

**RESOLUTION 06-07-PZ-01  
SWEETWATER COUNTY  
WIND FARM ZONING REGULATIONS**

WHEREAS, on May 10, 2006 the Sweetwater County Planning and Zoning Commission (P&Z) conducted a public hearing, which was advertised on April 8, 2006, regarding the *Recommended* Sweetwater County Wind Farm Zoning Regulations and,

WHEREAS, the Sweetwater County Planning and Zoning Commission at this public hearing requested and received public comment,

WHEREAS, after due consideration and discussion of all public comments received, the P&Z voted 3-0 to recommend that the Sweetwater County Board of County Commissioners (Board) adopt P&Z Certified Recommended Sweetwater County Wind Farm Regulations (pages 2 through 17 of the P&Z Certified Recommendation 06-05-PZ-02) with the following conditions:

1. That Section 1.4 (i) be modified as included in the attached proposed rules.
2. That Staff, in conjunction with the Clerk's Office, be given authorization the make the necessary organizational and administrative changes to the Zoning Resolution of Sweetwater County. Such changes would include, if necessary, the table of contents, cross referencing, section and page renumbering and other similar minor administrative changes.

WHEREAS, the Sweetwater County Board of County Commissioners, on May 17, 2006 and again on June 16, 2006, advertised for a public hearing before the Board to receive and consider public comments regarding the P&Z's Certified Recommendation 06-05-PZ-02 regarding the *Recommended* Sweetwater County Wind Farm Zoning Regulations; and,

WHEREAS, the Sweetwater County Board of County Commissioners, on July 5, at 2:00 p.m. held said public hearing and received and considered all public comments regarding the P&Z's Certified Recommendation 06-05-PZ-02 and the *Recommended* Sweetwater County Wind Farm Zoning Regulations; and,

WHEREAS, the Board of County Commissioners after due deliberation voted 3 to 0 to adopted said P&Z Certified Recommendation;

**NOW therefore let it be resolved, that the Sweetwater County Board of County Commissioners hereby approves and adopts the Sweetwater County Wind Farm Zoning Resolution as proposed by the P&Z Certified**

**Recommendation 06-05-PZ-02 and as attached to this resolution including revisions listed in Appendix A. Also, this approval includes the conditions as stated by said P&Z Recommendation; and,**

**Further let it be resolved, that with the Board's adoption of this Resolution, 06-07-PZ-01, the Wind Emergency Time Period and Emergency Rules adopted by Resolutions 06-02-CC-03 and 06-06-CC-01 are hereby repealed.**

**Dated this 5th day of July 2006.**

**Sweetwater County  
Board of County Commissioners**

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**John Pallesen, Chairman**

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**Joe Oldfield, Member**

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**Wally J. Johnson, Member**

**Attest:**

\_\_\_\_\_  
**Loretta Bailiff, County Clerk**

*Approved*  
*Resolution 06-07-PZ-01*  
**Sweetwater County**  
**Wind Farm Zoning**  
**Regulations**

**July 5, 2006**

# Sweetwater County Wind Farm Zoning Regulations

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## **Part 1            Commercial and Non-Commercial Wind Farms**

### **1.1 Purposes**

It is the purpose of these regulations to promote the safe, effective and efficient use of Commercial and Non-Commercial Wind Farms.

Sweetwater County finds that wind energy is an abundant, renewable, and nonpolluting energy resource and that its conversion to electricity will reduce dependence on nonrenewable energy resources and decrease the air and water pollution that results from the use of conventional energy sources.

### **1.2    Definitions**

For the purposes of this section the following words and terms as used herein shall be defined as follows:

**APPLICANT:** The person, corporation or entity that is responsible for Wind Farm development and operation and has a property interest in the land.

**ANEMOMETER:** An instrument, usually located on a tower, that measures wind speed.

**A-WEIGHTED SOUND LEVEL (dbA):** A measurement of sound pressure level, which has been filtered or weighted to progressively de-emphasize the importance of frequency components below 1000 Hz and above 5000 Hz. This reflects the fact that human hearing is less sensitive at low frequencies and at extremely high frequencies, relative to the mid-range of the frequency spectrum. This area of sensitivity also corresponds to the human speech band. This measurement is the most commonly used filter in both industrial noise applications (OSHA) and community noise regulations.

**BOARD OF COUNTY COMMISSIONERS:** The three elected governing officials of Sweetwater County. The Board of County Commissioners is referenced in these regulations as the Board.

