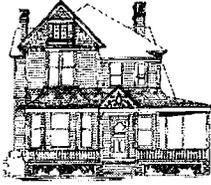


# CITY OF UNION, OREGON

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City of Victorian Heritage

342 South Main St.  
P.O. Box 529  
Union, OR 97883

cityhall@cityofunion.com  
<http://www.cityofunion.com>

Phone: (541) 562-5197  
Fax: (541) 562-5196  
TTY: (800) 735-1232

*Home of Buffalo Peak Championship Golf Course*

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December 8, 2009

Sue Oliver  
Energy Facility Siting Officer  
Oregon Department of Energy  
Hermiston, Oregon

RE: Summary of Committee Research and Recommendations Regarding Horizon Wind Industrial Wind Installation "Antelope Ridge".

Dear Ms. Oliver,

Thank you for the opportunity to share the City of Union's comments and concerns regarding the Antelope Ridge project in Union County. The City of Union has most recently learned of this proposed project, which has raised concerns regarding Union's future. The City of Union recognizes the importance of renewable energy, but at the same time we are concerned this project will degrade our wonderful natural features, affect property values, affect tourism and economic health, scenic and aesthetic values. The proposed project has little to no economic benefit for the City of Union, for that reason, and for the ones stated above the City of Union is opposed to the project. The following research from an appointed committee by Mayor William C. Lindsley on November 24, 2009 have made a full attempt to establish our case against the proposed wind farm and the damages the City of Union could potentially see, all within this document.

## **Committee**

Sandra Patterson	City Administrator
Doug Osburn	City Councilor
Michael O'Connor	Planning Commissioner

## **METHODS EMPLOYED**

1. Committee members reviewed documents to include: statistical studies, reports of city council proceedings from cities around the United States, and several from cities and countries directly impacted by wind installations. This research was conducted through internet searches.
2. City Administrator, Sandra Patterson conducted interviews with city officials from 22 cities in the United States directly impacted by windmill installation projects.
3. County and State regulations were reviewed, as time allowed.

4. Three meetings, of approximately 2 hours each were conducted over a period of five days. To assimilate data retrieved from the internet search by the committee members. All committee members present.

## SUMMARY

The committee at its' initial meeting agreed to approach this subject objectively. This is a hugely complex issue, with authoritative and diametrically opposing evidence. The committee concentrated on four primary concerns. They are:

1. Affect upon property values in and around Union.
2. Affect upon tourism and economic health of the community.
3. Affects upon scenic and aesthetic values \*OAR345-0220-0080 (see addendum).
4. Affects upon physical health.

Although the statistical study information researched was inconclusive and opposing, there is an underlying agreement that any impacts from wind installations tend to be at their greatest effect within a five-mile radius on the installation. The City of Union, according to document map **2009120105036748**, presented by Horizon Wind, (contained in addendum) will be surrounded on three sides and lying as close as 1.2 miles and only as far as 2.4 miles as measured from Beakman St. in Union, the center of the City. Proximity is much closer at the City limits. Thus we conclude that the City of Union will be directly impacted by the proposed wind installation.

## DISCUSSION

The proposed wind installation is the second here in Union County thus far. The City of Union has experience with some of the impacts of industrial wind installation. On or about June 4, 2007, according to Union County Building permit information, Horizon Wind commenced major construction of the Elkhorn Wind installation at Telocaset. This installation did not provide any significant long-term employment as was proffered by Union County Commissioners and State representative Greg Smith. The following is from Representative Smith's website on June 7, 2007:

*"In Union County, the center of District 57, the largest, single investment that has ever been made is underway in anticipation of passage of Senate Bill 838," explained Smith, referring to the Elkhorn Valley Wind Farm near North Powder which is expected to create **200 new jobs and \$10 million** in tax revenue over the next 20 years. 61 wind turbines will be installed on 10,000 acres of range land and, once the project is finished next year, it will generate enough electricity to serve 30,000 homes."*

*"Representative Smith was brilliant in weighing the needs of the electrical suppliers in his district with the needs of the counties to develop and harvest this great resource," said John Lamoreau, former Union County Commissioner. "Because of Representative Smith's hard work our county will likely see new capital investments **approaching \$1 billion in the next few years**. This investment will **provide new family wage jobs**, provide land owners with a new source of income, and **provide extra funding** that can help eliminate cuts to important county programs."*

To date, these benefits have not materialized. There have been benefits during the construction phase to some business owners and suppliers. But long term, and continuing employment benefits sited above have yet to be realized.

