General:

1-1 Please provide a list of all experts, consultants, or any other individuals you have relied upon or intend to rely upon in this proceeding, identifying the subject matter.

I have not decided upon which experts and consultants I can or may use for this proceeding. If and when I do decide to use experts, consultants or other individuals for this proceeding, I will supplement this answer.

1-2 Please provide the curriculum vitae for the individuals listed in Request 1-1.

See my answer to question 1-1.

1-3 With respect to experts or consultants identified in your answer to Request 1-1, please provide a description of the clients represented and the positions taken by each of your experts in any previous Certificate of Public Convenience and Necessity proceedings or any other wind power proceedings in which they testified.

See my answer to question 1-1.

1-4 Please provide any documents relied upon by individuals listed in Request 1-1 in formulating an opinion regarding the Project.

See my testimony, which is due on April 20, 2005. If the applicant believes the responses set forth in that testimony are not sufficient, I will supplement the response at that time.

1-5 Please provide any documents not included in Request 1-4 upon which you have relied in generating any data requests you have made of Synergics.

In generating the first data request to Synergics, I primarily relied on Synergics' Application and its expert testimony, as well as information contained in Synergics' responses to data requests. In addition I relied on application materials and information provided by other wind energy developers in filing for operating permit in other states, such as Vermont, Massachusetts, New York, West Virginia, Minnesota, Wisconsin, Iowa, Oregon, and Washington. This information is provided on websites containing case files of wind energy projects under review or approved. Also, I relied on information provided on various websites, such as:

http://www.nationalwind.org/

http://www.nrel.gov/

http://www.eere.energy.gov/

http://johnrsweet.com/Personal/Wind/

http://www.responsiblewind.org/

http://www.safewind.info/

http://www.greenberkshires.org/wind_power.html

http://www.elltel.net/paktec/windmills/

http://www.friendsofthealleghenyfront.org/

http://www.countryguardian.net/

http://www.wind-farm.org/

http://www.awea.org/projects/index.html

http://www.bwea.com/map/index.html

http://www.ewea.org/

http://www.windpower.org/en/core.htm

http://www.eia.doe.gov/

http://www.abcbirds.org/

http://www.ucsusa.org/

http://www.foe.org/

http://www.chesapeakeclimate.org/

http://www.glebemountaingroup.org/

http://www.kingdomcommonsgroup.org/

http://www.protectpendleton.com/lo_index.htm

http://www.preservemalpeque.org/

http://www.hushhushrushrush.com/

http://www.clipperwind.com/

http://www.gewind.com/

http://www.vestas.com

http://www.uswindforce.com/

http://www.fpl.com/

http://www.eece.ksu.edu/~gjohnson/

http://www.nrdc.org/

http://www.batcon.org/

http://www.oldbird.org/

http://www.njaudubon.org/

http://www.biologicaldiversity.org/swcbd/

http://www.americanhiking.org/

http://www.outdoors.org/

http://www.appalachiantrail.org/

http://www.scenic.org/

http://www.platts.com/

http://vwec.cisat.jmu.edu/

http://www.pennfuture.org/

http://www.west-inc.com/wind_power.php

http://www.fws.gov/r9dhcbfa/windenergy.htm

See also my answer to question 1-7. I may include other sources in my testimony.

1-6 Please provide any documents not included in your response to Requests 1-4 or 1-5 upon which you have relied in formulating any opinion you have with respect to the Project.

It is not realistic or practical to provide a meaningful answer to such a request. To ask for supporting documentation about "any opinion" is too broad a net to cast. The divide between, say, Rachel Carson's Silent Spring and Garrett County's Heritage Plan, between Richard Dawkins and the Bible is vast, to say the least.

1-7 To the extent you, your consultant, or your expert disagree with Synergics' definition of "biologically significant," please provide a definition you, your consultant, or your expert would find acceptable.

"Scientists do not have an accepted definition of "biological significance," and, in fact, do not use the term in any regular fashion."

See page 3 in: Longcore, T., C. Rich, and S. A. Gauthraux, Jr. 2005. Scientific basis to establish policy regulating communications towers to protect migratory birds: reponse to Avatar Environmental, LLC, report regarding migratory bird collisions with communication towers, WT Docket No. 03-187, Federal Communications Commission Notice of Inquiry", a report submitted to the FCC on Feb. 14, 2005 and prepared for American Bird Conservancy, Defenders of Wildlife, Forest Conservation Council and The Humane Society of the United States.

