

Bill 27: Financial Support for Renewable Electricity

By: Nigel Bankes

Legislation Commented On: [Bill 27, Renewable Electricity Act](#)

Report Commented On: [AESO, Renewable Electricity Program, Recommendations](#), dated May 2016, publicly released November 3, 2016

Press Release Commented On: [Government of Alberta, Renewable electricity plan to create jobs, spur investment](#), November 3, 2016

Alberta's [Climate Leadership Plan](#) (CLP) of November 2015 has four key planks:

1. Phasing out emissions from coal-generated electricity and developing more renewable energy
2. Implementing a new carbon price on greenhouse gas emissions
3. A legislated oil sands emission limit
4. Employing a new methane emission reduction plan

The government introduced legislation to implement an economy-wide carbon price in June (the [Climate Leadership Implementation Act](#)) and in the resumed session this fall (2016) it introduced first of all [Bill 25: The Oil Sands Emission Limit Act](#) to implement the third objective, a legislated oil sands emission limit (I commented on Bill 25 [here](#)) followed now by Bill 27, the *Renewable Electricity Act* to implement the second half of the first plank - developing more renewable energy. We have yet to see the detailed plans for phasing out coal generation.

Following the announcement of the CLP the government referred the design of a renewable program to the Alberta Electric System Operator (the [AESO](#)). The AESO operates the power pool and the province's transmission system under the authority of the *Electric Utilities Act*, [SA 2003, c E-5.1](#) (EUA). In [the letter of referral](#) (January 26, 2016), the Department of Energy instructed the AESO to develop a plan by May 2016 to bring new renewable electricity on to the grid while keeping the costs of doing so "as low as possible through a competitive process such as an auction." The letter also noted that the process must be carefully coordinated with the retirement of coal units. Finally the letter confirmed that the Government "has not chosen to fundamentally alter the current wholesale electricity market."

In acting on that direction the AESO invited submissions from industry and stakeholders. The AESO summarized what it heard [here](#) and also provided at that time (May 2016) some hints of the recommendations that it had provided to the Department:

- The definition of "renewable" is anticipated to align with the definition used by Natural Resources Canada (<http://www.nrcan.gc.ca>);
- The procurement is anticipated to be fuel-neutral;

- Facilities may be expected to be in-service in 2019; and
- It is anticipated that the existing transmission system will be leveraged.

One useful piece of information included was an indicator of typical development timelines for different renewable resources: Wind: 4-6 years; Solar: 1.5-3 years; Biomass: 2-3 years; Geothermal: 3-7 years; and Large Hydro: 10-14 years.

The following sections of this post discuss the AESO's recommendations and then Bill 27 and the concurrent announcements by Minister McCuaig-Boyd (Minister of Energy), Minister Phillips (Minister of Environment and Parks and Minister responsible for the Climate Change Office), and by the AESO.

The AESO Recommendations

The AESO made its recommendations to the Government of Alberta (GoA) in May 2016 but the government chose not to make them public until November 3, 2016 the same day that the government introduced Bill 27. [The report](#) is 38 pages in length plus six appendices.

The report provides recommendations related to the overall program, recommendations related to a generic competitive process and recommendations specific to the features of the first competition. It also describes (under the heading due diligence) the comparative jurisdictional work that it commissioned (the full report is Appendix D) as well as certain legislative changes needed to implement the program.

Recommendations related to the overall program

AESO identified three key general recommendations or insights (at 10). First the AESO supported embedding the overall target in legislation but did not consider that the legislation needed to specify the frequency of procurements. Second, the AESO emphasised the need for transparency with industry with respect to the competitive process so as to allow parties to understand whether:

- The objectives for each competition will remain mostly consistent;
- The majority of competitions will be fuel neutral; and
- The volume being procured in any given competition will be relatively consistent.

In connection with this the AESO recognized that the “the coal emissions phase-out plan is not yet fully defined” and that “the competition schedule for renewables ... will be informed by this plan.” However, the AESO went to note that in light of its “mandate to ensure the ongoing reliability of the AIES ... the AESO believes it is best positioned to develop the schedule of competitions once more details regarding the coal retirement plan are known.” (at 10)

Third, the AESO recognized that renewable procurement programs evolve over time and that this was broadly understood in the industry.

