or archeological resources; areas of environmental concern; visual corridors that are essential view sheds or scenic areas; avoid areas of erodible slopes and soils; or areas of concern for water quality, landslide, sever erosion, and high storm water runoff potential.

(2) Buffer: Large Wind Energy System tower structures shall not be located within one half (½) mile of a residence, inhabited structure, platted subdivision or public building.

(3) Height: The height of Large Wind Energy System structures shall not exceed 600 feet in height as measured from the foundation base elevation to the Tip Height.

(4) Setbacks: Large Wind Energy System structures shall be set back a distance equal to 1.1 times the tip height of the tower from all property lines. (Ord. 2014-07, 6/17/14)

(a) Additional setback: If the noise or shadow flicker analysis identifies an impact on neighboring nonparticipating properties the Planning Commission may require a larger setback in order to protect properties, the public welfare and ensure the use is compatible with other uses in the vicinity.

(b) Fall Distance: Large Wind Energy Systems towers (or turbines) shall be set back a distance equal to at least 1.1 times the tip height from overhead utility lines, unless such utility lines are an integral part of the project design, public roads or public right-of-ways that traverse through the site; and the

footings and foundation of each tower will be located a distance of 50 feet from any existing pipelines and underground utilities. (Ord. 2014-07, 6/17/14)

(c) Waivers:

(i) From Rights-of-way: An exception to the setback requirement may be granted by the Land Use Authority if a signed agreement of consent is obtained from the Tooele County Road Department that the public right-of-ways are not impacted by the location of the wind turbine towers.

(ii) From one half (½) mile buffer: Voluntary waivers or reductions of the buffer requirement may be granted by the Land Use Authority if a signed agreement of consent is obtained from those non-participating property owners within the required buffer. The agreement must specifically state the distance be waived or reduced and be in the form of a legally binding contract or easement between the property owner (including assignees in interest) and the wind energy developer, effective for the life of the project. Notwithstanding any such voluntary agreement, the waiver shall only be effective and reflected in the permit when it has been reviewed and determined acceptable to the county. Any waiver or reduction agreement must be submitted with the conditional use permit application and if authorized by the county, must be filed with the county recorder upon issuance of the conditional use permit.

(5) Minimum Blade Height: The minimum height of the lowest extent of a turbine blade shall be 30 feet above the ground.

(6) Color and Finish: The tower, nacelle and blades shall be a non-reflective color.

(7) Lighting: Large Wind Energy Systems shall be lighted as required by the FAA. Spotlights are prohibited unless required by the FAA or used for temporary construction operations. Lighting of the Large Wind Energy System beyond FAA standards shall comply with the current county lighting ordinance.

(8) Signage: Signs shall be restricted to reasonable identification of the manufacturer, operator of the Large Wind Energy System, not to exceed 72 square feet. In no case can turbine structures be used as an off premise sign. Utility, educational and safety signs should

adhere to the current sign ordinance with regard to size and placement.

(9) Access: All access doors, climbing apparatuses, or access ways to towers and electrical equipment shall remain locked and inaccessible by the public.

(10) Sound: The Large Wind Energy System and associated equipment shall comply with the existing noise or sound Ordinance of Tooele County.

(11) Impacts to Public Roads - The use of dedicated public roads shall be in accordance with and in compliance of federal, state, county and local regulations governing such activities. The owner shall be responsible for any degradation to or damage of dedicated public roads by any and all parties affiliated with the installation of the Large Wind Energy System and will bear all costs required to return the public roads to their original or better condition prior to their use of same. Prior to the use of any dedicated public road for the purpose of transporting parts, materials and/or equipment for construction of a Large Wind Energy System the approval of a road maintenance plan and agreement shall be required. The requirements of this section will also apply to future replacement or maintenance activities that have the potential to degrade or damage public roads beyond normal wear and tear.

(12) Over-speed Control: Every wind energy system shall be provided with automatic over speed control, braking system or feathering system.

(13) Signal Interference: No wind energy system shall cause material interference with television or other communication signals. Failure to operate within the parameters constitutes a violation of this ordinance and may void a system's conditional use permit.

