Helen Schwiesow Parker Presentation to the MVC on DRI #688 (continued @ 3-21-19)

"What are the benefits locally or globally to inviting Big Wind into our energy portfolio? When I asked that Q at the wonderful HS/Felix Neck-sponsored Climate Cafe in late January, the immediate answer was not about the climate, or clean energy, but that the State says this project will save ratepayers \$1.4B over 20 years....

Martha Coakley testified that requiring utilities to buy renewable energy would *increase* ratepayer costs substantially. [4] In setting out his energy plan, President Obama famously predicted that under his plan to move the US from 4% renewables in 2015 to 28% by 2030, electricity prices would "skyrocket."

Instead of a he said/she said on this, let's take a look at the real-world data. We're blessed by having LOTS of data from other countries who have invested billions upon billions into wind and solar power. What can we learn from their experience? Charts 2 and 3.

And these high prices come on top of what taxpayers and ratepayers will have already paid. [Not 'private companies taking the risk' as many presume.] Commonwealth Magazine tells us that most, if not all, of the costs associated with the Vineyard Wind project will be covered through the Massachusetts contract, which itself, of course, is paid for by Bay State tax- and ratepayers. [5]

Someone at the Mocha Mott's Climate Cafe made the wonderful point that it's time for America to step up and do the right thing, use our technological expertise and wealth to help in this global challenge, to help the least fortunate among us and the less-developed nations in the world lacking adequate clean water, sanitation, ...energy to keep food from spoiling and contamination. **But renewable energy means high-cost energy.** It's not what you hear, but it's what is so. And it's the poorest in our communities and around the world who suffer the most from high energy costs. Abundant, affordable, *reliable* energy is what's needed in developing nations for a pure water supply, clean heat, safe food. High energy costs increase the cost of manufactured goods, heat, food, the basics of life - where every dollar is already stretched to making hard choices amongst the necessaries.

Victoria: Power prices up 12% in 2017, and an additional 16% in 2018. Over the last 12 months, over 60,000 Victorian households were cut from the grid because they couldn't pay their bills. More than 100,000 Australian families had their power cut off last year, and another 100,000 are on payment plans with their electricity providers. [6]

Pretty much *everyone* agrees that the #1 hero in this effort is **energy conservation.**BigWind is the *exact opposite* of energy conservation. It requires vastly more raw materials than conventional generation, ...and it results in more conventional fuel consumption and greater CO2 emissions. Flash Chart 4. Why? How?

Most fundamentally, since the physics of electricity requires moment-to-moment generation of dispatchable energy every time we flip the switch, in order to avoid extended blackouts such as the '77 New England grid collapse, ample, fully redundant backup generation must be available 100% of the time to 100% of the anticipated need.

What that means is that BigWind effectively builds in a second, *very big* shadow system which works very inefficiently. Repeat Chart 1. Comp Size

Once BW gets into the energy portfolio, it gets first dibs at the table, but the backup conventional plant must be maintained as fully and safely operational, ready to sprint onto the grid whenever the wind isn't blowing, or is blowing too hard, which happens a lot. When intermittent wind power **comes in**, the conventional baseload or fast-response plant is **cut back** (with energy shed in the process), then **ramped up** when the wind suddenly goes **missing** (guzzling fossil fuels just to get back to the level where it can go solo again).

With this inefficiency in the system - increasing %s of BigWind in the energy portfolio result in more, not less fossil fuel consumed and more not less CO2 produced. Chart 4 (FR/DK)

In South Australia late January, when the wind died back in the midst of a heatwave, after their new 100MW battery ran dry, they started up their new bank of diesel generators, burning 80,000 liters of diesel per hour to keep the lights on.

Repeat Chart 1. Wind energy is so diffuse that any harvesting mechanism must be MASSIVE. It takes enormous amounts of energy to manufacture, transport, install and maintain these monsters of redundancy. Generating @ 30% capacity, 2 VW-size arrays: 168 turbines 80 stories tall w/ nameplate capacity of 1,600MW spread across 500 sq mi, would put out (off-peak and off-season) 480MW ~= the amount (500MW) produced when we need it from reliable, *dispatchable* relatively clean nGas plant spread over several acres.

We must keep both systems - enormous Wind Plants and conventional too. Wind is purely additive, redundant, and counterproductive to our aims.

Based on a study of Danish offshore wind, the actual output of offshore turbines declines from 39 percent to 15 percent after 10 years. [7] We're rightly concerned about plastic bags and plastic straws. These turbines are not bio-degradable, and will need to go someplace when they wear out before our trucks do. How is this prudent, and who pays?

