

WHATCOM COUNTY COUNCIL AGENDA BILL

NO. 2008-270A

CLEARANCES	Initial	Date	Date Received in Council Office	Agenda Date	Assigned to:
Originator: Alex Cleanthous	ACC	9/26/08	<p>RECEIVED</p> <p>SEP 30 2008</p> <p>WHATCOM COUNTY COUNCIL</p>	10/7/08	Planning and Development Subcommittee discussion
Division Head:				10/7/08	Council Introduction
Dept. Head: David Stalheim	TG	9-26-08		10/21/08	P&D/Council
Prosecutor: Royce Buckingham	[Signature]	9-26-08			
Purchasing/Budget: Brad Bennett	[Signature]	9/30/08			
Executive: Pete Kremen	PK	9-30-08			

TITLE OF DOCUMENT: *Wind Energy Systems*

ATTACHMENTS:

- (1) Proposed ordinance
- (2) Whatcom County Planning Commission Findings of Fact & Reasons for Action, Conclusions and Recommendation
- (3) Staff Report

SEPA review required? Yes NO
 SEPA review completed? Yes NO

Should Clerk schedule a hearing? Yes NO
 Requested Date:

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE: *(If this item is an ordinance or requires a public hearing, you must provide the language for use in the required public notice. Be specific and cite RCW or WCC as appropriate. Be clear in explaining the intent of the action.)*

The proposed zoning text amendment would add a new chapter to Whatcom County's Zoning Code, Title 20. Chapter 20.14 would permit Wind Energy Systems (WES) in all scales, from residential scale through utility size in the zoning code. The proposed code would outright permit in all zones Small Wind Energy Systems (SWES) up to 100 feet. These types of systems are intended for on-site, residential energy generation.

COMMITTEE ACTION:

10/07/2008: Discussed
 10/21/2008: Forwarded to Council for approval

COUNCIL ACTION:

10/07/2008: Introduced substitute version
 10/21/2008: Council Adopted 7-0
 Ord. 2008-043

Related County Contract #:

Related File Numbers:

Ordinance or Resolution Number:

Ord. 2008-043

Please Note: *Once adopted and signed, ordinances and resolutions are available for viewing and printing on the County's website at: www.co.whatcom.wa.us/council.*

SPONSORED BY: Consent
PROPOSED BY: Planning
INTRODUCTION DATE: 10/7/2008

ORDINANCE NO. 2008-043

AMENDING WCC TITLE 20, TO ESTABLISH DEVELOPMENT REVIEW PROCEDURES FOR THE INSTALLATION OF WIND ENERGY SYSTEMS IN WHATCOM COUNTY

WHEREAS, the Whatcom County Comprehensive Plan places a high priority on healthy air quality and the environmental protection of its community, including the promotion of renewable energy systems, such as wind turbines, in Whatcom County; and

WHEREAS, reducing community fossil fuel consumption, such as from electricity generation, is also consistent with Whatcom County's Climate Protection goals; and

WHEREAS, WCC currently lacks specific rules on the installation of wind energy systems, therefore residents must apply for a Conditional Use Permit on any wind turbine that exceeds the existing height limitations of the zone in which it is located; and

WHEREAS, inclusion of Wind Energy Systems in WCC will help meet the Growth Management Act goals of protecting clean air and the high quality of life in Washington State; and

WHEREAS, the County Planning Department has noted increased community interest in the installation of Wind Energy Systems on private property in Whatcom County, which prompted Whatcom County Council members to apply for this zoning text amendment; and

WHEREAS, County staff worked with local renewable energy builders to create zoning language that will result in the development of efficient Wind Energy Systems that will provide benefit to users while protecting the interests of neighboring property owners; and

WHEREAS, Whatcom County has received input on the proposed text amendment from agencies such as Department of Fish and Wildlife, Department of Transportation Airport Planning Division, and the City of Ferndale; and

WHEREAS, the Whatcom County Planning Commission held a public hearing on September 11, 2008, and unanimously voted to recommend the approval of proposed text amendment changes to the County Council, based on its Findings of Fact.

