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Alberta’s New Climate Change Leadership Plan

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In advance of Premier Notley’s meeting with Prime Minister Justin Trudeau and the Paris Climate Change conference later this month, Alberta’s New Democratic government has dramatically bolstered its climate change management strategies.

In June 2015, the newly formed NDP government had announced that large industrial carbon emitters in Alberta would be required to pay double the carbon levies (increasing to $30 per ton by 2017) and to reduce their overall greenhouse gas (GHG) emissions by 20%. The program, modelled on the existing Specified Gas Emitters Regulation legislative structure, did not apply to the broader economy and was criticized by some for lacking teeth.

On November 22, 2015, Premier Rachel Notley announced a significantly more aggressive climate change leadership plan, based on the recommendations of the province’s Climate Change Advisory Panel chaired by Dr. Andrew Leach of the University of Alberta. It should be noted that the Climate Change Advisory Panel’s report was released concurrently with the provincial government’s press conference, and it remains to be seen which aspects of the panel’s detailed recommendations will in fact be adopted in new provincial regulations.

The cornerstones of the new plan are: (1) an accelerated phase-out of coal, (2) an economy-wide carbon levy, (3) an absolute cap on oil sands emissions, and (4) a methane gas emissions reduction plan. Together, the different parts of the province’s new plan will affect all Albertans and a number of industries. The implications of the recent announcement are explored below.

1. ALBERTA WILL PHASE OUT COAL AND RELY MORE HEAVILY ON RENEWABLE POWER SOURCES

The NDP government is committed to phasing out coal-fired electricity production by 2030. In its place, renewable sources of power will be encouraged to fill two-thirds of the newfound system capacity, which translates to renewable energy sources comprising approximately 30% of Alberta’s electricity production by 2030. The firm base-load reliability and remainder of excess demand is anticipated to be met by natural gas-fired power production. Per the Climate Change Advisory Panel’s recommendation for the maintenance of reliability, it appears that Alberta will pursue a regulated shutdown of coal on a schedule developed in consultation with the federal government and the Alberta Electrical System Operator.
The government anticipates maintenance of reasonable stability in electrical pricing for consumers and business in two ways. Firstly, cost-efficient and peak-able natural gas power is expected to provide an increased proportion of the power in Alberta.

Secondly, the Climate Change Advisory Panel has recommended that the government provide limited financial support to renewable power generators – just enough to encourage the desired quantity of the cheapest available renewable power production – rather than a feed-in tariff or other fixed price which would escalate end-user electricity costs in the same way fixed price support of renewables did in Ontario. In essence, renewable power producers would competitively bid each year for a fixed amount of long-term government contracts in which Alberta agrees to purchase the emission offsets or renewable energy credits (RECs) generated by such projects. Premier Notley confirmed that a market-like auctioning mechanism would be implemented for these contracts, but it is not yet clear whether she will adopt the Climate Change Advisory Panel’s recommendation to adopt a price collar of $35 per MWh in order to limit the increased costs to government and the taxpayer. The Climate Change Advisory Panel estimates that REC contracts at $35 per MWh roughly equate to a carbon price of $90 per tonne, meaning that the government REC contract support would be advantageous to renewable power producers relative to selling emission offsets generated by their projects into the general market at $30 per tonne under the existing legislation. That said, the Alberta wholesale power market will continue to be a merchant power market, and government REC contracts would only provide a fixed price for a component of a project’s revenue stream. Therefore, renewable producers will still need to contend with the merchant power pool price variability when seeking financing, or rely on third party hedges or contracts for differences to fix the price of merchant power. Renewable project developers continue to be free to generate revenue and price certainty from the sale of RECs to long-term buyers in other jurisdictions or, if they do not participate in the Alberta REC contract program, to any carbon emitter (such as an Alberta oil sands producer or chemical plant).

While no formal hierarchy of renewable power sources was announced, it is expected that wind energy will provide the majority of renewable capacity. The Climate Change Advisory Panel’s recommendation is to remain technology neutral in the offer of long-term fixed price REC contracts. Under a competitive auctioning system, only those renewable projects which need the least incremental financial support from government in order to secure financing will be developed. As they become more cost-efficient, solar and other more expensive options may comprise an increasing portion of renewable power production.

