

ECONOMIC IMPACT STUDY OF WIND FARM DEVELOPMENT IN CHAMPAIGN COUNTY, OHIO

November 13, 2007

PREPARED FOR:

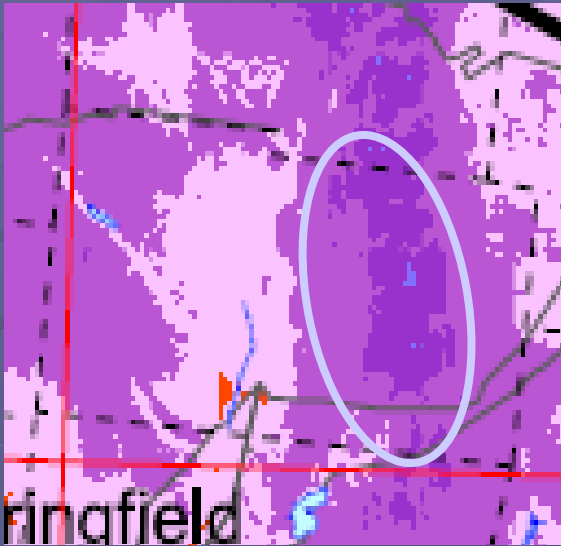
CHAMPAIGN COUNTY WIND TOWER STUDY GROUP (WTSG)

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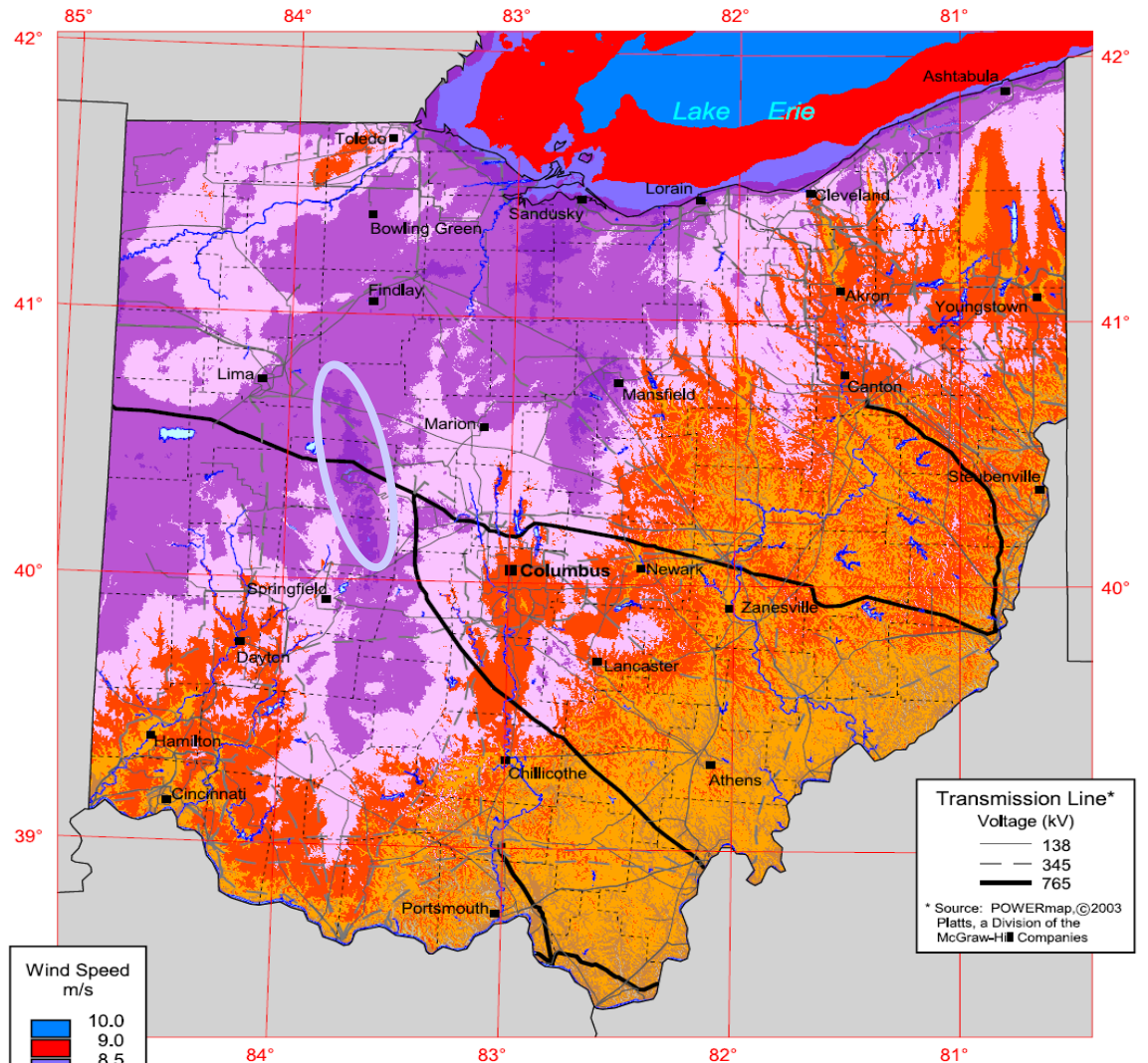
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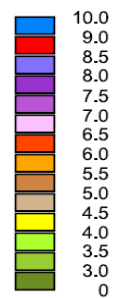
Champaign County