Remember this photo from the Vineyard Wind COP? Really? You think it's in the planet's

best interest to haul 84 of these over here from Europe, piledrive them in, let them run at 39% capacity down to 15%, pouring infrasound out to our shores with its consequences to island residents and visitors, to marine life including the endangered Right Whales, and then 10 years later take the towers out and dispose of the non-recyclable bladeswhere? And, then what? do it all over again? With all these significant health, environmental, cost downsides, isn't it important for us to look at what the Vineyard is being asked to take on with our innocent and well-intended efforts? The truth of it?

We're told we'll barely see the turbines from the south shore. Look at how Washburn Island (**elevation 24'!**) at the mouth of Waquoit Bay 6.6 miles from the MV Drawbridge Beach appears to the naked eye (50mm focal length lens), and look at what the BOEM Visual Simulations tell us we'll see of **795' spinning towers** a little >twice the distance out. Think about it. Can you trust anything in that report?

One of the worst/scariest aspects of this proposal to me is the increasing threat of an enduring blackout such as was recently experienced in Venezuela, with tragedies and trauma of unimaginable proportions. Yet that's what we're headed toward with the insanity of putting these things in, up and down the Eastern Seaboard.

A recent (Fall 2018) call-to-action report from The Institute of Engineering and Shipbuilding in **Scotland** (IESIS) pointed to the fact that "relying on wind farms...has led to the 'growing likelihood of a complete failure of the electricity system. [8]

"Being able to rapidly "Black Start" the country is a public health priority and, rightly, a public expectation. **In Scotland it is presently an unrealisable imperative.**

"Industry expectation for Scotland to Black Start has now risen to five days and the *replacement of* large-scale dispatchable on-demand generation with weather-dependent intermittent distributed renewables is the cause." **

This is what the Vineyard Wind project will bring home to MA, to us at ground zero for the experiment. Precedents run both ways.

The World has been all in for 40 years, duped by BigWind's lies and manipulations and empty braggadocio. We'll never find a solution if we don't re-direct **from bigger** and bigger turbines **to R&D into energy generation that works. Wind doesn't.**

Will your decision usher in the beginning of an un-imagined energy, economic, environmental, health and public safety nightmare with **this largest offshore wind installation in the world, beginning the parade** up and down the Eastern Seaboard? Or will you have the courage and are you willing to take the time to look the truth in the eye? We can be a world leader in this. The Vineyard 'brand' can send the truth about Big Wind to all nations.

For the love of the planet, for your legacy to the world, PLEASE JUST SAY NO.

Respectfully submitted, Helen Schwiesow Parker, PhD, LCP Chilmark

- [4] http://archive.boston.com/news/local/massachusetts/articles/2011/11/09/
- ag_energy_costs_rising_under_mass_renewables_law/
- [5] https://commonwealthmagazine.org/energy/vineyard-wind-backed-by-baker-plays-power-politics/
- [6] https://stopthesethings.com/2019/03/06/victorias-victims-wind-solar-obsession-sees-60000-families-cut-from-the-grid-after-another-16-power-price-hike/
- [7] https://wattsupwiththat.com/2018/12/29/wind-farm-turbines-wear-sooner-than-expected-says-study/
- [8] https://stopthesethings.com/2019/01/04/wind-power-chaos-reigns-scots-build-diesel-generators-brace-for-week-long-blackouts/

I invite you to look at two articles which detail and substantiate the health impacts of industrial-scale wind turbines: "The Secret Silent Wind Power Peril" on Master Resource (2-7-2017): https://www.masterresource.org/windpower-health-effects/ secret-silent-wind-power-peril-1/

...and the 17 comments on the piece (some from turbine victims with their own links to more important material) reblogged as "The Hidden Human Tragedy Caused by Incessant Wind Turbine Noise": https://stopthesethings.com/2017/02/24/the-hidden- human-tragedy-caused-by-incessant-wind-turbine-noise/

Also: "Science Deniers in the Wind Industry: The Human Health Consequences of Manipulated Measurements" in Watts Up With That? 3-8-2017: https://wattsupwiththat.com/2017/03/08/science-deniers-in-the-wind-industry/

The first link is to the 5400-word version in its invited setting. 'Science Deniers...' is a 1200-word version which was picked up by dozens of websites; the Watts Up With That site drew some 300 comments. Bear in mind that most of these citations refer to MUCH smaller turbines, most ~Falmouth/Bourne size.

There are innumerable clinical studies of the health impacts of IWTs in the literature. Should a majority of the MV Commissioners usher in the VW project, however, Martha's Vineyard will surely be poised to make a globally significant contribution to our understanding of WTS, such as has never been possible. A non-invasive, in vivo clinical study, n=10,000++, pre-turbine, longitudinal, very powerful case-crossover statistical design (same subjects in different circumstances - leave the island, come back, include visitors' experiences, all ages.)

I pray we never go there.