

Written submission to the Standing Committee on Social Policy re: Bill 34, An Act to Repeal the Green Energy Act

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Introduction

The Green Energy Act has done considerable damage to Ontario's economy and electricity system. It was sold to Ontarians by gross misrepresentations. It will take many years and a lot of different measures to undo the damage. Bill 34 is an important first step but is not sufficient. In order to understand the mismanagement of Ontario's electricity system we need first to unravel some of the most common falsehoods that were used to justify the passage of the Green Energy Act and related legislation.

In my comments I will elaborate on each of the following points.

1. Ontario's coal-fired power plants had negligible effects on Ontario air quality, and the province had data in 2005 showing that shutting them down would have no material impact on urban air pollution. Claims that the coal plant closures account for the decline since 2005 in smog advisories are untrue.
2. The 2005 Cost-Benefit Analysis relied upon by the government did not recommend using wind, solar or other renewables to replace coal.
3. The meagre environmental benefits of the Green Energy Act could have been achieved using more conventional policy measures at less than one-tenth the cost.
4. The Green Energy Act led directly to soaring liabilities under the Global Adjustment and thus became a major factor in rising electricity prices.
5. Demand Side Management and Conservation programs, including those funded by the Global Adjustment, have been shown internationally to be a waste of resources. In Ontario the magnitude of losses have been concealed by poor public disclosure.
6. High electricity costs have had a seriously negative effect on Ontario's manufacturing sector, costing the province about two manufacturing jobs for every one job the province claimed was created in the renewables sector.

7. Renewables provide very little power in Ontario, the sector is entirely dependent on subsidies, and the power it provides is mostly unneeded surplus at the time it is generated.
8. The cost of funding above-market FIT contracts for renewables currently adds about four cents per kWh to Ontario power prices. Other unnecessary costs associated with the Global Adjustment are concealed from public examination due to poor disclosure.
9. Bill 34 is a good start but some of the worst elements of the Green Energy Act are simply transferred over to the Electricity Act rather than being repealed.

Details

1. Coal power and air quality

Environment Canada emissions inventory data (posted online at YourEnvironment.ca) shows that in 2005, when the idea of closing Lambton and Nanticoke was first being discussed, the Ontario electricity generating sector was responsible for only about one percent of fine particulate (PM2.5) emissions in the province, making it implausible to suppose that shutting down coal would materially affect air quality. By way of contrast, the Agricultural sector generated more than ten times the PM2.5 emissions of electricity generation, but nobody was proposing shutting down food production.

As I discussed in a [2017 report](#) for the Fraser Institute, air quality simulations conducted for the province in 2005 by the independent consulting firm RWDI Engineering showed that eliminating coal plants would reduce average summertime ozone levels by less than one-tenth of one percent, and PM10 levels by only a few percent. Despite having this information in its possession, the province embarked on an inflammatory and misleading propaganda campaign to convince Ontarians that our coal-fired power plants were a public menace.

It is occasionally remarked that in 2005 there were 53 smog advisories in Ontario but today there are none, which supposedly proves the benefits of eliminating coal. But this is a misrepresentation. After all, two years earlier in 2003, Ontario's coal plants generated 22 percent more electricity than they did in 2005, yet there were only [19 smog advisories](#). 2005 was an unusual year due to rare weather conditions and a large burden of air pollution coming up from the US. The province commissioned a [special report from its own experts](#) on the 2005 air quality situation which concluded that the majority of smog-causing compounds that year originated in the US.

2. No Cost-Benefit Analysis of renewables

The 2005 Cost-Benefit Analysis by DSS Consultants that was frequently relied upon by the government to defend the Green Energy Act in fact never studied nor recommended the option of switching to renewables. On pure economic grounds it found continued use of coal the cheapest option, compared to phasing it out and switching to a combination of natural gas and increased nuclear. The phaseout option was justified in the report by attributing about \$3 billion in health care costs to emissions from Lambton and Nanticoke. This was a transparently implausible claim, since it represented almost ten percent of the annual provincial health care budget, which in 2005 was only about \$35 billion. According to the DSS methodology, health costs due to all particulate sources combined would have added up to many multiples of the entire provincial health care budget.

