

# Alberta Renewables Shift Seen as Premier Looks to Ontario

by Jeremy Van Loon

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Solar panels at Grand Renewable Solar generate 100 megawatts of emission-free power when the sun is shining. Photographer: Jeremy van Loon/Bloomberg

Perched on the edge of a turquoise-colored Lake Erie, the Nanticoke, Ontario coal plant that was once Canada's largest polluter sits idle, surrounded by rolling hills dotted with wind turbines and solar-paneled barn roofs.

A few thousand miles west, Alberta's coal-fired generating stations and oil-sand operations spew a third of the country's carbon emissions, while a solar-power potential similar to northern Spain remains largely untapped.

Alberta Premier Rachel Notley now wants to bridge the gap in energy policies between the two Canadian provinces. Notley, elected in a surprise vote last month, is leaning on advisers from Ontario and the federal wing of her New Democratic Party to outline a shift in Alberta's energy policy, according to people familiar with discussions who asked not to be identified because plans aren't public. The shift includes phasing out coal plants and offering subsidies for solar and wind, the people said.

"Alberta is increasingly unusual in deriving such a high percentage of its electricity from coal," said Rick Smith, executive director of the Broadbent Institute, an Ottawa-based policy think tank affiliated with Notley's party. "There are so many cost-effective alternatives these days. You see the tangible, measurable

results of this in the greater Toronto area, where the air is cleaner.””

## Campaign Platform

While Notley’s government has yet to present any concrete plans, her campaign platform pledged a coal phase-out, an expansion of cleaner energy, as well as loans to families, farms and small businesses to retrofit buildings to reduce energy use.

“Failing to deal with climate change issues creates uncertainty,” Notley told reporters in Calgary on May 27. “To suggest that we never change anything ever, ever, ever going forward is not particularly responsible, given the worldwide conversation around climate change.”

Alberta Environment Minister Shannon Phillips said Tuesday that new climate-change regulations will be in place by the end of this month, and that public consultation on the province’s renewable energy and energy efficiency strategies will be held in coming months.

Alberta’s possibilities include an accelerated coal phase-out beyond a federal goal of shutting or refitting plants after 50 years of operations, as well as raising the C\$15-per-ton price on carbon for large emitters and expanding it to a broader range of sources, said Ed Whittingham, executive director at the Pembina Institute, a Calgary-based environmental research group. Eliminating emissions from coal plants is the “low-hanging fruit,” he said.

## Biomass Option

Though Alberta is Canada’s main oil and gas producing region, the province relies on coal for almost half its electricity generation. The per capita emissions of 60 metric tons a year are about five times the rate for Ontario. TransAlta Corp. and Capital Power Corp. are among the biggest operators of coal plants in Alberta.

The Shepard natural gas-fired power plant in Calgary, a joint venture between ENMAX Corp. and Capital Power that started operations last month, was the largest step so far in the province to replace coal with a cleaner source. It has the capacity to meet almost half the city’s electricity demand and emits less than half the carbon per megawatt of coal plants, according to ENMAX.

Alberta’s coal plants could follow in the footsteps of Ontario Power Generation Inc., which converted two stations near Thunder Bay, in the province’s north, to burn wood. The biomass is considered carbon-neutral because the trees capture the gas when they’re growing. Alberta, like Ontario, has ample swaths of Boreal forest.

## Conversion Cost

“The closer you are to the forests, the cheaper the fuel is going to be,” Mike Martelli, vice president of the provincially-owned generator, said by phone from North Bay.

Converting one plant cost as little as C\$5 million (\$4 million), mainly to change safety equipment, and some Alberta coal generators have already reached out to OPG to learn from its experience, he said, declining to identify them.

Ontario’s phase-out, completed last year, and policies to boost the use of renewables resulted in a 19 percent reduction in emissions since 2005, according to a report by the Pembina Institute. The province now plans to lower emissions 37 percent by 2030 from 1990 levels, the most ambitious proposal among Canadian provinces.

“What’s really important is that we take on the next steps,” Ontario Premier Kathleen Wynne said at the Bloomberg Economic Series summit in Toronto on May 21. “We know that there’s serious work to do. If we get it right we’ll provide opportunities for innovation.”

## Abundant Sunlight

Alberta gets 20 percent more solar radiation than Ontario, John Gorman, president of the Canada Solar Industries Association, said in an interview from Ottawa. Notley’s first task should be to overhaul rules for small-scale solar and then move to encourage development of utility-scale projects because of the province’s availability of land, he said.

Alberta’s transition from coal will be slower than Ontario’s as the western province needs to strike a balance between environmental progress and economic growth, TransAlta CEO Dawn Farrell said in an e-mail.

By 2030, more than half of the province’s coal plants will be retired, will meet new emission standards, or will be replaced by renewables, gas or coal plants that capture and store carbon, Farrel said.

Not everyone is happy with Ontario’s approach. Electricity prices have risen to about 16 Canadian cents a kilowatt-hour, from less than 10 cents in 2009, according to the Ontario Energy Board. And the pace of change has been rapid in places like Haldimand Country, home to the Nanticoke plant, which employed 600 workers before it was shuttered.

## Culture Shock

“They just shut off the switch,” said Bernie Corbett, a councilor and former mayor of the county. “It has

been a culture shock for us.”

The town of 40,000 about 115 kilometers (70 miles) southwest of Toronto is becoming a retirement community. Schools are closing and it’s struggling to navigate a decline in manufacturing in the province. Closing the coal plant didn’t help, Corbett said.

Still, opportunities have also arisen. Instead of hundreds of workers clocking in at the plant, renewable-energy developers employ technicians like Duke Tombia, a 34 year-old engineer who oversees operations at the Grand Renewable Solar LP site about a 25-minute drive along the Lake Erie shore from Nanticoke.

## Bet on Solar

“I’ve really made a bet on the solar industry,” said Tombia, who previously worked in the construction industry. The thousands of solar panels in the site generate 100 megawatts of emission-free power when the sun is shining.

Alberta has the opportunity to tread a similar path, the Broadbent Institute’s Smith said.

“If this were 50 years ago and Alberta didn’t have options in terms of other cost-effective forms of electricity generation, it would be a different story,” he said. “But times have changed.”