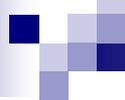


Model Ordinance for Wind Energy Facilities in Pennsylvania





Development of the Model Ordinance

- The Model Ordinance was developed in 2006 by a working group established by the Governor's Office, which consisted of wind developers, municipal and county associations, and citizen groups.
- The Model Ordinance was developed over a period of six months of meetings and communications between the groups.



Goals

- The Ordinance is intended to establish a uniform framework to promote wind development in a manner that protects the public health and welfare.
- As a model, the ordinance is intended to be integrated into existing zoning laws.
- The Model Ordinance did NOT attempt to address the impacts of wind on wildlife.

To Whom Does It Apply?

- All Wind Energy Facilities proposed to be constructed after the effective date of the Ordinance, and
- Any physical modification to an existing Facility that materially alters the size, type and number of Turbines or other equipment.
- The Ordinance does not apply to small, stand-alone wind turbines that serve homes or farms.

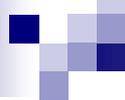
How Does It Work?

- It works like a building permit system.
- No new Facility may be constructed, and no existing Facility may be materially altered unless the owner or operator first obtains a permit.
- Provision is made for the submission of an administrative fee to accompany the permit application.

What must be in the permit application?

Section 7 sets forth the basic informational requirements in an application:

- A facility description.
- Property owner agreements.
- Site plans with setbacks.
- Decommissioning documents.
- Other documents necessary to ensure compliance with the Ordinance.



Timeline for Action

- 30 days after receipt of an application, the municipality determines whether the application is complete.
- 60 days after the application has been completed, a hearing is scheduled.
- 120 after the application is complete or 45 days after the close of any hearing, whichever is later, a decision is made.

Section 8: Design Standards

- The Facility must conform to applicable industry standards.
- Certificates of design compliance obtained by the equipment manufacturers must be submitted
- The Facility must comply with the PA Uniform Construction Code, where applicable.
- Redundant breaking systems must be employed.
- Electrical components must comply with applicable local, state and national Codes.

Design Standards

- The Turbines must be painted a non-obtrusive color.
- No artificial lighting may be used, unless required by the FAA.
- Advertising on Turbines is limited.
- Power lines must be underground to the maximum extent practical.

Design Standards

- The Ordinance provides for warning signs about transformers and substations, and along guy wires where used.
- The Turbines must be designed to prevent persons from climbing the towers.
- Electrical equipment shall not be accessible by non-authorized persons.
- The Turbines must be designed to prevent persons from climbing the towers.
- Electrical equipment shall not be accessible by non-authorized persons.



Setbacks

Setbacks are established for two purposes:

- Public Safety (dropped turbine)
- Public Health and Welfare (background noise and shadow flicker)



Setbacks

Public Safety

- 1.1 times turbine height

Public Welfare (nuisance issues)

- 5 times hub height (could also be turbine height)

Setbacks are applied to:

- Occupied Buildings
- Property Lines
- Roads
- Farm Buildings not addressed



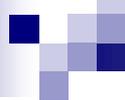
Setbacks

Participating and non-participating landowners

- Landowners that participate in the development project are protected by setbacks established to protect public safety
- Landowners that do not participate in the development project are also protected by setbacks established to protect public health and welfare (nuisance issues)

