

**CITY OF COOS BAY
Agenda Staff Report**

MEETING DATE March 16, 2010	AGENDA ITEM NUMBER
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TO: Mayor McKeown and City Councilors

FROM: Jim Hossley, Public Works and Development Department Director

Through: Rodger Craddock, City Manager *see*

ISSUE: MANAGING WIND ENERGY CONVERSION STRUCTURES

From the Oregon Department of Energy:

"Small electric wind turbines for residential or small commercial use have been available for more than three decades. The current technology is highly reliable and converts wind energy into electricity efficiently. Wind turbines for residential applications typically range in electrical output capacity from 500 watts up to 10 kilowatts. These systems are mounted on towers. Tower heights are generally between 60 and 100 feet off the ground, preferably at least 30 feet above any obstructions within a 300 foot radius. The wind turbine have blades or rotors, up to 20 feet in diameter..."

During the last several months, city staff has received numerous inquiries about siting wind energy structures in the city. At this time, the city has no provisions in place that would regulate the siting of a wind turbine. We are finding that technology is rapidly changing for wind energy conversion structures. From our limited research we have found there to be a wide range of wind energy structure types and sizes and also a range of possible impacts to the surrounding area. Should the City Council wish to consider the potential visual, safety and other potential impacts of these structures in our community, staff proposes council adopt a resolution that would defer the siting of wind energy structures in the city limits until we develop standards related to safety, visual and other impacts of these structures to the urban environment

ANALYSIS

At this time in the commercial or industrial zoning districts there are no height limitations or setback requirements. Only building codes would apply for the structural component of the wind turbine. No impacts would be addressed or minimized. In the residential zoning districts there are setbacks and height limitations. A Variance to these regulations may be approved by the Planning Commission without a full review of the possible impacts

The city has contacted several other jurisdictions to learn what regulations they have put in place for these structures. North Bend, Florence, Depoe Bay, Cottage Grove, Grants Pass, Lake Oswego, and Seaside have not specifically addressed the structures. Lincoln City has determined the structures are "accessory structures." Eureka, California, considers wind turbines analogous with cell phone towers. Brookings has a policy stating that "until further information provides assurance of compatibility in an urban setting, private wind facilities will not be allowed within city limits."

Below are a few of the possible issues that must be considered when siting a wind energy structure. The following information is from the Oregon Department of Energy.

- ~~Visual impact.~~ The need for high towers and exposure to open terrain is inherent in the function of wind turbines, and therefore visual impact is unavoidable. The greater the distance between the viewer and the turbine string, the less significant is the visual impact.
- Air traffic hazard. Typically, commercial-scale wind turbines exceed 200 feet in height (including the length of the turbine blades). The Federal Aviation Administration and Oregon Department of Aviation Regulations require warning lights.
- Wind access. Unobstructed access to a consistent wind resource is necessary for safe, efficient operation of wind turbines. Wind access can be protected through property setback requirements and structure height limits. Oregon law also allows landowners to secure a "wind energy easement" to ensure the undisturbed flow of wind across a site.
- Small-scale wind turbines. These systems currently range up to 25 kilowatts of generating capacity. Small turbines are mounted on towers up to 120 feet tall.
- Wildlife habitat. Preconstruction surveys can provide information about the use of a proposed energy project site and vicinity by raptors and migratory species. It is easier to avoid adverse impacts by making informed siting decisions before a wind energy project is approved than it is to try to mitigate for significant adverse wildlife impacts after construction.
- Termination and decommissioning. Any wind facility which has reached the end of its useful life or has been abandoned should be removed. A form of surety, either through an escrow account, bond or otherwise, to cover the cost of removal in the event the city has to remove the facility should be required.

ADVANTAGE

- By approving the resolution for deferring the approval of a wind energy conversion structure, the city is avoiding structures that could be sited without addressing the possible/probable impacts to the urban environment.
- By deferring the siting of wind energy structures, the city will have more opportunity to review the experiences of other cities where structures have been sited.

DISADVANTAGE

- The siting of wind energy conversion structures in the city would be halted for an unspecified time period.
- The alternative energy type, a wind energy structure, would not be available to businesses or landowners in the city for an unspecified period of time.

BUDGET

There is no impact to the budget

COUNCIL ACTION

If the Council is so inclined to delay the siting of wind energy structures until further information provides assurance of compatibility in an urban setting please approve the attached resolution.

Attachment: Resolution
Factsheet/2010/windpowerrev2

City of Coos Bay

Resolution 10-04

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF COOS BAY, OREGON
DECLARING A TEMPORARY MORATORIUM ON THE SITING OF WIND ENERGY
CONVERSION STRUCTURES.**

WHEREAS, the City Council supports and encourages the use of alternative energy sources within the City of Coos Bay; and,

WHEREAS, the City Council desires to ensure the safe, orderly and appropriate installation of devices and mechanisms that make use of certain alternative energy sources; and,

WHEREAS, the City Council recognizes the possibility of urban environmental impacts from siting of wind energy conversion structures; and,

WHEREAS, the City Council has not had the opportunity to experience, in an urban setting such as ours, a private wind facility to determine impacts regarding noise, safety concerns, maintenance and visual impacts; and,

NOW THEREFORE, BE IT RESOLVED, that the City Council of the City of Coos Bay resolves the following:

Until further information provides assurance of compatibility in an urban setting, private wind facilities will not be permitted within the Coos Bay city limits.

The foregoing resolution was duly adopted by the City Council of the City of Coos Bay, Coos County, Oregon this 16th day of March 2010.

Jeff McKeown, Mayor

ATTEST:

Rae Lea Cousens, City Recorder