



**MEMORANDUM**

TO: Phil Kern

FROM: Alan Brixius / Laurie Smith

DATE: December 8, 2009

RE: Wind Energy Conversion Systems (WECS); Additional Information

NAC FILE: 432.08

The Planning Commission requested additional information related to the proposed WECS Ordinance. Included in this memorandum is a summary of comments from the City's Utility Manager and attached are enhanced images to help illustrate possible visual impacts with the addition of WECS in the City. A revised WECS ordinance which incorporates the Utility Manager's comments is also attached.

**Utility Manager Comments.** The City's Utility Manager reviewed the proposed WECS ordinance language and offered the following comments:

- **Setbacks.** The Utility Manager pointed out that there have been wind turbines that have collapsed in high winds or due to mechanical malfunctions. As such, he suggested that there be a required setback equal to at least the total height of the tower from all buildings and parking lots on the same parcel. Further information on wind turbine failure can be found by searching Google or You Tube using search words "wind turbine failure".
- **Power Interconnection and Buy Back.** The City Utility is required to buy back excess power generation from residential wind turbines. It is not required to purchase excess power generated from commercial-type turbines, but this can be negotiated between the two parties.
- **WECS Impact on City Utility.** The City Utility is required to provide utility service to all its residential, commercial and industrial consumers whether they have a WECS or not. As such, the Utility may end up competing with WECS and potentially losing money to these private systems.
- **Roof Mounted WECS.** The Utility Manager does not believe that roof mounted systems are efficient and cost effective.

**Enhance Images of WECS.** Attached are four examples of the potential visual impacts a WECS could have within the City of Delano. The images were created based off of the height of existing structures in the photo – the water tower at 150 feet and the radio tower at 180 feet. The images are only a portrayal of what impact a WECS might have on the City’s horizon, actual impacts and proportions may be different.

- c. Vince Vandertopp  
Marlene Kittock  
Scott Dornfeld  
Wendy Biel