Recommendations related to a generic competitive process

The AESO recommended a three-step process involving: (1) request for expressions of interest (REIO), (2) requests for qualifications (RFQ), and (3) request for proposals (RFP). It recommended that the AESO should run the bidding process and it referred to its experience

with running similar processes including competitive processes for new transmission lines and for ancillary services in relation to the power pool (at 11). For further details on each of these steps see the AESO report.

The next, and perhaps most crucial step was to settle on a preferred payment mechanism. Clearly the AESO recognized, as had the [Leach Report](#), that some public financial support would be required in order to reach the government's renewable targets. The AESO advised that it had considered three options: (1) a fixed credit of \$/MWh for renewable electricity supplied to the grid (a fixed REC); (2) a variable credit of \$/MWh for renewable electricity supplied to the grid calculated by reference to the pool price and the bid price (under this scheme the generator receives the difference between its bid price and the pool price (referred to as an Indexed Renewable Credit but more transparently as a contract for difference (CFD)), and (3) a capacity payment mechanism whereby the generator of renewable energy receives a capacity payment for installed capacity of its renewable facility.

It was fairly easy for AESO to dismiss the capacity payment mechanism on the basis of cost, but also on the basis that it would be inconsistent to provide capacity benefits for an intermittent source of power such as solar or wind. As between fixed and indexed credit systems, the AESO came down (at 21 – 22) fairly strongly in favour of the indexed system, largely on the grounds that uncertainties in the pool price would cause bidders under fixed system to heavily discount the expected pool price, thus seeking high levels of provincial support and thereby increasing the cost of the program. By contrast, an indexed system transfers the pool price risk to the government thus encouraging maximum participation in any competition and allowing the bidder to focus on managing their own risks.

Recommendations specific to the features of the first competition

For the first competition AESO recommended (at 24 – 25) that the approach “must be kept simple” given the aggressive ‘in service’ goal of 2019. More specifically AESO recommended that the competition be fuel neutral (although in practice shorter regulatory requirements will favour some fuels and technologies); utility scale (with a minimum 5MW); with 20 year contract terms; indexed payments; and require demonstrated ability to connect to existing distribution or transmission system. As to the latter, AESO advises that there is likely enough capacity in the transmission system to accommodate the first few competitive rounds without requiring expensive and time-consuming reinforcements.

Comparative assessment

As part of its work the AESO retained a number of advisors to assist it: (1) London Economics International for a jurisdictional review of the experience of support mechanisms in other jurisdictions; (2) a report from its capital markets advisor (JCRA Financial) as to the financing environment for power projects in Alberta, and (3) advice from Morrison Park Advisors with respect to the challenges that could be anticipated with securing additional *non-renewable* generation in Alberta's energy only market. AESO clearly drew on many of the learnings from the first two of these reports in developing both its overall recommendations as well as the generic and specific recommendation with respect to the competitive process to be adopted. The jurisdictional overview also makes passing reference to the idea of a fairness advisor to oversee the process.

Recommended legislative changes

The AESO identified four principles that would inform consideration of the necessary legislative changes that would be required to implement the program as well as a few more concrete suggestions. It also strongly recommended that these amendments needed to be introduced and passed at the Fall sitting of the Legislature.

The four principles (at 36) are as follows;

Principle 1: The AESO must have explicit authority to develop and implement the Program.

Principle 2: Attempt to minimize the risk of legal and regulatory challenges to the development and implementation of the Program.

Principle 3: Be mindful of how the Program will be implemented within the current market structure and minimize changes to the legislative framework to maintain investor interest and confidence.

Principle 4: Encourage efficient and timely processes and oversight in order to reduce Program-related regulatory burden on interested parties and regulatory agencies.

Drawing on these principles the AESO made two concrete recommendations for amendments. The first was to amend the purposes section of the *Electric Utilities Act*, [SA 2003, c E-5.1](#) (EUA) to include the incenting of renewable generation. The second was to amend s.17 (which details the main duties of the AESO) to specify that the AESO would have responsibility for implementing the program and to make permissible certain features of the program that might be inconsistent with some of the basic principles underpinning the EUA and the current structure of the energy market.