Moreover, I am profoundly disturbed by the self-serving way Synergics' definition of this term has insinuated itself in this application, especially given the nature of previous testimony in windplant PSC hearings by the avian expert Synergics now employs. I will elaborate on this in my direct testimony.

1-8 To the extent not covered by the proceeding [sic] requests, please provide a list of windpower projects in which you have testified or provided written information and a copy of the testimony or written information you provided.

I previously participated in Case No. 8938 before the Maryland PSC, and my direct testimony is still available from the Case Jacket on the Commission's website.

1-9 Please provide a copy of any DVDs, videos, handouts, public presentations or emails on windpower that you helped produce and or distribute to the general public.

Since no definition was provided as to what constitutes the "general public", I am not able to adequately answer this request. A digital copy of the documents which I helped to produce for the public meeting in Garrett County last fall is appended. In addition, I will distribute as part of my direct testimony a documentary DVD, which is not yet completed.

1-10 Please provide a list of all studies, reports, analysis or evaluations undertaken involving the Project and provide a copy if not produced in response to another data request.

See my testimony, to be provided on or before April 20, 2005; the response to this request will be addressed therein. I will supplement this response should additional studies, reports, analysis, or evaluations be undertaken after that date.

1-11 Please provide a list of the dates and times you have visited the Project site and to the extent you were actually on the property, please provide the contact information (name, address, telephone number) for the person or entity that gave you permission to enter on private property.

I have visited the Roth Rock fire tower and the surrounding area numerous times (well over a hundred) over the past 15 years. I believe only 2 of these visits occurred after submission of Synergics' Application – in August and October 2004. I have permission to visit the project site from Arthur W. Culp, Jr., who resides at 600 Theresa Ave., Glen Burnie, MD, 410-766-8919.

In addition, a well-known guide to finding bird species in the region describe the Roth Rock fire tower site as "the best area to find nesting Mourning Warblers" and further provides directions to site and parking instructions that mention "Ignore the "No Trespassing Sign"; birders are welcome." Source: page 129 in CLAUDIA WILDS, 1992, FINDING BIRDS IN THE NATIONAL CAPITAL AREA – revised edition (Smithsonian Institution Press).

Interest to Proceeding:

1-12 Please state your interest in the proceeding. To the extent more than one intervenor is represented by the same counsel, please indicate whether all intervenors share an identical interest with respect to the Project and what, if any, differences exist between them.

I am interested in ensuring that the PSC has enough scientific data and other information so that it can adequately assess the ecological impacts of the Roth Rock wind energy project; but this will require additional study.

I also want to ensure that if it does issue a CPCN, the PSC will have adequate scientific data to guarantee that the project is designed, constructed, and operated in the most efficient, ecologically responsible manner possible—and does not simply grant approval so that the Applicant can retrieve the maximum profits possible at the expense of many other factors.

I am interested in ensuring that the PSC has adequate information to evaluate (a) the economic consequences of the project, including nuisance issues to nearby property owners and its implications for the state's tax and rate payers; (b) the impacts of the project on birds and bats; (c) the impact of the project on endangered species; and (d) the impact of the project on forest and other special habitat in the area

I am interested in substantiating all claims made by the Applicant independent of the Applicant's paid experts, asking that the PSC establish consequences for the developer and protections for the public if the Applicant's claims are not realized or if the Applicant's project causes harm or threatens the quiet enjoyment of property in the region.

And I am interested in protecting the state's most prominent ridge, Backbone Mountain, as a natural heritage resource, consistent with the impulse behind Garrett County's Heritage Plan. The majesty of this historic mountain should be preserved for future generations to remind about the importance of nature in our culture. Industrial development along this ridgetop should be consistent with preserving its appearance as a form of nature.

1-14 Please set forth any opposition you have generally to the establishment of wind power generation facilities in Maryland.

I do not oppose the establishment of wind power generation facilities in Maryland in general. I believe small-scale distributed wind energy technology deserves greater consideration and support, and would like to see a planning process and perhaps a programmatic Environmental Impact Statement developed for offshore and nearshore utility-scale wind energy facilities.

1-15 Please set forth any objections you have to aspects of the Roth Rock Wind Project as described in the Application for the Certificate of Public Convenience and Necessity and all bases for the objections, and documents supporting such objections.

See my testimony, to be provided on or before April 20, 2005; the response to this request will be addressed therein.