In 2011 the Auditor-General highlighted the lack of analysis behind the adoption of the GEA (emphasis added):

Because the ministerial directions were quite specific about what was to be done, both the Ministry and the OPA directed their energies to implementing the Minister's requested actions as quickly as possible. *As a result, no comprehensive business-case evaluation was done* to objectively evaluate the impacts of the billion-dollar commitment. Such an evaluation would typically include assessing the prospective economic and environmental effects of such a massive investment in renewable energy on future electricity prices, direct and indirect job creation or losses, greenhouse gas emissions, and other variables.¹

3. Superior alternatives

In a [2013 study](#) for the Fraser Institute I looked at environmental improvements that could plausibly be attributed to phasing out coal, and showed that they could have been achieved at between one tenth and one seventieth the cost of the Green Energy Act by relying on simpler and easily-available policy alternatives. In particular, engineering data from Ontario Power Generation that was available in 2005 from the partial retrofit of four of twelve coal-powered units at Lambton and Nanticoke showed such remarkable success at reducing air pollution through conventional scrubbers that the effect on Ontario air of merely completing the retrofit would have been comparable to phasing out coal altogether.

4. Green energy and the Global Adjustment

In a [2014 study](#) for the Fraser Institute, Tom Adams and I showed that renewables, in particular additions of wind energy capacity, were significant drivers of the upward march of the Global Adjustment. As of 2013 renewables provided just under four percent of Ontario's power but accounted for about 20 percent of the average commodity cost. In a [follow up study in 2018](#), my coauthors and I showed that, despite massive spending and aggressive installations of capacity, wind and solar were providing only seven percent of Ontario's power but account for about 40 percent of the Global Adjustment costs, which by implication is about one quarter of the average commodity cost.

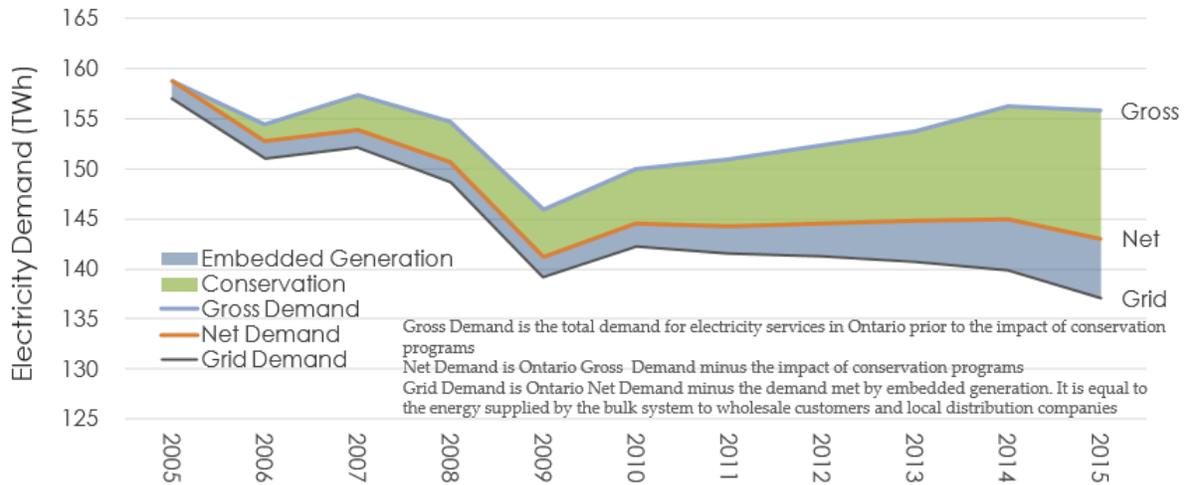
5. Wasted money on DSM and conservation

Another driver of the Global Adjustment is the massive increase in spending on energy conservation programs. The dramatic ramp-up of spending on Demand Side Management and conservation (reaching \$400 million annually in 2013) has been unaccompanied by serious, independent auditing of the economic value of such programs. In a [2016 report](#) with Tom Adams we showed that these programs have been proven numerous times by international researchers to be money-losers, frequently costing multiples of any conceivable economic benefit. We also document the extraordinary secrecy surrounding spending on these programs and the refusal to disclose the evidentiary basis for attributing useful outcomes to them.

