

TAB 11

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

**Petition of BNE Energy Inc. for a
Declaratory Ruling for the Location,
Construction and Operation of a 3.2 MW
Wind Renewable Generating Project on
New Haven Road in Prospect, Connecticut**

Docket/Petition No. 980

February 16, 2011

Prefiled Testimony of Eric Bibler, President Save Our Seashore

1. Please introduce yourself and state your name for the record.

Ladies and Gentlemen of the Connecticut Siting Council,

Thank you for this opportunity to provide you with some information on large-scale, industrial wind energy power plants that might be relevant to you as you consider the proposal by BNE Energy Inc. to install two of them in Prospect, CT in close proximity to numerous residences there.

My name is Eric Bibler and I am a full-time resident of Weston, CT.

2. Please describe the organization Save our Seashore and your role in that organization.

I am the president of an organization based in Wellfleet, MA called Save Our Seashore and I have spent much of the past 16 months working closely with residents, community groups, town governments, state legislators, the Cape Cod Commission, the Cape Cod National Seashore and the National Park Service, the National Park Conservation Association and other similar entities, including various health departments, conservation boards and regional or municipal associations on issues related to siting of industrial wind turbines in MA and elsewhere.

3. Please summarize your involvement with issues concerning industrial wind turbines.

I have also spent hundreds of man hours researching many aspects of this issue and have had the benefit lengthy correspondence and a long association with many experts with special expertise in the area of wind turbine acoustics; their visual aspects, including their so-called "flicker effect" (the intense strobe like effect of light passing through the blades); their impact upon property values; their impact upon wildlife and the environment; and their profound impact upon the health and well-being of individuals.

Additionally, I have studied the various government grant programs, tax credits,

accelerate depreciation, feed-in tariffs and other tax and financial incentives that currently provide industrial wind developers, both municipal and private, with an unprecedented, and astonishing, degree of support which far outstrips any package of investment incentives that is offered to any other form of energy production.

Although I am less conversant with the details of the subsidies supporting wind energy in other countries, I am nonetheless keenly aware that many of these have been sharply curtailed, or are currently at risk, and that there are numerous historical examples where the abrupt withdrawal of these artificial subsidies have caused the wholesale collapse of operators in wind energy, or other renewable energy industries.

4. Please tell the Siting Council what you have learned from your experience with these issues in Massachusetts and as President of Save our Seashore.

A. WindEnergy: The Fuel is Free; but Everything Else Costs a Fortune

I know that the Siting Council did not convene to discuss the economics of industrial wind energy. Nonetheless, those economics are always lurking in the background and they have powerful repercussions for the process that the Siting Council proposes to referee, so it is worth taking the trouble to explore them briefly.

I can say without equivocation that I have never yet seen a wind energy project that was driven by an altruistic desire to “harness the wind” for renewable energy that reduces our fuel consumption and reduces green house gases. That is not to say that the proponents do not regularly pay lip service to these goals. But the fact of the matter is that such claims virtually never stand up to scrutiny, and when push comes to shove, it’s always about the money.

(In fact, as detailed studies of actual wind energy projects now show, wind energy does not produce any significant benefit in reducing fossil fuel consumption or GHG emissions because of its many inherent gross inefficiencies – but that is another story which I would be happy to document, upon request).

Make no mistake: wind energy is not about harnessing the wind; it is about harvesting the subsidies.

Wind energy costs more – dramatically more – than any other form of energy in terms of the dollars of capital, and the number of square miles of real estate, invested per MW of output. And *wind energy receives greater subsidies* per unit of production than any other form of energy. Nothing else comes close.

According to a recent article by the highly respected energy author and reporter Robert Bryce, *the subsidies provided to industrial wind energy amount to 200 times*

the subsidies provided to natural gas, expressed in dollars of support per unit of energy output (expressed in BTU)!

Last week, I prepared a financial analysis for a municipal project in Brewster, MA which showed that *the project would receive at least \$20.5 million in subsidized revenue and U.S. Treasury subsidized interest* (through the Clean Renewable Energy Bond program known as CREB), in order to produce an unpredictable stream of electricity with two wind turbines when the same amount of reliable electricity could be purchased on the wholesale market (from HydroQuebec or by burning natural gas) *for less than \$4 million -- after borrowing \$10 million backed by a U.S. Government guarantee.*

If the project were to default on the \$10 million in bonds that it issued through the CREB program (backed by Uncle Sam) – which I would consider a very high probability in view of my analysis of the project – taxpayers and consumers would be on the hook for over \$30 million to produce electricity with a value of less than \$4 million!

As one might expect, and as we will attempt to illustrate, the availability of these incentives exerts a powerful, and not necessarily beneficial, influence upon the siting and permitting process.

One of the most powerful incentives driving wind energy projects such as the one(s) under consideration by BNE, Inc. in this hearing is the 30% cash rebate on the project's capital cost that is paid by the United States Treasury, in lieu of an income tax credit, within 60 days of the commencement of operations. For a \$10mm project, the U.S. Treasury will send any private operator a \$3mm check in the mail as long as he begins construction by the end of the year.

After they cash their checks from the U.S. Treasury -- even though their actual investment has now been reduced to 70 cents on the dollar -- wind energy entrepreneurs are able to carry the cost of their projects on the books, for tax purposes, at 85% of their original cost, and then apply double declining accelerated depreciation against this figure that is actually more than the amount of their investment.