FINDINGS OF FACT AND REASONS FOR ACTION

1. Notice of the subject amendment was sent to the Department of Community, Trade, and Economic Development (CTED) and other state agencies on July 21, 2008.
2. On August 19, 2008, the Whatcom County SEPA official gave the proposed zoning text amendment a Determination of Non-Significance (DNS).

3. Notice of the Planning Commission hearing for the subject text amendment was published in the Bellingham Herald on September 2, 2008.
4. Notice of the Planning Commission hearing for the subject text amendment was published on the County's web site on September 3, 2008.
5. The Planning Commission held a public hearing relating to the subject amendment on September 11, 2008.
6. Goal 10, within the Growth Management Act, is to "Protect the environment and enhance the state's high quality of life, including air and water quality and the availability of water."
7. The Action Plan section of Chapter 5 of the Whatcom County Comprehensive Plan has the goal to "Adopt ordinances enabling and facilitating alternative sources of energy."
8. Whatcom County's zoning code as it stands has no provisions for Small Wind Energy Systems.
9. Whatcom County staff has worked with local renewable energy builders to create zoning language that takes into consideration the needs of future Small Wind Energy System developers, this process will result in the development of efficient SWES that will provide the most benefit to users.

CONCLUSION

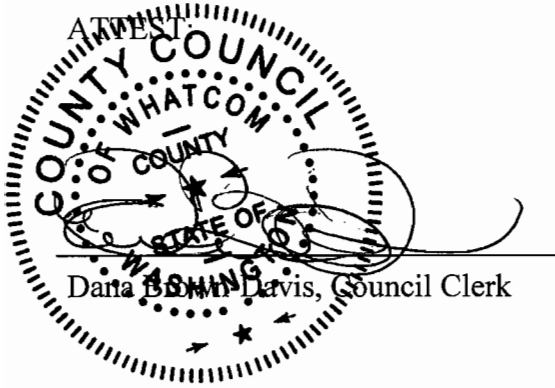
The proposal meets all of the legal requirements as noted within the Findings of Fact and Reasons for Action. The proposed amendment is compatible with the Growth Management Act, Whatcom County Comprehensive Plan Goals and Policies, along with policies within Whatcom County's County Wide Planning Policies. Approval of this amendment is in the public interest.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that:


Section 1. The Official Whatcom County Zoning Ordinance (Title 20) is hereby amended as shown in Exhibit A.

ADOPTED this 21st day of October, 2008.


WHATCOM COUNTY COUNCIL
WHATCOM
COUNTY, WASHINGTON




APPROVED as to form:



Civil Deputy Prosecutor



Carl Weimer, Chairperson

Approved Denied


Pete Kremen, Executive

Date: 10-23-08

20.68 Heavy Impact Industrial (HII)

.060 Stationary thermal power plants with generating capacity of less than 250,000 kilowatts, floating thermal power plants with generating capacity of less than 50,000 kilowatts, and other power plants utilizing renewable resources from solar, wind (WCC 20.14) or water sources.

Definitions 20.97

20.97.235 Meteorological Tower (MET Tower)

A structure designed to support the gathering of wind energy resource data , and includes the tower, base plate, anchors, guy cables and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment anemometers and vanes, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location.

20.97.434.1 Small Wind Energy System (SWES)

A wind energy conversion system, with a rated output up to and including 100 kW, consisting of: wind turbine, tower, base and associated control or conversion electronics, as well as all anchors, guy cables and hardware.

20.97.435.1 Tower Height

The distance measured from the grade plane (WCC 20.97.162) to the hub height of the wind turbine. This structure may be freestanding, guyed, or a monopole.

20.97.435.12 Trailheads

20.97.435.23 Trails

20.87.455.1 Wind Energy System (WES)

A wind energy conversion system, consisting of: wind turbine, tower, base and associated control or conversion electronics, as well as all anchors, guy cables and hardware.

20.97.455.2 Wind Turbine

The parts of the wind system including the blades, generator and tail.

Chapter 20.14

Wind Energy Systems

Sections

20.14.010 Purpose

20.14.020 Definitions

20.14.030 Applicability

20.14.040 Regulatory Framework

20.14.050 General Requirements

20.14.060 Sound Levels and Measurement

20.14.070 Safety

20.14.080 Federal and State Requirements

20.14.010 PURPOSE

The purpose of the Ordinance is to facilitate the installation and construction of wind energy systems in Whatcom County for private landowners, subject to reasonable restrictions.