Bill 27 and the Government\ISO Press Releases

It is evident that the government has adopted most\all of the AESO's recommendations although in some cases the Bill does not go in to all of the detail of the AESO's report. This is most obviously (and importantly) the case with respect to the nature of the financial support to be offered. Thus the bill does not express a preference for any of the three forms of support considered by the AESO (although s. 10 hints at the structure of a contract for difference). However, many of these details are acknowledged in the press releases and the postings on the [AESO's website](#). Thus we understand that the government aims to add 5,000 MW of renewable capacity by 2030; the first procurement will be for 400MW of capacity; 20 year contract terms; open to all technologies but projects should be operational by 2019; new or expanded projects; the AESO will seek feedback on the commercial terms of the first REP procurement starting November 10; the first competition will launch in early 2017 with an REOI, and RFQ and an RFP with successful bidders announced at the end of 2017; the first competition will adopt the contract for difference approach (indexed renewable energy credit).

[The Bill](#) (s.2) adopts a concrete target of at least 30% of electric energy produced in Alberta from renewable sources by 2030. It bears emphasising that the target is expressed in terms of energy and not capacity and that it refers to energy produced in Alberta. Hydro energy imported from British Columbia will not count.

Section 3 gives the Minister the authority to direct ISO to prepare renewables programs according to specified goals (including environmental, social, and economic goals) and

evaluative criteria. Sections 3 and 4 instruct the ISO to respond and submit proposals to the Minister for approval. While the AESO's May report addresses some of matters required by these sections, s.5 in particular will require additional details particular with respect to estimates of costs and expenses, and a draft of the proposed electricity support agreement. The Minister may approve the proposed program "with or without modification". Once approved the ISO shall implement the competitive acquisition (s. 7) ultimately entering into, and then administering (s. 9), renewable electricity support agreements (RESAs). The Minister (s. 10) is responsible for reimbursing the ISO for monies paid out pursuant to a RESA (and is entitled to be paid by the ISO for any monies ISO receives under a RESA). Section 12 anticipates that the monies for this will come from the Climate Change and Emissions Management Fund with any shortfall to be paid out of the General Revenue Fund.

Section 6 instructs the ISO to engage a "fairness advisor" external to the ISO to provide advice to the ISO on the development of the competitive process "to ensure that it is a fair process" and "to ensure" that implementation of the program "is conducted fairly".

The ISO is to recover the costs of developing and implementing a REP from the participants in the competition and the generators who enter in to RESAs. Presumably these recoverable costs would include the costs of retaining the fairness advisor. Shortfalls will be recovered from the Minister (s. 11) rather than passed through to consumers in the ISO tariff.

The ISO is subject to the direction of the Minister (s. 14) in implementing REPs but is shielded from investigation by the Market Surveillance Administrator (MSA) and the Alberta Utilities Commission (AUC) (s. 16) "regarding the development of a proposal for a renewable electricity program". Participants in the competitive process and generators who enter into RESAs are deemed to be electricity market participants for the purposes of s.6 of the *EUA* and ss. 39 & 46 of the *Alberta Utilities Commission Act*, [SA 2007, A-37.2](#) (*AUCA*). The effect of this is to commit all of these persons to "conduct themselves in a manner that supports the fair, efficient and openly competitive operation of the market" (the FEOC principle). Furthermore, while the ISO is protected from investigation by the MSA and the AUC, these deemed participants are clearly not.

The consequential amendments

The most important amendments are those with respect to the *Electric Utilities Act* and in particular with respect to the roles and responsibilities of the ISO. These include straightforward amendments to section 17 which lists the duties of the ISO. These amendments simply add ISO's new duties under this Act. However, the Bill will also amend s. 16 which currently provides as follows:

The Independent System Operator must exercise its powers and carry out its duties, responsibilities and functions in a timely manner that is fair and responsible to provide for the safe, reliable and economic operation of the interconnected electric system and to promote a fair, efficient and openly competitive market for electricity.

The proposed amendment will simply provide that this direction *does not apply* to the "development of renewable energy program proposals under the *Renewable Electricity Act*." I wonder if this proposed amendment is both over- and under-inclusive.

On the over-inclusive side of things I understand that a REP may be subject to the criticism that it is not entirely consistent with FEOC because it actually advantages certain forms of generation over others which would not be either “fair” or “openly competitive” or even “efficient”. But surely we don’t want to release the ISO from its obligations in relation to the safe, reliable and economic operation of the interconnected electric system. I note as well that the title to this section is “Duty to act responsibly” - the very blunt “shall not apply” language hardly captures a nuanced understanding of the relationship between the two statutes that we might hope to see.