Socioeconomics:

1-16 If you believe that an archaeological investigation is warranted for this project, please explain the bases for such belief.

My primary interest in this proceeding is not archeological, but aerial photographs of the site document that the Project site contains several prominent rock outcrops and ledges, which likely include rock shelters suitable for human use and thus may be good candidate areas to investigate for evidence of Archaic and/or Paleo-Indian cultures. In addition, the open rock outcrops may contain signs of early European visitation – such as initials of explorers or early settlers carved in sandstone. I believe an archeological investigation may be warranted for this project.

1-17 Explain any concerns you may have regarding the construction schedule of the Project or the projected operational date and the bases for any such concerns.

The construction schedule proposed by Synergics in its Application does not allow sufficient time for appropriate pre-construction studies necessary to adequately address the possible adverse ecological impacts of the Project, especially in light of US FWS recommendations that three years of pre-construction studies be undertaken.

1-18 Identify, explain and provide the basis for any negative socioeconomic impacts you expect the Project to have, including studies supporting such impacts.

See my testimony, which is due on April 20, 2005. If the applicant believes the responses set forth in that testimony are not sufficient, I will supplement the response at that time.

Ecology:

1-19 Explain any concerns and provide the basis you may have regarding the potential impact on vegetation from the Project.

I have general concerns that the construction and/or operation of the Project will require vegetation removal and alteration, resulting in ecological impacts on wildlife. Since the Applicant has not provided a detailed site plan that shows location and limits of disturbance to vegetation, it is not possible to adequately evaluate potential impacts. However, removing vegetation and creating edges may increase evapo-transpiration rate that may alter adjoining plant community composition and structure and can facilitate spread of nonnative invasive species. Several rare and endangered plant species have been identified for the Project area, and I have serious concerns about development impacts to these species.

1-20 Identify any disagreements you have with factual statements contained in the ecology section of the Application and your basis for each.

See my testimony, which is due on April 20, 2005. If the applicant believes the responses set forth in that testimony are not sufficient, I will supplement the response at that time.

1-21 Provide detailed descriptions of any measures, not set forth in the Application, that you believe should be taken as part of the Project with respect to ecological impact, including your analyses of both the anticipated benefits and costs of each.

Based on the information Synergics currently has made available, I do not feel that there are sufficient data to determine every mitigation measure that should be taken to avoid or minimize the potential impact of this Project on plants and animals in the area. In general, Synergics should comply with the recommended measures contained in the USFWS Wind Energy Siting Guidelines and the Director's Instructions in order to avoid and reduce ecological impacts; these include:

- Pre-development evaluations should be conducted by a team that includes Federal and/or State agency wildlife professionals with no vested interest (e.g., monetary or personal business gain) in the sites selected.
- Avoid fragmenting large, contiguous tracts of wildlife habitat.
- Where the height of the rotor-swept area produces a high risk for wildlife, adjust tower height where feasible to reduce the risk of strikes.
- Avoid placing turbines near known bat...migration corridors
- Avoid locating turbines in known local bird migration pathways or in areas where birds are highly concentrated, unless mortality risk is low (e.g., birds present rarely enter the rotor-swept area).
- Avoid...areas with a high incidence of fog, mist, low cloud ceilings, and low visibility.
- High seasonal concentrations of birds and bats may cause problems in some areas. If, however, power generation is critical in these areas, an average of three years monitoring data (e.g., acoustic, radar, infrared, or observational) should be collected and used to determine peak use dates for specific sites. Where feasible, turbines should be shut down during periods when birds are highly concentrated at those sites.

See also my testimony, which is due on April 20, 2005. If the applicant believes the responses set forth in that testimony are not sufficient, I will supplement the response at that time.

1-22 To the extent you believe there are threatened or endangered plant or animal species on the Project site, explain in detail and provide the factual and evidentiary basis for that belief.

Synergics' application and expert testimony provides evidence that threatened or endangered plant or animal species either are present or are likely to occur on the Project site. It is incumbent on the Applicant to hire a reputable and knowledgeable consultant to search the Project area for listed plant and wildlife species during the appropriate times of the year. See also my testimony, which is due on April 20, 2005. If the applicant believes the responses set forth in that testimony are not sufficient, I will supplement the response at that time.

1-23 To the extent you believe there is threatened or endangered species habit on the Project site, explain in detail and provide the factual and evidentiary basis for that belief.