Wind energy operators also benefit from a basket of additional incentives, including the premium prices that they receive for their output -- which is vastly inferior in quality to the electricity produced by conventional facilities, due to its inherent unreliability and unpredictable, and destabilizing, impact upon the electric grid.

Because the wind energy facilities literally have no customers, the major utilities are mandated to purchase as much electricity as they produce, whenever they are able to produce it, whether or not they need it or want it. All of this is paid for by a surcharge, a user fee, which is *added* to every electricity ratepayer's electric bill.

And as we know from public documents and from recent testimony from BNE Energy, Inc. before the Joint Congressional Energy and Technology Committee, wind energy entrepreneurs typically receive hundreds of thousands of dollars, even millions of dollars, from various state and federal programs to pay for the extensive permitting and planning work that is performed prior to any other public process or review of the project's merits.

This is significant because in addition to shifting an enormous percentage of the upfront costs – most of them, in fact – to the taxpayer, it creates a powerful momentum for such development. Since developers (whether municipal or private) have so little at risk, they are much more willing and enthusiastic about spending other people's money than they are about gambling their own money in pursuing bad, or marginal, projects.

Also, once the taxpayers' money is spent, the developers can often exert substantial leverage over legislators and regulatory authorities (or upon regulatory authorities through the intervention of legislators) by raising the specter of "wasted" taxpayer funds – particularly if the legislators have a vested interest in "saving face" on such issues, regardless of any new evidence that a project may be foolhardy or downright dangerous.

Members of the Siting Council may recall that one of the Senators on the State of CT Energy and Technology Subcommittee questioned a resident of Prospect, CT on this very matter, noting that the State of CT had invested already many hundreds of thousands of dollars in the BNE Inc. proposals.

What were the legislators to do, he asked, if it was determined that the BNE Inc. projects in Prospect and Colebrook were too close to residents to be safe or to avoid substantially impairing their property value, and if new siting regulations for wind turbines were enacted? Should the State simply rule them out and waste all of that taxpayer money?

The resident responded by saying: Senator, from my point of view that's like asking me, if I buy a \$30 toy and bring it home to my child and then I learn that they toy is unsafe, what should I do? Should I take the toy away from my child? Or should I continue to let her play with it, to make sure that I get my \$30 worth? I don't know what you would do in that situation, Senator, but I would take the toy away from the child.

Regrettably, there is always a powerful incentive – an enormous momentum – to let the projects move forward, once they get rolling, because the developer has managed to get the State more than a little bit pregnant with the whole idea.

Upon closer examination, it is evident that the unusual array of financial incentives – and the sheer magnitude of these subsidies – has many ominous implications.

As noted above, the developers (including municipalities) have very little skin in the game. Much of the upfront money is given to them in the form of grants; they receive enormous tax credits (or accessibility to government guaranteed credit under CREB that is literally interest free over the 15 year life of the loan); and they can avail themselves of accelerated tax write-offs which help them shelter other income from taxes if they are taxpayers.

For private investors, the expected returns are very heavily loaded in the front end of the deal. In other words, their best returns, the bulk of them really, come in the early years -- which means that they have very little incentive to stick around if things go south.

In fact, it is no accident that most of the private operators are newly formed shell corporations – like BNE Energy Inc. – with virtually no assets other than the machinery (which they rapidly depreciate and write down) and their purchase power agreements to sell output to the utilities. Any liability that arises from their operations – including liability from any lawsuits for gross negligence or harm, from bankruptcy or from catastrophic mechanical failure – are contained within the shell corporation and does not flow through to the owners.

In other words, the liabilities – and the ultimate accountability – remain at the shell company and do not flow through to the owners; but the profits and the tax credits *do* flow through to the owners.

This is a fact of life worth thinking about – and anticipating – when considering the ability of a private operator to “decommission,” or dismantle, one or more 400 or 500 foot wind turbines, each of which require approximately 850 tons of concrete and steel in the foundations alone.

Also, since the owner/operator is ultimately not held accountable -- or, at least, not in a way that threatens his other business interests – it is easy to see that he has very little risk attached to not making good on any promises he makes regarding the adverse impacts of the project.

Last, but not least, consider the spectacle of hundreds of new, inexperienced, and thoroughly unqualified operators suddenly jumping into the business of constructing giant, open air, wind energy power plants.

They *claim* to know what they are doing, that their projects are benign, and they manage to obtain hundreds of thousands of dollars – millions of dollars – from various agencies whose sole purpose is to give it to them as long as they have a plan.

All they need is a Feasibility Study and a few other documents – all of which are boilerplate documents that exhibit a numbing sameness and are created by the same handful of engineers by filling in the blanks on their “feasibility” or “acoustic study” templates – and the grant money is theirs. No wonder that the entrepreneurial spirit swept through Massachusetts and suddenly every town was hatching a plan to go into this high tech business!

The fact of the matter is that none of these operators has any relevant experience or qualifications, nor do they have any financial staying power. In my experience, most of them don't know a wind turbine from a window fan. Even worse, none of them thinks that this is a necessary prerequisite for the job!

According to trade industry publications, newspaper reports and even the National Energy Research Laboratory, industrial wind turbines are requiring substantial periodic overhauls to their blades and transmissions because of the enormous stresses placed upon them. According to these sources, the machines are experiencing “transmission burnout” after roughly five years of operation which necessitates the replacement of all of the major components, including gearboxes and blades (each of which weigh over 7 tons). Environmentalist and author John Etherington ([The Wind Turbine Scam](#)) reports that in Europe it is difficult, or impossible, to obtain insurance for wind turbines unless the operator agrees to refurbish them every five years.

