

**1. Please explain how Western Maryland would be more than 99% dependent on mostly “dirty” power sources if thousands of wind turbines are constructed (p. 6).**

This is my actual statement: “Consequently, even if we constructed thousands of massive turbines to replace the one percent of electricity that oil now produces in the region, Western Maryland would still be more than 99 percent dependent on other, mostly “dirty” power sources.” The issue at hand is whether wind energy would reduce our dependence on foreign sources, as Synergics claims, which dependence is mostly in terms of oil. According to Allegheny Power's Energy Source fact sheet for 2004, the following “energy sources were used to generate electricity for the PJM region, of which Allegheny Power is a member...”: Coal—53%; gas—7%; nuclear—37%; *oil—1%*; assorted renewables—2%. Given that wind only produces electricity, given that we use so little oil for electricity production, and even if large numbers of wind turbines displaced the one percent of our electricity now powered by oil, the region would still be 60 percent, that is, mostly “dependent,” on coal and gas, power sources often described as “dirty”—and we would still be mightily dependent on foreign oil, contrary to what Synergics claims.

**2. Please provide a source, and the document if available, for your statement on page 13: “An examination of a lease from another wind company reveals provision for an initial, one-time payment (from \$500 to \$1,000) to reserve a turbine lease and pledges a minimum annual rental income of about \$1500 per turbine against a small percentage of the power the turbines actually produce, generating at maximum about \$2500 per turbine.”**

Clipper Windpower signed an estoppel easement agreement on January 15, 2003 with the Garrett County Sanitary Commission that provides for \$500 per year in compensation during the “evaluation period” and, during the “operating period,” a minimum rent of \$1000 per year per turbine against a “royalty percentage” of 2 -3 percent of gross operating proceeds. (See Sections 1 and 5 ) This agreement is public information and available upon request from the Board of Garrett County Commissioners. Since Clipper has not disclosed its estimated “gross operating proceeds,” the landowner can only rely on the stated minimum rent of \$1,000—and perhaps not even this, since the easement agreement is unsecured.

**3. Please provide a source, and the document if available, for the statement in Tom Horton’s Baltimore Sun column that states: “Consider a Department of Energy Study. It shows that nationwide, moving to 10 percent renewable energy would still see coal burning increase substantially—because of rapidly growing electrical demand.”**

Mr. Horton should supply his own documentation, and I'm confident he would do so if asked.

**4. Please provide a source for, and the document if available, for your statement on page 9 that “our demand for electricity will likely nearly double in 30 years.”**

According to the US Energy Information Agency, total electricity sales are projected to increase at an average annual rate of 1.9 percent, from 3,481 billion kilowatt hours in 2003 to 5,220 billion kilowatt hours in 2025. From 2003 to 2025, annual growth in electricity sales is projected to average 1.6 percent in the residential sector, 2.5 percent in the commercial sector, and 1.3 percent in the industrial sector. (Annual Energy Outlook, 2005. Energy Information Agency, Department of Energy. [www.eia.doe.gov/oiaf/aeo/electricity.html](http://www.eia.doe.gov/oiaf/aeo/electricity.html).)

That seems to be a low projection – at least when compared to the Associated Electric Cooperatives member sales which seem to be growing about 2.9% per year on average, according to energy expert Glenn Schleede in his comments before the owners and members of the Associated Electric Cooperative, Incorporated at their 2004 Annual Meeting in St. Louis, Missouri on June 24, 2004. Schleede also shows in this same commentary (page 10) that the national supply of electricity more than doubled in the 30 years between 1970 and 2000. I would be happy to send you a copy of that report if desired.

Last year, the Maryland Public Interest Research Group (MaryPirg), as part of its testimony to the Maryland legislature on behalf of Renewable Portfolio Standards, projected an annual rate of increase for the state of 2.5 percent each year (I have not been able to secure documentation of this projection as yet, made more difficult because it was part of an oral presentation). Using the former projection at 2 percent per year, the present demand would double in 35 years. Using the latter projection at 2.5 percent, it would double in a little over 28 years. In either case, the electricity that Synerics' might produce would be quickly engulfed by this increased demand.

**5. Please provide a source for, and the document if available, for your statement on page 11: “the average per turbine tax payment in 2003 was only \$528, a combined property tax payment of \$7, 388 on machines that cost nearly \$20 million to install.”**

Somerset County, PA Commissioner Pamela Tokar Ickes, 2004, in a presentation she gave to a wind power conference near Pittsburgh.

