Past, present, and future emissions reduction in Nova Scotia

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In December 2016, Canada's first ministers agreed to the Pan-Canadian Framework on Clean Growth and Climate Change. One of the framework's overarching objectives is to meet Canada's Paris Agreement target of reducing the country's emissions by 30% below 2005 levels by 2030 (Canada's Paris Agreement target). The other objective is to put a price on carbon, but that is an analysis for another time.

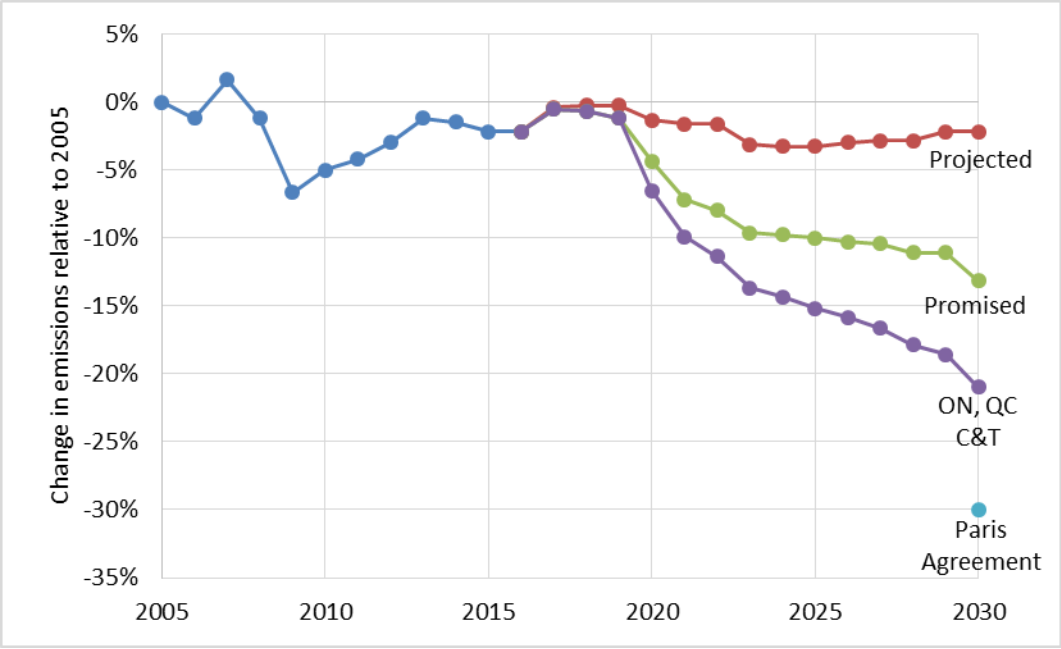
A year later, the Framework's First Annual Synthesis Report on the Status of Implementation was released, indicating that progress was being made towards meeting the objectives.

In March 2018, nine of the provincial Auditors General released a report showing the state of Canada's emissions, historic (2005 to 2015) and future (2016 to 2030). The following figure shows three emissions scenarios for Canada, using provincial data from the report:

Projected: If provincial actions (as of September 2017) are all that take place, Canada's emissions levels remain static, a few percent below 2005 levels.

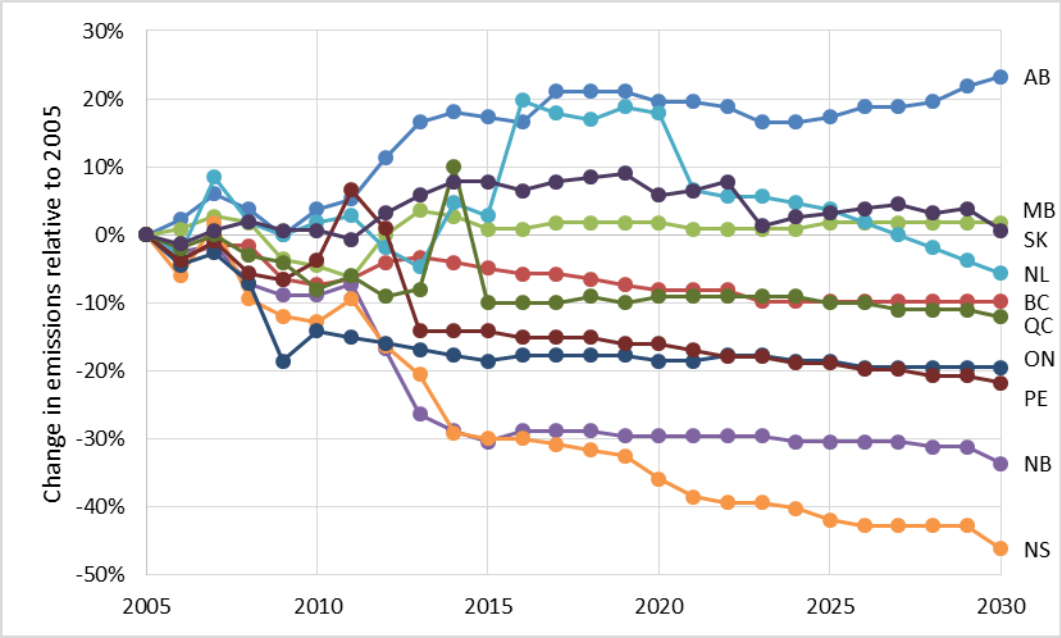
Promised: Projected changes plus "additional actions under development, but not yet implemented" are expected to result in emissions about 13% below 2005 levels by 2030.