Because of their great height, performing such an operation on an industrial wind turbine is no trivial matter, as it requires the use of an enormous 300-foot crane and an experienced crew. Additionally, there have been numerous reports of endemic “supply chain” problems (since many of the components are produced overseas and since they are so massive that no one stocks spare parts) that cause frequent, financially debilitating, delays. To cite one example, the Town of Falmouth last year had to delay the commencement of operations for their first wind turbine for six months for lack of a \$1000 switch.

For reference, the cost of such refurbishments can easily reach 10% of the original cost of the physical plant, or more, which is a substantial outlay on a \$4 million or \$5 million wind turbine – every five years or so – whose attractiveness to its owner (the shell corporation) as an investment is rapidly waning.

The point of all of the foregoing is that the business model of ALL wind turbine operators, private or municipal, is extremely fragile – and utterly dependent upon the continuation of unprecedented government subsidies.

There are many under-appreciated risks in running the business, including the near universal lack of experience of the operators; the rapid recoupment of investment outlays, which reduces the incentives of the operators to stay in business for the

long haul; the failure of the operators to acknowledge, or plan for, substantial future outlays for transmission overhauls or decommissioning expenses; and the failure of operators to understand, or concern themselves with, the environmental, human or social impacts of their projects.

In other words, the operators are way over their heads – and fundamentally accountable to no one, especially in the absence of any bona fide regulatory regime.

Before we leave this topic of accountability and social responsibility, consider that there are virtually no safety or inspection requirements for wind turbines. None.

They are 400 or 500 feet high. Their individual blades typically weigh over 7 tons and have a terminal velocity of up to 180 mph. They contain a substantial amount of lubricants and rare earth metals that are perched at a height of more than 250 feet (or over 300 feet) above the ground (depending on the model). If they catch fire through a lightning strike or mechanical malfunction, there is nothing to do but let them burn. They can throw large chunks of ice a considerable distance – GE recommends enforcing a clear area to guard against “ice throw” over 800 feet on a 400 foot wind turbine. Runaway wind turbines have been known to throw pieces over a blade over 1300 feet.

Who will ensure that the operators are keeping up with the necessary maintenance – or major overhauls of transmissions, gearboxes, blades and fire suppression systems -- on aging wind turbines after they’ve passed their prime (or have already been written down to zero through accelerated depreciation)?

The answer is: no one.

Ultimately, the operators – having benefitted from an unprecedented level of financial support from the public -- are accountable to: no one.

B. Adverse Impacts of Industrial Wind Turbines – Wind Turbines Are Not Cell Towers!

Wind turbines are huge, kinetic, industrial machines of almost unimaginable scale – especially on land. They are not “wind farms” and they are not “wind parks”; they are industrial wind energy power plants.

Wind turbines dominate the landscape and they require a vast disturbance of area on the ground. Consider that in order to produce an amount of power (distinctly inferior power) that is comparable in gross annual output to a modest, 500MW natural gas plant, we would need to install over 1500 wind turbines on the scale of the Prospect wind turbines and disperse them over a vast area of land. Why is that green?

The proponents of wind energy – especially the developers -- attempt to limit the discussion of adverse impacts largely to this visual aspect and to compare wind turbines to cell towers.

They say that the visual impact is “subjective” and that “some people love them” – even though there is nothing “subjective” about the fact that they are typically 6-10 times as tall as the nearest trees (and more than this in places like Cape Cod). Moreover, because wind speed is faster at higher elevations (due to less friction from the earth’s surface), wind turbine developers invariably want to site their wind energy plants on the highest, most visible, points of land, on ridge lines and on hills, as in Prospect.

Nonetheless, the proponents promise to “mitigate” the visual impact of these colossal machines through “landscaping” which, presumably, will always plant a tree just in front of where you happen to be standing.

But cell towers don’t have arms that glint in the sun and spin at 180 mph; nor do cell towers emit constant, unnatural, rhythmic, industrial noise – 24 hours a day -- that can carry for miles and that causes suffering, disturbance, impairment and severe adverse health impacts in many people; nor do cell towers create an intense strobe-like effect -- which the wind industry likes to call “flicker” – over a vast expanse of territory.

Cell towers don’t emit low frequency sound, or infrasound (sound below the threshold of human hearing -- but not below the threshold of human perception) that penetrates walls, or that travels for long distances without attenuating, in defiance of the predictions of the faulty acoustic studies that do not even perform the appropriate measurements.

Cell towers don’t deprive people of sleep, cause headaches, ringing in the ears, pressure on the ears, elevated blood pressure, irregular heart activity, anxiety and depression. Cell towers don’t follow you indoors or torture you even when they are out of your line of sight. Cell towers don’t deprive you of the use and enjoyment of your living room, or your garden or your bedroom, or your deck. Cell towers don’t make you wake up at night dreading the sound, even when it isn’t there.

Noise and Health Effects

Wind energy developers say that there is “no proof” that wind turbine noise causes acute distress and that any adverse impacts do not rise above the level of “annoyance.”

They say that there are “no peer reviewed medical studies”, or other credible literature to support the notion that infrasound, low frequency sound or wind turbine noise is harmful. They admit that there is a lot of alarming information “on

the internet” but that it should be disregarded – not that they ever bother to actually rebut any of the information that one provides to document the harm. They prefer to simply wave it away and dismiss it.

