Solving wind energy storage problems

M. Simon, Technical Contributor

 When it comes to alternative energy, I have been a big fan of storage. Alternative energy will not be viable for large-scale power delivery to the grid without storage. My friend Clyde knows of my obsession with storage. He suggested I look into GE's new wind turbines [1]that come with storage attached. GE Wind Product Line General Manager Keith Longtin had this to say:

> *“Every application will be a little different, but 25 kilowatt-hours to 50 kilowatt-hours of storage is adequate for any of the three applications,” Longtin said. “The 50 kilowatt-hours will give you predictable power in the range of 30 minutes.*

For a wind turbine that can produce 2.5 Megawatts of power, that is not a lot of storage. But it is enough to reduce short-term fluctuations. The kind of fluctuations that can play havoc with keeping power flows in the grid matched with demand. Longtin goes on to say:

> *“We are not working on large-scale storage for arbitraging or moving power from night to day,” Longtin said. “Batteries would have to come down to a cost point to us on the order of $200 per kilowatt-hour. It is on the order of $800 per kilowatt-hour to $1,000 per kilowatt-hour today.”*

Wind is a variable power source - some days you don't have any. Which means you still need to have backup generators. All this development means is that when the wind is blowing, power delivery will be steady. So this design only fixes short-term wind-energy management problems. I'm not impressed. Backup generators will still be required to manage longer-term fluctuations. But as my friend Clyde says, "It is a start."

M. Simon's e-mail can be found on the sidebar at Space-Time Productions [2].

Engineering is the art of making what you want from what you can get at a profit.

Links:
[1] http://theenergycollective.com/hermantrabish/221471/ge-energy-storage-wind-turbine
[2] http://spacetimepro.blogspot.com/