**C-WEIGHTED SOUND LEVEL (dbC):** The measurement of sound pressure level which is designed to be more responsive to low-frequency noise. C-weighting is intended to represent how the ear perceives sound at high decibel levels and is also used for evaluating impact or impulse noise such as demolition or mining blasting, artillery firing and bomb explosions using conventional explosives of less than approximately one ton.

**DECIBEL (db):** The measurement of a sound pressure relative to the logarithmic conversion of the sound pressure reference level often set as 0 db (A-weighted). In general, this means the quietest sound we can hear is near 0 db (A-weighted) and the loudest we can hear without pain is near 120 db (A-weighted). Most sounds in a typical

environment range from 30 to 100 db (A-weighted). Normal speech at 3 feet averages about 65 db (A-weighted).

**NACELLE:** The enclosure located at the top of a wind turbine tower that houses the gearbox, generator and other equipment.

**PURE TONE:** A sound whose instantaneous sound pressure is a simple sinusoidal function of the time and is characterized by a single frequency or singleness of pitch. For the purpose of these regulations, a pure tone shall exist if the one-third octave band sound pressure level in the bandwidth of the tone exceeds the arithmetic average of the sound pressure levels on the two contiguous one-third octave bands by 5 db for center frequencies of 500 Hz and above, and 8 db for center frequencies between 160 and 400 Hz, and by 15 db for center frequencies less than or equal to 125 Hz.

**PROJECT IMPACT REVIEW:** A review of existing public professional literature, maps and other information regarding possible impacts that may be related to Wind Farm development and possible impact mitigation techniques and measures. Such information sources may include, among others, federal, state and local agencies.

**PLANNING AND ZONING COMMISSION:** The Planning and Zoning Commission is the five member commission appointed by the Board of County Commissioners to review and make recommendations to the Board on planning and land use issues as authorized by Wyoming Statutes 18-05-201 et seq and 18-05-301 et seq. The Planning and Zoning Commission is also known as the P&Z.

**ROTOR:** The rotating part of a turbine, including the turbine blades.

**STALL-CONTROL:** A braking mechanism on wind turbines where the rotor blades are bolted onto the hub at a fixed angle. The rotor blade profile is aerodynamically designed to ensure that the moment the wind speed becomes too high it creates turbulence on the side of the rotor blade which is not facing the wind. This stall prevents the lifting force of the rotor blade from acting on the rotor.

**TOWER:** With regard to wind energy system, the structure on which the wind system is mounted.

**TURBINE:** A wind driven machine that converts wind energy into electrical power, also known as a wind energy conversion system.

**UPWIND ROTOR:** A design in which the rotor on a wind turbine tower faces into the wind.

**WELL-DESIGNED BRAKING SYSTEM:** The primary braking system, which uses a mechanical brake, pitch-control of the turbine blades, or stall-control to bring the turbine to a stop in such a way that stall-induced vibrations/noise are avoided.

**WIND ENERGY SYSTEM:** A wind driven machine that converts wind energy into electrical power.

**WIND FARM, COMMERCIAL:** A single wind driven machine or a collection of wind driven machines or turbines that convert wind energy into electrical power for the primary purpose of sale, resale or offsite use.

**WIND FARM, NON-COMMERCIAL:** A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended to primarily reduce on-site consumption of utility power. If all applicable regulations are met a Non-Commercial wind farm may contain more than one wind energy conversion system.

**WIND FARM, TOTAL HEIGHT:** The highest vertical point on the machine, including the rotor blade tips, measured from the tower base.

### **1.3: Anemometers:**

**Anemometers:** An anemometer is a wind speed measuring device used to determine the viability of an area for a Non-Commercial or Commercial wind farm development. This use is permitted in all zoning districts by obtaining an approved Sweetwater County Construction Use Permit through the permit process described in Section 1.4 of these regulations.

### **1.4 Non-Commercial Wind Farm(s)**

Non-Commercial Wind Farm(s) shall be an Accessory Structure in all base zoning districts, and shall be permitted by the issuance of an approved Sweetwater County Construction/Use Permit. The approval of the Sweetwater County Construction/Use permit is subject to compliance with the standard application requirements and compliance with all of the following Non-Commercial wind farm requirements as set forth below:

- (a) **Minimum Parcel Size:** The minimum parcel size to establish a Non-Commercial wind farm is one acre.
- (b) **Total Height:** There is no limitation on tower height, except as imposed by setback, clear zone and FAA regulations.
- (c) **Set-back:** The wind energy system shall be set back a distance equal to one hundred and ten (110) percent of the combined height of the tower plus the length to the tip of the blade from all adjacent property lines. Additionally, no portion of the small wind energy system, including guy wire anchors, may extend closer than ten (10) feet to the property line.
- (d) **Clear Zone:** The wind energy system shall maintain a circular clear zone that has a radius which is equivalent to one hundred and ten (110) percent of the combined distance of the tower height plus the length to the tip of the blade. This clear zone