I presume question is asking about "habitat" and not habits of species. See my answer to 1-22.

1-24 To the extent you believe there would be a cumulative and negative impact on animal and plant life from the Project, please explain in detail and provide the factual basis for such belief.

I am concerned about the cumulative impact resulting from the proliferation of wind energy facilities that are planned, permitted or constructed on Backbone Mountain and other prominent, forested ridges in the Central Appalachians. Their needs to be a regional cumulative impact assessment to gauge the effects of planned and future wind energy development on forest habitat, bird and bat migration, high elevation ecological refugia - especially in light of the inadequacy of site-specific and/or regional studies. See also my testimony, which is due on April 20, 2005. If the applicant believes the responses set forth in that testimony are not sufficient, I will supplement the response at that time.

1-25 To the extent you believe the Project will or may have a negative impact on the Indiana Bat, please explain in detail and provide the basis for such belief.

Synergics' own application, particularly the Joshua Johnson study, and the testimony of its expert, Dr. Scott Reynolds, identify possible threats to the Indiana Bat as a result of the project and recognize the need for further preconstruction studies. Consequently, I do not feel that Synergics has sufficient data to determine the impact on Indiana bats that its Project may cause.

1-26 Short of simply not constructing the turbines, please provide any and all measures you would consider appropriate mitigation measures to reduce or minimize the potential impact of the Project on plants and animals in the area.

Based on the information Synergics currently has made available, I do not feel that there are sufficient data to determine every mitigation measure that would be appropriate to avoid or minimize the potential impact of this Project on plants and animals in the area. In general, reducing height of and non-operational periods for the turbines are two examples of appropriate mitigation measures for wind projects. See also my testimony, which is due on April 20, 2005. If the applicant believes the responses set forth in that testimony are not sufficient, I will supplement the response at that time.

- 1-13 This request is not directed to me.
- 1-27 This request number was not included in Synergics' data request to intervenors.
- 1-28 This request is not directed to me.
- 1-29 This request number was not included in Synergics' data request to intervenors.
- 1-30 This request is not directed to me.
- 1-31 This request is not directed to me.
- 1-32 This request is not directed to me.
- 1-33 This request is not directed to me.
- 1-34 This request is not directed to me.

1-35 Please list your residence address and the distance from your residence to Roth Rock. Please list all property you own in Garrett County, including the Garrett County Tax Map reference and/or property account number.

Jon Boone principally resides at 503 E. Alder St., Oakland, MD, which is approximately 8 miles north of the Roth Rock project site. The Account Identifier for that property is District -17, Account Number -003747.

October 18, 2004



Dear Friends and Neighbors:

If a few corporate developers get their way, Backbone Mountain's natural beauty will soon be transformed by industrial windplants—row after row of 40-story lighted turbines visible for miles in all directions. Maryland's Public Service Commission has already approved 67 turbines along 13 miles of the state's highest ridge and is in the process of approving another 24 atop Roth Rock. And these are just the beginning....

The Maryland legislature recently obligated consumers to purchase 7.5 percent of their electricity from "renewable" sources, most of which will come from industrial windplants. In a few decades this law will necessitate the construction of up to 2400 huge turbines throughout the region in areas developers feel will produce the most wind. Such optimal wind locations permeate Garrett County (please note the enclosed map). Now that the state has guaranteed a substantial market to the wind industry to accompany the generous investment/production tax credits it also enjoys, wind developers will soon seek rapid approval from the PSC to install major facilities here. Imagine how our landscape will look hundreds of turbines looming everywhere, each taller than nearly all the buildings in Baltimore and Washington.

Despite the rhetoric which portrays corporate windpower in terms of wind "farms," the reality is that the size and scale of this industry will destroy a number of important natural vistas while diminishing the quality of life for many who will live in its long shadows. The loss of such spiritual reminders about the majesty of nature will parallel the fall of the region's property values. Folks who now live on the forested slopes beneath the new industrial windplants in Thomas and Meyersdale are outraged their leaders could let such a project happen. "We'll never be able to hunt here again," said a long-time Meyersdale resident, "because of the incessant noise these huge turbines make."