Ohio - Annual Average Wind Speed Estimates at 100-m Height

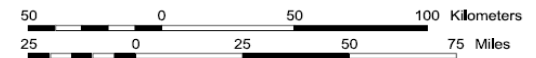


Wind Speed
m/s



Total wind energy potential from windy lands (7.2 m/s and greater) = 66,000 MW (land-based development only).

Sensitive environmental lands, urban areas, airports, and water bodies (such as Lake Erie) are excluded.



Transmission Line*
Voltage (kV)
— 138
— 345
— 765
* Source: POWERmap, ©2003 Platts, a Division of the McGraw-Hill Companies



U.S. Department of Energy
National Renewable Energy Laboratory

Study Scope

This study was requested by the Champaign County Wind Tower Study Group (WTSG) with the following scope:

- Educate and inform the WTSG, public officials and residents on the potential local economic impact of wind farm development in Champaign County.
- Limited to potential economic impacts on the Champaign County region with special emphasis on property tax revenues for the County, Union and Wayne Townships.

Study Assumptions & Limitations

- Uses notional 100MW and 300MW installations with 2.3MW turbines and existing US project data, literature, interviews and models to forecast local economic impacts.
- Assumes wind tower installations will be taxed in a fashion similar to utility real estate. As of the release date of this study, there has not been a final determination made by the State of Ohio on how wind farm installations will be taxed.
- Provides only a review of selected economic impacts. In using it as a tool for decision making, this study should be considered within the broader context of a comprehensive review of other possible impacts of wind farm development.
- As with any forecast made with historic information and regional examples, the timeworn caution that “past performance may not be an indicator of future returns” applies to this study.

Study Format

● LOCAL ECONOMIC IMPACT SUMMARY

- A Jobs and Economic Development Impact Model (JEDI-WIND) was used to analyze the potential local economic impact of the wind farm project.

● POTENTIAL IMPACT ON PROPERTY VALUES

- Concerns have been raised about the potential negative impact of wind farm development on property values within the view shed. Results of other studies are shared to address these concerns.

● TAX BASE AND OPEN SPACE IMPACT COMPARISON

- To better comprehend the level of investment presented by a wind farm, and its potential impact on tax base revenues and open space, estimated wind tower investment was compared with an equivalent investment in rural residential development.

Economic Impacts using JEDI-WIND Model

100MW Summary

Project Construction Cost	\$190,000,000
Local Spending - Construction	\$17,414,641
Total Annual Operational Expenses	\$30,562,117
Direct Operating & Maintenance Costs	\$1,550,000
Local Spending – O&M	\$1,179,153
Land Lease	\$616,000
During Construction	Jobs
Direct Impacts	144
Construction Only	140
Indirect Impacts	54
Induced Impacts	75
Total	273
During Operations	Jobs
Direct Impacts	22
Plant Workers Only	9
Indirect Impacts	5
Induced Impacts	9
Total	37

300MW Summary

Project Construction Cost	\$570,000,000
Local Spending - Construction	\$52,243,924
Total Annual Operational Expenses	\$92,710,750
Direct Operating & Maintenance Costs	\$4,650,000
Local Spending – O&M	\$3,537,458
Land Lease	\$1,834,000
During Construction	Jobs
Direct Impacts	431
Construction Only	421
Indirect Impacts	163
Induced Impacts	225
Total	819
During Operations	Jobs
Direct Impacts	67
Plant Workers Only	27
Indirect Impacts	16
Induced Impacts	28
Total	111

Local Real Property Tax Impacts

Project Summary of a range (25%-100%) of possible Annual Real Property Tax Revenues for a 100MW Wind Farm
Property Tax Summary

Assessed	25%	35%	50%	65%	75%	85%	100%
Local Tax	\$166,250	\$232,750	\$332,500	\$432,250	\$498,750	\$565,250	\$665,000

Project Summary of a range (25%-100%) of possible Annual Real Property Tax Revenues for a 300MW Wind Farm
Property Tax Summary

Assessed	25%	35%	50%	65%	75%	85%	100%
Local Tax	\$498,750	\$698,250	\$997,500	\$1,296,750	\$1,496,250	\$1,695,750	\$1,995,000

Notes:

- The analysis assumes wind farm taxed at local commercial real property rates
- Local Tax = construction cost x assessed % x 35% x 1% property tax rate
 - Assessed value based on listed percent of construction costs
 - Taxable value is 35% of appraised value
 - Local property tax rate of 1% represents average commercial rate, reduction factor and rollback in Union & Wayne Townships
- The analysis may represent tax revenues at different abatement levels

Potential Impact on Property Values

“The review of existing studies indicates that it is difficult to generalize about potential property value impacts and that either negative or positive projections of impacts using the current literature and methodologies are uncertain at best.