- shall be maintained free of any occupied structures, tanks containing combustible/flammable liquids, and above ground utility/electrical lines.
- (e) Noise: Wind energy systems shall not exceed 60 dBA, as measured at the closest neighboring inhabited dwelling. The level, however, may be exceeded during short-term events such as utility outages and/or severe wind storms.
  - (f) Tower Security: Any climbing apparatus must be located at least 12 feet above the ground, and the tower must be designed to prevent climbing within the first 12 feet. The tower is recommended to be enclosed with an appropriate fence.
  - (g) Lighting: Wind energy systems shall not be artificially lighted with accent lighting. For the protection of the flight patterns of aircraft and the protection of heliports, airports and landing strips, wind energy systems must be lighted in accordance to the regulations and guidelines of the Federal Aviation Administration (FAA) regulations or appropriate authorities.
  - (h) Signs/Advertising: No tower should have any sign, writing, or picture that may be construed as advertising.
  - (i) Neighborhood Concerns: All reasonable concerns of neighbors must be resolved before a Construction/Use Permit will be issued.

To help identify and mitigate neighborhood concerns early in the permitting process after receiving a Construction/Use Permit Application, the Land Use Department will send a request for comment form to all adjacent property owners of record. The Land Use Department will post the applicant's property with a sign that states the nature of the applicant's proposed wind energy project.

If the Land Use Department has not received any written objections, during the 21 days following the date of mailing the request for comments, the Department will approve the applicant's request provided all requirements of these rules are met.

If any written objections are received, the Land Use Department will schedule a public hearing before the next regularly scheduled Planning and Zoning Commission meeting that allows for 30-day advertised notice.

At the public hearing, the Sweetwater County Planning and Zoning Commission will take testimony concerning the objections to the proposed Non-Commercial wind farm. After hearing and considering all testimony from staff and concerned parties, the P&Z will then make a determination, based on the evidence presented, to approve, conditionally approve or deny the application.

Any decision by staff or the Planning and Zoning Commission may be appealed to the Board of County Commissioners.

- (j) Multiple Wind Energy Systems: Multiple wind energy systems are allowed on a single parcel as long as the owner/operator complies with all Non-Commercial wind farm regulations contained in these regulations. Units shall be installed in compliance with minimum setback and clear zone requirements, as defined by these regulations. The minimum distance between wind energy systems shall be

- equivalent to one hundred and ten (110) percent of the combined height of the tower plus the blade length.
- (k) Approved Wind Turbines: At the time of application, the applicant must present a certification from the manufacturer that the system's turbine and other components equal or exceed the standards of one of the following national certification programs such as the: California Energy Commission, National Electrical Code (NEC), American National Standards Institute (ANSI), Underwriters Laboratories (UL), or any other small wind certification program recognized by the American Wind Energy Association.
  - (l) Onsite Electrical Use: On the Construction/Use Permit Application, the applicant must certify that the proposed system will be used primarily to reduce onsite consumption of electricity.
  - (m) Compliance with FAA Regulations: Small wind energy systems (see letter (r) for definition) must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
  - (n) Compliance with the ICBO Electric Code: Construction/Use Permit applications for small wind energy systems shall be accompanied by a line drawing of the electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the National Electrical Code. This information is frequently supplied by the manufacturer.
  - (o) Plans - Compliance of Wind Energy System Plans with ICBO Building Code: Construction/Use Permit applications for Non-Commercial wind energy systems shall be accompanied by standard drawings of the wind turbine structure, including the tower, base, and footings. An engineering analysis of the tower showing compliance with the ICBO Building Code and certified by a Wyoming Licensed Professional Engineer shall also be submitted. This analysis is frequently supplied by the manufacturer.
  - (p) Installation - Compliance of Wind Energy System Installation with ICBO Building Code: Property owner must submit a written statement verifying the proposed wind energy system was installed in accordance with the ICBO Building Code.
  - (q) Utility Notification: No small wind energy system shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.
  - (r) Removal of Defective or Abandoned Wind Energy Systems: Any wind energy system found to be unsafe by an authorized County official shall be repaired by the owner to meet federal, state and local safety standards or removed within six months. If any wind energy system is not operated for a continuous period of 12 months, the County will notify the landowner by registered mail and provide 45 days for a response. In such a response, the landowner shall set forth reasons for the operational difficulty and provide a reasonable timetable for corrective action. If the County deems the timetable for corrective action as unreasonable, they must notify the landowner and such landowner shall remove the turbine within 120 days of receipt of notice.

