

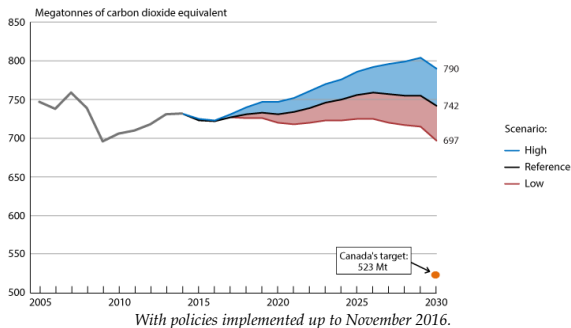
Current status of carbon markets in Canada

Nic Rivers

Graduate School of Public and International Affairs
and Institute of the Environment
University of Ottawa

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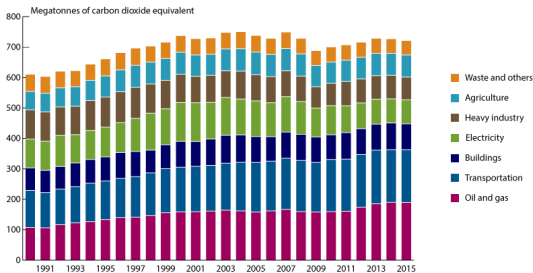
CANADA'S PARIS COMMITMENT



- ▶ Canada has promised to reduce emissions by 30% from 2005 levels by 2030.¹
- ▶ Current policies are projected to be insufficiently stringent to meet this target.

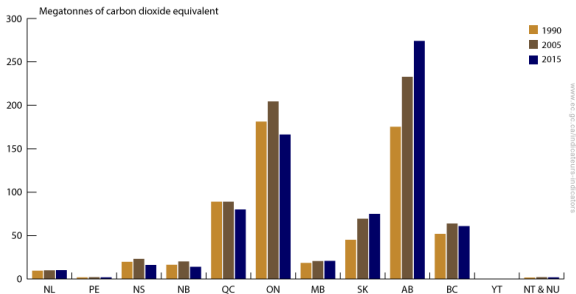
¹Unclear of how net emissions from land use change will be accounted for.

CONTEXT: EMISSIONS BY SECTOR



- ▶ Emissions from the electricity sector continue to fall quickly due to reductions in coal output.
- ▶ Emissions from oil and gas are increasing quickly and now represent largest source of emissions.

CONTEXT: EMISSIONS BY PROVINCE



- ▶ Division over environmental management is divided between provincial and federal governments.
- ▶ Largest emitters are Alberta, Ontario, Quebec, BC, and Saskatchewan.
- ▶ Very heterogeneous provinces (per capita emissions range from 10-65 t/person; different economic profiles; different electricity sectors).

KEY CARBON MARKETS DEVELOPMENTS IN CANADIAN PROVINCES

- 2007 Alberta implements **Specified Gas Emitters Regulation**.
- 2008 British Columbia implements **Carbon Tax**.
- 2013 Quebec implements **Cap and Trade Regulation** on large industry.
- 2015 Quebec **Cap and Trade Regulation** is expanded to cover non-point source emissions.
- 2016 Ontario implements **Cap and Trade Regulation**.
- 2016 Alberta implements **Cap and Trade Regulation** and Carbon Tax.

PAN-CANADIAN FRAMEWORK ON CLEAN GROWTH AND CLIMATE CHANGE

- ▶ Announced by the provinces and federal government in 2016.
- ▶ The **PCF** sets a **backstop** carbon price that applies in any province that does not implement:
 - ▶ A carbon tax of at least \$10/t CO₂ in 2018 and \$50/t CO₂ in 2022, or,
 - ▶ A cap and trade system whose cap reflects the Canadian target (-30% by 2030) and is consistent with carbon price trajectory.
- ▶ The backstop carbon price has the following elements:
 - ▶ Starts at \$10/t CO₂ in 2018 and reaches \$50/t CO₂ in 2022
 - ▶ All revenues raised through the imposition of a carbon price will be retained in the region where they originate.
 - ▶ All combustion-based GHG emissions should be covered by the carbon price.
 - ▶ Large emitters (>50kt) will be priced relative to a benchmark carbon intensity (output-based allocations).

KEY EMERGING ISSUES

Divergent carbon prices The **PCF** creates a benchmark carbon price, but allows prices/emissions to diverge between provinces. This has already been a focus of tension.

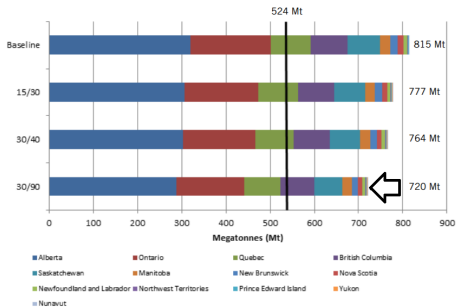
Overlapping policies The carbon price is applied in conjunction with a number of other policies, which likely creates unexpected results. For example, the upcoming **Clean Fuel Standard** may not be additive with other quantity-based carbon prices.

Linkage with (over-allocated) California Quebec and Ontario have/will link their carbon markets with California, which has over-allocated emitters.



KEY EMERGING ISSUES (CON'T)

Future stringency of policies **PCF** only requires carbon price of \$50/t CO₂ by 2022. This is well below price required to reach Paris target.



Non-combustion emissions Non-combustion emissions (agriculture, oil and gas) are not covered by current approach. No announced plan on agricultural emissions.

CONCLUSIONS

- ▶ Market-based climate policies are under rapid development in Canada. By 2018, virtually all combustion-based emissions in Canada should be subject to a carbon price (most already are).
- ▶ Despite progress, carbon pricing remains a polarizing issue in Canada. It remains unclear whether carbon prices will be raised sufficiently after 2022 to reach Canada's 2030 targets.
- ▶ I look forward to questions/discussion