PEMBINA institute

Briefing Note

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Strengthening Alberta's greenhouse gas regulations

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Issue

Alberta's Specified Gas Emitters Regulation (SGER) is due for renewal in 2014, and the Government of Alberta is currently considering revisions to the regulation. A stronger SGER would help Alberta reduce its greenhouse gas (GHG) emissions and enhance social license to operate for sectors, such as the oilsands, that face continued scrutiny of environmental performance.

Media reports indicate that the Government of Alberta is considering strengthening the SGER to reach a 40 per cent target with a $40 per tonne technology fund contribution rate; Minister McQueen has indicated that this is just one option being considered.

The standard that the Pembina Institute uses to assesses these issues is whether or not climate policy in Canada is strong enough for Canada to achieve its 2020 target, and then to make deeper reductions thereafter. While Alberta is not responsible for meeting Canada's targets alone, we do consider the province to be responsible for meeting an equitable share of the overall target.

Solution

While the 40/40 plan would be a clear improvement on Alberta's current policy, we view it as a starting point that can be built on rather than an endpoint. We propose moving to 40/40 in 2014 and then increasing the technology fund price at a predictable rate of $10 a year thereafter, thus reaching $100 a tonne by 2020 (referred to as a "40/40-plus-10" proposal below).

A predictable schedule of improvements in a carbon pricing policy is the approach British Columbia took with its carbon tax, which started at $10 per tonne in 2008 and increased in annual $5 increments to $30 per tonne in 2012. The schedule gives businesses time to reduce their greenhouse gas emissions in anticipation of higher carbon prices without being faced with the full cost immediately.

Because the technology fund price in Alberta would apply to a maximum of 40 per cent of a firm's emissions, the annual increase in costs would not exceed $4 per tonne, which is less than the annual schedule of increases B.C.'s carbon tax underwent between 2008 and 2012.

The following table summarizes the implications of this scenario based on modelling from the National Round Table on the Environment and the Economy (NRTEE).

Table 1. Implications of a 40/40-plus-10 SGER scenario

	SGER parameters		Results		Maximum compliance costs*		
	Technology fund price	*Intensity target*	*GHG reductions*	*Tech fund revenue*	*Carbon cost on 100% of emissions*	*SAGD facility*	*Coal-fired power plant*
2015	$50/t	40%	14 Mt	$1,394 m	$20/t	$1.82/bbl	$20/MWh
2020	$100/t	40%	38 Mt	$957 m	$40/t	$3.64/bbl	$40/MWh

*Actual compliance costs will be lower because companies will have access to some compliance options that cost less than the technology fund price, and because of interactions between carbon costs and corporate tax and royalty rates.

The plan can be assessed with the following three questions:

- *Would it help Alberta get on track to achieving its fair share of Canada's target?* This plan would achieve 38 Mt of the 64 Mt needed for Alberta to make an equitable contribution to meeting Canada's 2020 target (see below for further detail), without accounting for further reductions from technology fund investments. To achieve further reductions, Alberta could increase the technology fund price and/or the SGER approach could be complemented with other policies.
- *How would the incentive to reduce emissions compare with other carbon pricing policies?* The immediate step to $40 per tonne would make Alberta's policy the highest carbon price in Canada, although still short of the $74 per tonne charged in Norway's oil and gas sector. At $100 per tonne in 2020, it would be among the highest carbon prices in the world (based on current prices).
- *How would the average cost (an indication of potential impacts on competiveness) 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 Pembina's 40/40-plus-10 proposal. While higher than the current maximum SGER compliance cost of $1.80 per tonne, the 2020 value would be just above the current cost of B.C.'s carbon tax and below the current cost of Norway's carbon tax.

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

Implementing a 40/40-plus-10 policy would:

- Provide an initial revenue stream of about $1.4 billion per year for investment in clean energy solutions throughout the province. We anticipate that this would decline to about $1 billion per year by 2020 as companies shift from making technology fund payments to in-facility greenhouse gas reduction projects.

- Help Alberta get on track to achieving its fair share of Canada's national target to reduce greenhouse gas emissions. Demonstrating this kind of climate leadership would 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 greenhouse gas emissions from oilsands production. Improved emissions performance would help position oilsands producers to compete as jurisdictions like California and the EU enact clearer fuels policies.

Assessing Alberta's contribution to Canada's 2020 target

While Alberta has a 2020 GHG target of its own, the province must also make an adequate contribution to achieving Canada's 2020 target of 17 per cent below the 2005 level. In our view, Alberta's share is best reflected by the distribution of emissions reductions likely under a broad-based national carbon price sufficient to achieve Canada's target — an approach widely recognized as the most cost-effective means of reducing emissions.

Drawing from research from the National Round Table on Environment and Economy, as well as economic modelling commissioned by the Pembina Institute and David Suzuki Foundation, a fair share for Alberta would mean reducing emissions by approximately 64 Mt below levels projected for 2020 based on current policy (see chart below).

The combined impact of federal and Albertan climate change policies, including the Specified Gas Emitters Regulation (SGER), is not currently strong enough to achieve Alberta's target, let alone a fair share of Canada's target, so considerable improvement is required to get on track. The NRTEE's assessment is that achieving Canada's 2020 target will require taking advantage of emission reduction opportunities of up to $150 per tonne by 2020 across the Canadian economy.