20.14.020 DEFINITIONS

As used in this Ordinance, the following terms shall have the meanings indicated:

County shall mean Whatcom County government.

FAA shall mean the Federal Aviation Administration.

MET Tower or "Meteorological tower" - a structure designed to support the gathering of wind energy resource data , and includes the tower, base plate, anchors, guy cables and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment anemometers and vanes, data logger, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location.

Small Wind Energy System (SWES) - A wind energy conversion system, with a rated output up to and including 100 kW, consisting of: wind turbine, tower, base and associated control or conversion electronics, as well as all anchors, guy cables and hardware.

Tower Height - The distance measured from the grade plane (WCC 20.97.162) to the hub height of the wind turbine. This structure may be freestanding, guyed, or a monopole.

Wind Turbine - The parts of the wind system including the blades, generator and tail.

Wind Energy System (WES) - A wind energy conversion system, consisting of: wind turbine, tower, base and associated control or conversion electronics, as well as all anchors, guy cables and hardware.

20.14.030 APPLICABILITY

The requirements set forth in this Ordinance shall govern the siting of wind energy systems used to generate mechanical or electrical energy to perform work, and which may be connected to the utility grid pursuant to the Revised Code of Washington, Chapter 80.60, Net Metering of Electricity, serve as an independent source of energy, or serve as part of a hybrid system.

The requirements of this Ordinance shall apply to all Wind Energy Systems (WES) proposed after the effective date of this Ordinance. Any WES for which a required permit has been properly issued prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance; provided, however, that any such pre-existing WES that is not producing energy for a continuous period of twelve (12) months shall meet the requirements of this Ordinance prior to recommencing production of energy. No modification that increases the height of the system or significantly increases its output shall be allowed without full compliance with this Ordinance.

20.14.040 REGULATORY FRAMEWORK

.041 PERMITS AND ZONING

<u>System Type</u>	<u>Required Permit</u>	<u>Zones</u>
<u>MET Tower</u>	<u>Outright permitted¹</u>	<u>All – for up to 24 months</u>
<u>One SWES</u>	<u>Outright permitted¹</u>	<u>All</u>
<u>WES with a rated output of 101 kW up to and including 500 kW</u>	<u>Administrative permit²</u>	<u>Rural, AG, CF, RF, HII</u>
<u>Multiple SWES per parcel with a cumulative rated output of including and up to 100 kW.</u>	<u>Administrative permit²</u>	<u>All</u>
<u>WES greater than 500 kW</u>	<u>Conditional Use Permit³</u>	<u>AG, CF, RF, HII</u>
<u>Multiple WES per parcel with a cumulative rated above 100 kW</u>	<u>Conditional Use Permit³</u>	<u>AG, CF, RF, HII</u>

1 – WES and MET towers are required to be in compliance with but not limited to Whatcom County Code Title 15 Buildings and Construction and acquire the necessary building permit.

2 – Administrative Permit WCC 20.84.235

3 - Conditional Use Permit WCC 20.84.200

.042 PRINCIPAL OR ACCESSORY USE

A WES may be considered either principal or accessory use. A different existing use or an existing structure on the same lot shall not preclude the installation of a WES or a part of such facility on such lot. Any WES that is constructed and installed in accordance with the provisions of this Ordinance shall not be deemed to constitute the expansion of a nonconforming use or structure.

20.14.050 GENERAL REQUIREMENTS FOR WIND ENERGY SYSTEMS

.051 VISUAL APPEARANCE; LIGHTING; POWER LINES

1) Wind Turbines shall be painted a non-reflective, non-obtrusive color such as the manufacturer's default color option or a color that conforms to the environment and architecture of the community, unless FAA standards require otherwise. The zoning administrator may require a photo of a WES, of the same model as that proposed in the landowner's application, adjacent to a building or some other object illustrating scale (e.g., manufacturer's photo).

2) At WES sites, the design of the buildings and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the WES to the natural setting and the existing environment.