The county's Commissioners recognized these issues last year when they approved a Heritage Plan which assures that the most significant features of our past and our rural way of life—heritage resources— are conserved and bequeathed in stewardship to future generations. Yet, while promising to protect Backbone Mountain as a key natural heritage resource, the Commissioners *at the very same time* also endorsed a goliath windplant on top of it! And just a few weeks ago they approved another windplant there. Such obvious contradiction suggests they have sold out our county's rural legacy for a few pieces of silver, following the same path which nearly destroyed our court house twenty-five years ago. One commissioner maintains that windplants are a "non-issue—no one here is concerned about them."

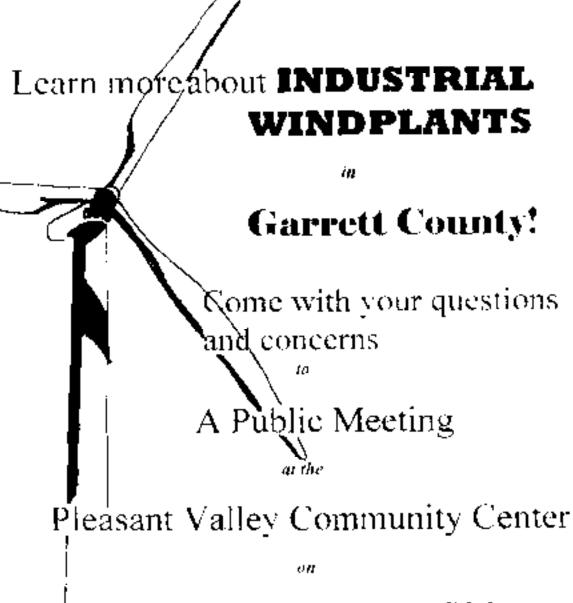
The wind industry poses as an environmentally friendly public service. But in the hands of irresponsible developers, it's an environmentally threatening delivery system for massive tax schemes benefiting a few at the expense of the many. Here is one example: a

typical turbine is made in Europe and installed here primarily with non-local labor at a cost of about \$1.5 million. However, federal tax credits enable the wind developer to shelter income tax obligations as much as 65 percent of these costs, resulting in an actual loss to the federal treasury of nearly \$1 million per turbine over the first ten years of a project's life. Corporate wind would not exist without enormous subsidies paid by taxpayers.

Claims made for wind technology *are* too good to be true. "Scant" was the word Rep. Alan Mollohan (W.Va.) used to describe the economic benefits (jobs and taxes) his state receives from the wind industry. Moreover, thoughtful environmentalists such as the Maryland Chapter of the Sierra Club and the Audubon Naturalist Society are concerned about wildlife safety. Last year a nearby West Virginia windplant killed an estimated 4,000 birds and bats, a number which the industry has sought to minimize and reduce through sloppy, self-serving "studies." Moreover, despite the visibility of the smokestacks from Mt. Storm's coal plant, 2500 huge turbines stretched across hundreds of miles of ridgeline would still not produce as much electricity. Given our increasing demand, windplants will *not* reduce the current rates of mining and burning of coal.

We invite you to join with us as Friends of Backbone Mountain seeking a moratorium in the county on the building of these giant structures until the public has had time to study the long term consequences. Please come with your questions and concerns to a public meeting on November 11 (7:00 pm) at the Pleasant Valley Community Center, which will feature brief presentations by experts and the personal testimony of those who live near industrial windplants.