(14) Noise: All wind energy systems shall be located at the proper distance from the project boundary in order to comply with the Tooele County Noise Ordinance. Failure to operate within the noise limits specified constitutes a violation of this ordinance and may void a system's conditional use permit. (Ord 2013-12, 9/3/13)

19-5. Siting Conditions and Property Maintenance.

(1) Land Clearing, Soil Erosion, Wildlife and Habitat Impacts: It is required that any project be reviewed by the Utah Division of Wildlife prior to submittal of a conditional use permit application. Development plans will include best

management practices for land clearing, soil erosion control, and habitat reclamation.

(a) Minimum Clearing: Clearing of natural vegetation shall be limited to that which is necessary for the safe construction, operation, and maintenance of the Large Wind Energy System.

(b) Restoration: Once the system is operational, any land that has been disturbed and is not necessary for the access, maintenance and functioning of the system shall be reclaimed with natural vegetation within the first growing season following the completion of construction.

(c) Soil Erosion: Soil erosion is to be mitigated by the use of silt fencing, any accumulated product of which can be used in the site reclamation. Any and all topsoil moved or removed will be stockpiled and preserved for present and future project area restoration. Appropriate best management practices will be taken to ensure soil from the project shall not enter any flowing stream or open water.

(2) Environmental Analysis: In the absence of a required state or federal agency environmental review for the project (e.g., NEPA) the planning commission may require an impact analysis on historic, cultural and archaeological resources; soil; erosion; and flora in the area of the project.

(3) Maintenance: The applicant shall maintain the Large Wind Energy System and project in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, and security measures. Applicant will provide summary of the scheduled maintenance program.

(4) Removal and Decommissioning Requirements:

(a) Abandonment: Any Large Wind Energy System or project that has reached the end of its useful life or has been abandoned shall be removed. A Large Wind Energy System or project shall be considered abandoned when it fails to operate for twelve (12) consecutive months. Upon a Notice of Abandonment issued by the Land Use Authority, the Large Wind Energy

System or project owner will have 60 days to provide sufficient evidence that the system has not been abandoned or the Land Use Authority shall have the authority to enter the owner's property and require removal of the system(s) at the owner's expense. Exceptions may be made for catastrophic circumstances such as a natural disaster or "force of nature".

(b) Decommissioning: At the time of abandonment or removal as further described in this article, the participating property shall be reasonably restored to the physical state as existed before the wind energy system was constructed. A decommissioning plan shall be submitted as part of the permit application.

(i) Decommissioning Estimate: The developer shall immediately following the first year of operation and every fifth year thereafter, at its own expense, retain an independent engineer acceptable to the County Planning Commission to estimate the cost of decommissioning and removal of the wind energy tower(s) and restoration of the site, net of any expected salvage value of the tower(s) and its components and the developer shall submit such report to the Planning Commission and landowner upon receipt. If the independent engineer concludes that such decommissioning, removal and reclamation will cost in excess of the estimated salvage value, the developer shall set aside funds ("required decommissioning funds") sufficient for decommissioning and restoration by either providing a performance bond, a surety bond, a letter of credit or by depositing required decommissioning funds sufficient to off-set any shortfall in salvage value into an escrow account to be held by an escrow agent acceptable to the

Developer, Tooele County and the property owner for the benefit of the same, subject to claims of landowners and any enforcement actions by the County. The escrow agent shall provide those funds to the party removing such tower(s) and restoring the property in the event the cost of disassembling and removal thereof from the premises and restoration of the premises exceeds the salvage value of the improvement.

(ii) Salvage Value Credit: The submission of a development plan shall constitute the agreement and consent of the developer and owner of the property, their respective heirs, successors and assigns that (i) the salvage value of the tower(s) and its components may be utilized to off-set the cost of decommissioning, removal and site restoration; and, (ii) if the developer or then owner fails to remove the tower(s) and restore the site within a reasonable time, after said tower(s) has ceased to be in operation for a period of twelve (12) months, then the County may dispose of the tower(s) and its related components and apply the salvage value to the costs of decommissioning, removal and restoration.