The most obvious impact of this announcement is the accelerated retirement of coal-fired production plants in Alberta. While these facilities were scheduled for shutdown in any event, significant economic hardship may be felt in those coal power producing operators which do not retro-fit their facilities for natural gas-fired production, if feasible for such facilities. The amount, if any, of compensation to these operators is not yet clear. In addition, coal-fired production may shut down prior to the legislated timelines if a significant need for capital investment for maintenance or operations arises before the scheduled shut-downs.

Conversely, the opportunities for natural gas- and renewable-based electricity production are great. The implications for the renewable power sector are highlighted above. Also, Alberta clearly expects natural gas-fired generation to play an important role going forward. That said, it appears that the government has no plans to assist this sector. Natural gas projects, whether cogeneration or otherwise, will be expected to comply with large emitter limits and carbon pricing along with other industrial emitters. It
appears the province is instead relying on the comparative advantage of this low cost cleaner-burning carbon based fuel to compete in the market. One advantage is that new natural gas facilities may operate more efficiently than their peers and may become eligible for emission offsets under the carbon pricing regulations which can be sold at an increasing price into the emission offset market. Nonetheless, natural gas project developers will still need to contend with the variable wholesale pricing in Alberta’s merchant power market, which could complicate new project financing.

2. ALBERTA WILL IMPLEMENT AN ECONOMY-WIDE PRICE ON CARBON

The second key part of the province’s expanded climate change policy initiatives is to expand the scope of carbon pricing. In addition to the increased carbon levy to be paid by large industrial emitters, as announced in June 2015, Albertans will be subject to an economy-wide carbon tax of $20 per tonne beginning in January 2017, to grow to $30 per tonne by January 2018. The Climate Change Advisory Panel also recommended an annual escalator of 2% more than inflation, but it is not clear whether the government will adopt that recommendation. The broader economy-wide carbon price is expected to touch 78-90% of all emissions in the province, the largest proportion in all of Canada.

Unlike other jurisdictions which have implemented carbon pricing, Premier Notley pledged that the proceeds of the broader carbon tax would remain in and be put to work within the provincial borders. The Climate Change Advisory Panel projects that a broadly-based or economy-wide carbon tax will lead to net revenues of $3 billion per year by 2018 to the provincial coffers, potentially increasing to $5 billion per year by 2018. While no detailed breakdown was provided, the identified uses of the additional government revenue are expected to include:

- investment in green infrastructure (such as public transit),
- energy-efficiency programs,
- renewable energy research, development and investment (including the payment of REC contract to be offered at auction for renewable power projects), and
- an adjustment fund which would be used to help lower-income Albertans offset the cost increases of carbon pricing and to provide financial support to small businesses, First Nations and those working in coal facilities subject to the accelerated phase-out of coal-fired power production.

The government committed to ensure that affected communities are treated fairly in the process to accelerate the retirement of Alberta’s coal-fired power plants. The government did not provide any details of potential compensation to companies forced to retire coal-generating assets early. The Climate Change Advisory Panel recognized potential government responsibility to ensure that investor confidence in Alberta is maintained through appropriate compensation to investors in affected coal generating assets. A coal-phase out in 2030 would significantly reduce the operating lives of several coal-fired power plants, including two which began operations in 2006. The Panel declined to include a recommendation regarding compensation, citing ambiguity in the information that it was provided with respect to the combined impact of federal and provincial coal and air quality regulations, ongoing low gas prices, carbon prices and renewable policies on the operations of coal facilities over time. To avoid stranding capital, to maintain investor confidence in Alberta and to ensure system reliability, the government will need to carefully consider compensation for affected plant owners. The nature and quantum of such compensation will likely be subject to significant public debate.

Importantly, Premier Notley noted that the proceeds of the carbon tax would not be used to pay general government operating expenses at this time, though she reserved the possibility of using the revenues to
pay down public debt in the future.

While the government has pledged that the new carbon pricing would be revenue neutral to Alberta as a whole, it will certainly not be revenue neutral to specific individuals or industries.

