OPG sees 27% fall in coal emissions

But target might be moot without caps on U.S. coal-power imports

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Ontario Power Generation has devised a strategy to reduce carbon dioxide emissions from its coal-fired generating stations by 27 per cent in 2009, but industry groups say the target makes little difference until restrictions are placed on U.S. coal-power imports.

The government directed the crown utility last May to come up with a plan to limit its coal-based emissions this year to 19.6 million metric tonnes, down considerably from an estimated 27 million metric tonnes in 2008. OPG must also track its progress and issue monthly reports beginning in March.

Don MacKinnon, president of the Power Workers' Union representing about 15,000 power-sector employees in Ontario, said the government's focus on OPG coal power is flawed because there's no plan in place to track and reduce other sources of fossil-fuel generation, particularly imports, that will likely increase as coal use is phased out.

"The way things exist right now, we could end up having several thousand megawatts of much dirtier coal coming in through (transmission) tie lines to replace coal use here," said MacKinnon.

Even worse, he said, U.S. traders will be able to charge more than usual for that coal power because, instead of competing with cheap coal power from OPG, they will be able to fetch a price that's just marginally below more expensive natural-gas generation.

"There are some significant issues with all this, and we've tried to make that case with the government," MacKinnon added.

OPG quietly filed its strategy to the ministry of energy on Nov.30. Part of its plan is to take some of its coal-fired units off the market, using them only if grid reliability is threatened.

Units at Nanticoke and Lambton generating stations will be the only ones affected, and the program will be in effect any time except in January, July and August when electricity demand is at its highest.

The company, for the first time, will also try to make its coal power less attractive on the open market, where it bids against other electricity producers and power imports. It will add $7.50 to every tonne of CO_2 it produces, though it can adjust the price -- called an "adder" -- up or down to reach its emission-reduction target.

"What this does is reduces the competitive position of our coal plants relative to other generation, so essentially you would run the plants less," said OPG spokesperson Bob Osborne.

Coal plants in Ontario were designed to operate 24 hours a day, but as the province moves toward phasing out all coal-fired generation by 2014 the plants will increasingly operate during periods of highest demand. To minimize wear and tear that can result from stop-start operation, OPG has decided it's better to run fewer coal units more of the time than all of the coal units some of the time.

Osborne said OPG's mandate is strictly limited to tracking and reducing its own coal plant emissions. "What happens beyond that is the responsibility of the IESO (Independent Electricity System Operator) and other people running the system."

Jack Gibbons, chairman of the Ontario Clean Air Alliance, is a big supporter of the coal phase-out and OPG's efforts. But he said the McGuinty government must also direct the IESO, the agency that manages supply and demand on the grid, to ban non-emergency imports of coal-fired electricity.

Alternatively, the agency could place an adder on all coal imports to make them less attractive, or require that all gas-fired generation in Ontario be used first before resorting to imported coal power, said Gibbons.

The sticking point, however, is that there's no mechanism in place to distinguish coal imports from imports of other types of generation, including hydroelectric and natural gas, said Terry Young, a spokesman for the IESO. "At this point in time we're not tracking the source from imports."

But that would have to change as part of Ontario's membership with the Western Climate Initiative (WCI), a group of 11 states and provinces that are setting up a regional carbon cap-and-trade market. The market will apply to power generators in 2012, but members must start reporting emissions in 2011.

Snuller Price, a partner with the consultancy Energy and Environmental Economic Inc. in San Francisco, said the WCI is currently looking at ways for members to account for carbon emissions that are associated with imports from non-WCI members, such as Michigan, New York and Ohio.

Such emissions are referred to as "leakage." Price said members, where possible, will have to claim the emissions on their imports, and if they can't identify the source of those imports, they're hit with a pre-established default rate.

"It is likely to be set higher than emissions of a natural gas combined cycle power plant and as high as a coal plant," he said.

The open question for Ontario is how much states like Ohio and Michigan can increase coal production as OPG reduces its output. "This is not a trivial exercise to evaluate," added Snuller.

But in studies he has done for western jurisdictions it was found that coal production is already near capacity, meaning limited risk of leakage. No studies have yet been done for Ontario and its U.S. neighbours.

Decisions on the construction of new power plants in bordering U.S. states, many of them new coal plants, could have a direct impact in Ontario.

"We have proposals for eight coal plants in Michigan, which is more than any other state in the country," said Tom Karas, head of the Michigan Energy Alternatives Project.

There is speculation, however, that Michigan Governor Jennifer Granholm will soon announce a moratorium on the development of new coal plants in the state.