Wind power is one of the cleanest and greenest generation options out there, but land-based turbines can be maintenance nightmare. Managing the fluctuating power output in the face of constant demand is challenging. The noise is unwelcome, too.

Extensive offshore wind farms have been hailed as the answer, particularly in the power-hungry eastern U.S. But a new study out of the University of Maryland shows the trade-offs involved in building out capacity for offshore generation and delivery might be a deal breaker.

In the report, "Maryland Offshore Wind Development," power experts with the school’s Center for Integrative Environmental Research say that in addition unintentionally interfering with a major NASA radar installation, inadequate transmission facilities on Maryland’s Eastern Shore would lift the price tag for distributing energy to the grids. Currently, Delaware has better access. According to the Univ. of Maryland researchers, the impediments to the project are “not technical, they are institutional”.

Europe is so far ahead in offshore wind, comparing deployments there to projects in the U.S. is like apples and oranges. The cost per kilowatt-hour is high in Europe, but the number of jobs generated by these installations helps justify the expense. Most importantly, they are showing that offshore wind is, technologically, a viable generation solution.

In the U.S., the energy game is an arm-wrestling match between FERC and a deregulated industry. Competition is high, but so is the frustration level for getting new projects done. In a recent interview with National Public Radio, Linda Blair, an executive of ITC Holdings, which is trying to build a major transmission line from wind farms in the Midwest to the metropolis of Chicago, says that regulations have extended their construction timeline from two years to 10-15 years. The Cape Shore Wind Project in Massachusetts, all 468-MW worth, took eight years to get approved.

Tax credits and rising energy costs have encouraged utilities to invest in wind. Some states, like Texas, have helped get projects off the ground quickly. But the multi-state efforts are causing headaches as investors begin running into regulations. The rule that’s likely to hurt Maryland’s project the most is the need for public utility commissions to show their customers they have the power generation capability before they can build a transmission line to carry it. Which means an expensive array of turbines could sit unused at sea for some time before getting “plugged in”.

Wind and solar together account for little more than 1% of U.S. electricity generation. Clearly, neither is good enough on its own—or together—to diversify our power portfolio. But at least wind power, generating about a quarter of what hydroelectric does each year, is on the map. Coal may always be cheaper, but is that how we want light our homes forever? Investors are willing; engineers are willing; even utilities are willing despite the risk of losing out completely if a wind power start-up goes belly up. Sadly, we are unable to move forward quickly enough, even
when the money and the know-how is on the table, because byzantine regulations are stalling the same entrepreneurial spirit the current administration claims to espouse

The telecommunications industry was able to adapt to changing data needs by “building out” fiber optic trunks long before they were needed to carry data. As time passed, demand for bandwidth easily made up for the investment. This model has pushed the biggest players, like Ciena and Alcatel, to pioneer blazingly fast 100G networks, because they know we’ll need them.

Shouldn’t our power grid conform to this model? Wouldn’t that be smart? 

Wind power is one of the cleanest and greenest generation options out there

ONLY if you ignore certain costs and expenses... but then again, everything becomes the best when you do that...

Shouldn’t our power grid conform to this model? Wouldn’t that be smart?

it DOES conform to that model... your assuming that if they are nto doing it, then its a different model.

but the model you evoke points to a clear profitable outcome later, and thats not possible with wind.

ie. business people are better at calculating such things than ideologues who desire and think empirical reality is just a lie to keep them out of the game.

they ARE following that model, and since there is no profit to be made, there is no investment in that future.

any business that needs subsidies from the state who needs to steal it from people to make a winner out of a losing horse, is not a business.

its a command economy boondoggle propped up by collectivistic people (like this author) who do not reason past their desires to see how forced implementation by the state means we trade freedom away

Posted by: Artfidgr at 10/27/2010 2:40 PM