Setbacks

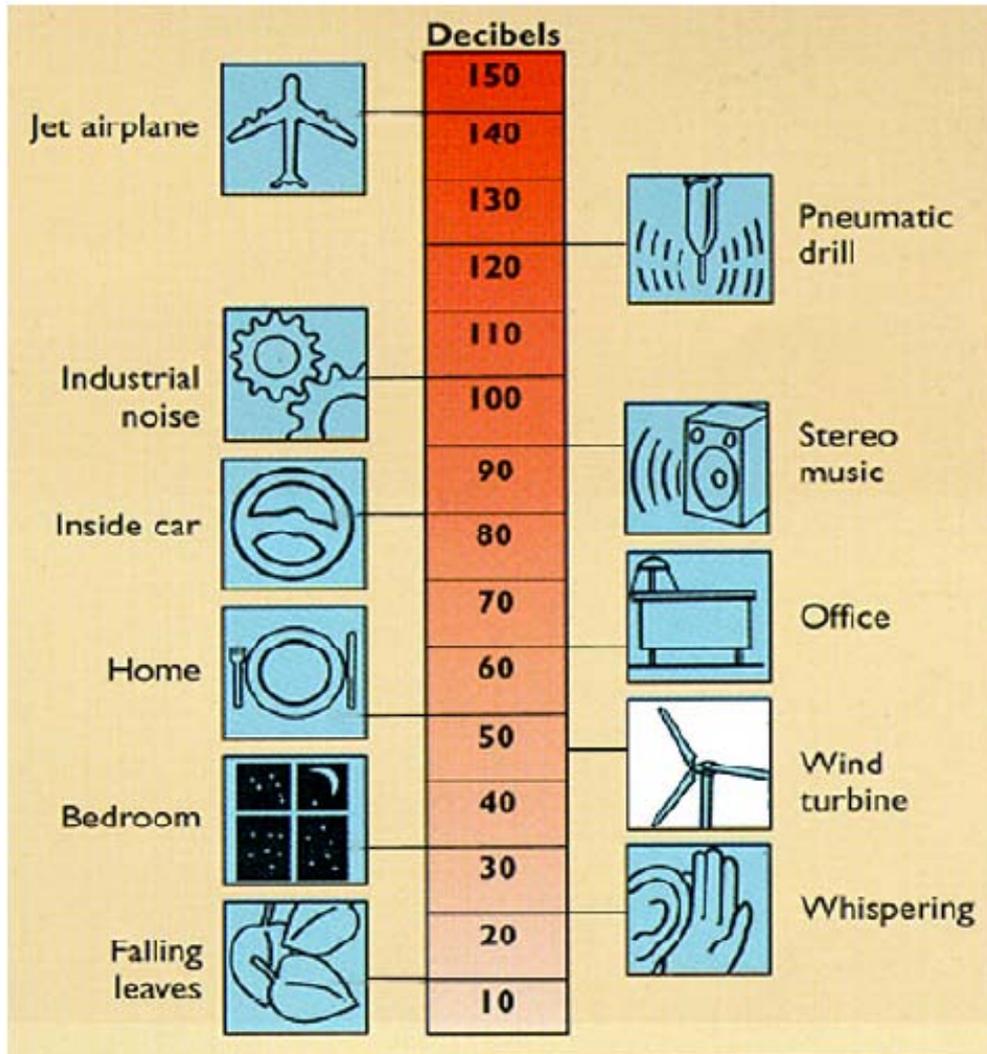
- Occupied Buildings
 - 1.1 times the Turbine Height on all
 - 5 times the hub height for non-participating landowners
- Property Lines
 - 1.1 times the turbine height for all property lines



Noise and Shadow Flicker

- The Model establishes a measurable noise standard of (55) dBA at exterior of an Occupied Building on a Non-participating Landowner's property.
- The Model requires the operator to make reasonable efforts to minimize shadow flicker.

Noise



- Modern wind farm at a distance of 750 to 1000 feet is no noisier than a kitchen refrigerator

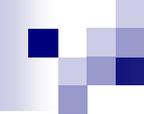
Waivers

- The safety setback provisions that protect all occupied buildings may **NOT** be waived.
- The setbacks that seek to protect against nuisance type issues (shadow flicker, noise) may be waived by the landowner.
- Landowners are protected in their negotiations because the waivers must be informed and recorded.
- The municipality may waive the setback that applies to public roads for good cause.



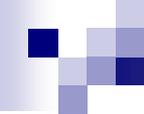
Use of Public Roads

- State and local roads must be identified and inspected by the municipality or a qualified third party pre-construction.
- A bond and financial assurance are required.
- Damage must be “promptly” repaired, with adequate accommodation for weather.



Signal Interference

- The Ordinance requires that the applicant make reasonable efforts to avoid disruption in various signals, and mitigate any harm.



Liability Insurance

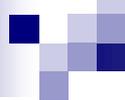
- General liability insurance is required.
- \$1 million dollars per occurrence.
- \$1 million dollars in aggregate.
- Certificates must be made available upon request.

Decommissioning

- Purpose is to ensure cleanup within a reasonable time at owner operator expense.
- No similar provision applies to any other industry that engages in lawful activities.
- To be completed 12 months after Facility or an individual Wind Turbine ceases producing electricity.
- Includes removal of all components that make up the Wind Energy Facility:
 - turbines, buildings, cabling, electrical components, roads and foundations up to 36 inches deep.

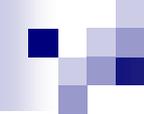
Decommissioning Funds

- Owner/Operator must post and maintain a fund to ensure decommissioning.
- An independent engineer must establish the decommissioning costs (with and without salvage value), and review the estimate every five years.
- The Owner/Operator must maintain funds equal to Net Decommissioning Costs (which takes into account salvage value) At no time may the funds be less than 25% of Decommissioning Costs.
- The funds must be posted with an acceptable bonding company or lending institution authorized to do business in Pennsylvania.



Decommissioning Funds

- If the Owner/Operator fails to complete decommissioning, the Landowner has six (6) months to do so.
- If neither the Owner/Operator nor the Landowner complete decommissioning, the municipality may take such measures as necessary to decommission the facility.

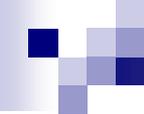


Public Inquiries and Complaints

- The Owner/Operator must maintain a means by which the public can communicate with them, and make reasonable efforts to respond to the public's complaints and inquiries.

Adoption of Model Ordinance

- Oct. 2008 survey of 50 townships and counties in Pennsylvania.
- 29 townships or counties had zoning ordinances pertaining to commercial wind development.
 - 16 followed provisions in model.
- Most had setbacks close to the model.
- Noise limits ranged from 45 to 55 dBA at non-participant occupied building.



Questions/Comments:

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