Then they trot out the same dog-eared, and thoroughly discredited, “study” financed by the American Wind Energy Association (AWEA), featuring Dr. Geoffrey Leventhal and Dr. Robert McCunney, to support their claims. It’s all they’ve got.

Their “study” – which was nothing more than a selective review of some literature over two years ago, *before* the publication of Dr. Nina Pierpont’s book, Wind Turbine Syndrome or numerous other articles since that time in Audiology Today, Acoustic Ecology, and other journals – actually concludes that no further research into the matter is necessary.

Imagine a scientific study on *any* controversial topic in a burgeoning field (in this case, funded by the North American wind lobby) that concludes by stating: “no further study is needed.”

Here in the Northeast, since Dr. McCunney lives in Boston, you may actually be treated to a live visit from the good doctor to repeat these claims in person. Beware!

All of the statements above regarding the absence of any credible proof of harm are categorically false.

To begin with, there are thousands of news accounts and first person testimonials from around the world that describe precisely the same constellation of effects upon people who live near wind turbines – people who were fine before they started spinning and who feel fine, once again, as soon as they get away from them, fall ill from the noise.

Every mainstream newspaper has run *dozens* of these articles, including the Journal of the American Bar Association, which noted in an article last year that suing wind energy operators for relief is becoming a growth business -- because people want their lives back, not because people are trying to cash in.

Because the phenomenon is relatively new – and becoming more widespread as more wind turbines are built -- the clinical studies are just starting to catch up. Nonetheless, several clinicians have now systematically documented the symptoms by interviewing populations of people at risk.

What is less understood is precisely what components of the noise cause the harm and what combination of factors might come into to play. This is entirely understandable. But it is simply false to argue that there is no evidence of harm just because we don’t understand everything about it.

The noise signature of a wind turbine is hellishly complex and it varies with many factors, including topography, wind speed, atmospheric conditions, wind direction, the time of day or night, distance and the building materials in a home or building.

In contrast to typical state noise guidelines – and the simplistic and misleading claims of wind energy developers – the *loudness* of the noise is the least of your worries. It is the *qualitative* aspects of the noise – including its repetitiveness, its amplitude modulation and its intensity in the low frequency and sub-audible range - that are probably the most important.

People say that it “gets in your head.” After you spend any time with it, your perceptions lock onto it, whether it is loud, or not, because of the spikes and the repetition, as it continues sending pressure waves at you every second, or so. You anticipate it. It owns you.

Additionally, the low frequency noise is much higher in intensity (i.e. energy output) than the emissions in the higher frequency noise spectrum that would be more typical of conversation. It does not degrade over distance as do the higher frequency sounds and it penetrates walls and structures. Some persons report that the effects that they experience are actually worse when they can’t hear the noise.

Many acoustic specialists have studied, and described, the technical aspects of wind turbine noise in detail to enumerate its unusual characteristics and some of them, like Kamperman and James, have attempted to provide reasonable siting guidelines for wind turbines in articles with titles like “How Loud is Too Loud?”

Other researchers have performed studies that conclude that wind turbine noise is annoying at much lower levels of loudness than other forms of industrial noise, such as noise from airports, trains and roads, because of its unusual character.

Dr. Alex Salt, a specialist in the physiology and the function of the human ear and the perception of sound, has written recent articles that discuss many of the complex mechanisms of the ear and how they are, or may be, stimulated to create the symptoms that people routinely experience from wind turbine noise.

To add to the difficulty, our individual perceptions of noise – and individual reactions to the complex mixture of sounds coming from a wind turbine – vary widely. One person in the house may experience ringing in the ears; another may simply feel pressure on the ears; a third may experience headaches; a fourth experience less pronounced symptoms. But all four of them – or any combination of them -- may have trouble sleeping.

It may be that one person is not acutely bothered at 1500 feet from a wind turbine (but perhaps he is upwind), while another person may have significant disturbance and distress at a distance of well over a mile, or even two.

The bottom line is that we just don't know – and can never know. The models don't work very well. The factors are complex. Atmospheric conditions change. People have varying reactions.

The wind turbine developers seize on this natural discrepancy and argue that “only a minority” of people is adversely affected by wind turbine noise to a significant degree. Their reasoning seems to be that these people should be expendable “for the greater good.” In fact, they actually DO say that, referring to the victims as “collateral damage” or “selfish NIMBY's”!

In our opinion, this is not only illegal, and harmful to the character of a community, it is simply immoral.

Wind energy does not possess any preemptive rights over any other land use. Wind energy developers have no right to make anyone sick, or to deprive them of sleep, or to raise their blood pressure or make them suicidal.

Wind energy developers do not have any right to get up on their high horse and dictate to their neighbors how many hours of flicker they should tolerate per day; or if they should be deprived of the use of their backyards, their living rooms or their homes; or if they should suck it up and take one for the team, even though they find their new quality of life intolerable.

Wind developers have no right to claim that they are justified in causing an entire community of people to suffer precipitous declines in their property values – a virtual certainty (despite the two, tired and discredited property studies they always drag out to reassure everyone that nothing of the kind will happen).

Wind developers have no right to transform residential communities so radically; to destroy their character; or to divide their citizens in this way; nor do they have any statutory right to assert that their interests supersede the interests of others; nor to act so irresponsibly; nor to marginalize, and ostracize, the victims of their industrial projects as a “mere minority”.

The only reasonable conclusion to draw is the one that Senator Blumenthal immediately drew, and which I reiterated in my recent statement to the CT Joint Congressional Energy and Technology Committee:

Industrial wind turbines are simply not compatible with other legitimate uses of land, including residences and conservation, because the noise is punishing and disorienting to both humans and wildlife.