**6. Please describe what you mean when you state on page 12 that “since this project will lease private land, the county will receive little additional property tax.”**

Because real property assessments are revised every three years, it remains to be seen whether individual property assessments will be increased or decreased on properties where turbines are erected. Any change, however, would be small if the land remains in

agricultural use. Moreover, it also remains to be seen what impacts turbine nuisances—noise, shadow flicker, view obstruction, among others—will have on assessments of adjacent and nearby properties.

**7. Please provide the source, and the document if available, for your statement on page 12: “Wind leases are typically written to favor the developer, restricting the owner’s use of the land for up to 35 years.”**

Please see the Clipper Windpower easement agreement referred to in Question 2. Note Sections 1.4 and 1.5 for lease terms.

Aside from saddling the county's citizens with an onerous obligation, the contract also places property owners who live near the proposed wind turbines at risk. The contract specifies that the wind developer can make noise without hindrance on the leased property, which noise will likely spill over to adjacent properties. The contract also stipulates that the wind developer has the right to the free flow of the wind, effectively controlling not only what can and what cannot be built on the property but also where any building can take place. The contract gives the developer veto power over hunting on the land. The grant of easement permits the wind developer rights to use any and all the property at the developer's discretion, including provisions for unlimited ingress and egress at any time, for transmission lines, for building any structures, wires, fences, buildings at any place the developer deems necessary, for allowing access at any time to any of its employees—and “an easement for any sound waivers or noise emitted from the wind turbine generators or other equipment.” See sections 2, 3, and 7.

Further, the agreement stipulates that the owner “*shall join with* [my italics] the developer in requesting all infrastructure modifications and ..any and all zoning changes or other land use permits and/or approvals necessary to the developer....”. Section 12, and note that this agreement was signed before the CPCN was approved.

In the words of one contract lawyer who has reviewed the document, it may well be an “unconscionable contract,” so lop-sided in favor of the developer that it is unconstitutional.

**8. Please provide the source, and the document if available, for your statement on page 12: “Turbine leases also may allow abandoning all equipment to the property owner, providing little or no indemnification for any decommissioning, removal, or restoration costs.”**

Because this contract was signed well before the PSC mandated a provision for some compensation toward the cost of removing the turbines, the owner would have had to pay for this out of pocket if intervenors had not insisted the PSC address this issue.

Section 11.3 states: “On the termination of this Agreement, Developer shall peaceably and quietly leave, surrender and return the Property to the Owner. Developer shall have

sixty (60) days from the date of termination to remove any and all equipment, improvements, fixtures and other property owned or installed by Developer or its affiliates, and Owner grants Developer a license for such purposes. *Failure by Developer to remove any such items shall be deemed an abandonment of such items to Owner* (my italics).”

Neither the PSC nor the Power Plant Research Program, through January of 2003, had addressed the decommissioning issue for the Clipper project—other than agreeing with Clipper's assessment that they need not do anything. The PSC and DNR only responded to this question when it received a strong letter from Garrett County's state delegate George Edwards, demanding that decommissioning concerns be addressed—and Delegate Edward's himself was responding to the concerns of his constituents made in a February 2003 meeting that he stimulate some action.

**9. Please provide the source, and the document(s) if available, for your statement on page 12: “And they often include noise and other “nuisance” easements, holding the developer harmless from legal responsibility if his machines create such nuisances.”**

See my response to Question 7. Also, refer to the indenture documents mentioned in my direct testimony (which can be found at the Somerset County, PA Courthouse) and to Attachment I, *Life Under a Windplant*.

One example: An indenture agreement signed on August 16, 2002 between an adjacent property owner Jeffrey A. Ream (Grantee), and Somerset Windpower, LLC (Grantor) stipulates that “... subject to the acknowledgment by Grantee that the property ... is in close proximity to wind powered turbines .. which may be regarded under existing laws or laws hereafter enacted... as a nuisance or other violation of the law, resulting from, including but not limited to noise, lights, air movement, odor, dust, vibration, traffic, obstruction of view, light and/or air current, ,, Grantee and for Grantee's heirs, personal representatives, successors, and assigns, does hereby waive and release any and all rights, claims, damages and/or losses of whatsoever kind and/or nature which may now exist or hereafter occur... on or under the adjoining property or any other property in the vicinity of the subject property now or hereafter leased or owned by the Grantor, its successors and assigns. ... Grantee... does hereby agree to protect, indemnify and save harmless the Grantor ... now and hereafter by a covenant running with the land in perpetuity.”