(iii) Decommission Estimate Update: The estimated cost of decommissioning will be updated every fifth year, to take into account inflation or other factors deemed relevant by the independent engineer including, but not limited to, any increase or decrease of the market value of the Large Wind Energy System being decommissioned and the cost of labor to perform the decommissioning. The deposit, bonds or letters of credit shall be adjusted accordingly to the current required decommissioning funds

and any sum necessary to make prior contribution equal to the Required Decommissioning Funds necessary to perform the decommissioning removal and restoration. Any funds in excess of the Required Decommissioning Funds will be returned to the developer after decommissioning, removal and restoration. Any costs of decommissioning, removal and restoration in excess of the decommissioning shall be promptly paid by the developer or then owner of the tower(s) to the contractor retained for the removal and restoration.

(iv) Form of Surety: Any performance bond, surety bond or letter of credit, if used, in lieu of a deposit of cash, shall contain such terms and provisions as shall be acceptable to the County.

(v) Reclamation: Once the Large Wind Energy System has been removed, the project owner and property owner is then responsible for land reclamation using the natural vegetation native to the area disturbed upon construction of the project. The land shall have returned to a stable condition within five years from the removal and decommissioning of the project. (Ord 2013-12, 9/3/13)

19-6. Conditional Use Permits.

A Conditional Use Permit (CUP) required by this chapter shall be obtained prior to the commencement of construction or use of any Large Wind Energy System within Tooele County. No presumption of approval shall be made regarding an application. In making a determination the planning commission shall follow Chapter 7, Conditional Use of this ordinance. All applications that are incomplete upon submission shall be returned to the submitter. The land owner and operator shall be responsible to ensure all conditions are complied with. (Ord 2013-12, 9/3/13)

19-7. Application.

All applications for conditional use permit shall include all drawings, maps, specifications, statements and records as required by this chapter and Chapters 7 and 12 of this ordinance. The application shall provide a comprehensive development plan which identifies all facilities, roads, transmission lines, tower, meteorological towers, lay down areas, temporary construction camps, road access and maintenance plan, decommissioning plan and other such site information the applicant believes will provide the Land Use Authority with sufficient information to review the application. All applications shall include, but not limited to the following materials:

- (1) Application form for a conditional use permit;
- (2) Evidence of ownership or site control over the land and a legal description of the property where the Large Wind Energy System will be located;
- (3) Evidence of capability to complete the project, which includes:
 - (a) a statement of the applicant's ability to post performance bonds or other financial assurance;
 - b) Statement that the owner will construct and operate each large wind energy system in compliance with all applicable local, state, and federal codes, laws, orders, regulations, and rules.
 - (c) evidence of sufficient liability insurance coverage to cover potential loss or damage to persons, property, and structures as a result of construction activities of a Large Wind Energy System.
- (4) A site plan showing:
 - (a) all prominent man made and geologic features within the surrounding areas that will be affected by the operation;
 - (b) dimensions; locations, clearances, and rights of ways, easements, utility lines;
 - (c) property lines and names of adjoining property owners;
 - (d) planned ingress and egress routes, existing roads, new

- roads and construction paths
 - (e) a contour map showing existing water courses, drainage; and
 - (f) location of all wind turbines generator towers, above ground power lines, underground power lines, substations, staging areas, permanent and temporary meteorological towers and office buildings.
- (5) Preliminary construction documents describing general plans for appropriate drainage, erosion control, and infrastructure improvements.
- (6) Road access and maintenance plan including the following:
- (a) a traffic control plan including traffic safety measures, proposed on existing roads, and streets adjoining the site. The location of any construction lay down areas, excavated material stock piles and processing areas and vehicle parking areas.
 - (b) detailed map of proposed haul routes. Haul routes shall be updated as transit information becomes available. Final haul routes must be approved by the County, prior to commencing construction, through a road maintenance agreement with the County. Road maintenance agreements shall include the following:
 - (i) Completion of a pre-construction baseline survey prepared by a mutually agreed upon professional engineer to determine existing road conditions;
 - (ii) An engineer's assessment of the potential for damage or impact to the roads detailed in the haul route;
 - (iii) A mitigation plan and/or long-term road maintenance plan to address the impacts to