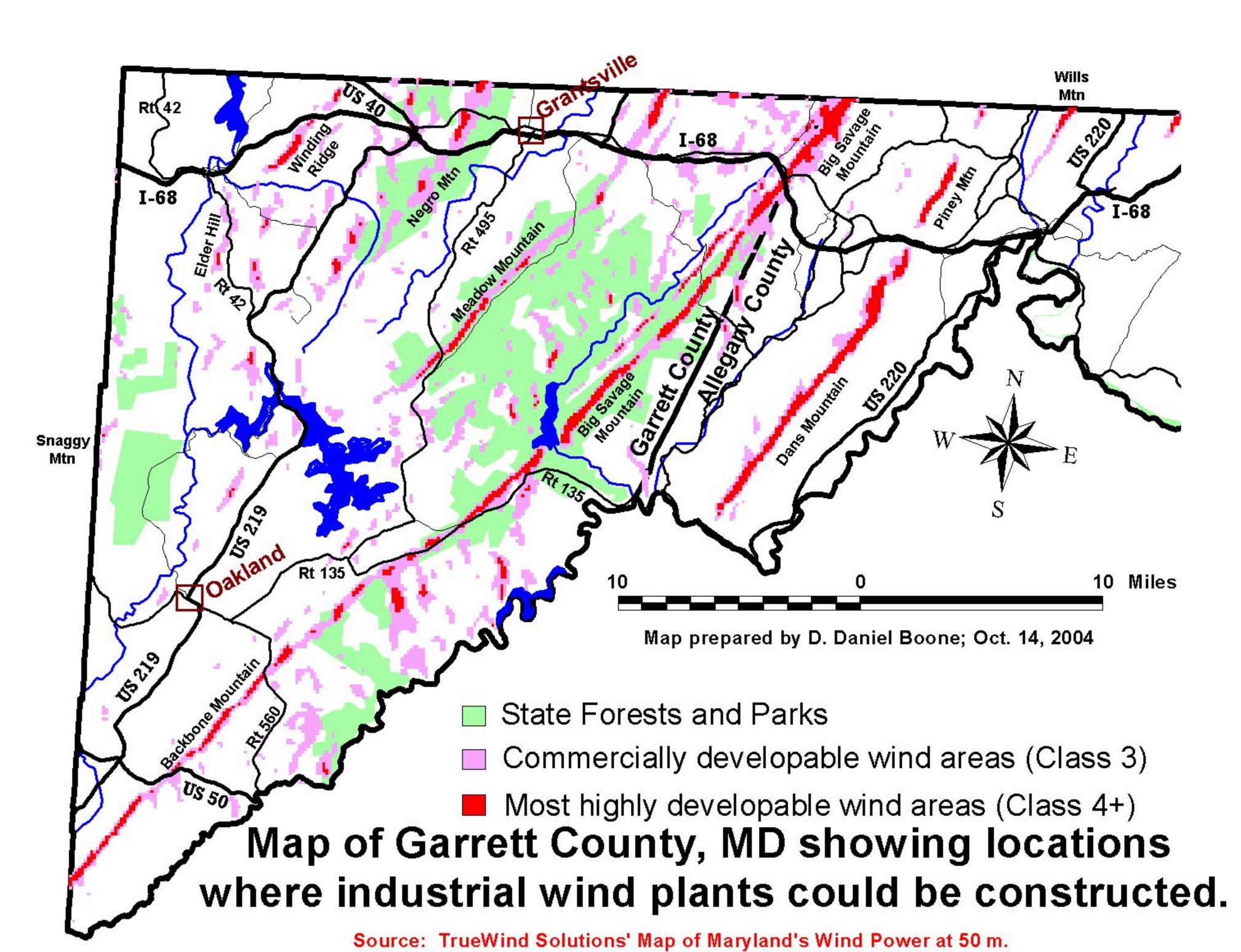
The beauty of our land and the bounty of our wildlife largely define our county's identity, and we should not be willing to sacrifice these features to remote corporate investors without a great deal of inquiry and soul-searching. We hope you agree. Let's not wait for deals to be done without major public scrutiny.



November 11 at 7:00 PM

Hear presentations about the issues and from those who now live near giant windplants.

Directions: Rt 219 South from Oakland 2.8 mass, turn left onto Paul Erieno Road. Go. 7 miles and turn right on Jon Moller Road. The Pleasant Vailey Community will be on your right just past Regidaly Rather.



WIND PLANTS WILL:

- Be heavily subsidized with your tax dollars;
- Reap the benefits of tax credits with small or no tax rates compared to other local farms and businesses;
- Devalue our rising property values;
- Negatively effect tourism, which currently brings Garrett County annual revenues;
- Create <u>NO</u> meaningful tax revenue for our local communities or the State; and
- Impact Garrett County's natural beauty and unsurpassed scenic views.



WIND PLANTS WILL:

- NOT contribute to local employment opportunities for the long-term;
- Create visible light pollution at night with tower strobe lights as well as create loud, irritating noise levels over 60 decibels at a great distance (several thousand feet) due to turbine blades and gears;
- Cause undue stress to the health and safety of citizens living close to the turbines; and
- Foment community discord.



Backbone Mountain in Pleaseant Valley, MD

Making Informed Decisions Let's not destroy the integrity of our county and region, perhaps the most scenic in our state. More effective technologies exist in abundance.

Please write or call the Garrett County Commissioners to express your concerns about allowing industrial wind energy development in the county:

Garrett County Commissioners
Garret County Court House
Oakland MD 21550



Simulated view of wind turbines otop Backbone Mtn

Does Garrett County Really Need

"Wind Farms?"

