

Costs dropping, wind power storage on the horizon

Worldwide demand for new wind power installations declined to about 32 gigawatts in 2013 but is predicted to rise to about 43.7GW in 2014, according to Bloomberg New Energy Finance, which says the cost of wind energy has declined to within 5.5% of the cost of electricity produced from coal.

?Turbine prices have fallen 26 percent worldwide since the first half of 2009, bringing wind power within 5.5 percent of the cost of electricity from coal, according to data compiled by Bloomberg,? according to a recent issue of Business Week.

Power from coal costs about \$78.30 a megawatt-hour to produce and gas costs \$69.71, compared with \$82.61 for onshore wind farms, according to data compiled by Bloomberg, the publication reported.

Harvard University has developed a chemical battery capable of storing wind energy and converting the charged chemicals into usable electricity. However, according to reports, the chemicals used in the initial development are too corrosive for a commercial application so the search is on for a different chemical for the cathode side of the battery.

Elsewhere, a Norwegian company is reported to be researching the use of surplus wind energy to pump water back into hydroelectric dams so that hydro could be reliably generated when the wind stops blowing.

On investments in wind energy in what appears to be a competitive environment, Warren Buffett is investing \$1-billion in wind energy in Iowa.

?MidAmerican Energy Holdings Co., a unit of Buffett's Berkshire Hathaway Inc. (A:US), yesterday announced an order for 1,050 megawatts of Siemens AG (SIE) wind turbines in the industry's largest order to date for land-based gear,? according to Business Week.

?Wind is the cheapest source of power in Iowa, and the deal indicates that turbines are becoming profitable without subsidies, according to Tom Kiernan, chief executive officer of the American Wind Energy Association trade group. That's a boost for suppliers including Siemens, General Electric Co. (GE:US) and Vestas Wind Systems A/S (VWS), and a threat to coal miners such as Peabody Energy Corp.?

Meanwhile, here in Ontario, wind energy continues to face opposition based on costs associated with the Feed-in Tariff program, health issues, possible threats to birds and bats and possible devaluation of property values, among other things.

Locally, Melancthon resident Dennis Sanford, who heads an anti-wind group, is appealing the Environmental Review Tribunal's upholding of Dufferin Wind Powers Renewable Energy Approval.

And, in Grey Highlands, Lorrie Gillis, who represents Wind Concerns Ontario locally, has recently been highly critical of Melancthon mayor and county Warden Bill Hill following Dufferin County Council's decision to negotiate a rail corridor power line easement rather than to fight expropriation.

But the Ottawa Citizen recently carried an op-ed article by Tim Gray of Environmental Defence, pointing out that nuclear generation has been the major catalyst for spiralling electricity costs.

?Green power makes a great scapegoat for rising electricity bills in Ontario. The only problem is that this is a myth based on a jumble of dubious assumptions rather than facts,? says Mr. Gray in the Citizen's op-ed.

?Subsidies for nuclear power pushed up our electricity generation costs by 43 per cent last year and now Ontario Power Generation is asking the Ontario Energy Board for a further 30-per-cent increase in the rate it is paid for power from its nuclear plants to start paying for rebuilding the Darlington Nuclear Station.

?Meanwhile, an independent study produced for Ontario's Independent Electricity System Operator showed that support for wind and solar pushed up Ontario's electricity generation costs by only 10.5 per cent last year.

?Today, wind and solar produce just four per cent of Ontario's electricity, so blaming them for rising rates is like blaming the cookie you ate for all your weight gain,? says Mr. Gray.

By Wes Keller