

Theme: Costs of Wind Energy

ID Letter: W

Original Questions:

1. How much does wind energy cost to produce in comparison to other forms of energy? *See response to question Y10.*
2. How does the cost of wind power compare to that of a new coal plant? *See response to question L1.*
3. Is the price of energy from wind as volatile as energy prices from fossil fuels? *See response below.*
4. Are consumers paying for the “cost” of green energy? *Needs further clarification.*
5. What is the cost if we don’t switch to green, renewable energy? *See response below.*
6. What is the true cost of wind energy? Will it raise our cost of energy? *See response to question Y10.*
7. Why does Denmark, who gets 20% of their energy from wind, pay the highest rates for electricity in the world? *Beyond scope of this project.*
8. What exactly is the savings in energy costs for a household in the areas affected? I understand that landholders will benefit directly from the value of their leases, but what will the effect be on the typical resident of a town? *Project specific.*
9. How about some cost/benefit figures? Is the power generated by the windmills worth the expense of the installation and the actual cost of purchasing the windmills? *See response below.*
10. What are the facts that support wind energy as a financially viable source of power? Has Duke Energy, DTE, Consumers Power, GE or others produced reliable financial projections that demonstrate the viability and affordability of wind energy? *See response to question L1 and Y10.*
11. What will be the projected increase in utility bills for residents of the area and in the State of Michigan? *Needs further clarification.*
12. If a wind project is built in a township there will be significant administrative costs to the township. Can you make an estimate of the cost per turbine that should be required by the developer to put in escrow to pay for township administrative costs? *See response below.*

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.

W3. Is the price of energy from wind as volatile as energy prices from fossil fuels?

Response: In general, the price of wind energy is not nearly as volatile as the price of energy from fossil fuels. Because nearly half of our oil is imported, the price of energy for these sources can fluctuate dramatically within a short period of time. Wind energy, because it is produced domestically and is a renewable resource, does not have comparable extreme price fluctuations. To read more information on the price of wind energy compared to fossil fuels, see the response to question Y10 in the “Oil and Gas Industry” thematic section.

W5. What is the cost if we don’t switch to green, renewable energy?

Response: A comprehensive response to this question is beyond the scope of this project. Traditional fossil fuel energy sources have already had numerous impacts on humans and the environment, ranging from health impacts, ecosystem disruptions, and political instability. Many scholars have tackled this question. For further information, read *The End of Oil* by Paul Roberts. Additionally, the Union of Concerned Scientists has

information about the costs of traditional fuels in the country http://www.ucsusa.org/global_warming/ and in the Midwest http://www.ucsusa.org/global_warming/regional_information/midwestern-states.html and why renewable fuels are important http://www.ucsusa.org/clean_energy/.

W9. How about some cost/benefit figures? Is the power generated by the windmills worth the expense of the installation and the actual cost of purchasing the windmills?

Response: In recent years, wind energy has become increasingly cost competitive, both in terms of manufacturing and construction, and in terms of the price of electricity it generates. To read more about the lifecycle costs of wind energy, see the studies provided in response to question L1 in the “Alternative Forms of Energy” thematic section. To read more about the price of electricity from wind energy, see the response to question Y10 in the “Oil and Gas Industry” thematic section.

It should be noted that the cost of transmission lines and pump storage facilities are not included in the cost estimates of wind energy.

W12. If a wind project is built in a township there will be significant administrative costs to the township. Can you make an estimate of the cost per turbine that should be required by the developer to put in escrow to pay for township administrative costs?

Response: There should be no added cost to the Township. All expenses should be handled through an escrow account. The escrow account should be set at an initial \$15,000.00 per application. Various professional, planners, engineer, attorney and township administrative staff would charge at their respective hourly rate. Other costs related to the township's processing of the application would be paid out of the escrow account (advertising, mailings, copies, postage).