

## <u> Marion County</u>

OREGON

## Wind Power Regulations





# Regulations for wind power generation

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#### What is wind power generation?

Wind power generation is the conversion of wind into a form of energy, such as using wind turbines to make electricity.

#### What is a wind turbine?

A turbine is a rotary engine that extracts energy from a fluid source and converts it into another form of energy. The simplest wind turbines have a shaft or drum with two or three blades attached to the top of a tower. As the blades move, they impart energy to the rotor. Early examples of turbines are windmills and water wheels.

#### How is this power used?

Wind energy is used for simple residential purposes or commercial utility use. For most residential use, wind power is combined with traditional electricity from your local utility company. Single small turbines below 100 kilowatts are used for homes, usually along with diesel generators, batteries or solar-power systems. These systems can be used along with your electrical system (called gridconnected) or as a stand-alone system that is not connected to the utility grid. The small grid-connected turbines are often used by homeowners for lighting, appliances and electric heat. If the turbine cannot provide sufficient power, the utility makes up the difference. When the turbine produces more electricity than needed, the excess is "given" to the local utility company.

Utility or commercial turbines range in size from 100 kilowatts to several megawatts. The very large turbines are often grouped together as a wind farm to produce bulk power to the electrical grid. The power is transferred through transmission lines.

#### <u>Does the County regulate wind power</u> <u>generating towers and/or facilities?</u>

Yes. The County regulates these as either a private energy generating system or a commercial utility facility. Regulations for both are based on location.

<u>Private energy generating facilities</u>, Marion County Code Chapter 17.126.020(K). These include wind turbines, solar power panels, fuel cells, and hydropower facilities and are permitted in all zones as an accessory use, provided:

- Generates energy using means such as solar power, wind power, fuel cells, hydroelectric power.
- Is intended to offset part of the customergenerator's requirements for energy.
- Will operate in parallel with a utility's existing transmission and distribution facilities.
- Is consistent with generating capacity as specified in ORS 757.300 and/or OAR 860-039-0010 as well as any other applicable regulations.
- Is located on the same tract as the use(s) to which it is accessory and the power generating facility, tract, and use(s) are all under common ownership and management.

In addition, Marion County Code Chapter 17.113.120(B) states:

"Towers containing wind turbines or windmills may exceed the maximum height requirements of the zone in which they are located, provided they:

- Meet the required yard setbacks in the applicable zone; and
- Are set back from all property lines a distance equal to at least the tower height plus the length of one blade at its total extended height."

<u>Commercial Facilities.</u> Wind turbine systems are considered a commercial utility facility when power is "returned" or sold to the power company in return for monetary compensation. Commercial utility facilities are more heavily restricted and, where allowed, require approval of a Marion County Conditional Use Permit. Utility facilities are subject to very specific criteria whether in the rural or urban areas.

#### <u>Do I need a land use permit for a private</u> power generating system?

Not if you meet the definition of a private power generating system and the requirements outlined above. However, you will need building permits from the Marion County Building Inspection Division.

#### Other wind energy resources:

For information on building codes and permits, contact the Marion County Building Inspection Division at (503) 588-5147.

Check out the US Dept. of Energy website, *Wind Powering America*, at <u>http://www.windpoweringamerica.gov/wind</u> <u>maps.asp</u> for wind resource maps, wind source potential charts, and links to other valuable resources.

Energy Trust of Oregon has information regarding tax credits and incentives as well as other information on hot to get started at http://energytrust.org/residential/incentives/sm all-wind/WindSmallScale1/

The State of Oregon Dept. of Energy at <u>http://www.oregon.gov/ENERGY/CONS/RE</u><u>S/tax/wind.shtml</u> has a link to state rules and regulations, residential tax credits, lists of qualified wind generators, and links to energy loan and savings programs.

### For more information on Marion County

*land use regulations contact:* Marion County Planning at (503) 588-5038; email <u>planning@co.marion.or.us</u> or the website at <u>http://www.co.marion.or.us/PW/Planning/</u> <u>default.htm.</u>

