GO WEST

Will Alberta lead again with its new climate change programme, asks John Goetz

Alberta's GHG emissions have been the subject of increasing scrutiny and criticism. The province accounts for the lion's share of Canada's emissions, emitting 267 million tonnes of CO2 equivalent (CO2e) in 2013, roughly 37% of Canada's total emissions.[1] Although Canada contributes less than 2% of global emissions[2], growing emissions from Alberta's oil sands has garnered significant attention from environmental groups and governments. Even with lower oil prices, oil sands production is still expected to increase by 800,000 barrels per day (bpd) by 2020, down from the previous forecast of 1.2 million bpd.[3] Several oil pipeline projects to ship Alberta oil to the US and coastal ports are being delayed, in large part due to the emissions profile of oil sands crude.

Alberta's GHG emissions profile is unique in Canada and elsewhere. Almost half of its emissions come from 100 large industrial facilities – a significant concentration of emissions from a relatively small group of sources. Alberta has limited hydro resources and an abundance of coal and natural gas. It has relied on inexpensive coal-fired generation (approximately 52%) and more recently natural gas (38%) for most of its electricity. The GHG emissions from these two fossil fuel sources are significant (45 million tonnes annually) and comprise about 17% of the province's emissions. Perhaps most significantly, Alberta is one of the world's largest oil and gas producers, and exports roughly 75% of its oil and 50% of its natural gas. Although only a quarter of its oil production is consumed domestically, extraction and processing generates 46% of its emissions. As Canada's largest emitter with growing emissions, its climate policies merit serious attention.

It is not widely known that Alberta was the first jurisdiction in North America to enact GHG regulations with the introduction in 2007 of a scheme that requires large emitters (more than 100,000 tonnes CO2e per year) to reduce their emissions intensity (measured per unit of production) by 12% from a historical baseline. The intensity approach was favoured over absolute reductions because it allowed the oil sands industry to continue growing and providing economic benefits as long as its emissions intensity decreased. Continued growth in oil sands production was expected to result in increased overall emissions until 2020, but then begin declining as technologies like carbon capture and sequestration were introduced to curb or offset these emissions.

Although new technologies and improved practices have reportedly resulted in a 20% intensity reduction,4 overall emissions continued to rise. A new provincial government, elected in spring 2015, has committed to a leadership role in developing a more effective climate strategy. So far, it has increased the stringency of the existing regulation (see box) and formed an advisory panel to recommend a comprehensive set of measures to further reduce GHG emissions.

The amended regulation effectively puts a ceiling on the market price of offsets and EPCs, which typically trade at a 5-15% discount from the fund credit price. The C$15 (US$11.39) ceiling has thus far been insufficient to generate the needed stimulus for renewable energy projects, new technology deployment and offset projects generally; only projects with extremely low implementation costs have been viable.

The government would like to change this and has set out a vision to support new technology adoption, renewable energy deployment and efficiency/conservation.

In its discussion document, the province's government has committed to exploring a wide array of policy approaches to reduce GHG emissions. In addition to the amendments to the existing regulations, it could augment or replace its current programme with policies including other carbon pricing approaches, such as a carbon tax similar to British Columbia or a cap-and-trade system similar to Québec and California. Other approaches like renewable portfolio standards, fuel standards, sector emission limits, emission performance standards and technology standards will also be considered, along with other incentive-based approaches such as feed-in-tariffs, tax credits, subsidies, government backed loan guarantees, power purchase agreements and efficiency and consumption reduction incentives.

Whatever it chooses, Alberta is exploring linking with other jurisdictions. This will be challenging if it opts for a more stringent version of its existing intensity-based programme, but not impossible. If it changes course and moves to a cap-and-trade system, linkage with California, Québec and Ontario would be likely. Many think it may be easier and more efficient for Alberta to continue making its current intensity-based programme more stringent rather than replacing it with an entirely new one. Regulated emitters are accustomed to the existing programme and intensity-based tools can reduce total emissions if the reduction requirements are aggressive enough.

ALBERTA'S SPECIFIED GAS EMITTERS REGULATION

In advance of its new climate action plan, Alberta's existing SGER has been amended significantly, increasing both the carbon price and the reduction requirements.

Prior to the amendment taking effect in 2016, large regulated emitters must reduce their emissions intensity by 12%. There are four compliance mechanisms for meeting this target:

1. Reducing emissions at the facility,
2. Purchasing verified offsets,
3. Purchasing technology fund credits (allowances) from the government (currently priced at C$15/tonne),
4. Purchasing or using emission performance credits (EPCs), or any combination of the above. EPCs are given to facilities that exceed their reduction targets in a given year and can be sold or used in later years.

In 2016, reductions increase from 12% to 15% and to 20% in 2017. The price of technology fund credits increase from C$15 to C$20 in 2016 and to C$30 in 2017.

Regulated emitters are still allowed to satisfy 100% of their compliance requirements using technology fund credits.

Alberta could continue to phase in more stringent reduction requirements and broaden the application of the regulation to cover more facilities and emissions, in line with jurisdictions like California, Québec and Ontario, albeit with diminishing returns. It can escalate the price of technology fund credits over time, but perhaps more significantly could also limit the percentage of fund credits that emitters can use to comply. Advocates of this approach say it would generate more actual reductions (rather than just paying into a fund) and stimulate deployment of emission reduction projects by removing the price ceiling on offsets and EPCs. The combination of increasing reduction requirements and limiting the ability to use fund credits would mean more real reductions will be required, increasing the demand for offsets and EPCs and establishing a new market-based price. This could result in the first true market price for carbon to date, but the impact of removing the price ceiling on offsets and EPCs would have to be closely assessed to ensure it would not result in unintendedly high compliance costs.

It is interesting to note the impact the amended regulations are already having, even though they are not effective until 2016. Prices offered on offsets for 2015 delivery have increased significantly, as have prices for 2016 delivery. This price increase may stimulate an increase in projects coming to the market.

Regardless of what is agreed at the Paris climate talks, governments within and outside Canada have already moved to take real steps toward climate change goals. Québec recently announced a 2030 reduction target of 37.5% below 1990 levels. Ontario is bringing in a new cap-and-trade programme in 2017 to link with California and Québec, targeting 37% below 1990 levels by 2030. In its Intended Nationally Determined Contribution (INDC), Canada is aiming for a cut of 30% below 2005 levels by 2030 and is relying on provincial programmes to achieve it. With its newly elected Liberal government, Canada is expected to increase its commitment to address climate change and either introduce a new programme or support the provinces' more aggressive emission reduction programmes.

The responsibility for nearly 40% of Canada's INDC will fall on Alberta. There is a great deal of momentum in Canada and around the world. Alberta's new government, led by Premier Rachel Notley, appears to want to join the party by announcing an impressive target and a programme for achieving it in time for Paris. It has to do this in the context of an economy that has suffered a major blow from falling oil prices and massive industry layoffs. This is no easy feat – but is a unique opportunity to revamp North America's oldest carbon pricing programme.

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(1) Climate Leadership Discussion Document, Government of Alberta, page 10 (2) Canada's INDC Submission to the UNFCCC (3) IHS Report: Oil Sands Will Continue to be a Leading Source of Global Oil Supply Despite Lower Oil Prices, Other Headwinds (4) Climate Leadership Discussion Document, Government of Alberta, page 9