The committee concludes that there are no known or foreseen significant and/or long-term benefits to the City of Union from the current proposed Horizon Wind Installation.

## POTENTIAL NEGATIVE IMPACTS

### 1. Property Devaluation

The committee has examined several studies, which conclude that there is no effect on property values created by industrial wind installations. Conversely, the committee has also read authoritative studies which site dramatic decreases in property values. In addition we examined critical analysis of the REPP study, a statistical analysis most often sited by wind energy companies which concludes that there is no property devaluation for property within the installation *view shed*. Below are excerpts from each of these studies along with their site address for full examination of each study.

#### REPP Study

[http://74.125.155.132/search?q=cache:5rphtAWnY4gJ:www.repp.org/articles/stat ic/1/binaries/wind\\_online\\_final.pdf+REPP+study&cd=1&hl=en&ct=cln](http://74.125.155.132/search?q=cache:5rphtAWnY4gJ:www.repp.org/articles/stat ic/1/binaries/wind_online_final.pdf+REPP+study&cd=1&hl=en&ct=cln)

The REPP study, The Effect of Wind Development on Local Property Values, is a 78 page report which was published in May 2003. They studied 10 areas of the country. The study surveyed assessed values and properties **within 5 miles of a wind farm** and showed **no diminution** in value to those properties due to the presence of the wind farms.

#### Case Result Details

Although there is some variation in the three Cases studied, the results point to the same conclusion: the statistical evidence does not support a contention that property values within the view shed of wind developments suffer or perform poorer than in a comparable region. For the great majority of projects in all three of the Cases studied, the property values in the view shed actually go up faster than values in the comparable region. Analytical results for all three cases are summarized in Table 2 below.

## AND

Analysis of REPP Study  
 MATUREN & ASSOCIATES, INC.  
 Real Estate Appraisers - Consultants  
 1125 E. Milham Avenue  
 Portage, Michigan 49002  
 269-342-4800

<http://www.newmexicocare.org/2pages/propvals.html>

A court case referenced in the February 14, 2004 edition of the Daily Telegraph (UK) refers to a house near Askam in the Lakes District. The buyers were not informed of the pending installation of 4 WTGs which were 360' tall and 550 yards from their new home. No mention was made in the seller's disclosure form, despite the fact that the seller had protested the proposed wind farm installation to the local government indicating a large loss in value to their property. The court, after listening to chartered surveyors (appraisers) for both sides, concluded that the property had suffered a 20% decline in value.

**AND**

The 2002 Strutt & Parker study of the Edinbane Windfarm on the Isle of Skye notes that the proposed 41 turbines would have a major impact on the locality. They estimated that nearby property values would decline by over \$1 million. They also note at 6.18 of their report that "In Germany, Estate Agents report diminution in values of between 20% to 30% for properties in sight of wind farms. We understand that FPD Savills have reported similar levels of depreciation for properties in Norfolk."

**AND**

The most recent study dated December 2009, The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis which was completed by Lawrence Berkeley National Laboratory. In their approach a rating system was used for determining how property values changed when a wind farm was located near anyone particular property. Each property was rated in a 1-5 category depending on their placement to their surroundings.

- Poor** (no view, cluttered property)
- Below Average** (city streets and neighborhoods)
- Average** (large parcels of property)
- Above average** (mountain views)
- Premium** (lake/ocean views)

The results of this report found neither the view of wind facilities nor the distance of homes to those facilities to have any consistent, measurable, and statistically significant effect on sales prices. The committee finds these results misleading. The report comments on homes within the 3000 feet to 1 mile of the wind turbines did show reduced sale prices when the home was in the above average or premium category. As a note, City of Union has views of mountains and hilltops on all four sides of city limits. The proposed wind farm will be surround Union in a horseshoe shape, diminishing the view shed on three of four sides of Union.

**AND**

The report of the Township of Lincoln Wind Turbine Moratorium Committee, Kewaunee, Wisconsin (2000 to 2002) notes that the Town of Lincoln building inspector compiled a list of home sales. The list compared the property's selling price as a function of the distance to an existing 22 WTG farm in the area. His conclusions were:

1. Sales within 1 mile of the wind farm **prior** to the installation were 104% of the assessed values and
2. Properties selling **after** the wind farm introduction in the same area were at 78% of the assessed value.