- (s) Small Wind Energy System(s): Small Wind Energy System(s) are stand alone systems of less than 2000 watts of capacity, not more than 35 feet in height and located in a manner that complies with all of Section 1.4 of these regulations. Section 1.4 (o) of these regulations may be waived by the Sweetwater County Engineer if, in the County Engineer's evaluation, the system's plans presented at the time of application demonstrate that the proposed system is structurally safe and sound.

## **1.5 Commercial Wind Farms**

Commercial Wind Farm, or Wind Farms, are hereby classified as large-scale Industrial Uses and will be regulated in the same manner as other Industrial Uses. Commercial Wind Farms are a conditional use in the Agriculture (A) zone district whether they are developed and/or operated by a public utility, private company or individual. They are not allowed in any other zone district.

### **1.5.1 Application Requirements**

Prior to submitting an application for a Wind Farm, the applicant is encouraged to arrange a pre-application meeting with the Sweetwater County Land Use Department. All applications for a Wind Farms shall be accompanied by the following information:

- (a) **Owner Consent:** Evidence that the applicant is the owner of the property or has written permission of the owner(s) to make such application;
- (b) **Applicant/Owner Information:** Name, address and phone number of the applicant and owner and the applicant's contact person for the project.
- (c) **Project Rationale:** Relevant background information on the project, including timeframe and project life, phases of development, likely markets for the electricity produced and the possibilities for future expansion.
- (d) **Plot and Development Plan:** A conceptual development plan of the proposed wind farm drawn to scale and in sufficient detail to provide a clear description of the project:

#### **Requirements:**

- i Drawing sheets must show the scale, a north arrow and the number of sheets in the sequence. Twelve copies (24" X 36") of the development plan must be submitted with the application.
- ii Property description which includes a general vicinity map of the project and a legal description of the project boundary (i.e. NW1/4, SE1/4 Sec 2, T42N, R6W), and property acreage.
- iii Structure location showing setbacks, use, and means of access for the following structures:

- (a) Existing Structures within Project Boundary.
  - (b) Existing Structures outside of Project Boundary: All occupied/manned structures and all non-occupied structures within 1,500 feet of the project boundary.
  - (c) Proposed Accessory Structures: Accessory structures include support offices, facilities and structures related to the operation of the Wind Farm. A general statement of how the developer will address potable water, sewage/waste disposal, and fire protection for these accessory structures is required.
  - (d) Proposed Wind Turbine Towers: Include a conceptual site plan of a typical individual wind turbine site and a map showing the approximate location of each turbine. If the exact number or dimensions of wind turbines is not known at the time of application, the site plan shall identify a maximum number and maximum dimensions that will be expected and a range from minimum to the maximum number expected. For review purposes, all wind turbines shall be assigned a reference number.
  - (e) Existing Utilities, Pipelines and Related Structures. Show the location of all existing underground and above ground utilities, electrical lines, transmission lines, pipelines and any accessory support facilities.
  - (f) Proposed Utilities, Electrical/Transmission Lines and Related Structures. Show all proposed utilities, electrical lines, transmission lines and any related accessory support facilities; State the approximate voltage of each electrical/transmission line and whether the facilities are proposed to be located above or below ground. Provide a general region/area wide map clearly showing the proposed route of proposed transmission lines and their accessory facilities.
  - (g) A map showing the existing topography of the project site. USGS or other topographic map sources may be utilized.
- iv A map showing the approximate proposed drainage, grading and natural vegetation removal plan.
  - v A map showing wind characteristics and dominant wind direction, which is the direction from which fifty (50) percent or more of the energy contained in the wind flows.
  - vi A map showing the location of any delineated 100-year floodplains or wetlands.
- (e) **Visual Simulation:** Provide an accurate visual simulation of the project components by showing:
- i views from a reasonable number of key vantage points as determined by the applicant in consultation with staff and approved by the Planning and Zoning Commission. These vantage points must consider a 360 degree view of the project site.

- (f) **Economic Analysis:** Provide an estimated economic cost/benefit analysis describing the impact of the project on the local and state economy with respect to the following:
- i the amount of property taxes to be generated by the project.
  - ii the amount of sales taxes to be generated by the project.
  - iii the amount of other applicable taxes to be generated by the project.
  - iv the construction dollars to be spent locally.
  - v the number of construction jobs and estimated construction payroll.
  - vi the number of permanent jobs and estimated continuing payroll.
  - vii costs associated with the impact on roads or other County infrastructure in the area.

