

PO Box 193
Hornell, NY 14843
August 16, 2019

REFERENCE: CASE NO. 16-F-0205; CANISTEO WIND

Dear Secretary Burgess:

Would you kindly record the following statement in its entirety in the comments section of the above referenced case?

Sincerely,

James Koegel

PO Box 193
Hornell, NY 14843
August 16, 2019

The Honorable Judge Maureen Leary
New York State Department of Public Service
Three Empire State Plaza
Albany, NY 12223-1350

REFERENCE: CASE NO. 16-F-0205; CANISTEO WIND

Dear Judge Leary:

I want to offer some additional comments against this project.

First, although it may not appear so from my previous comments and statements to the Board, I am supportive of sensible efforts to develop alternative forms of energy with the conditions that they are technically feasible; are included as integral parts of the energy production system; that after their early stages, will be economically sustainable at the same level as established forms, and that in all ways, economically, environmentally, and technically, they create a net contribution to our way of life, rather than a net loss.

In over a year of personal research, I have found no evidence that any of these criteria can ever be met by wind energy as we now know it.

My military background in the Navy was Marine Propulsion Engineering. I attended several technical college level courses addressing such topics as thermodynamics, steam boiler and steam turbine design. I also studied and received practical training in operation, maintenance, and casualty control of turbine driven main propulsion engines, turbine generators, and auxiliary systems. Additional study and training covered shipboard damage control and firefighting, as well as heating and air conditioning, pumps, hydraulic, water distillation, and electrical systems as applied to Naval combatant and auxiliary vessels.

Bearing in mind my familiarity with large industrial power systems, I'd like to relate a recent conversation I had with an Invenenergy manager regarding the technical aspects of wind energy as compared to conventional sources. The manager stated, "*Wind is reliable; coal (and other fossil fueled generating plants) is not.*" When asked, he could not explain to me why sailing ships were replaced with steam driven vessels one hundred fifty years ago. On reliability, I also asked what happens when the wind stops blowing. "*Our goal is to have the entire country blanketed with wind turbines, so as the wind ceases in one area, the other areas, all interconnected by a huge new grid will pick up the load.*" My response: "If the wind stops blowing nationwide, you will still need other sources of back up power which can be brought on line instantly. This means either gas turbines, or nuclear, or fossil fueled plants driving steam turbines. A steam driven plant cannot be brought from cold iron to full power instantly; it takes several hours, thus they must always remain idling and ready to take over quickly, thus for every watt of potential output from wind, you must always have an equal amount available from another

source as back up.” *“That’s not true. Wind will not need a back up source; we are working on storage systems for wind generated electricity.”* “Such as??” *“There will be storage batteries to hold power generated by wind.”* “ If this was feasible on an industrial scale, it would have already been done. Tell me about the technology that will make this possible.” *“It hasn’t been developed yet.”* “What else??” *“Compressed air, we are going to use compressed air as a back up power source.”* “Do you truly believe you can extract as much energy from compressed air as from high-pressure superheated steam?” *“It is feasible.”* My response, “Compressed air, pound for pound, does not and will not ever equal the potential energy of steam. Not only is wind energy unreliable, it is much more expensive.” *“No it’s not, it’s actually cheaper than other forms of electricity.”* “But that’s before you factor in your subsidies, isn’t it? It’s well- established in the wake of other projects that the cost of wind generated power is actually more expensive, isn’t it?” *No response.*

This individual was unwilling to discuss the number of wind turbines it would take to equal the output of one nuclear plant, or how many acres of land would be consumed in comparison.

The discussion continued on for some time in this vein. I finally summarized by stating that every technology, system, and device ever created will always have strengths and weaknesses. While fossil fuels, and nuclear have theirs also, the glaring difference is that we are well acquainted with their shortcomings, and thus far have accepted them in exchange their benefits. As with other wind proponents, he refused to acknowledge that wind power has any shortcomings whatsoever, instead seeing it as the ultimate answer with no down sides.

That an uninformed member of the public would take this view might be understandable. But it is inconceivable to me that a wind project manager, presumably with some technical expertise could adhere to such a philosophy. It strongly suggests one of three possibilities: Perhaps this manager has just been sadly misinformed on the basic laws of physics and technology, beginning with junior high school science and continuing on to the present. Possibly he is actually well aware of the true facts, and must espouse the company’s policy, however misleading and deceitful. Finally, and most frighteningly, perhaps he and other developers are actually so delusional and out of touch with the laws of physics and mechanics, that they actually believe their own gospel.

Regardless of which possibility or combination of, this is just one more indicator that the public has been deceived about the potential advantages of wind energy. As in all other facets of the argument for wind energy, the developers have been arrogantly, outrageously dishonest in their dealings with the public. All aspects of our future well-being are at stake in this decision. I ask in the strongest of terms that as a public agency, you intervene to protect our health, our environment, our economy, our very future, and deny permission for this project and others following to proceed.

Sincerely,

James Koegel

Canisteo, NY