Fifteen Bad Things with Windpower-and Three Reasons Why

by John Droz Jr. September 20, 2010

Trying to pin down the arguments of wind promoters is a bit like trying to grab a greased balloon. Just when you think you've got a handle on it, it squirts away. Let's take a quick highlight review of how things have evolved.

- 1 Wind energy was abandoned well over a hundred years ago, as it was totally inconsistent with our burgeoning more modern needs of power, even in the late 1800s. When we throw the switch, we expect that the lights will go on 100% of the time. It's not possible for wind energy, by itself, to ever do this, which is one of the main reasons it was relegated to the dust bin of antiquated technologies (along with such other inadequate sources like horse power).
- 2 Fast forward to several years ago. With politicians being convinced by lobbyists that Anthropological Global Warming (AGW) was an imminent threat, a campaign was begun to favor all things that would purportedly reduce CO_2 . Wind energy was thus resurrected, as its marketers pushed the fact that wind turbines did not produce CO_2 in their generation of electricity.
- 3 Of course, just that by itself is not significant, so the original wind development lobbyists then made the case for a quantum leap: that by adding wind turbines to the grid we could significantly reduce CO_2 from fossil fuel electrical sources (especially coal). This argument became the basis for many states' implementing a Renewable Energy Standard (RES) which **mandated** that their utilities use an increased amount of wind energy.
- 4 Why was a mandate necessary? Simply because the real world reality of integrating wind energy made it a very expensive option. As such, no utility company would likely do this on their own. They had to be forced to.
- 5 Interestingly, though the stated main goal of these RES's was to reduce CO_2 , not a single state's RES required verification of CO_2 reduction either beforehand or after the fact from any wind project. The politicians simply took the lobbyists' word that consequential CO_2 savings would be realized.
- 6 It wasn't too long before utility companies and independent energy experts calculated that the actual CO₂ savings were miniscule. This was due to the inherent nature of wind energy, and the realities of balancing the grid (with fossil fuel sources) on a second-by-second basis. The recently released <u>Bentek study</u> (*How Less Became More*) is a sample independent assessment of this aspect.

- 7 The wind lobbyists soon added another rationale to prop up their case: *energy diversity*. Since we already had considerable diversity, and many asked "more diversity at what cost?" this hype never gained much traction.
- 8 The next justification put forward by the wind marketers was *energy independence*. This cleverly played on the concern most people have about oil and mid-eastern instability. Many ads were run promoting wind energy as a good way of getting away from our "dependence on mid-eastern oil."

None of these ads mentioned that only about 1% of our electricity is generated from oil. Or that the US *exports* more oil than we use for electricity. Or that our main import source for oil is Canada (not the mideast). Despite the significant misrepresentations, this claim still resonates with many people, so it continues to be pushed. Whatever works.

- 9 Presumably, knowing full well that the assertions to date were specious, wind proponents manufactured still another claim: *green jobs*. This was carefully selected to coincide with widespread employment concerns. Unfortunately, when independent qualified parties looked closer at the situation, they concluded that the claims were wildly exaggerated. Big surprise!
- 10 Relentlessly moving forward, the wind marketers then tried to change the focus from jobs to "economic development." Developers utilized a computer program called JEDI to make bold economic projections. Unfortunately JEDI is a totally inadequate model for accurately arriving at such numbers, for a variety of good reasons. These contentions have also been shown to be inaccurate.
- 11 Along the way, yet another claim has been made: *that wind energy is low cost*. This is surprisingly bold considering that if that was really true, then why would any RES be necessary? For some reason all "calculations" showing wind to be low cost conveniently ignore exorbitant subsidies, extra backup and balancing costs, additional transmission costs, etc. Independent analyses of levelized costs (e.g. from the <u>EIA</u>) have concluded that wind energy is much more expensive than any conventional source we have.
- 12 Modern civilization is based on our ability to produce electrical POWER. Our modern sense of power is inextricably related to controlled performance expectations: when we throw the switch we expect the stove to go on 100% of the time not just when the wind is blowing within a certain speed range. A fundamental assertion of wind promoters is that there is an equivalence between wind and conventional power sources. (That is the basis for such claims that XYX wind project will power 1000 homes.) This is false from several perspectives. The obvious error is that XYX wind project will NOT provide power to any 1000 homes: **24/7**. It might not provide power for even 1 home 24/7.
- 13 A more subtle (but significant) difference is in **power quality**. This term refers to such technical performance factors as voltage transients, voltage variations, waveform distortion (e.g. harmonics), frequency variations, etc. The reality is that wind energy

introduces many more of these issues than does a conventional power facility. Additional costs are needed to deal with these wind caused problems. *These are rarely identified in economic analyses*.

14 – A key grid ingredient is **Capacity Value** (for layman: this is an indication of dependability). Conventional sources (e.g. nuclear) have a Capacity Value of about 99%. Wind has a Capacity Value of about 0%. *Big difference!* Wind apologists first stab at solving this major problem was to assert that if many wind projects over a wide geographic area were joined together, that the composite would look like a real (conventional) power source.

Like most of their claims this came from the imaginations of promoters, rather than empirical evidence. When real world data was looked at (e.g. a 1000± mile spread of wind projects in SE Australia on a single grid) no such result appeared. Back to the drawing board.

15 – Here is the latest spiel. Since this enormous Capacity Value discrepancy is indisputable, wind energy marketeers decided to adopt the strategy that wind energy isn't a "capacity resource" after all, but rather an "energy resource." Surprisingly, this is actually the first contention that is actually true! But what does this mean?

The reality is that saying "wind is an energy source" is a trivial statement, on a par with saying "wind turbines are white." The fact is that your cat is an energy source too. So what? Lightning is an energy source. So what? Should we also connect them to the grid (after subsidies, of course)?

Again, our modern society is based on reliable and economic electric **power**. Making claims that wind provides us energy is simply another in a long line of misleading assertions that are intended to fool the public, to enable politicians to justify favoring special interests, and to enrich various rent seekers.

All this comes about for three basic reasons:

- 1. Wind proponents are not asked to independently PROVE the merits of their claims before (or after) their product is forced on the public,
- 2. There is no penalty for making specious assertions about their product's "benefits," so each contention is more grandiose than the last, and
- 3. Promoting wind is a political agenda that is divorced from true science. True science is based on real world data not carefully massaged computer models, which are the mainstay of anti-science agenda evangelists.

So, in effect, we have come around full circle. A hundred plus years ago wind energy was recognized as an antiquated, unreliable and expensive source of energy, and now (after hundreds of billions of wasted dollars) we find that (surprise!) it still is an unreliable and

expensive source of energy. This is what happens when science is relegated to a back-of-the-bus status.

Paraphrasing Dr. Jon Boone:

Let's see the evidence, in the real world, for the lobbyists' case. I'm weary of these relentless projections, uncontaminated as they are by reality. In a nutshell, what these profiteers are seeking to do, through methodological legerdemain, is to make wind appear to be what it is not. This is a plot lifted out of Cinderella and her step sisters, or the Emperor's New Clothes. It's really a story of class aspirations, but one that is bizarrely twisted: giving wind a makeover to make her seem fetching and comely when in fact she's really a frog.

See my online presentation at <u>EnergyPresentation.Info</u> for more details, which includes numerous references.