All studies concluded that the more proximate the residential property to the installation, the greater the potential of property devaluation and the less likely of property sale. One author noted that a local bank built into its' lending rules, that it would not lend to projects or individual residential loans too proximate to wind installations. All studies concluded that **residential property** within 5 miles tended to be the most affected, with exception of those bare land properties immediately adjacent to installations purchased on speculation of installation expansion. Secondly, most studies conclude that the value of land used for farming are the least affected or not affected, while residential properties within a five mile proximity and within a direct view shed were most affected.

A recent study of October 21, 2009

Author: Appraisal Group One

<http://bewarenywind.blogspot.com/2009/10/wind-farms-lower-property-values-read.html>

In conclusion, it can be observed that:

- a) in all cases with a 1-5 acre residential property, whether vacant or improved, there will be a negative impact in property value;
- b) with 1-5 acre properties the negative impact in property value in bordering proximity ranged from -39% to -43%;
- c) with 1-5 acre properties the negative impact in property value in close proximity ranged from -33% to -36%;
- d) with 1-5 acre properties the negative impact in property value in near proximity ranged from -24% to -29%;
- e) in all cases the estimated loss of value between the vacant land and improved property was close, however the vacant land estimates were always higher by a few percentage points;
- f) it appears that hobby farm use on larger parcels would have lesser sensitivity to the proximity of wind turbines than single family land use; and (g) placement either in front or at the rear of a residence has similar negative impacts.**

#### COMMITTEE CONCLUSION

The committee recognizes that the necessary conditions for an absolute factual claim of property diminution are absent. Studies indicate likelihoods or probabilities, however, we assert that sufficient conditions exist to recommend that prudent action by the Siting Council is appropriate. We recommend that the Siting Council require a 3-5 year study be conducted, beginning immediately and that the costs for this study be borne by Horizon Wind. In this way a critical analysis of Union property values may be tracked to determine loss, if any. Additionally, we recommend that the City of Union select expert

representation in this field to oversee the conduct of this study. If the findings indicated property value loss, Horizon Wind would be responsible to compensate both the property owners within the City of Union, and make compensation for lost tax revenue predicated on lost value. Further, city government may wish to make certain that City of Union property owners are aware of property tax appeal rights available to them, thus enabling those property owners to appeal property assessment in light of potential devaluation.

## **AFFECT UPON TOURISM AND ECONOMIC HEALTH**

### **Discussion**

The committee's second concern regarded the affect of the proposed installation upon tourism, as tourism has been and continues to be a significant plan for revitalization and revenue stream in the City of Union. As with much of Union County, Union's natural beauty, particularly its' views are a draw for tourists. According to *Oregon Travel Impacts*, a study prepared for the Oregon Tourism Commission by Dean Runyan Associates of Portland, Oregon 2009, Union County 33.2 million dollars is spent in Union County annually, creating 380 jobs (PDF file of this study available on CD supplied with this report).

The City of Union, has been hard at work over the last three years to position itself to take a greater part in attracting guests and realizing a greater share in these tourist travel revenues.

We have on three occasions in as many years commissioned studies from professional consultants and architects to guide our efforts. We have 44 buildings on the Historic register, including the oldest commercial brick building in the State of Oregon. We have received grant money to repair and replace streets, installed a new public restroom and work tirelessly to update and modernize our Comprehensive Plan. We have recently appointed a committee to research the possibility of becoming a Certified Local Government to allow grant and state monies to help with the revitalization of our historic buildings. The City has most recently built a golf course and is currently working on rezoned land around the course for higher end development. We do this all in an on-going effort to become increasingly attractive to tourists and future property owners. Set and setting are a significant part of our efforts.

We assert that 182+, 389+ foot tall wind turbines, with a propeller diameter of nearly two hundred feet, turning at the tip with a speed of nearly 170 mph, producing 65 dBA (A weighted in the 6 kHz range, particularly annoying and potentially damaging to humans) of noise, and surrounding nearly 200 degrees of our city, is **not**, in any construct, an asset to our efforts, and has the potential to become completely counterproductive, for not only tourism, but our ability to attract people and business that our consultants conclude that we need for the health of our community.