The risk in locating industrial wind turbines in close proximity to property that is held for any other legitimate purpose or interest is very great.

Certainly, the developers of Prospect and Colebrook will never be able to meet their true burden of proof – the primary burden of any such consequential proposal – which is to prove the absence of harm from their projects and to prove, beyond a reasonable doubt, that their projects will not interfere with the reasonable use and enjoyment by their neighbors of their property; nor can they confidently predict that their projects will not result in any impairment in the value of other property in the community.

These are the primary, fundamental, issues that have been addressed on Cape Cod, in town after town, over the past year, and as recently as this week at the Cape Cod Commission, which has just recommended stringent new Minimum Performance Standards for industrial wind turbine development, to be followed by a detailed Technical Bulletin that will spell out many complex issues, such as standards for wind turbine noise, in much greater detail.

Under the new MPS, every single wind turbine project over 65 feet in height will undergo extensive review Commission Staff and be subject to a public hearing process and numerous additional tests. In addition to the public nature of the process, it is noteworthy that the Commission possesses considerable enforcement powers and considerable latitude to require further information to assure itself that all interests are being appropriately protected.

It is also worth noting that the adoption of the Minimum Performance Standards (recommended by the Joint Planning and Regulatory Committee of the Commission), will require a two-step approval by the full Commission, composed of appointed delegates from every town in the region, and from the Barnstable County Assembly of Delegates, a similar group of elected representatives from each of the towns.

The MPS, if approved and ratified, will therefore have been considered and approved through a democratic process and will be enforced by a regional planning agency, but only through a process that allows for significant public input on the application of a detailed set of standards.

I would be happy to forward to you a copy of the proposed Minimum Performance Standards currently recommended by the Commission. It is my hope that they will be swiftly approved and ratified and that I will be invited to serve on the Advisory Committee that begins work on the Technical Bulletin soon afterward.

I am also enclosing a copy of my recent statement to the CT Joint Energy and Technology Committee.

Thank you for this opportunity to offer my comments and thank you for taking on this important task.

I hope that you will feel free to ask me many questions during the upcoming hearings on other specific topics related to this issue. In particular, I hope that you will challenge me to rebut any claims or arguments by the developer that seem especially compelling to you; for I can assure you, these things are rarely what they seem.

Eric Bibler
President
Save Our Seashore

February 3, 2011

Statement to House Energy Committee Regarding Industrial Wind Energy

"Lavish Subsidies in the Absence of Regulation Spells Trouble"

By Eric Bibler, President, Save Our Seashore

Madame Chairman, Ladies and Gentlemen of the Energy Committee,

Thank you for this opportunity to address you today on this important topic.

My name is Eric Bibler and I am a full-time resident of Weston, CT.

I am the President of an organization based in Wellfleet, Massachusetts called *Save our Seashore*, and I have spent much of the last 15 months, along with a very selfless and dedicated group of individuals, fending off ill-advised, and irresponsible, industrial wind energy developments along the length of Cape Cod.

I am testifying before you today in the hope that you may benefit from our experience on Cape Cod, which, like the State of CT, suffers from an absence of regulations and an abundance of lavish state and federal subsidies that have provided numerous, and very powerful, incentives for both private, and municipal, entities to enter the wind energy business, in a pell mell fashion, in an effort to cash in on these artificial economic returns.

One of the great, and unacknowledged tragedies of this situation, in my opinion – a subject which I will not be able to give due treatment in this context – is the sheer scale of the economic distortion – and the enormous risk of collapse – that these incentives have created.

Since I have a background in the banking and financial industry (as a lender and a bond trader with several major firms), it was apparent to me early on that the *continued viability* of all of the multimillion dollar projects that were contemplated in Wellfleet, and beyond, was wholly dependent upon the willingness of the federal government, and the Massachusetts legislature, to continue providing subsidies that would allow producers like the tiny Town of Wellfleet to sell their production, continuously over a 20 year life of the project, at a rate that amounted to *four times* the wholesale price of electricity.

Without the subsidies – or even in the face of a *modest reduction* in the amount of the subsidies – the projects would collapse.

I offer this bit of information as an aside for the following reasons:

- 1) I believe that this fact must be acknowledged in any policy-making decisions because it reveals the *vulnerability* of these projects – and of their owner/

operators, including inexperienced, and relatively unsophisticated municipalities, to the abrupt withdrawal – or non-renewal – of these enormous subsidies;

- 2) It highlights the necessity for serious attention to providing ample provisions for the “*de-commissioning*” – the dismantling – of the projects and their massive structures in the event of economic failure, a court decision (based upon impairment of health or property, or environmental degradation), or some other unforeseen event that forces the operators to cease operations;
- 3) It is worth noting that the vast majority of decision making bodies – including many of the towns and Siting Councils that embrace these projects -- are not trained in financial risk analysis and *do not sufficiently appreciate the substantial risks* – and disruptive adverse consequences -- that are embedded in them.
- 4) It is particularly troubling to note, in this context, that *a majority of the projects that have been proposed are being pursued by inexperienced operators* – like municipalities that have never run a business or by shell corporations with no assets, no accountability and no prior experience – even as more experienced operators, and large companies, deem them to be *too risky* or uneconomic.

Most of these operators have no true appreciation of the financial risks, and no experience with, or any understanding of, the technology, which is relatively new and untested, after all. *They are all after the tax write-offs and the subsidies*, and most of them have been actively prospected by quasi-government agencies, such as the Massachusetts Technology Collaborative (now Mass Clean Energy Center), and/or the wind turbine manufacturers.

