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Strengthening Alberta's greenhouse gas regulations

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Overview

Alberta's Specified Gas Emitters Regulation (SGER) expires at the end of the year. The province is now considering revisions to the regulation. This document comments on the pros and cons of a number of proposals.

1. **Current approach:** \$15 on 12 per cent of emission intensity — an effective carbon price of \$1.80 per tonne if applied to all emissions.
2. **Double-double:** \$30 on 24 per cent of emission intensity — an effective carbon price of \$7.20 per tonne if applied to all emissions.
3. **40/40-plus:** \$40 on 40 per cent of emission intensity with the technology fund price increasing incrementally to \$100 by 2020 — an effective carbon price of \$16 per tonne if applied to all emissions, gradually increasing to \$40 per tonne.

Comparing approaches

Current approach

Compliance under SGER has been met mostly through contributions to the technology fund and offset purchases. In 2012 — according to the Government of Alberta — the regulation only reduced emissions at the facility level by 1.5 megatonnes (Mt) with an additional 3 Mt attributed to offsets and approximately \$87 million of payments into the technology fund. To put that in context, Environment Canada's latest Emissions Trends report shows 61 Mt of emissions from the oilsands sector in the same year.

Double-double

According to the International Institute for Sustainable Development (IISD), doubling the current regulations may result in 8.7 Mt of emission reductions at the facility level, with an additional 15.5 Mt attributed to offsets and the technology fund growing to about \$157 million.¹ IISD estimates the per-barrel compliance cost of a double-double approach at \$0.13. Factoring in impacts on royalty rates and taxes, a double-double approach would cost less than the price of a Timbit per barrel.

40/40-plus

A 40/40-plus approach would be a clear improvement on Alberta's current policy. It would work by starting at 40/40 in 2015 and then gradually increasing the technology fund price at a predictable rate to reach \$100 a tonne by 2020. Based on modelling from the National Round Table on the Environment and the Economy (NRTEE), 40/40-plus would result in about 38 Mt of emission reductions by 2020. The technology fund could jump to \$1.4 billion in year one, gradually decreasing to just under \$1 billion by 2020. In year one, 40/40 (after royalty and tax compliance) results in a cost of about 25 cents per barrel. The 40/40-plus approach would likely have less than 0.5 per cent impact on a project's internal rate of return (IRR).²

Table 1. Potential implications of improvements to SGER coverage and pricing.

	Current	Double-Double	40/40-plus
GHG reductions	1.5 Mt (in-house) 3 Mt (offsets)	8.7 Mt (in-house) 15.5 Mt (offsets)	38 Mt
Technology fund	\$87 million	\$157 million	\$1.4 billion (2015) \$957 million (2020)
Approx. per-barrel compliance cost*	\$0.03	\$0.08	\$0.25 (2015)

* After taxes and royalties

Key Questions

From the Pembina Institute’s perspective, Alberta’s climate strategy should be assessed based on the following questions:

What would help Alberta to get on track to achieving its fair share of Canada’s target?

An SGER with stringency equivalent to a 40/40-plus approach would achieve about half of the 64 Mt needed³ for Alberta to make an equitable contribution to meeting Canada’s 2020 target, without even accounting for further reductions from technology fund investments. This level of stringency could be a starting point, rather than an endpoint. The schedule gives industry time to reduce its greenhouse gas emissions in anticipation of higher carbon prices without being faced with the full cost immediately. Regardless of the approach, Alberta should be responsible for its equitable share of emissions reductions aligned with Canada’s 2020 climate commitment.

How would the incentive to reduce emissions compare with other carbon pricing policies?

An immediate step to \$40 per tonne would make Alberta’s policy the second-highest carbon price in Canada. B.C.’s carbon tax is the highest broadly applied price at \$30 per tonne, and the province’s public sector currently pays an additional \$25 per tonne (\$55 per tonne total). Norway’s \$74 per tonne carbon tax is the highest charged in an oil and gas producing jurisdiction.

How would the average cost — an indication of potential impacts on competitiveness — compare with other carbon pricing policies?

The maximum compliance costs would be \$16 per tonne after the initial step, and \$40 per tonne in 2020 under the example of the 40/40-plus proposal. The current maximum SGER compliance cost is \$1.80 per tonne.

Two important aspects of the SGER design not addressed in this briefing note are offsets and the phase-in period for reduction target. For the system to achieve the above benefits, offsets should be limited and the 40 per cent target should be fully applied sooner than the current approach of phasing in the 12 per cent target.

Benefits for Alberta

Increasing the price and coverage of the SGER to a stringency equivalent to a 40/40-plus approach would:

- Provide an initial revenue stream of about \$1.4 billion per year for investment in clean energy solutions throughout the province.
- Help Alberta get on track to achieving its fair share of Canada's national target to reduce carbon pollution emissions.
- Significantly shift the conversation on climate change policy across Canada.
- Demonstrate to Albertans, and to the customers in Alberta's export markets, that the province is serious about limiting carbon pollution from oilsands production.

¹ Dave Sawyer, *A Timbit with that Double-Double? Costs and emission reductions of renewed carbon policy in Alberta* (International Institute for Sustainable Development, 2014),6.

http://www.iisd.org/sites/default/files/publications/costs_emission_reductions_renewed_carbon_policy_alberta.pdf

² Aaron Wherry, "Want a discussion about Canada's climate change policy? Here's a start," *Macleans*, July 16, 2014. <http://www.macleans.ca/politics/want-a-frank-discussion-about-climate-change-heres-a-start/>

³ Simon Dyer, "Strengthening Alberta's greenhouse gas regulations," Pembina Institute, April 2013. <http://www.pembina.org/reports/ab-sger-briefing-apr2013.pdf>