This comment from a Union County resident with knowledge and work history in the tourism industry:

*"We know that most people who visit northeast Oregon do so for the scenery and the outdoor recreation; both active such as hiking, biking, hunting, fishing, bird and wildlife*

*viewing and inactive such as sightseeing in cars or on motor cycles (a rapidly growing market for our area). For people whose primary interest is enjoying the beauty of the scenery and the feeling of being out in nature, far from city lights and development, the impact of the wind turbine installations is dramatic. And, as reported in the Scotland study, they will simply choose to go elsewhere once the damage is done. We also have a higher than average number of visitors interested in historic sites and attractions".* The Scotland Study Excerpt (complete study on PDF with accompanying CD)

## **WIND TURBINES AND RURAL TOURISM**

Tourism is, by any reckoning, a crucial contributor to the Scottish economy and accounted for over eight per cent of employment in 2000. In 2001, over 19 million tourists stayed more than 43 million nights in Scotland, spent over £4 billion and supported around 193,000 jobs.

A little over a year ago, VISIT SCOTLAND published a 190-page report, Investigation into the Potential Impact of Wind Turbines on Tourism in Scotland, which included what appears to be a well-conducted survey that showed visitors to be less enthusiastic about turbines than was perhaps expected. It contradicted the findings of an earlier poll commissioned by the British Wind Energy Association and the Scottish Renewables Forum. Four out of five of the visitors interviewed said they came to Scotland for the beautiful scenery and almost all said they valued the chance to see unspoiled nature; More than half agreed that wind-power sites spoiled the look of the countryside, saying that one of their main attractions is the fact that they are few and far between; Over a quarter said they would avoid parts of the countryside with wind developments;

Union is a city that must compete with other cities for tourist dollars and the attraction of diverse talent. As we found no credible evidence of industrial wind installation as an attraction and finding authoritative evidence that industrial wind installations are perceived as something to avoid, this committee asserts that either the project is completely suspended, or a compensation agreement with Horizon Wind be negotiated to offset the negative impacts on tourism and the City of Unions' on going effort to attract a diverse and talented population.

Note: On three occasions Horizon Wind has been asked to provide a visual representation of what the placement of the proposed turbines would look like. They have agreed to provide this representation. The Planning Commission has suggested that a 3D interactive program be made available. To date, Horizon Wind has not been forthcoming with this information.

## **AFFECTS UPON SCENIC AND AESTHETIC VALUES \*OAR345-022-0080**

(1) Except for facilities described in section (2), to issue a site certificate, the Siting Council must find that the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order.

(2) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.

Stat. Auth.: ORS 469.470 & 469.501

Stats. Implemented: ORS 469.501

EFSC 4-1986, f. & ef. 9-5-86; EFSC 7-1986, f. & ef. 9-18-86; EFSC 1-1993, f. & cert. ef. 1-15-93, Renumbered from 345-079-0065; EFCS 5-1993(Temp), f. & cert. ef. 8-16-93; EFCS 1-1994, f. & cert. ef. 1-28-94; EFCS 2-1994, f. & cert. ef. 5-6-94; EFSC 5-1994, f. & cert. ef. 11-30-94; EFSC 2-1999, f. & cert. ef. 4-14-99; EFSC 1-2002, f. & cert. ef. 4-3-02; EFSC 1-2007, f. & cert. ef. 5-15-07

#### COMMITTEE CONCLUSION

The OAR cited above, implies the DOE's interest in scenic and aesthetic values. The proposed installation clearly lies very proximate to the City of Union's city boundary. However, the City of Union has no direct claim or authority over these private lands. The committees understanding is that claim MAY be asserted with the county planning office to amend goal five of the county's comprehensive plan.

Another avenue may exist as some state lands are being utilized. Perhaps a claim can be made under this jurisdiction. This would be a legal question and this committee recommends discussion with the City's attorney.

#### AFFECTS UPON PHYSICAL HEALTH

The two most significant health problems that have emerged for those proximate to wind power installations are: Shadow flicker effects, and infrasonic wave effects.

An Environmental Impact Statement prepared by Noble Environmental, LLC, for the towns of Altona, Clinton, and Ellenburg, NY, spring of 2006 (<http://www.windturbinesyndrome.com/?p=100>) found the following information comparing the distance from wind turbines to households. As a reminder according to document map **2009120105036748**, presented by Horizon Wind, Union city limits are less than a mile way from the proposed wind turban study area.