¹ Auditor-General of Ontario [AGO] (2011) Annual Report of the Office of the Auditor-General of Ontario. Queen's Printer, p. 89.

One of the ways such programs are justified is through a modeling comparison in which a fictitious “gross” electricity consumption level is forecast on the assumption that no conservation programs are in place, which is then compared to actual electricity consumption, with the difference attributed to the conservation programs. This is not evidence of anything because the “gross” forecast can be tweaked to yield artificially inflated estimates, thereby overstating the accomplishments of the conservation program.

For example, this Figure is from the 2016 Report of the IESO on the State of the Electricity System:²



The line labeled “Gross” is a fictitious consumption level produced using an unpublished econometric model which is not available for public examination. The line labeled “Net” is actual consumption, and the difference between them is attributed to conservation. I consider it highly likely that the model that generates the “Gross” line has no forecast validity and systematically overestimates electricity consumption, thereby overstating the effectiveness of conservation programs.

In the absence of credible evidence for the effectiveness and net benefits of conservation and DM programs, and in light of the extensive evidence against these things, we should move quickly to wind them down.

6. Harm to the manufacturing sector

In a [2017 report](#) for the Fraser Institute, Elmira Aliakbari and I examined the relative decline in Ontario manufacturing compared to other jurisdictions and showed that at least part of the job losses since 2005 could be attributed to the Green Energy Act. Specifically, we found that high electricity prices had cost the province about 74,000 manufacturing jobs, or about twice as many jobs as the province claimed were created by the Green Energy Act. And, it should be noted, the province has never substantiated its claimed job creation numbers since they did not conduct a

² <http://www.ieso.ca/-/media/files/ieso/document-library/planning-forecasts/ontario-planning-outlook/module-1-state-of-the-electricity-system-20160901-pdf.pdf> page 2.

proper cost-benefit analysis. The Auditor General has noted that most of the claimed jobs were temporary during the construction phase.

7. Poor performance of the renewables sector.

The renewables sector is largely a creation of government subsidies through Global-Adjustment-funded FIT contracts. In a [2018 study](#), my coauthors and I tabulated historical data from the Ontario Energy Board that show payments to renewables now account for about 40 percent of the current GA. Above-market payments to renewables firms amount to \$4.2 billion annually, compared to only \$0.5 billion earned by the same firms through actual power sales. Thus, 90 percent of the sector's revenue is subsidy.

It is also worth noting that electricity from renewables is largely unneeded in Ontario and is often exported at a large loss. In my [2013 study](#) I showed that wind energy production is out of phase with demand, with maximum output coinciding with periods of minimum system needs, such as overnight during the fall. Up to the period covered in that report, about 80 percent of power generated by wind turbines was surplus to existing baseload and had to be exported at substantial annual losses.

8. Tracing GA disbursements

As my coauthors and I [recently documented](#), OEB Regulated Price Plan reports provide some additional details about disbursements of Global Adjustment revenues, but not enough to identify the full range of cost reductions that could be achieved by unwinding funding commitments under the Global Adjustment. More complete public disclosure of where Global Adjustment moneys go is essential if we are to have accountability and reform of the electricity sector.

9. Comments on Bill 34

Bill 34 leaves too much of the existing structure of the Green Energy Act in place. Here are some examples.

While I applaud the measures designed to restore local planning authority to local municipalities, Sections 25.35, 25.35.1—25.35.4 appear simply to transfer from the Green Energy Act to the Electricity Act, rather than repealing altogether, provisions giving the cabinet near-total political control over the electrical system. This is a superficial reform.

