Noyes, Thomas G. (DNREC)

From: John NIchols <j.nichols87@yahoo.com>
Sent: Tuesday, October 17, 2017 10:30 PM
To: Collins, Richard G (LegHall); Bryant Richardson; Colin Bonini; Greg Lavelle; Lawson Dave (LegHall); Gray, Ronald (LegHall); Simpson, Gary (LegHall); Kowalko, John (LegHall); McDowell, Harris (LegHall); Howatt, Robert (DOS); Slater, Andrew C. (DOS); Todd Goodman; Paradee, Trey (LegHall); Office of Governor John Carney; Goggin Brenna; Richard Jones; Noyes, Thomas G. (DNREC)
Subject: Full speed ahead!

http://dnrec.alpha.delaware.gov/energy-climate/renewable/offshore-wind-working-group/

Funny, at their first meeting the chairman said they were going to "approach this with an open mind".

Do these comments seem to be inquiring?

From the website:

- Study how Delaware **can** participate in developing offshore wind
- Identify ways Delaware **can** benefit economically and environmentally from offshore wind power
- Make specific recommendations for Delaware to **move forward** in offshore wind power development

Offshore wind levelized cost is **at least** 3 times more than a new combined cycle natural gas generator (CCNG). Bloom Energy was worse, but this cost is still far above market cost for new generation resources.

The U of D Professor of Economics, Edward Ratledge once referred to this as a "green premium". I think "red", in reference to ink and politics, is the more appropriate color to describe the added cost.

CCNG operates **86% of the time** and adds to capacity. Capacity is energy supply that can be reliably dispatched to meet demand.

Offshore wind **operates about 35%** of the time and adds almost nothing to capacity. This is because it can not be dispatched. As a consequence, wind only serves to temporarily **displace** reliable generation.

Reliable generation sources are coal, nuclear, natural gas, and to a more limited extent hydro-electric, which is dependent on water levels behind the dam.

When demand increases, which must occur to create real jobs and the revenue necessary to pay the national debt, new **reliable generation** must be built. This means society pays twice for same needed supply. This is simply absurd.

No society, or business for that matter, on earth ever "conserved" itself to prosperity. If this project gains traction, Delawareans can look forward to dismal economic results. The few temporary jobs created will not replace the real jobs lost, or not created, because of the high cost of electricity.

Worse still, when you need electricity the most is when wind energy is least available. The best you can expect on hazy, hot, summer days is about 7% of nameplate capacity. This is because a high pressure system can settle over the East Coast from Florida to Maine and the wind simply does not blow.

Since weather rules availability, does wind appear to be a sound business strategy? Of course not, which is why wind is still subsidized - decades after it first appeared. The industry is like a child that never leaves home and depends on mom and dad to pay his or her way in the world. The time to lift this burden off the backs of taxpayers and ratepayers is long overdue.

Lastly, wind blows mostly at night when you need it the least. Wind actually displaces reliable and inexpensive nuclear generation, and now natural gas at night, because wind generators accept bids into the PJM auction at zero, or less than zero. This is possible because wind is paid Federal Production Tax Credits and various state subsidies - which includes Delaware. These market distortions are forcing reliable generators to shut down.

Representative Grey, who is an engineer, most certainly understands these concepts. May I suggest you consult with your colleague if you doubt my veracity?

Ignorance can be excused; but once educated, funding wind can only be identified as stupidity.

Mr. Noyes, please include these comments as part of the public record.

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