**10. Please provide the source, and the document(s) if available, for your statement on page 13: “An examination of a lease from another wind company reveals provision for an initial, one-time payment (from \$500 to \$1,000) to reserve a turbine lease and pledges a minimum annual rental income of about \$1500 per turbine against a small percentage of the power the turbines actually produce, generating at maximum about \$2500 per turbine.”**

See my response to Question 2.

**11. Please explain how if a wind lessor does not reside locally, the local economy will not benefit from any increased income tax.**

Income tax proceeds accrue to the jurisdiction of “official” residence.

**12. Please provide the source, and the document, if available, for your statement on page 23: “Realtors doing business near windplants in the western United States and in Europe understand that property will sell for between ten and thirty percent less than previous market value, depending upon how close it is to the windplant.”**

Please see the June 10, 2005 direct testimony before the Wisconsin Public Service Commission (Docket No. 9300-CE-100) of Kevin L. Zarem, an appraiser and President of Metropolitan Appraisal in Mequon, Wisconsin. Mr. Zarem estimates that residential property near a proposed windplant “will likely be in the 17%-20% loss range.” [Page 10] And this based solely upon visual impact. He did not assess potential loss due to wind turbine noise, motion, or shadows.

Mike Pederick, an estate agent with Rendells, a real estate firm in England, confirms that plans to erect three 340 foot tall wind turbines less than a half mile from the Devon home of Richard and Lynee Lethbridge “have wiped 20-30 per cent off its value.” “It's not going to help many properties within a mile of it," he adds. "People move to the area for its beauty." (London Daily Telegraph, January 26, 2005.)

A Furness, England couple won a legal ruling proving that the value of their home has been "significantly diminished" by the construction of a windplant nearby. Barry Moon and his partner live near wind turbines at the controversial Ireleth windplant near Askam. When they bought Poaka Beck House in 1997, the couple were unaware the arrival of the windplant was imminent. Previous owners failed to tell the prospective buyers, in spite of the fact they had vigorously opposed the initial application for the windplant in 1995 and objected at the subsequent public inquiry in March 1997. District Judge Buckley decided that this amounted to "material misrepresentation" and ordered the previous owners to pay compensation of 20 per cent of the market value of the house in 1997, £12,500, plus interest, because of damage to visual amenity, noise pollution and the "irritating flickering" caused by the sun going down behind the moving blades of the turbines nearly one half mile from the house. (Westmorland Gazette, January 9, 2004).

**13. Please provide the full version of the Lincoln Wind Turbine Moratorium Committee report.**

I have repeatedly tried to obtain a full copy of this report, unsuccessfully. Perhaps officials with the Power Plant Research Program can succeed where I have failed. According to my source, Cathy Lawton, a Wisconsin attorney (cmlawton3@aol.com), the town's attorney has stated that, since the report was never "final," the town is no longer

authorized to distribute it.

I can produce a copy if desired of the Lincoln/Wisconsin Public Service windplant noise study (also a PDF) that demonstrates that the Lincoln turbines increase the ambient noise level by 5 dB(A) to 20 dB(A), depending on wind conditions, etc. The wind company's offers to buy homes for demolition--to create "additional buffer for the windplant--came immediately following the release of the noise study.

**14. Please provide a copy of the report you cited entitled Social Assessment of Wind Power-Visual Effect and Noise from Windmills- Quantifying and Valuation.**

Please see: <http://www.akf.dk/eng/wind0.htm>. The article was written by *Jørgen Jordal-Jørgensen* in April 1996.

**15. Please provide the source and the document for your statement on page 30: "There are documented—and very dangerous—fires caused by malfunctioning turbine equipment."**

Please see the attached photographs of wind turbines on fire, taken at windplants in England and Germany.