A Closer Look at the Consequences of Industrial Wind Development



375-ft tall wind turbines at Meyersdale, PA

Given recent federal and state legislation, wind energy companies will seek to build hundreds of turbines here!

If we don't act now to protect our mountain ridges, will this be the legacy we leave our children?

Industrial Wind Developments are not Farms

Don't be mislead; utility-scale wind energy is industrial development. "Wind farm" is a deception used by developers to soften their image. Turbines proposed for Garrett County are huge (400 feet), standing taller than the Statue of Liberty. Obviously, the enormous size of these structures will rise above the forested ridgetops and be seen from many locations over 25 miles away.



To help protect our region's scenic beauty, forests, and wildlife - please contact:

Friends of Backbone

Mountain

PO Box 2202

Mountain Lake Park, MD 21550

www.responsiblewind.org

Private Property Rights

Do the property rights of non-resident developers outweigh the property rights of nearby neighbors and the community as a whole?

A significant portion of real estate value in Garrett County is tied to the county's rural character and scenic beauty. Our land values are increasing and are an economic asset. Depreciation of property values due to nearby wind development is a real threat. Condemnation of lands to connect more wind energy to the transmission grid is a major concern to landowners. Nearby residents will have to endure negative impacts to the value of their properties and also to their quality of life with infringements such as noise and light pollution, risks to health and safety, shadow flicker, ice throws and the towers' sheer visual impact. They also have private property rights!

Economy and Jobs

The primary economic benefit for local communities will be lease income for a select few landowners and a handful of maintenance jobs. Construction is swift and short-term, and local full-time jobs will be minimal. Contractors skilled in erecting turbines will not come from the local labor pool. Most materials will be trucked in from outside the county. Moreover, many of the utility-scale turbines are foreign made. Any economic benefits realized will likely be overshadowed by reduced property values and the higher cost of electricity - costs that will be borne by Maryland's electric customers.

impacts to Land and Wildlife

The consequences of wind development would be considerable—and are at odds with our County's recent Heritage Plan, which assures that the most significant features of our past and our rural way of life—heritage resources—are conserved and bequeathed in stewardship to future generations, including especially Backbone Mountain. Wind plants would entail miles of construction roads, drilling and blasting into bedrock for foundations, pouring thousands of tons of concrete, and more. Fragmentation of forest land, harm to endangered species and killing of migratory wildlife are all issues of concern. Does it make sense to sacrifice some of our most valued hunting and recreational areas in the state as well as our scenic beauty to provide massive tax shelters for a few investors?

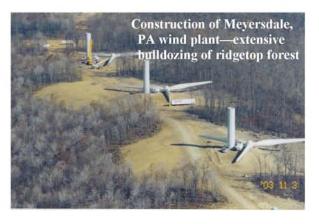
Short-comings of "Green Power"

- It would take 32,000 huge turbines to supply only 15% of our demand for electricity in Mid-Atlantic states by 2030 and may be spread over 3,000+ miles of ridgetop —maximally developing all potential windy land areas in region.
- Consumers pay more for wind energy which means higher utility costs.
- Wind turbines provide electricity at an annual efficiency rate of just 25-30 %; less during summer peak need. Wind plants will not reduce the use of conventional power plants that burn coal.
- The impact of wind plant construction would alter mountain top ridges, increase soil erosion, and create the need for expensive upgrades to power lines and substations.

More Losers than Winners

The "big winners" will be the owners of wind facilities. They are exempt from paying fair and justifiable taxes in the county or even in the state. Wind developers are heavily subsidized with our tax dollars and given tax credits for every kilowatt they produce—the federal treasury loses nearly \$1-million per turbine due to developer's sheltering of huge tax obligations.

The wind industry poses as an environmentally friendly public service. But in the hands of irresponsible developers, it's a delivery system for massive tax schemes benefiting a few at the expense of many. Corporate wind would not exist without enormous subsidies from taxpayer.



Risks Outweigh the Benefits

The <u>adverse consequences</u> of "wind farms" to our land and its traditional uses—the quality of life in Garrett County, the wildlife, the unspoiled views, tourism—far exceeds any perceived <u>benefits</u> for our community. Token local revenues and limited electricity production (wind will not affect the production or mining of coal) hardly justify their intrusive presence. Do we really need them here?

"To destroy our environment in the process of saving our environment does not make common sense."