The new coal and electricity policy will increase costs and decrease the operational window for the operators of some coal-fired generation facilities. Electricity generation companies may be able to offset the effect of these coal-generation regulations by taking advantage of incentives for natural gas and renewable generation facilities. A challenge going forward will be to ensure the reliability of electricity supply, with two-thirds of this retired coal generating capacity replaced by renewable energy and one-third replaced by natural gas by 2030. The Panel relied on analysis provided by the Alberta Electrical System Operator to ensure that its recommendation would not compromise the reliability of electricity supply in the province.

3. ALBERTA WILL IMPOSE AN ABSOLUTE LIMIT ON CARBON EMISSIONS FROM OIL SANDS PRODUCTION

The third prong of the new plan is an absolute limit on oil sands emissions of 100 megatonnes (Mt) per year, with provisions for new upgrading and cogeneration. This announcement was largely unexpected and of great significance, since oil sands production in the province is already responsible for approximately 70 Mt of annual emissions.

The policy stems from the Climate Change Advisory Panel’s recommendation that the government consider an allocation of emissions permits reflecting top quartile performance in situ and mined production of bitumen, as well as establishing a parallel good-as-best gas standard for electricity which would apply to net sales from cogeneration facilities. The combination of these two allocation rules would determine output-based allocations of emissions credits for the majority of oil sands facilities in the province, with additional allocations required for facilities which produce other, marketable products in addition to bitumen and electricity.

The Climate Change Advisory Panel recognized that using an output-based allocation at top-quartile performance with a price of $30 per tonne would approximately double aggregate compliance costs for oil sands producers in 2018 compared to the system in place today. The increase would not be evenly distributed – the performance-based system would see a redistribution of compliance costs toward the higher emissions-intensive facilities. In the Panel’s view, emissions reduction decisions must become material for these facilities if oil sands production emissions are to be driven down toward good-as-conventional over time.

For new projects with top-quartile or better potential emissions performance, the new treatment is likely to provide a significant advantage. However, for new projects with high prospective emissions intensities, or with significant potential risk of such an outcome, this policy will magnify risks and may make these projects unattractive where they would otherwise have been of interest.

The regulatory approval process for new projects will need to take into account both project specific-emissions and the effect of project emissions on the absolute cap. The Climate Change Advisory Panel recommended that new projects, through the Alberta Energy Regulator, be encouraged to adopt new technology with greenhouse gas emissions advantages and that new project approvals be subject to the development of a satisfactory climate mitigation and adaptation plan. The Panel also contemplated permitting “low risk” amendments to existing approvals to implement emissions-reducing technology.
The principle is that if projects with better emissions-reducing technology have lower regulatory risks, this will incent the development of such technology. However, regulatory risk is related to many factors, primarily objections by affected parties. It is unclear whether new climate mitigation requirements can alone make the regulatory process for certain projects low risk. One uncertainty from the new announcement is the nature of the “provisions” for new upgrading and co-generation capacity; will these new projects be limited in any way?

Secondly, and critically, the absolute cap on oil sands emissions is a significant departure from the previous intensity-based cap which risks stymying the development of future oil sands projects. Given that the industry currently emits 70% of its new capped emissions allotment, and there exist additional approved projects which are not yet in operation, unless there are significant efficiency-based emissions reductions from existing projects, new projects will have to compete for the remaining capacity in order to come online. There could be an incentive for companies to seek regulatory approval for new projects before the absolute cap is reached. An absolute cap without the opportunity to buy or trade emissions capacity could stifle the development of some new projects.

4. ALBERTA WILL IMPLEMENT A NEW METHANE GAS EMISSIONS REDUCTION STRATEGY

As the fourth prong of the new plan, Premier Notley briefly discussed a methane gas emissions reduction strategy from Alberta’s oil and gas operations by 45% of 2014 levels by 2025.

Alberta is not unique among global players in its adoption of aggressive climate change strategies. Arguably, the implementation of the new four-part plan will represent one of the more assertive economic approaches to climate change management in the world, and certainly within Canada. However, today’s announcement and the corresponding Climate Change Advisory Panel were short on specific implementation measures. Industry players – in coal, oil sands production, natural gas- and renewable-based power production and others – would do well to keep a keen eye on how to capitalize on opportunities and avoid legislative pitfalls as the new administrative order unfolds. Further, all Albertans can advocate for their interest in a climate change strategy which does not impede economic recovery and growth.

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