

**Original Questions:**

1. Is there an ironclad agreement for someone to remove the towers when and if they become obsolete for any reason? [See response below.](#)
2. Are there any agreed upon ways to structure a decommissioning escrow fund that guarantees sufficient funds if a wind farm needs to be decommissioned? [See response below to M1.](#)
3. How are decommissioning costs determined? What is the best way to determine accurate decommissioning costs? Do subsequent purchasers of an energy project automatically become liable for decommissioning costs? If not, what language should there be in our ordinance for that to happen? [See response below.](#)
4. How can the township make sure there are funds to insure the wind project is decommissioned properly and the land restored back to normal when the wind projects life is completed? [See response to questions M1, M3 and M14.](#)
5. Can the community/township ask for cash only on a decommissioning fund? [Needs further clarification.](#)
6. What kind of escrow protections are typically used to protect landowners and the communities from abandonment of a turbine or wind farm? [See response below.](#)
7. What assurance do we have for the decommissioning procedure? Is there a bond that will be imposed? If the contract includes decommissioning and removal, why would this be a “deal breaker?” [Project specific.](#)
8. What is the proper language regarding decommissioning of turbines, specifically bonding certified letters of credits from agencies or companies that are familiar with decommissioning large projects such as landfills, etc.? [See response to question FF4.](#)
9. What type of bond should be required from the energy companies to ensure proper decommissioning and/or resolution is funded? [See responses to question D10 and D11.](#)
10. Once the “life span” of 20-25 year of the wind turbine is up, will these bonds be there for demolition? [See response to question D10 and M1.](#)
11. What controls are in place that will ensure these don’t become abandoned if any of the companies installing and/or using the wind turbines should fail? [See response to question M1.](#)
12. What will happen to the equipment if a particular facility is abandoned and what will happen to the base the equipment sits on should the facility be abandoned? [See response to question M1.](#)
13. How long is the anticipated life of a wind turbine tower? Who will clean them up when their original owners are gone? [See responses to questions M3 and M14.](#)
14. What is the life of a turbine? What happens when the turbine ceases to work, or is superseded by a more efficient means of generating power? Are there plans in place to dismantle the windmills if and when they become obsolete, or will they be a landmark/eyesore on our Lake Michigan skyline forever? [See response below.](#)
15. Wind turbines are audio-ally, visually, and perhaps ultrasonically polluting, who dismantles or is responsible for these devices after their service life? [See response to question M1.](#)
16. Who becomes responsible for their removal once they are no longer used? [See response to question M1.](#)
17. How many projects in the country are there currently that have not been properly decommissioned beyond a one year time limit of their suspension? What is happening to those projects? [Beyond scope of project.](#)
18. As green technology advances and the inevitable loss of subsidies and tax incentives, the likelihood of the turbines becoming obsolete is a real concern. Therefore, proper decommissioning ordinance language and acceptable funding methods to remove the obsolete turbines is needed. What guarantees will be provided from Day 1 for decommissioning and removal? [See response to question M1.](#)
19. Are there any examples where a good job of decommissioning was done? [See response to M3.](#)
20. When would the wind turbines be removed? Would removal include removing the poured foundations & access roads? [See response to question M14.](#)

## **Questions and Responses:**

*These questions may have been recategorized and reorganized. Some may have been sent to another “theme” area (this will have been explained in red under the “Original Questions” section). In other cases two or more questions will be answered with one response.*

NOTE: The U.S. Fish and Wildlife Service (USFWS) has published a 166 page document titled “Wind Turbine Guidelines Advisory Committee”, which provides recommendations for decommissioning wind facilities (pages 65-66). Although their guidelines are not legally enforced – and in many cases they will not be followed precisely by wind developers – they are helpful in understanding how decommissioning may occur for some projects. The full report can be accessed online at

[http://www.fws.gov/habitatconservation/windpower/Wind\\_Turbine\\_Guidelines\\_Advisory\\_Committee\\_Recommendations\\_Secretary.pdf](http://www.fws.gov/habitatconservation/windpower/Wind_Turbine_Guidelines_Advisory_Committee_Recommendations_Secretary.pdf)

M1. Is there an ironclad agreement for someone to remove the towers when and if they become obsolete for any reason?

**Response:** The decommissioning, along with other operational and maintenance responsibilities, varies from project to project based on the terms of the contract signed by the developer. Typically these compliance monitoring agreements will include conditions to be met before, during, and after wind farm operation. For a detailed list of common responsibilities often taken up in these contracts, refer to the “Active Compliance Monitoring” section in Chapter 2 of the “Permitting of Wind Energy Facilities” handbook. This is online at <http://www.nationalwind.org/assets/publications/permitting2002.pdf>.

M3. How are decommissioning costs determined? What is the best way to determine accurate decommissioning costs? Do subsequent purchasers of an energy project automatically become liable for decommissioning costs? If not, what language should there be in our ordinance for that to happen?

**Response:** Decommissioning cost varies based on the project, the equipment, and the agency doing the monitoring. Decommissioning provisions are an important part of the final negotiations and involve the removal of turbines and equipment from the project site, and restoring the site to its original conditions. A bond or Letter of Credit is often posted to assure the cost of the decommissioning is covered. The amount posted depends on the projected salvage value of the turbines and other equipment.

M6. What kind of escrow protections are typically used to protect landowners and the communities from abandonment of a turbine or wind farm?

**Response:** See responses to questions D10 and D11. The Township can require a performance guarantee to the extent necessary to insure the faithful completion of the wind project.

M14. What is the life of a turbine? What happens when the turbine ceases to work, or is superseded by a more efficient means of generating power? Are there plans in place to dismantle the windmills if and when they become obsolete, or will they be a landmark/eyesore on our Lake Michigan skyline forever?

**Response:** Although decommissioning varies by project, the responsibility to do so is that of the wind farm developer. The USFWS’s “Wind Turbine Guidelines Advisory Committee” provides some useful guidelines which may be followed. This document is online at [http://www.fws.gov/habitatconservation/windpower/Wind\\_Turbine\\_Guidelines\\_Advisory\\_Committee\\_Recommendations\\_Secretary.pdf](http://www.fws.gov/habitatconservation/windpower/Wind_Turbine_Guidelines_Advisory_Committee_Recommendations_Secretary.pdf)

Likewise, it is useful to look through examples of decommissioning plans from other projects to get a sense of what the process will look like (although it will ultimately be carried out differently). For examples, see the “Hounsfield Wind Farm Decommissioning Plan” from New York. It is accessible at [http://www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/hnsfldappendix.pdf](http://www.dec.ny.gov/docs/permits_ej_operations_pdf/hnsfldappendix.pdf). Also see North Dakota’s “Wind Turbine Decommissioning Legislation” for a sample of what is being developed elsewhere. It is

accessible at <http://www.legis.nd.gov/information/acdata/pdf/69-09-09.pdf>. A model ordinance for Pennsylvania communities that details decommissioning is available from the organization Penn Futures at [http://www.pennfuture.org/UserFiles/ModelWindOrdinance\\_Final3\\_21\\_06\\_.pdf](http://www.pennfuture.org/UserFiles/ModelWindOrdinance_Final3_21_06_.pdf).