- (g) **Impacts and Mitigation Measures:** In the absence of a required environmental analysis by a state or federal agency, which encompasses the entire project area, provide a project impact review and a proposed impact mitigation plan. The project impact review and mitigation plan shall address all of the following:

Environment:

- i wildlife and wildlife habitat on the site and in a biologically significant area surrounding the site.
- ii any endangered or threatened species on the site and in a biologically significant area surrounding the site.
- iii avian population, including migratory birds.
- iv flora on the site.
- v soil erosion.
- vi water quality and water supply in the area.
- vii historic, cultural or archaeological resources within wind farm project area.
- viii dust from project activities.

Wind Farm

- ix A-weighted and C-weighted noise levels at the residence nearest to the project boundary and at the property line of such residence nearest to the project boundary.
- x any wastes, either municipal solid waste or hazardous waste, generated by the project.
- xi electromagnetic fields and communications interference generated by the project.
- xii public safety in regard to the potential hazards to adjacent properties, public roadways, communities, aviation, etc. that may be created.
- xiii a general discussion of any potential changes to the above assessment items that could be anticipated when considering the cumulative impacts of other adjacent wind energy projects.

- (h) **Life of Project and Final Reclamation of Project:** Provide a statement of the useful life of the project, a general description of the decommissioning, and the final land reclamation plan in the event the project is abandoned or terminated.

Evidence, acceptable to the Board of County Commissioners, shall be presented demonstrating that the developer has entered into an agreement with the property owner that ensures proper final reclamation of the wind farm project. If the developer does not have a reclamation agreement with the land owner that is suitable to the Board, the developer shall comply with all the provisions of 1.5.5 of these regulations.

**(i) Conceptual Transportation Plan for Construction and Operation Phases:**

Provide a conceptual Construction and Operation Transportation Plan that shows the following:

- i Anticipated locations of the project's service road ingress and egress access points onto State or County Roads. Any proposed access onto the State or County road system must meet respective requirements.
- ii The general layout of the proposed wind farm service road system and the extent to which roads are planned to be upgraded. All roads servicing manned or occupied accessory buildings need to be constructed to the standards of the International Fire Code.
- iii The plan for utilizing existing roadways to service the project area. To the greatest extent possible, the applicant must make use of existing roadways.
- iv The anticipated volume and designated route for traffic including routes for oversized and heavy equipment needed for construction, maintenance and repairs.
- v The proposed methodology of assuring, to the public entities responsible for the roads, that repairs and on-going maintenance of roads and bridges to be used in both the construction and operation phases will be carried out.
- vi The plan for utilizing existing roadways within the project area.

**1.5.2 Siting Guidelines**

The following guidelines shall be considered by the Planning and Zoning Commission and the Board of County Commissioners in evaluating the appropriateness of proposed locations for Wind Farms and the proposed project components. The purpose of these guidelines is to assist decision-makers in uniformly analyzing the site-specific impacts of each proposed project and thereby arrive at consistent and balanced decisions.

**Natural and Biological Resources** - Wind Farms should not be located in areas that have a large potential for biological conflicts. Wind Farms should not be located in large impact areas such as wilderness study areas, areas of critical environmental concern, County and state parks, historic trails, and special management areas. Wind Farms should not significantly impact important wildlife habitat.

**Visual Impacts** - Wind Farms should avoid those visual corridors that are designated by the P&Z as essential view sheds or scenic areas. Essential view sheds or scenic areas are those areas designated by the P&Z and the Board after analyzing the applicant's wind farm visual simulations and considering public hearing comments. A Wind Farm project

should maintain visual unity among clusters of turbines. To promote visual uniformity, the rotors, nacelles and towers of all turbines in an array should appear similar. To avoid visual clutter, intra-project power lines having a voltage of 34,500 volts or less, should be buried unless the applicant can sufficiently demonstrate that burying the lines will violate other guidelines/standards, violate applicable law, render the project economically infeasible or be hidden from public view. To avoid cluttering the skyline, transformers and other electric equipment should be hidden from view or otherwise constructed in harmony with the surrounding landscape.

**Soil Erosion & Water Quality** - Wind Farms should avoid erosion. Disturbance and construction on erodible slopes should be minimized. The number of improved roads and construction staging areas should be kept to a minimum. The grading width of roads should be minimized. One-lane roadways with turn-outs are recommended. The number and size of staging areas and crane pad sites should be minimized.