- the roads as determined in the assessment;
 - (iv) Preparation of an engineer's estimate for the total estimated cost to improve, maintain or repair the existing roads as detailed in the mitigation/maintenance plan; and
 - (v) Documentation of the establishment of a bond, acceptable to Tooele County, for the repair of roads along the haul route as determined in the engineer's estimate of cost.
- (7) Reclamation and decommissioning plan including the following:
- (a) an estimated amount of acreage to be disturbed by the construction of the Large Wind Energy System;
 - (b) types of existing dominant vegetation;
 - (c) re-seeding types or species to be used, the rate of application per acre, the season planting will occur, fertilizers or soil amendments required to aid re-vegetation;
 - (d) a description of the reclamation which shall include reasoning for the leaving of roads, pads or other similar structures and features;
 - (e) a cost estimate for reclamation; and
 - (f) documentation of the establishment of a bond, acceptable to Tooele County, for the reclamation to be done following construction.
- (8) a plan for disposal of trash, scrap metal, wood, extraneous debris, waste oil, chemicals, solvents, and sewage.
- (9) A noise and shadow flicker analysis to determine the impact on neighboring nonparticipating properties. Analysis should be done by a reputable third party firm with expertise in the given discipline and agreed upon by the applicant and Tooele County. The requirement for third party analysis may

be waived by the Land Use Authority if the wind energy systems will be located more than one half (½) mile from existing occupied residences.

(10) A proposed phasing plan, if applicable, showing areas or locations of wind energy systems for the purposes of permitting.

(11) Written certification that notice of the proposed facility has been given to the owners and claimants of mineral rights located on and under lands encompassed by the site plan.

(12) A written emergency management plan that addresses construction activities as well as operational activities following the completion of construction.

(13) A fugitive dust plan that addresses construction activities as well as operational activities following the completion of construction.

(14) View Shed analysis, including visual simulation of the system and any significant planned structures or improvements, such as new roads or substations. The number of visual simulations shall be sufficient to provide adequate analysis of the visual impacts of the proposal. More visually sensitive proposals may require analysis from significantly more vantage points such as different distances and sensitive locations.

(15) Any additional information, studies, or reports as reasonably determined by the Land Use Authority as necessary. (Ord 2013-12, 9/3/13)

19-8. Amendments.

Any physical modification to an existing and permitted Large Wind Energy System that materially increase the generator size and/or height of the permitted Large Wind Energy System shall require a permit amendment under this ordinance. Replacement of an already permitted turbine with a new turbine that doesn't exceed the existing size and/or height will not require a permit amendment. An increase in the number of overall turbines will require an amendment to the permit.

19-9. Expiration.

A permit issued pursuant to this ordinance shall expire unless there is substantial action within one year of its issuance. The Planning Commission may grant two (2) one (1) year

extensions when deemed in the public interest. (Ord 2013-12, 9/3/13)

19-10. Compliance with Laws, Ordinances, and Regulations.

Construction and operation of all such proposed Large Wind Energy Systems shall be consistent with all applicable local, state, and federal regulatory requirements. Any person who fails to comply with any provision of this ordinance, or a permit issued pursuant to this ordinance, shall be subject to enforcement and penalties as allowed by applicable law. (Ord 2013-12, 9/3/13)

19-11. Administration and Enforcement.

This ordinance shall be administered and enforced by the Land Use Authority or designated party. The Land Use Authority, upon prior notice to owner and at reasonable business hours, may enter any property for which a permit has been issued under this ordinance to conduct an inspection to determine whether the conditions stated in the permit have been met.

19-12. Violations.

It is unlawful for any person to construct, install, or operate a Large Wind Energy System or project that is not in compliance with this ordinance or with any condition contained in a permit issued pursuant to this ordinance. (Ord 2013-12, 9/3/13)

19-13. Tax Shifts.

Due to the complexity of large-scale commercial wind energy projects, the county may require a development agreement or other appropriate instrument to address taxing, land use, property assessment, and other issues related to the project. For example, the county is interested in preventing large tax shifts that may otherwise be incurred by county residents each year the centrally assessed wind project is depreciated; therefore, cooperation to establish an agreement for payment in lieu of taxes (PILT), or other acceptable solutions may be necessary. A development agreement or substitute agreement may be required as a condition of the permit and must be approved by the Board of County Commissioners prior to commencing construction. (Ord 2013-12, 9/3/13)