

Fair or foul?

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To fans pointing skyward, it's a superhero lifting Ontario into a cleaner, more prosperous future.

To critics, it's a villain dressed in green by an industry seeking profit and Liberals seeking another term.

The collision of forces has propelled the fight over wind energy to an ever-fevered pitch, one being fought in towns and hamlets across Ontario.

In Chatham-Kent, residents raised legal pitch forks to challenge plans for a massive wind farm by Suncor Energy, the first approved under a new regime that pays a premium to suppliers of renewable energy. But officials in recession-battered Windsor were joyful with plans for a Samsung plant that will make turbines, a celebration repeated days later in Tillsonburg.

To the north, in Drayton, police watched as protesters took over what was to have been a meeting to provide information about a wind farm proposal by Nextera Energy Canada.

The battlefield stretches even into the Great Lakes, where cottagers and residents are fighting proposals for offshore wind farms from eastern Lake Ontario near Prince Edward County to the self-proclaimed sunset capital along Lake Huron.

All told, there are 53 anti-wind groups in 32 counties -- numbers certain to grow as the ruling Liberals roll out plans to double power from wind turbines in the next year alone.

So when Ontario's energy minister ventures on to the landscape he does so armed with arguments and this one tops his list: Wind energy will be the hero that slays coal-burning plants.

"We owe it to ourselves and to future generations to get out of dirty coal, to clean up our air. The impact of doing that will be the equivalent of taking seven million cars off of Ontario roads and highways," Energy Minister Brad Duguid said.

But experts say the role of coal-slayer is not being played by wind power -- that wind is playing, at best, a supporting role to driving forces whose credentials are far less green.

They say the Ontario of the future won't have coal plants largely because the province is ramping up energy from nuclear reactors and natural gas.

"The significance (of wind) will never be equal to nuclear or gas. Even if wind wasn't there we could eliminate coal," said London Hydro CEO Vinay Sharma.

The gap between rhetoric and reality is being seized upon by protesters and the opposition Tories hoping to unseat the Dalton McGuinty government.

"Our members are committed to go door-to-door and do anything we can to throw out Liberal incumbents," said John LaForet, head of an anti-wind umbrella group called Wind Concerns Ontario.

Wind farms squander tax dollars, destroy landscapes, devalue property, kill birds and bats and cause health problems anti-wind activists argue. activists argue.

The fight raises questions about the future we want in Ontario.

- * Will wind energy drive out coal and improve air quality?
- * Just how much will the quick expansion of wind power cost and how will we pay for it?
- * Will wind create an industrial base for a province that's lost much of its manufacturing and the auto sector that anchored it?
- * Can we depend upon the vagaries of wind to be the backbone of an energy system that eventually replaces fossil fuels?
- * Is there an untoward relationship between wind companies and the Liberal government?

The link between wind turbines and the closing of coal plants is tenuous, experts say.

Wind power was a bit player as Ontario lowered its reliance on coal to 6% last year from 18% in 2003.

That drop came mainly because gas-powered plants were built and nuclear reactors brought online, said Kim Warren, who manages wind energy brought into the Ontario electrical grid for the agency that looks after the grid's workings, the Independent Electricity System Operator.

Most wind turbines planned in the province's energy plan won't run until after 2014, when the last of the coal-fired plants is targeted to be closed, Warren said, and it's possible to close coal plants without wind energy.

That's also the view of an advocate of wind who's director of renewable energy for the Pembina Institute.

"You could replace coal 100% with natural gas," said Tim Weis. "We're not replacing coal capacity with wind."

Experts say wind can't replace coal plants because it isn't available, to power turbines for much of the time. Last year, turbines produced 30% of their capacity and less than half that in summer when demand peaks.

Since demand peaks on specific days, wind can't be relied upon to meet that demand, Sharma said.

But while wind won't close coal plants, it will have a positive effect on the environment, experts say.

On days that wind produces energy, the Independent Electricity System Operator rolls back use of other energy sources, with coal and the gas the first to be cut back.

As the number of turbines grows, so will the ability to ease up on the use of fossil fuels.

But extra energy from wind isn't always good, and to understand why, you need to know the basics of Ontario's electric grid.

There's more capacity for electricity in Ontario than the province needs because a contingency is needed because some power sources will be off-line.

The goal of the system operator is to match the supply to the demand. Too little and there are blackouts. Too much and the grid must rid itself of the excess or risk surges that can knock out a power supply.

Ontario can find itself with too much electricity -- as was the case about 50 times last year and it forced Ontario to pay American states and big Ontario users to take the excess, Weis said.

That's not the only cost of wind and its variability, Sharma said.

As wind power grows, those who operate gas-powered plants can be expected to hold back more, and while that has an environmental benefit, it also has a cost -- in Texas, the government has had to pay penalties to investors in such gas-powered plants.

There are other costs, too:

* Producers of wind energy will be paid 13.5¢ a kilowatt/hour for onshore turbines and 19¢ for offshore, even though prices paid for electricity this year have averaged closer to 4¢.

* Ontario will still need just as much conventional capacity because renewable sources are intermittent.

* The province's transmission system already is near its limit so new wind farms will require major investment to move the electricity.

"I'm not being alarmist. That's why the government said a 46% increase (on hydro bills) the next five years," Sharma said.

Advocates of wind power say its costs should be placed in context -- that Ontario needs new sources of energy and transmission that will be costly even if there is no wind added.

"The prices are going up. Period," Weis said.

So if rate hikes are inevitable, Ontarians should get the best bang for the buck by building a green industry, wind advocates say. Robert Hornung, head of the Canadian Wind Energy Association, said wind energy outpaced other energy sources last year in Europe and the U.S.

With the world expected to invest \$1 trillion the next decade in wind, Ontario should grab its share.

About 1,300 wind-related jobs have been created in Ontario, Hornung said, mostly to operate the turbines.

"This is a tremendous chance for Canadians," he said.

Duguid warns Conservatives are primed to derail a key industry.

"The biggest threat to our ability to . . . create thousands of clean energy jobs is undoubtedly (Conservative Leader) Tim Hudak," he said.

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WHY WIND CAN BE FOUL

-Run at only 12% to 15% capacity in summer.

-Can't feasibly store excess electricity on windy days.

-Must be backed by conventional power sources.

-Queen's Park took away right of towns and cities to stymie projects

-Grassroots revolt by those fearful of effects on health and home

- Tourism may be hurt by offshore turbines.
- Integrating with grid costly
- Less promise than solar as a long-term replacement for fossil fuels.

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WHY WIND WORKS

- Environment-friendly.
- Less fossil fuel on windy days.
- Cheapest renewable energy.
- Long-established technology.
- Relatively quick to build.
- Growing industry brings jobs.
- Source of income for landowners and towns that host them.
- New conventional plants are costly too.