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Alberta Reviews Compliance with the Specified Gas Emitters Regulation

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In November 2013, Alberta released the review of 2012 compliance results with the [Specified Gas Emitters Regulation](#), Alta Reg 139/2007 (SGER). Alberta was the first Canadian province to develop legislation regulating greenhouse gas (GHG) emissions. The SGER requires established facilities (i.e. facilities existing in 2000) that emit more than 100,000 tonnes of GHGs a year to reduce their emissions intensity by 12% below a baseline established between 2003 and 2005. Relative to business as usual, the 2012 compliance review shows that the results have been less than stellar.

Alberta has adopted an intensity based scheme, with the threshold level of 100,000 tonnes of carbon dioxide equivalent (CO₂e). An intensity based program targets to improve production efficiency in terms of GHG emissions. In other words, there is no cap on the total annual emissions; rather it is the total annual emissions divided by total production for the year that matters. An intensity based system allows GHG emissions to increase from year to year as production expands, as long as a facility can reduce the amount of GHGs emitted per unit of production. New facilities are required to reduce their GHG emissions intensity by 12% over a 6 year period, with a 2% reduction obligation per year. Reductions are measured against facility specific baseline intensities that are determined based on three years of historical operations. Facilities that cannot meet their reduction obligations by improving their own efficiencies have three alternative compliance options:

1. submit offset credits that are registered on the [Alberta Emissions Offset Registry](#);
2. apply emission performance credits (either accumulated or acquired) to that facility. Also called EPCs, these credits are generated by facilities that have gone beyond the 12% mandatory intensity reduction. EPCs can be banked for future use or sold to other facilities that need to meet the reduction target;
3. purchase fund credits from the [Climate Change and Emissions Management Fund](#) (i.e., Technology Fund) at \$15/tonne of CO₂e.

The benchmark value of \$15/tonne of CO₂e set by the Climate Change and Emissions Management Fund compliance option provides some insight into the financial implications of this program for large emitters. Essentially this sets a ceiling price for offsets under the SGER and guarantees that an emitter will not be required to pay more than 15\$ per tonne in order to achieve compliance.

However, the provincial government has reason to worry about GHGs, since Alberta's GHG emissions [have risen by 46% compared to 1990 levels](#) and [are likely to grow](#) (Canada's Emission Trends 2012, p. 32-33).

In 2011 Canada emitted 702 Mt CO₂e, of which Ontario was responsible for 24% and Alberta for 35% (245.7Mt CO₂e). In Canada, large emitters (>50,000 t CO₂e) are responsible for about one third of the GHG emissions - 254 Mt out of 702. Alberta hosts about half of these large emitters, whereas Ontario hosts 19% of them.

The facts are as follows: Alberta emitted 245.7 Mt of CO₂e in 2011. Half of these emissions come from large facilities (>50,000 t CO₂e). In total, 164 facilities from 16 industrial sectors [reported](#) a total of 123.3 Mt CO₂e of greenhouse gas emissions in Alberta for the 2011 calendar year through the Specified Gas Reporting Program. Alberta requires industrial facilities that emit more than 50,000 tonnes of CO₂e (including carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride) to submit annual reports on their greenhouse gas emissions. The [Specified Gas Reporting Regulation](#), Alta Reg 251/2004 describes who is required to report greenhouse gas emissions and how the information is collected.

In November 2013, Alberta released the [2012 Greenhouse Gas Emission Reduction Program Results](#). For 2012, 56.6% of the required reductions were achieved by emissions savings through facility operations (1.66 Mt), offsets submitted (2.63 Mt) and recognition of cogeneration (3.25 Mt). The Alberta Climate Change and Emissions Management Fund collected payments that accounted for 43.4% of the required emission reduction.

Compared to 2011, the results for 2012 revealed a dramatic fall in "actual" reductions. In 2011 improvements to operations (1.5Mt), offset purchases (5.3Mt), emission savings at the facility (1.09Mt) and recognition of cogeneration (2.53Mt) represented 73% of the necessary GHG emission reductions for compliance with the SGER; whereas the Alberta Climate Change and Emissions Management Fund payments accounted for only 27% of compliance. These numbers are set out in the chart below.

Compliance year	EPC	Emission Savings at Facility	Offset Credit Purchases	Recognition of cogen	Fund Payments
2011		Total reductions: 8.9 Mt			
	0.98 Mt	1.09 Mt	5.32 Mt	2.53 Mt	3.7 Mt (\$55.4 million)
2012		Total reductions: 7.5 Mt			
	0.65 Mt	1.66 Mt	2.63 Mt	3.25 Mt	5.7 Mt (\$86 million)

Without overlooking the merits of being the first Canadian jurisdiction to implement GHG emissions reporting and reduction legislation, one has to take into consideration the full picture with respect to Alberta's GHG profile:

- Alberta is the single largest GHG emitting province in Canada;
- the SGER covers only 43% of Alberta's emissions; the threshold of 100,000 t of CO₂e is still very high compared to other emission trading schemes (e.g. California and Quebec have a threshold of 25,000 t CO₂e);
- the SGER represents an intensity-based scheme, meaning that the province's GHG emissions can continue to increase as long as the carbon footprint per unit of production is diminished;
- flexible compliance options allow facilities to continue to emit without making improvements to their installations as long as they pay a comfortable price of \$15 per tonne of CO₂e;
- the total emission reduction achieved through the SGER has to be analyzed relative to Alberta's total GHG emissions: 10.1 Mt of emission reductions represents 4.11% of Alberta total GHG emissions for 2011. Based on the premise that the total GHG emissions for 2012 are close to the 2011 level (official data is not yet available), the emission reductions achieved in 2012 represent approximately 3.05% of total Albertan emissions.

The SGER will expire in September 2014 and this raises the question of what lessons Alberta can learn from its previous experience and what carbon pricing mechanism should be considered in any successor regulation to the current SGER. Alberta needs to address the modest results of the SGER and other problematic issues such as the absence of a limit on the use of fund credits and offset credits for compliance reasons.

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