*"In Lincoln Township, WI, a University of Wisconsin survey of residents near a 22 turbine installation in 2001, 2 years after construction, documented that 44% of residents 800 ft to ¼ mile from the turbines found noise to be a problem in their households, 52% ¼ to ½ mile away, 32% ½ to 1 mile away, and 4% 1 to 2 miles away. Under certain conditions the turbines could be heard up to 2 miles away.<sup>3</sup> These numbers correspond well to measurements made by Dr. GP van den Berg of the University of Groningen in the Netherlands near a more recent 30 MW, 17 turbine installation on the Dutch-German border, where residents living 500 m (1640 ft, or 0.31 mile) and more from the turbines were reacting strongly to the noise, and residents up to 1900 m (1.2 miles) away expressed annoyance."*

*"In a 2005 survey of 200 adult residents within ¼ mile of the French St. Crepin Windfarm, 83% responded. Of these, 27% considered the noise to be intolerable at night, 58% considered the noise to be disturbing, and 10% considered the noise to be disturbing by day. This is only a 6 turbine, 9 MW installation"*

#### COMMITTEE CONCLUSION

These studies for the most part found by this committee are the most compelling and shocking. The City of Union easily falls into the ½ to 1 mile and 1 to 2 mile distance from the proposed Antelope Ridge project. The possible noise annoyance to the community is likely. Once again we recommend that a required 3-5 year study be conducted, beginning immediately and that the cost for this study be borne by Horizon Wind.

#### Infrasonic Wave Effects

The following links concern the effects of noise generated by wind turbines.

<http://betterplan.squarespace.com/the-brownsville-diary-wind-tu/>

<http://www.windturbinenoise2009.org/>

<http://www.wind-watch.org/documents/inadequacy-of-wind-turbine-noise-regulations-and-their-application/>

<http://xenophilus.wordpress.com/2009/05/22/wind-turbine-noise-suspected-of-killing-400-goats-oddly-enough-stv-news/>

<http://www.youtube.com/watch?v=iyOImGHyJtQ> (this is a video/audio site)

#### Shadow Flicker Effects

<http://www.youtube.com/watch?v=iyOImGHyJtQ> (this is a video/audio site)

<http://www.savewesternny.org/health.html>

<http://www.windaction.org/news/c128/>

#### CONCLUSION

The City of Union and this committee acknowledge the importance and relevance of renewable energy in our world today, but at the same time there is a likely possibility the City of Union will be directly damaged from the proposed project. City of Union over the last few years has built a golf course, waste water facility plant, athletic complex, health clinic, revised our comprehensive plan, built new visitor friendly restrooms all in hopes of attracting a diverse population. Studies show the finer points recently revamped in our community to improve our well-being will be directly affected by the proposed Antelope Ridge project. The committee has learned from studies and reports that the Courts, property owners, building inspectors and Banks have found wind farms to have a strong negative influence on their surroundings.

Unlike many wind farms, the Antelope Ridge project is unusual in its proposed sighting for the fact that the wind turbines will be placed above our rooftops in a horseshoe shape, many of them within less of a mile. People move to Union for the remarkable backdrop

and the peaceful and beautiful surroundings. We do not have manufacturing or big business with high paying jobs, what we do have is community character.

Promised jobs and economic benefits are words we are hearing from Horizon Wind and local and State Representatives. Union has learned that these guarantees are short lived all while this type of project is long-term. Our efforts to attract a diverse population will become more difficult and challenging. We will have to work harder at sustaining current businesses and property owners. We are in hopes the Siting Council will see that the City of Union will not benefit economically from the proposed wind farm; on the contrary, there is a strong likelihood Union will be affected negatively.

While Union City Council understands the need for this project, the question of the possible negative impacts on property values and our economic future, clearly shows a need for a solution to maintain our way of life. Union City Council has an obligation to focus on sustaining Union's future, not diminishing it. The City Council of Union Oregon is looking out for Union's best interest, for we and our citizens and business owners have dedicated a great deal of our lives to making Union the best it can be for future generations. The City of Union's potential is in our future and many of our possibilities remain untouched.

If you have any questions or concerns please contact the City Administrator Sandra Patterson at City Hall 541-562-5197. Thank you for your time.

Sincerely,



William C. Lindsley  
Mayor

CC: Governors Office  
Horizon Wind