Intelligence MEMOS

From: Michael Trebilcock

To: Glenn Thibeault, Ontario Minister of Energy

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Re: **ONTARIO'S SELF-DEFEATING GREEN ENERGY PROGRAM**

In 2009 the Ontario government committed ratepayers to massive subsidization of various forms of renewable energy, especially wind power and solar energy, along with the phasing out of coal-fired generation in the province – a goal achieved in 2014.

In the eight years since the initiation of these policies, what tentative assessment can we make of their impact?

Prices have dramatically increased, modest environmental benefits have been achieved and there has been a likely negative effect on employment in the province.

A revenue- and technology-neutral carbon tax (or cap-and-trade equivalent) would be a much more cost-effective policy than massive subsidies to technologies or users, with subsidies restricted to supporting basic R & D on new abatement technologies.

The Green Energy Act, which allowed the government to establish feed-in tariffs under 20-year fixed-price take-or-pay contracts, set the price for power from wind turbines in Ontario at 13.5 cents per kilowatt hour. Solar power qualified for up to 80 cents per kilowatt hour under similar contracts. In 2009, the average total wholesale cost of electricity was around 6 cents per kilowatt hour. In 2014, even after downward adjustments, the prices under Ontario's fixed price renewable program were still double the prevailing rates elsewhere for wind and three and-a-half times the prevailing rates for solar.

At the time of the enactment of the Green Energy Act, officials said the impact on electricity costs would be trivial. But in a study for Energy Probe, Brady Yauch reports that the average increase in the price of the energy component in electricity prices in Ontario has been 107 percent over the last nine years compared to an increase in the Consumer Price Index of 17.8 percent. Electricity prices in Ontario are now among the highest in Canada.

Another problem is that the electricity sector's share of greenhouse gas emissions in Ontario in 2012 was only about 9 percent of the total, compared to the transportation sector with 34 percent and the industrial sector with 30 percent, meaning that further environmental gains in the electricity sector are inherently limited.

In 2009 government officials claimed that renewable energy policies would create 50,000 new green jobs in the province over the coming few years. The Auditor General has found that most jobs created were temporary and even if that number was at face value, other studies show it meant that Ontario spent $179,000 per job. However, higher electricity prices resulting from such policieis likely have destroyed more jobs than they have created.

Where do we go from here? A vast majority of economists, from Greg Mankiw on the right to Paul Krugman on the left, as well as former senior Republican officials, favour carbon taxes or, less desirably, cap and-trade equivalents, as the primary policy instrument for reducing CO2 emissions.

For good reasons, economists strongly prefer putting a price on carbon rather than attempting to pick winners through subsidy policies. They would rely on subsidies to play a much more secondary role, supporting public goods such as basic research into innovative abatement technologies.

In the end it is much more effective to penalize carbon emissions than to subsidize everything. Dieter Helm, a widely respected British energy economist, makes the case for subsidies to support research and development for new carbon abatement technologies in place of subsidies to users: This is where the bulk of the money should go: inventing the industries of the future.

That is the policy – and political – imperative.

Michael Trebilcock is University Professor, University of Toronto Faculty of Law and Research Director, Electricity Market Design Committee, Government of Ontario, 1998. This post is adapted from a C.D Howe E-Brief.

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