**Historical, Cultural & Archeological Resources** - Wind Farms should avoid sites with known sensitive historical, cultural or archeological resources.

**Public Safety** – Wind Farms shall be developed in a manner that utilizes sound engineering practices and considers public safety in regard to the potential hazards to adjacent properties, public roadways, communities, aviation, etc. that may be created.

### **1.5.3 Performance Standards**

The following standards are to be achieved by each Wind Farm project without exception. Because they are standards, they are considered to be requirements of any Wind Farm project. The final decision on whether or not a particular standard is achieved by a Wind Farm project shall be made by the Board of County Commissioners after considering the recommendations of the Planning and Zoning Commission.

**Noise Management** - The noise level caused by the operation of the project, measured at five (5) feet above ground level at the property line coincident with or outside the project boundary, shall not exceed 65 decibels (A-weighted) and shall not exceed 50 decibels (A-weighted) if it is determined that a pure tone noise is generated by the project. The level, however, may be exceeded during short-term events such as utility outages and/or severe wind storms. Upon receipt by the Sweetwater County Land Use Department of a complaint regarding noise from an existing Wind Farm project, the Department will investigate the complaint. If the Department determines the complaint to be reasonable, the project owner shall be required, at the owner's expense, to have prepared, by an independent acoustical consultant approved by the Land Use Department, an acoustical study that shall demonstrate compliance with the above noise standard on the basis of equivalent sound pressure levels. "Equivalent sound pressure levels" means the steady sound level that, over 10-minute measurement periods, would produce the same energy equivalence as the fluctuating sound level actually occurring.

**Wind Farm Design:** Wind Farms that are not designed in “accordance with proven good engineering practices” or not purchased from a national manufacturer with a proven track record shall be prohibited. Wind Farms designed with the following characteristics shall be deemed in “accordance with proven good engineering practices”:

- i at least 3 blades.
- ii upwind rotor.
- iii no furling, where “furling” means that the wind turbine is designed to limit its power output in high winds by changing the rotor’s plane of rotation to a plane that is not perpendicular to the prevailing wind direction.
- iv tapered and twisted blades.
- v a well-designed braking system.

**Natural & Biological Resources** – Noxious weed control is required. Appropriate fire measures as required by the Fire Warden shall be implemented. No perches are permitted on the nacelles of turbines. Wind Farms towers shall not use lattice-type construction or other designs that provide perches for avian predators.

**Visual Impacts** - To provide visual order to a Wind Farm project, all individual turbines shall have the same number of rotor blades and all rotor blades shall spin in the same direction (i.e., clockwise or counter-clockwise) in relation to the wind. To promote visual uniformity, all turbines at a similar ground elevation shall have the same height from blade tip to the ground. Except during construction, re-construction or removal, outdoor storage is not permitted within the project boundary except at locations that are screened from view.

To avoid cluttering the skyline, inverters and pendant power cables shall be located inside the wind turbine tower, nacelle or structure. No telecommunications dishes, antennas, cellular telephone repeaters or other similar devices shall be attached to wind turbine towers. Aircraft obstruction markings of the turbines by use of alternating red and white bands shall be prohibited. No Billboards, logos and advertising signs of any kind shall be located on the turbines.

**Soil Erosion & Water Quality** - Construction and maintenance shall be done in strict accordance with the erosion and sediment control plan submitted with the Construction Permit so as to minimize soil erosion and damage to existing vegetation. If vegetation is damaged during construction, in areas not occupied by the Wind Farms and related facilities and roads, it shall be restored after construction is complete. Disturbed areas shall be reseeded to the land owner’s or manager’s requirements. Dust control on the project site is required.

**Safety** - Individual wind turbines shall be set back from all property lines coincident with or outside of the project boundary a distance equal to 1.5 times the turbine hub height. Individual wind turbines shall be set back from all public roads a distance equal to at least 1.5 times the turbine hub height. Individual wind turbine heights and markings shall comply with Federal Aviation Administration (FAA) regulations. If lighting of turbines,

or other structures, is required, “daytime white-nighttime red” shall be the only type of lighting allowed unless prohibited by law. All turbines and towers shall be a shade of white in color.