Though additional study will be necessary, you should aim for a comprehensive restructuring of the planning authority so that government sets broad parameters but the development and operation of the generating system is left to the market as much as possible. Supplying electricity to households is intrinsically no more complicated than supplying internet, coffee, clothing or anything else; or to put it another way, all these things are complicated, but we have learned through long experience that the market system is the best way to coordinate supply and distribution. We think nothing of the fact that good quality coffee is available everywhere, all day, continuously; but if we managed the supply and distribution of coffee the same way we do electricity we would pay a fortune for small quantities of mediocre coffee when we most want it, we would dump lakefuls of unneeded freshly brewed coffee down the sewers late at night, and there would be ever-expanding branches of the provincial government whose main job would be to issue planning reports that make the case for even further expansions of the coffee bureaucracy.

The sections that give privileged status to renewable energy projects (such as 25.35.1 (1)—(3)) should be repealed, not simply transferred to the Electricity Act. There is no reason to accept the premise that renewables are beneficial and ought to be promoted in Ontario. The record shows that they have been and continue to be a disaster for the province. They exist only because of lavish subsidies, they have done harm to people in rural areas, they have driven up electricity prices, they have yielded no material air improvements and they have caused long-lasting damage to local vistas and avian populations. How much more damage needs to be endured before the undeserved halo around renewables is swept away and they are seen for what they are?

Sections 25.35.2 and 25.35.3, which transfer conservation initiatives to the Electricity Act, should be repealed on the grounds that the programs they propose are a waste of public resources. But if they are to be retained, Section 25.35.2 (3) should be amended to read as follows.

(3) The energy conservation and demand management plan must comply with any requirements prescribed by regulation and must include the following information:

1. A summary of annual energy consumption for each of the public agency's prescribed operations.
2. A complete description of the data and models used to estimate the effects of current and proposed conservation programs, and proof by valid statistical methods that such models are accurate for the purpose.
3. A description and a forecast of the expected costs and benefits of current and proposed activities and measures to conserve the energy consumed by the public agency's prescribed operations and to otherwise reduce the amount of energy consumed by the public agency, including by employing such energy conservation and demand management methods as may be prescribed. Such benefits may not include alleged savings by persons being forced to make purchases they have not voluntarily chosen when given the option to do so previously.
4. An explanation why, if the benefits exceed the costs referred to in the previous paragraph, the actions were not voluntarily undertaken and must be mandated by regulation.
5. A summary of the spending on energy conservation and other reductions described in paragraph 2 since the previous plan, and any independently-generated information as may be available summarizing the demonstrable impacts of such undertakings.
6. Such additional information as may be prescribed by regulation.

Section 25.35.7, concerning appliance efficiency standards, should also be removed. Appliance efficiency standards amount to bureaucrats pretending to know more than households about what they need. They arise out of a dreadful conceit of governments and planners that people are too dumb to make their own consumer choices and need government experts to do it for them.

They also amount to double-charging people for the same thing. We have spent enormous sums to bring the emission characteristics of our electricity system to historic lows. Having done that, it makes no sense for the government then to dictate how we use the electricity. Nothing is gained by

such over-reach. If people are willing to spend the extra money on the electricity needed to run a more energy-intensive appliance, because in their private judgment the characteristics of such appliances suit their needs, that is their business. The government has no business over-riding peoples' preferences in this regard.

The government does have a legitimate interest in the pollution generated by electricity generation. These emissions are already addressed by existing laws, and that being the case, the government's interest is fully addressed and it has no further interest in appliance choices within the home.

I also recommend repeal of Sections 59.1 to 59.4 of the Environmental Protection Act, which forbid the use of coal for electricity generation. Coal is an inexpensive and reliable fuel that from time to time may be the best option. Countries around the world, including all our major trading partners, continue to rely on it. We are not in Victorian England when coal use meant billowing clouds of soot and people gasping for air. Supercritical coal-fired power plants using pulverised coal operate throughout Europe and Asia with pollution emission parameters in line with what we expect from modern natural gas-fired plants. In future planning, Ontario may find (as have many other countries) that a supercritical coal-powered generating station is a good option to consider, even taking into full account the environmental parameters, and we need to allow electricity planners the option of examining it.