Criticism has been leveled at all studies regarding the qualifications of the authors, methodologies and conclusions.

The only safe conclusion one can draw from the body of work done on this topic is that there is no definitive understanding or conclusion on the impact wind power development has on property values.”

Tax Base and Open Space Impact Comparison

Number of Average Homes producing Annual Property Tax Revenues equal to 100MW & 300MW Wind Farm

Property Tax Comparison

	25%	35%	50%	65%	75%	85%	100%
100MW Tax	\$166,250	\$232,750	\$332,500	\$432,250	\$498,750	\$565,250	\$665,000
# of Homes	113	158	225	292	337	382	449
300MW Tax	\$498,750	\$698,250	\$997,500	\$1,296,750	\$1,496,250	\$1,695,750	\$1,995,000
# of Homes	337	472	673	875	1010	1145	1347

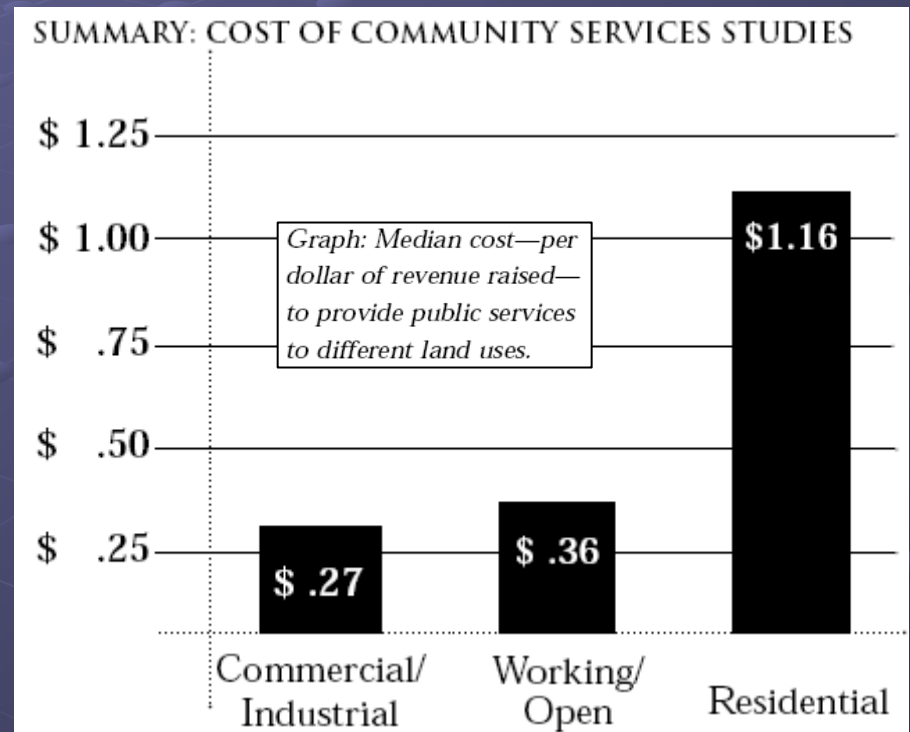
Notes:

- Number of Homes fractions were rounded up to the next whole home
- Home Tax = Average home value x 35% x 1% property tax rate
 - Average 2006 home value from Champaign County Building Regulations Department
 - Taxable value is 35% of appraised value
 - Local property tax rate of 1% represents average residential rate, reduction factor and rollback in Union & Wayne Townships

Cost of Community Services Studies

In a November 2002 Fact Sheet on COCS Studies the American Farmland Trust (AFT) concludes:

- “Working and other open lands may generate less revenue than residential, commercial or industrial properties, but they require little public infrastructure and few services. COCS studies conducted over the last 15 years show working lands generate more public revenues than they receive back in public services.”
- “On average, because residential land uses do not cover their costs, they must be subsidized by other community land uses.”
- “Converting agricultural land to residential land use should not be seen as a way to balance local budgets.”



Source:


American Farmland Trust

Study Conclusions

- Significant positive local property tax impacts are possible assuming that the wind towers will be taxed at local real property rates and that those revenues would accrue locally.
- Local spending, job creation, lease payments and earnings and outputs would accrue to the region regardless of the tax status of the wind towers.
- There is no definitive understanding of or conclusion on the impact wind power development has on property values.
- Maintaining a healthy, equitable and sustainable tax base requires a pace of residential development that is balanced by commercial development and conserving open/farm lands. Wind farm development could offer an opportunity to develop Union and Wayne Townships, and more broadly Champaign County, in a more fiscally responsible manner than its current trend toward a “bedroom community.”

Thank You!

FOR MORE INFORMATION CONTACT:

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