

30 November 2015

Sir,

Another anti-wind piece from the Leader Post & Star Phoenix: an OpEd by Christine Whitaker ('*Wind Power as a form of "green energy" is far from green.*' 29-Nov & '*Wind power comes with high costs*' 30-Nov). The message?

Wind turbines are expensive: the reality is the cost of wind has been reduced by more than 90 percent in the last 30 years and more than 60 percent in just the last six. The decline continues thanks to scale economies and ongoing technological advances.

Wind energy today is directly competitive with, and in many cases significantly cheaper than, gas-fired generation. It is half the price of coal with carbon capture and significantly cheaper than nuclear power. This cost comparison includes the provision of back-up for when the wind is not blowing.

Ms Whitaker believes wind turbines require additional back-up for wind-free days and also that when they go offline they cause "*malfunctions*". In fact the back-up requirements for wind are no more than for gas, coal or nuclear. Numerous technical studies, in combination with practical use, demonstrate that wind turbines can reliably, and without "*malfunctions*", generate at least 30 percent of a region's electricity.

Specifically: in 2014 the multi-lateral International Energy Agency completed a major study for the G8 nations. They found it was technically possible to achieve 45 percent of electricity generation from variable renewables without significantly increasing power system costs. These findings are supported by numerous similar studies conducted by the US Government and the European Union as well as reputable companies such as General Electric.

The study findings are confirmed by actual use of wind energy. Iowa already generates 30 percent of its electricity from wind turbines. Our neighbour North Dakota, with a similar wind regime and climate to ours, will be at 20 percent within the year. It is also of note that electricity in Iowa and North Dakota costs significantly less than the US average.

Ms Whitaker states that turbines are "*30 percent efficient at best*". It is not clear to what she refers since wind turbines convert fuel (the wind) into electrical energy with an efficiency exceeding 45 percent. This is the same as that achieved by a gas turbine and is significantly better than a coal-fired power station.

She thinks wind turbines are unreliable but the reality is, according to General Electric (the largest supplier of wind turbines in North America), wind turbine reliability is in excess of 95 percent and comparable with that of gas, coal and nuclear.

Ms Whitaker states that wind turbines generate more greenhouse gases (GHGs) than they ever save. A typical wind turbine and foundation weighs around 1,000 tonnes. Once that turbine is operating it requires no fuel, apart from the wind, but will nonetheless displace coal- and gas-fired generation which would otherwise emit lots of GHGs. In this way a large wind turbine, operating with Saskatchewan's world-class wind resource, will avoid the emission of 1,000 tonnes of GHGs in less than 6 months. In other words it will save more than 60 times its own weight in GHGs over its 30-year life.

Ms Whitaker is concerned that wind turbines kill birds however a 2013 Environment Canada report, which confirmed similar findings by the US Audubon Society, found cats to be the top killers - claiming 200 million birds annually in Canada. Next on the list was Power Transmission Lines (26 million), Houses (23 million), Vehicles (14 million), Hunting (5 million), Agricultural Pesticides and Buildings (3 million each). Wind turbines were not even mentioned.

She also claims wind turbines make people sick however credible peer-reviewed scientific data and various government reports in Canada, the US, Australia and the UK, refute the claim that wind farms cause negative health impacts.

Newspapers have a duty to publish public concerns. However such concerns, when unsubstantiated, poorly researched and ill-expressed should be confined to the letters page.

The editorial boards of both the Star Phoenix and Leader Post have made it abundantly clear that they support coal with carbon capture. However that ship has sailed and renewables now represents a \$5-billion industry that could generate thousands of jobs across Saskatchewan. Isn't it about time for our Province's two largest newspapers to get on board with this new reality?

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