#### **1.5.4 Review and Approval**

The Land Use Department shall prepare a Conditional Use Permit Application for a Commercial Wind Farm. Upon receipt of a complete application for a conditional use permit for a Wind Farm, the Land Use Department will set the application for hearing before the Planning and Zoning Commission. Notice of the hearing shall be provided in the same manner as for an application to re-zone the project property area. Prior to the hearing, the Land Use Department shall evaluate the application against the requirements and guidelines of these regulations, and will prepare a staff report for the Planning and Zoning Commission. During the hearing, Planning and Zoning Commission shall review the staff report and review the application to determine whether it meets the requirements of these regulations and will make its recommendation to approve, deny or approve with conditions to the Board of County Commissioners. The Board of County Commissioners shall conduct a public hearing on the application and the Planning and Zoning Commission’s recommendation. Notice of the hearing before the Board of County Commissioners shall be provided in the same manner as for an application for re-zoning. After considering all evidence, public testimony and the Staff’s report, the Board may approve, deny or approve with conditions the Conditional Use Permit.

Upon approval of the Conditional Use Permit for a Wind Farm project, the developer will submit to the Land Use Department a complete Sweetwater County Construction/Use Application that includes all of the following:

- i all of the special conditions outlined in the Conditional Use Permit authorization.
- ii a site plan(s), drawn to a suitable scale, which is based on the survey detail used to prepare exhibits for private leases and rights-of-way, as prepared by a professional land surveyor. This site plan must include the site plan information required by the Conditional Use Permit Application and County Construction/Use Permit. The site plan shall include a legal description based on actual survey of individual tower sites, and a typical footprint detail for each tower site, including the blades.
- iii a final drainage, grading, erosion and sediment control plan prepared and certified by a Wyoming Licensed Professional Engineer.
- iv A final transportation plan coordinated with the land owner and the Sweetwater County Engineer must be provided. This plan must show final road locations and standards to which roads will be constructed. Roadways serving all occupied or manned buildings must meet the International Fire Code. Access permits onto the public system must be obtained from the appropriate public agency.
- v Utility Plan that shows and complies with all standards for crossing or utilizing Sweetwater County Road R.O.W.s.
- vi a final plan for site security.
- vii a final decommissioning and reclamation plan.
- viii documentation of the establishment of the Account/Bond for reclamation; and

- documentation that the project is in compliance with all of the requirements of all jurisdictional state and federal agencies.
- ix the fee for the Construction/Use Permit shall be based upon the number of turbines in the project charged at the industrial (principal structure) Construction/Use Permit rate for each turbine; and,
- x as-built drawings, prepared by a Wyoming Licensed surveyor, verifying the location and setbacks of all structures must be submitted to the County prior to wind farm operation.

After Land Use Department receives a complete Construction/Use Application, the Department will review it for compliance, and, if approved, the Department will issue a Construction/Use Permit to the developer.

The term of a Wind Farm Conditional Use Permit expires within 5 years of its date of approval by the Board of County Commissioners unless:

- i The developer has substantially commenced Wind Farm Construction under an approved Sweetwater County Construction/Use permit; or,
- ii The developer has submitted evidence acceptable to the Board of County Commissioners that the wind farm project is still viable and the delay in construction is caused by project management or coordination issues that are pending resolution in the near future.

The Board may renew the Conditional Use Permit once up to one additional 5 year term. If the project is still not complete after the Board's renewal has ended, and the applicant still wishes to proceed with the project, a new Conditional Use Permit must be applied for.

### **1.5.5 Final Project Reclamation**

If, in the assessment of the Board, the applicant cannot provide acceptable evidence demonstrating that the applicant has entered into an agreement with the property owner that ensures proper final reclamation of the wind farm project, the applicant shall comply with the following Final Project Reclamation Requirements:

#### **Final Project Reclamation Requirements:**

A reclamation bond shall be furnished to Sweetwater County not later than 30 days before commencement of project construction that will be used to restore the site surface to a condition consistent with the pre-construction environment. The purpose of the reclamation bond is to assure that adequate funding is available to pay the costs of site reclamation, including removal of individual turbines and other above-ground project improvements subject to permit in the event of abandonment of individual turbines or the entire project. The reclamation bond shall be in an amount equal to one hundred (100) percent of such costs, where such amount is determined by the Board of County Commissioners based upon estimates from knowledgeable contractors, except that the

landowner should be given the option to maintain access roads for demonstrated ranching or farming purposes as approved by the Board of County Commissioners. The reclamation bond may not be cancelled, released or in any way terminated, without prior written approval from Sweetwater County, and shall continue as long as such turbines or other above-ground improvements exist. The reclamation bond must be written so as to survive any sale or other form of transfer of ownership of such turbines and other improvements. The company providing the reclamation bond must be authorized to provide bonds in the State of Wyoming and be acceptable to the Board of County Commissioners.