ON, QC C&T: If projected, promised, and the cap-and-trade program Ontario and Quebec have committed to (in conjunction with California), emissions are projected to decline to 21% below 2005 levels.



Clearly, none of the scenarios examined by the Auditors General come close to achieving Canada's Paris Agreement target of a 30% reduction in emissions.

The following figure shows that at the provincial level, the Auditors General found that only two provinces are expected to achieve the 30% reduction target by 2030: New Brunswick and Nova Scotia.

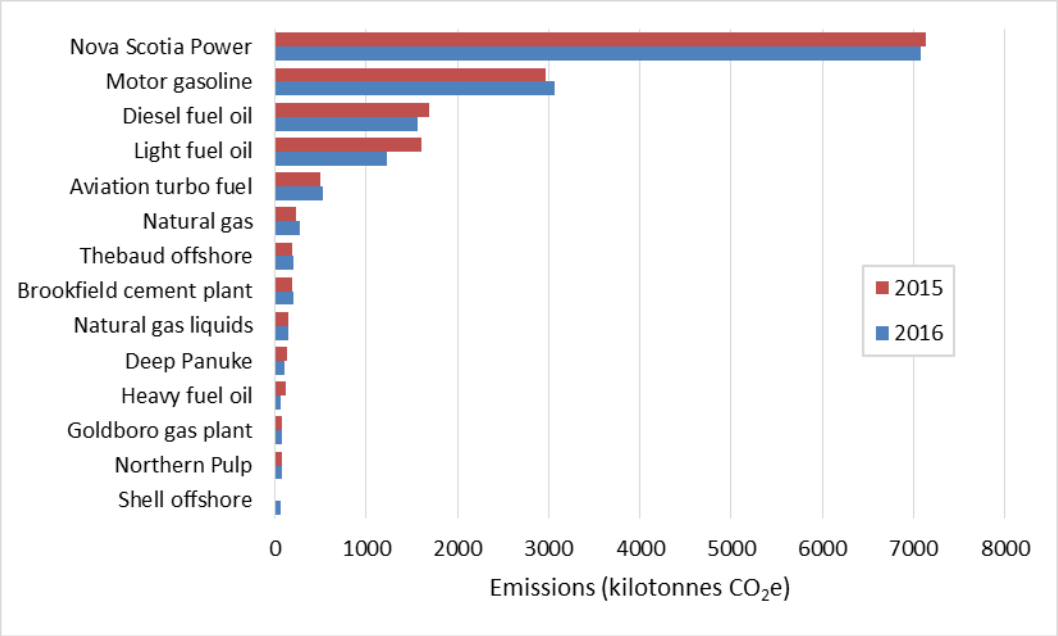


Nova Scotia has already achieved its 30% reduction target, as the Nova Scotia government likes to remind anyone visiting its carbon-pricing website:

> *"Nova Scotians have an impressive record of fighting climate change by reducing emissions. We've already met the national target of reducing emissions by 30% below 2005 levels, and we're on track to reach 46% by 2030."*

(This overlooks the fact that about half of the reduction was achieved by accident rather than design with the closures of paper mills and the Dartmouth refinery, a decline in transportation emissions, and an over 60% increase in residential electricity rates between 2005 and 2015. It should not be surprising that Nova Scotia focusses on the 30% target: one of the weakest provincial economies and one of the lowest family incomes in the country means that the province is doing everything it possibly can to avoid increasing the cost of emissions-intensive fuels—notably fuel oil for home heating and gasoline—for Nova Scotians.)

My preliminary estimates for Nova Scotia's 2016 emissions (below) using data from Nova Scotia Power, Statistics Canada (liquid fuels and natural gas), Environment and Climate Change Canada (for industrial emitters with emissions over 50 kilotonnes), and other emitters suggest that the province's emissions will decline slightly from 2015 levels, remaining below the 30% target.



Nova Scotia's projected 46% decline in emissions by 2030 appears to be based on changes in Nova Scotia Power's emissions as required by provincial regulations specifying its declining emissions cap and Renewable Electricity Standards.

Over the next few years, other reductions can be expected, most notably the shuttering of the Thebaud and Deep Panuke offshore fields and, presumably, the Goldboro gas plant, totalling just under 400 kilotonnes. If Shell abandons its offshore work, 2016 emissions would decline by another 58 kilotonnes.

On the other hand, if projects such BP's offshore exploration is successful and the Bear Head and Goldboro LNG (liquefied natural gas) projects proceed, the province's industrial emissions would increase. And potentially improve the province's economy.

A question worth asking is, would any Premier between now and 2030 be willing to forego industrial and economic growth in order to continue reducing Nova Scotia's emissions?