That is why every Town on the Cape – and everyone who owned a cranberry bog or a gravel pit – suddenly had a plan to install a multi-million dollar wind energy power plant.

I'll leave this topic for now with the simple observation that once we were able to make officials in the Town of Wellfleet appreciate the risks they were taking on their proposed \$6-7 million project, they found this knowledge sufficiently sobering that it became one of the deciding factors in their decision to move swiftly from a unanimous endorsement of the concept to a unanimous decision by the Board of Selectmen to abandon it entirely.

But it took a great deal of effort – and the availability of financial expertise outside of the prescribed process – to achieve this understanding and this result. The Selectmen, who initially were not pleased with our opposition to their proposal, ultimately offered us many letters of thanks for sparing them from a terrible mistake.

I beg you also to understand that great credit is due to the Selectmen of Wellfleet for their willingness to study the issues and to proceed carefully, and not to be blinded by the “conservative” pro forma financial projections that seemed to offer them a much-needed opportunity to balance their budgets – the promise of a painless “free lunch.” Wellfleet is the exception to the rule.

Background of Save Our Seashore and a Brief History of Development on Cape Cod

Until the first week of November of 2009, following a chance visit to the house of my mother-in-law in Wellfleet, MA, I had no particular interest, and certainly no understanding, of industrial wind energy.

On that visit, my mother-in-law – who lives within the Cape Cod National Seashore – told us that one of her neighbors wanted to stop by to talk about the wind turbine that the Town of Wellfleet proposed to install, on a legacy parcel of town-owned land in a pristine woods, in the very heart of the National Seashore, about a half-mile behind her house. She had informed the neighbor that she was “for” the project; that she had voted for it the week before at Town Meeting; and that she was unlikely to change her mind; but he gently persisted and she agreed to meet with him. She asked if my wife and I would attend the meeting.

The neighbor came over and began to explain the ramifications of the project. He was perplexed that the Town had sent letters to 56 abutters to the project -- to residents who are normally fiercely protective of the natural beauty of the park -- and that only 5 had responded.

As it turned out, the simple fact was that no one understood the location, the scale or the consequences of the project; and everyone had been given to understand that industrial wind turbines were silent, and wholly benign.

Within 30 minutes of study, we realized that a terrible tragedy was unfolding; that the consequences to the park, and to the residents in this wild and natural place would be dire; and that virtually no one – including my mother-in-law and her friends – understood any of the relevant aspects of the plan. Yet voters had just approved an expenditure of \$260,000 to pursue a plan that was projected to cost \$5 million (later almost \$7 million) – and which would have had a transformative influence on the Town, on the National Seashore, on a highly treasured scenic landscape, on the natural “soundscape” and upon a substantial tract of fragile, and rare, “unfragmented” habitat.

That was the beginning of my personal odyssey, and of Save Our Seashore, which was founded in a living room by a handful of people who cared passionately about a particular patch of ground, the National Seashore and all of Cape Cod.

We prevailed in our effort to urge the Town of Wellfleet to reconsider its plan and, ultimately, to abandon it, in March of 2010.

Along the way, we reached out to some of the historians in the National Park Service, who sympathized and who told us that our battle was eerily reminiscent of the famous struggle over the Hetch Hetchy canyon that led to the *founding* of the national park service. When John Muir, and the Sierra Club, lost the battle of Hetch Hetchy, they swore “never again” and achieved the passage of the “Organic Act,” which established the National Park service – and which sought to protect the national parks through Congressional legislation that included categorical, and inviolable, prohibitions against all development within the parks, regardless of its perceived merit.

We also reached out to the National Parks Conservation Association (NPCA) and provided them with our research into the inevitable adverse impacts upon the park. Finally, after months of study (and after reviewing, and changing, some of its internal policies), the NPCA issued a letter of support and commendation to Save Our Seashore, on behalf its 350,000 members, for opposing the project and fighting to protect the National Seashore and Cape Cod – *even though our efforts were in direct opposition to the continued, and long-standing support of the park superintendent for the Wellfleet project, and similar initiatives to install industrial wind turbines within the park.* As you can imagine, this step by the NPCA was not taken lightly and was, in fact, quite extraordinary.

We also solicited the help of scientists, acoustic noise specialists, medical professors and clinical researchers, electrical engineers, energy reporters and wind energy authors and experts, wildlife experts and numerous other specialists with formidable credentials and qualifications who had done pioneering work in evaluating the efficacy, and the consequences, of such massive industrial wind energy installations.

As noted, we managed to prevail against considerable odds in Wellfleet in a relatively short amount of time, thanks to a significant amount of help from many sources and the willingness of the Selectmen there to give the problem close study and attention.

But we had become acutely aware that there were numerous ongoing threats to the National Seashore from *other* projects still on the drawing board and which carried the explicit support of the park superintendent – including two large industrial wind turbines that *he* proposed to erect on federal property within the National Seashore. We felt it was our duty to continue our efforts to protect the national park from the threat of additional invasion on multiple fronts.

Even more alarming, we became aware that Cape Cod was positively overrun with project proposals for the installation of 400 and 500-foot wind turbines in places

where they were bound to cause untold misery, due to the population density there, and to do vast environmental damage.

It quickly became apparent that every town had a proposal to build one – or two – or eight – huge wind turbines, with all of them run through an approval process presided over by unsophisticated – or at least, unknowledgeable – local Planning Boards that had no idea what they were getting themselves into.