All underground equipment and foundation systems of Wind Farms shall be removed.

**(Not a part of the proposed Regulation text.) Integration of adopted text in to the Sweetwater County Zoning Resolution.** If adopted by the BCC, to allow for the proper integration of the adopted rules, the Sweetwater County Land Use Department in coordination with the Sweetwater County Clerk's Office is granted the authority to make necessary organizational and administrative changes to the Zoning Resolution of Sweetwater County. Such changes would include, if necessary, table of contents, cross referencing, section and page renumbering and other similar minor administrative changes. (May 10, 2006 - P&Z recommended granting authority)

## Appendix A

### Proposed Noise Management Revisions

#### Non-Commercial

- **1.4 (e) Noise:** Wind energy systems shall not exceed 40 dBA, as measured at the closest neighboring inhabited dwelling. The level, however, may be exceeded during short-term events such as utility outages and/or severe wind storms.

#### Commercial

- **1.5.3 Noise Management:** The noise level caused by the operation of the project, measured at five (5) feet above ground level at the property line coincident with or outside the project boundary, shall not exceed 65 decibels (A-weighted) and shall not exceed 50 decibels (A-weighted) if it is determined that a pure tone noise is generated by the project.

### Proposed Non-Commercial Revisions

- **Proposed 1.4(m) Compliance with FAA Regulations:** Non-Commercial wind energy systems must comply with applicable FAA regulations, including any necessary approvals for installations close to airports.
- **Proposed 1.4(n) Compliance with the IBC Electric Code:** Construction/Use Permit applications for non-commercial 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. This information is frequently supplied by the manufacturer.
- **Proposed 1.4(q) Utility Notification:** No non-commercial wind energy system shall be installed until evidence has been given that the utility company has been informed of the customer's intent to install an interconnected customer-owned generator. Off-grid systems shall be exempt from this requirement.
- **Existing Text: (l) Onsite Electrical Use:** On the Construction/Use Permit Application, the applicant or property owner must certify that the proposed system will be used primarily to reduce onsite consumption of utility provided electricity.
- **(p) Installation - Compliance of Wind Energy System Installation with IBC Building Code:** Applicant or Property owner must submit a written statement verifying that the proposed wind energy system was installed in accordance with the IBC Building Code.

### Proposed Revisions to the Definition Section

- **Proposed Definition: Non-Commercial Wind Energy System:** A wind driven machine that converts wind energy into electrical power that has a rated capacity

of not more than 100 kW and is intended to primarily reduce on-site consumption of utility provided electricity. A non-commercial wind energy system consists of a wind turbine, a tower, and associated control or conversion electronics.

- **Proposed Definition: Commercial Wind Energy System:** A wind driven machine that converts wind energy into electrical power for the primary purpose of sale, resale or offsite use. A commercial wind energy system consists of a wind turbine or machine, a tower, and associated control or conversion electronics. A wind energy system with a rated capacity of more than 100kw is considered a commercial wind energy system whether the sale of electrical power is for on or offsite use.
- **Proposed Definition: Wind Farm, Non-Commercial:** One or more non-commercial wind energy systems that comply with all applicable regulations.
- **Proposed Definition: Wind Farm, Commercial:** One or more commercial wind energy systems that comply with all applicable regulations.
- **Add Existing Definition from Sec. 1.4(s): Small Wind Energy System(s):** Small Wind Energy System(s) are stand alone systems of less than 2000 watts of capacity, not more than 35 feet in height and located in a manner that complies with all of Section 1.4 of these regulations. Section 1.4 (o) of these regulations may be waived by the Sweetwater County Engineer if, in the County Engineer's evaluation, the system's plans presented at the time of application demonstrate that the proposed system is structurally safe and sound.

### **Potential Revision Height Regulations - Commercial**

- **Proposed Replacement Definition: Wind Energy System, Total Height:** The highest possible vertical point on the machine, including the rotor and blade tips, measured from the tower base.
- **Proposed Commercial Setback Requirement (1.5.3):** Individual wind turbines shall be set back from all property lines coincident with or outside of the project boundary a distance equal to 110% of the Wind Energy System Total Height. Individual wind turbines shall be set back from all public roads a distance equal to at least 110% of the Wind Energy System Total Height. Individual wind turbine heights and markings shall comply with Federal Aviation Administration (FAA) regulations.

### **Potential Revision Regarding the Definition of ICBO**

- **ICBO:** All references to International Codes must be changed to one of the following depending on the nature of the regulation:
  - ICC – International Code Council – Electrical Code
  - IBC – International Building Code