3) No WES shall be artificially lighted, except to the extent required by the FAA or other applicable authority.

4) No WES shall be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the wind turbine.

5) Electrical controls, control wiring and power lines shall be wireless or underground, except where WES wiring is brought together for connection to the transmission or distribution network adjacent to that network.

.052 SETBACKS AND HEIGHT LIMITS

The following setback requirements shall apply to all WES and MET Towers:

1) If the system does not exceed the height limitation of the zone in which it is proposed, it is exempt from the setback requirements of this ordinance, provided that all parts of the system meet the setback requirements of the underlying zone (WCC 20.80.200). Except within the AG, CF and RF zones.

2) The tower height of a WES shall not exceed 100 feet, or the maximum allowed by zoning, whichever is greater. MET Towers cannot exceed a maximum height of 100 feet except in the Agricultural, Rural Forestry and Commercial Forestry zones. Wind energy systems with towers taller than 100 feet must obtain an Administrative Permit, except within the AG, CF and RF zones.

a). All systems greater than 100 feet must provide in writing that the height requested is the minimum height necessary for the WES to operate efficiently, and demonstrate the need for the system to be 30 feet above any obstruction within 500 feet.

3) Property lines: Each tower shall be set back from the nearest property line a distance no less than 1.2 times its Tower Height, up to a maximum of Tower Height plus 20 feet, unless appropriate easements are secured from adjacent property owners, or other acceptable mitigation is approved by the Zoning Administrator or Hearing Examiner.

4) Communication and electrical lines: Each WES shall be set back from the nearest above-ground public or private non-participating utility a distance no less than 1.2 times its Tower Height, up to a maximum of Tower Height plus 20 feet, determined from the existing power line or telephone line.

5) Setbacks shall be measured to the outer edge of the base of the WES structure towers. Guy cables and other accessory support structures may be located within setback areas.

20.14.060 SOUND LEVELS AND MEASUREMENT

Audible sound due to WES operations shall not exceed fifty five (55) dBA for any period of time, when measured at the property line of any abutting property containing an occupied building on the date of approval of any WES Siting Permit. The level, however, may be exceeded during short-term events such as utility outages and/or severe windstorms.

20.14.070 SAFETY

1) The blade tip of any Wind Turbine shall, at its lowest point, have ground clearance of no less than fifteen (15) feet, as measured at the lowest point of the arc of the blades.

2) Wind Turbine towers shall not provide step bolts or a ladder readily accessible to the public and shall be a minimum height of 10 feet above ground level.

3) All electrical equipment shall be safely and appropriately enclosed from unintentional access by means such as barrier fencing, equipment cabinetry or similar. All access doors to Wind Turbine towers and electrical equipment shall remain locked until access is necessary.

4) Appropriate warning signage (e.g., electrical hazards) shall be placed on Wind Turbine towers, electrical equipment, and WES.

5) All WES shall be equipped with overspeed controls to limit rotation of blades to a speed below the designed limits of the system. No changes or alterations from the certified design shall be permitted unless accompanied by a licensed professional engineer's statement of certification.

6) Any WES found to be unsafe by the building official shall be repaired by the landowner to meet federal, state and local safety standards or removed within 3 months.

20.14.080 FEDERAL, STATE AND LOCAL REQUIREMENTS

1) WES shall comply with all current adopted Whatcom County Codes & Ordinances, including but not limited to Whatcom County Code, Title 15, Title 16, and Title 23.

2) WES must comply with regulations of the Federal Aviation Administration (FAA), along with requirements within WCC 20.80.675 "Height Limitations Surrounding Airports".

a) If necessary an applicant may be required to submit the following information for analysis of airspace obstructions in relation to WCC 20.80.675: Mean Sea Level (MSL) of adjacent airports, (MSL) of proposed site, Euclidean distance from adjacent airports to proposed site, total elevation of (WES) and structure.

3) All WES electrical systems shall comply with requirements per the Washington State Department of Labor & Industries and the current adopted edition of the National Electrical Code (NEC).

4) All WES with the intention to tie to their respective utility provider's grid system, shall meet the requirements of Chapter 80.60 of the Revised Code of Washington, Net Metering of Electricity.