All of these projects had been percolating for years – fueled by millions of dollars in grant money from the State of MA that provided virtually 100% of the upfront costs of laying the groundwork – and all of them fueled by the desire of these towns to tap into a huge river of subsidies that were funded by surcharges on consumers' electric bills.

Hanging over the entire process was an ominous conflict of interest: the Towns that were *reviewing* the potential adverse impacts of the projects through their Special Permitting process – and granting the permits -- were also *the proposed owner/beneficiaries of the projects!*

The Towns were upholding a pretense of impartiality but were essentially going through a process of granting permits to *themselves* – after years of preliminary effort and after spending hundreds of thousands of dollars of state grant money -- in a state where the governor was exerting heavy pressure on them to help him turn Cape Cod into “the Saudi Arabia of wind.” And, of course, at the end of the rainbow, there was that gleaming pot of gold.

We began to get regular visitors to our website and we begin to get phone calls from concerned citizens. “Please help us!” they pleaded. They, too, had begun to do some research and they feared for their health -- and the health of their children; their quality life; and their value of their property – their homes that they had spent many years tending, improving and religiously paying for, usually with two incomes.

Residents in other towns had been proceeding down a parallel path to Wellfleet – absent some of the considerations revolving around the national park -- and had accumulated similar knowledge and expertise.

Proposals that once seemed to have unstoppable momentum behind them were rejected in town after town *because they made no sense*. Voters, and their town boards and committees in Orleans, Eastham and Harwich all turned away proposals that once enjoyed virtually unanimous support.

Then Old Kings Highway Historic District Commission held its ground and refused to certify a project at the Cape Cod Community College, because they took the very reasonable position that the construction of a 300 foot industrial structure for the purpose of earning a profit for the Community College wasn't *compatible* with the preservation of a designated historic district. When the Community College –

joined by the State of Massachusetts – sued to overturn the ruling, a Barnstable County judge upheld the decision, ruling that the OKH Historic Commission was completely within its rights, and that the argument by the plaintiffs that the Historic Commission should have taken into account the “energy benefits” of the project was completely “without merit.”

The recalcitrant park superintendent’s pet project to build two huge wind turbines in the National Seashore, at a site that was less than a half mile from a major radar installation (and over the objections of both the Air Force and the Federal Aviation Administration) was refused – twice – with an FAA ruling stipulating that the “maximum permissible height” for a wind turbine at the proposed site was “zero feet.”

Projects are still pending in the Towns of Brewster (two 410 foot wind turbines), Bourne (eight 500-foot wind turbines) and Wareham, MA (multiple large wind turbines). A project in Plymouth in a cranberry bog has been approved, but the decision has been appealed. Other towns, including Dennis, are keen to build several, despite close proximity to residences. Personally, I believe that it is doubtful that any of these projects will ever be built because they are all so demonstrably harmful and injurious.

The only large-scale industrial wind turbines that have been built on Cape Cod are the two in Falmouth – largely because the Town of Falmouth decided that it did not need to follow the Special Permit process or hold public hearings in order to build its *own* project – and significant group of residents in Falmouth is now paying a very heavy price. As a matter of fact, the Town of Falmouth proceeded to build their project *even though GE Energy declined to provide them with a bid*, out of concern that one of the sites was too close to a major highway, and, therefore, unsafe.

To their credit, many of these victims in Falmouth – even as they seek some measure of relief from a town government that has chosen to marginalize and sacrifice them, to ostracize and to ignore them – have faithfully attended board and committee hearings in *other* towns from one end of Cape Cod to another, detailing their symptoms of sleep deprivation, headaches, ringing or pressure in the ears, intense flicker effects, and so forth.

They consider this their duty as a public service: to warn their neighbors and to make every effort to ensure that no one else on Cape Cod should suffer the same fate, by falling for the same false and misleading reassurances that lead them to support the projects in their own Town of Falmouth. In return, they are scorned as whiners, or “collateral damage,” by Falmouth and by the wind energy proponents in the other towns.

More recently – belatedly -- the Cape Cod Commission has taken determined steps to formulate Minimum Performance Standards and a detailed Technical Bulletin to govern the installation of these industrial wind energy plants on Cape Cod, with the

intent of fulfilling its stated mission of preserving the scenic and historic character of Cape Cod and of regulating development in such a way that it does not impair the character of the region or threaten the health and well-being of its residents.

This is an extremely welcome, and long-overdue, development and members of *Save Our Seashore* are working closely with the Cape Cod Commission to promulgate regulations that provide some meaningful guidance in all of these areas.

Lessons Learned – Putting It in a Nutshell

As may be apparent from the above narrative, events have been unfolding at a furious pace on Cape Cod as numerous wind energy projects have come to a head.

I am embarrassed to admit that what took us many hundreds of man hours to appreciate – or at least to enunciate – the former Attorney General, and current Senator, from Connecticut, Senator Richard Blumenthal, was able to size up in a matter of days, or even minutes, upon having been presented with a similar problem in Connecticut by making two very perceptive points:

1) Senator Blumenthal said, in his press conference in early January on this subject, that the current process, as prescribed in Connecticut, is virtually “*lawless*.”

When questioned on this point, Senator Blumenthal was quick to clarify: he did not mean that the applicants, the Siting Council, or anyone else was breaking the law. What he meant was that “there simply *are no laws*” to provide the standard protections to property owners, communities and other stakeholders. None.