**16. Please provide documentation for your statement on page 32 that "on a per kilowatt hour basis, wind is among the most heavily subsidized sources of industrialized power in the nation."**

All other sources of industrial power are also subsidized by considerable "government-induced incentives." But they also produce a constant stream of energy that does not need to be backed by "shadow" sources of power. The intermittency of wind energy, along with unpredictable capacity factors combined with the relatively untested (by experience) newer equipment, makes for difficulties in making actual comparisons with other energy producers. But see my response to the next question. To obtain price parity with a fuel such as coal, which, as I have stated, does indeed have lots of subsidies but, as I also state, produces a high, steady, and predictable yield of energy, the wind industry seeks state RPS market guarantees, very high levels of production tax credits (like coal, to be sure), and generous double declining capital depreciation schedules not available to other energy producers. I believe it is very unlikely wildcat energy operations like Synergics' will price their product on a par with coal. Rather, they will continue to demand even more subsidies, as they did over the last several years in order to increase the federal production tax credit from 1.8 cents per kilowatt hour to 1.9 next year. Industrial wind was also pressing for a ten percent national RPS target for next year, until a modicum of sanity snatched it away from the national energy bill. As far as I know, no one has developed a comprehensive matrix to compare costs of subsidies for the various industrial fuels for power plants with the actual electricity they produce. But—and this is the key—on a kilowatt hour basis, that is, the per capita unit of energy actually produced, in tandem with the energy required to stand by what is not produced to keep the grid in

equilibrium, industrial wind seems to be the clear winner in the most heavily subsidized contest.

**17. Please provide documentation for your statement on page 34: “The European experience demonstrates that the cost of wind energy is twice the cost of conventional power sources.”**

David Simpson, “Tilting at Windmills: The Economics of Windpower, April 2004. The Dave Hume Institute, Hume Occasional Paper No. 65--”At the present time the cost of generating [wind] electricity is approximately twice that of the cheapest alternative source.” (Page 9).

“Wind farms are an expensive and inefficient way of generating sustainable energy, according to a [government-sponsored] study from Germany, the world's leading producer of wind energy.” This was the lead sentence in a London Guardian article, Report Doubts Future of Wind Power (February 26, 2005).

The recent study on windpower costs from Canaccord Capital Corporation in Canada reinforces these cost estimates.

**18. Please provide documentation for your statement on page 34: “Even the wind industry admits to costs of 30 percent more.”**

Please read “The Costs of Generating Electricity,” Phil Ruffles (Chairman of the Study Steering Group), The Royal Academy of Engineering, March, 2004, London. It is available from a number of sites on the Internet; its length is over 60 pages. I would be happy to send it electronically if desired. The report examines the various costs of fossil fuels, bio-mass and nuclear fission, and contrasts them with both onshore and offshore costs of wind energy. The wind industry participated in this study. The report factored in a number of cost issues surrounding each fuel. For example, for coal, the cost of mitigating CO2 emissions was added. The factor driving the cost of wind was the intermittency problem, that is, the cost of providing “stand by” generation, while assuming a very generous capacity factor of 35 percent. The bottom line: coal fuel's current and future costs (on a pence per kilowatt basis) on average—3.33 and 3.28 respectively (page 31). For onshore windplants, the costs were 5.35 and 4.68 respectively, nearly 35 percent of which was for standby generation (page50). Dr. Sherwell's analysis of the likely price of wind lacks context, at the very least. He evidently does not factor in stand-by and transmission costs. According to Allegheny Power, the average (from all sources) “Price to Compare” to its utility customers is 4.47 cents per kWh, which includes generation and transmission costs.

The primary reason the wind industry seeks further government supports like Renewable Portfolio Standards is to “ensure a market for projects as the proposed Roth Rock wind facility,” as Dr. Sherwell states in his direct testimony, clearly demonstrating that the industry itself does not feel it has sufficient subsidies now to compete directly with the

price of fuels like coal.

**19. Please provide documentation for your statement on page 34: “Many states create incentives to cover on average an additional ten percent of these costs.”**

See [http://www.pmaconference.com/wind2\\_bro2\\_pma.pdf](http://www.pmaconference.com/wind2_bro2_pma.pdf). This site promoted a conference, sponsored by Milbank, on March 19-21, 2003 in New York, entitled Financing Wind Power Projects. Under the topic, “Tax Issues and Incentives for Wind Power,” Keith Martin, a partner in the firm Chadbourne & Parke LLP, provides an overview of his topic: “Federal tax benefits pay as much as 65% of the capital cost of wind power projects in the United States. *State incentives cover on average another 10%* (my italics).” I could not find the State of Maryland offering other than RPS incentives.<sup>1</sup> However, you might check with the State of Kansas, where the state subsidies for wind development are significant. According to state senator Frank Miller, the federal double declining depreciation schedule is applied at the state level in addition to the federal level. Windplant equipment is exempted from property tax at both the state and local level. The State of Iowa also permits local governments to exempt windplants from 70% to 100% of the property taxes that would normally be paid.