2) After hearing the litany of problems that had been revealed, or had ensued, from projects on Cape Cod and all over the world, Senator Blumenthal observed that the fundamental problem is that industrial wind energy installations are essentially “*incompatible*” with other, pre-existing, and wholly legitimate, rights and uses of property for residential development; for scenic and historic preservation; for recreation; and for natural conservation.

Industrial wind turbines – towering 400 and 500 feet in the air, with a rotor width in excess of 300 feet, with individual blades weighing over 7 tons rotating at speeds in excess of 150 mph and emitting loud, unrelenting, repetitive, rhythmic, high intensity, pulsing noise and flicker -- are nothing less than giant, industrial, kinetic physical power plants.

They are massive in scale; they are dominant, intimidating and incongruous on the landscape; they emit industrial noise – 24 hours a day – which is demonstrably much more destructive to health and much more disturbing than noise of comparable loudness from other more familiar sources such as railroads, airports or highways; they drive off and disrupt wildlife; and they therefore constitute a distinct

threat to the use and enjoyment of property for *other* purposes and objectives, such as residential development, recreation, historic preservation or conservation.

I would like to extend Senator Blumenthal's analysis a bit to propose the following framework for describing, and evaluating, this problem – the same framework I have proposed to the Cape Cod Commission:

1) Acknowledge the legitimacy of the rights and interests of existing property owners

Regrettably, the usual point of departure for the discussion of the merits of any proposal is the assertion by the proponents of “our need to promote the development of renewable energy”; to reduce green house gas emissions; to meet a State renewable energy goal; or to earn revenue for the Town.

But, in so doing, *we fail to acknowledge the legitimacy of existing property holders* who were there first; the actual code of the zoning bylaws or Special Permit provisions; hundreds of years of legal tradition; and even the Bill of Rights.

All of these sources reinforce the idea that no developer has the right to impair the use and enjoyment of property by his neighbors or to impose unreasonable costs upon the community.

Wind energy developers invariably *presume* that their interests should supersede all others – to be accorded some sort of special status as if we were in a time of war -- even though all of the financial *benefits* of the project accrue to the developer and *all of the adverse consequences and external costs of the project* are imposed upon innocent third parties.

So the point of departure for any meaningful and equitable legislation must be to acknowledge the legitimate rights of existing property holders, and to assert that wind energy developers, notwithstanding their assertions to the contrary, do not possess any pre-emptive rights to the use and enjoyment of property.

This is consistent with all of our zoning laws, with the Special Permit language and with hundreds of years of tradition concerning property rights.

2) Acknowledge that the development of industrial wind energy is fundamentally incompatible with many other legitimate, antecedent uses of land

If this is true – and, if not self-evident, it is very easy to establish – then this means that *other, pre-existing, legitimate stakeholders are deserving of protection from the adverse impacts of wind energy development.*

Care should be exercised to see that these other legitimate interests – some of which, like the National Seashore, have defended their interests against multiple threats literally for generations – are adequately protected.

A “lawless” Siting Council – with no rules, no guidelines, no experience and no understanding of the underlying issues – will never be able to accomplish this task.

3) The “Burden of Proof” rests with the Developer to prove the “Absence of Harm”

Currently, due to poisonous interaction of a number of factors -- including the lack of regulation and the presumption that wind energy possesses some sort of ill-defined, pre-emptive rights -- the *wind energy developers are virtually never held to the appropriate standard of proving that their projects will not impair other legitimate interests.* This is true, notwithstanding specific language to this effect in many Special Permit provisions in the zoning laws of individual towns!

The perverse result in Cape Cod is that residents who are under threat – or, as in the case of Falmouth, already being subjected to daily misery – are draining their bank accounts, skipping insurance payments or IRA contributions and liquidating retirement accounts or college funds to hire their OWN lawyers, acoustic consultants, real estate appraisers, and other expert witnesses, to fend off the threat. This is completely inappropriate and unjustified. In fact, it is criminal.

God forbid that a project should be approved, and built, in violation of normal due process and numerous safety provisions, after a long campaign of willful denial of the applicable standards or in a grossly negligent manner. Then the victim’s only recourse is to pursue an expensive lawsuit against his own town, when everyone knows that judges are notoriously reluctant to second guess municipal planning boards, despite these extenuating circumstances and the obvious conflict of interest.

I believe that if legislators keep these three principles in mind – and flesh them out appropriately – they will prevent a great deal of harm.

We could write a dissertation cataloguing the various tests that could be applied -- the mechanisms – to accomplish these tasks. In fact, this is what the Cape Cod Commission is currently endeavoring to do in a simplified fashion.

Needless to say, this will require some time and effort – which is a powerful argument in favor of a moratorium to ensure that sensible protections are enacted. But it should be clear that the current “lawless” regime, run through the Siting Council, provides *none* of these protections and is wholly inadequate to the task.

Conclusion

Please keep in mind that anywhere there is potential for profit – especially for profit that is artificially inflated, or supported, by very large subsidies, in combination with a lack of regulation -- there is ample scope for waste, abuse; and even tragedy.

Our government -- our legislatures and our state and federal executives – created and enacted these incentives and they have a responsibility to protect citizens from the gold-rush mentality that currently prevails which, after all, is a product of their own creation.

Finally, we beg you to remember that one critical function of the Rule of Law is to protect the weak and the powerless – especially when they are divided and disorganized – from the over-riding influence, even the predations, of others who are economically powerful and politically well connected.

Thank you for your time and consideration of these important matters.