As for the under-inclusiveness the non-applicability of the section is confined to the “development” of the REP proposals. Bill 27 distinguishes between the development of REPs (s.4) and their implementation as well as the administration and implementation of RESAs. If some elements of s.16 create a problem for the ISO in relation to the developments of REPs, why is there no issue in relation to the implementation of REPs? I also wonder whether it might not have been appropriate to reflect the REP somewhere in s.5, the purposes section of the Act (as the AESO itself had recommended). Finally, to the extent that the compressed timing envisaged for tying-in renewables might have some implications for expediting connections for these sources, there might be a need to authorize the ISO to take this into account in discharging its obligations to provide non-discriminatory access under, *inter alia*, ss.29 and 33 of the *EUA*.

Bill 27 will also amend s.3(1) of the *Hydro and Electric Energy Act*, RSA 2000, c. H-16 (*HEEA*). This is the provision in *HEEA* which prohibits the AUC from considering need when approving the addition of new generation. That is a risk for the applicant to assess in Alberta’s energy only market. The proposed amendment adds that the AUC “shall not have regard to whether the generating unit is the subject of a renewable electricity support agreement under the *Renewable Electricity Act*”.

Comments

The following sections comment on: the potential role of rural communities, First Nations and Metis communities; what is excluded from the program; the implications for natural gas generation; and the fairness advisor and the role of the MSA.

What happened to rural communities, First Nations and Metis communities?

In its discussion of the need to incent renewables the [Leach Report](#) discussed the potential role that rural communities, First Nations and Metis communities might play as partners in renewable energy development. The Leach Report stated as follows (at 50):

The panel recommends, as per the methodology employed in B.C., government set evaluation criteria of bids with respect to factors they consider valuable. In particular, we recommend government introduce a premium in the adjudication of bids for projects that partner with rural, First Nations and Métis communities. These types of partnerships have proven, in Ontario among other examples, to contribute positively to community acceptance of renewable energy projects.

In its report AESO (at 37) passes the buck back to the GoA recording that:

The AESO notes that the outcome of discussions between itself and the GoA in early 2016 resulted in a decision by the GoA that it would manage and coordinate engagement with Indigenous peoples, landowners and municipalities. The focus of the AESO’s

engagement efforts would therefore be with the investor and developer communities as well as other interested parties. This delineation has and will continue to allow the AESO to concentrate on the types of feedback necessary to further develop key elements of the Program, such as the procurement documents and long-term agreements. It also enables the GoA to coordinate its engagement for the Program with its broader CLP engagement activities.

Section 3 of Bill 27 allows the Minister to direct the ISO to take into account social and economic concerns in the design and implementation of a REP including in the bidding criteria; but one has the sense that this first procurement will barrel ahead without incorporating these design ideas. That may be understandable given the tight timing schedule of this first call but it would be far better to incorporate these ideas at the outset so as to ensure that communities, and especially indigenous communities, will see a benefit from the significant investment of public money in these projects; some of these projects will be coming on-stream before the next election!

What is excluded?

While the policy and the legislation adopts a broad definition of renewable energy (the same as that of Natural Resources Canada) the persons who may benefit are actually more circumscribed for three main reasons. First, this program is directed at generation and therefore energy in the form of electricity. As a result some energy sources (e.g. most geothermal) will not benefit from this program. Second, the AESO recommended in the RFQ part of its proposal that the scheme be directed at utility scale proposals (c. 5 MW). This has the effect of excluding small scale generation and in particular distributed generation (e.g. home-based generation that serves to displace generation supplied by the more conventional transmission and distribution systems) unless aggregated by a broker. Third, given the required in-service date some types of project will simply not be able to make it.

The other required generation

As noted in the introduction to this post, the government's renewable program is part of an overall objective of phasing out coal but it is only one element of that program. The other main challenge is to ensure the overall security of the interconnected system by procuring additional gas generation for base load and peaking purposes as the coal units are retired. After all, the lights must stay on. And here it is evident that the province faces significant challenges given the energy-only nature of Alberta's market and currently depressed pool prices due to low natural gas prices, overbuild of generation, and soft growth or declining demand due to economic recession and depressed oil prices. In this scenario it is hard to imagine new gas generation investments coming in to the province to participate in an energy only market absent very clear signals as to when the market will tighten due to coal retirements. There is therefore some urgency in clarifying this schedule. Whether that will be enough remains to be seen. The REP program solves the investment problem for renewables by retaining the pool price to establish the index on which the contract for difference is based. It may be necessary to provide capacity credits to attract the necessary gas investments we will require.

Treatment of renewable imports

Imports don't count. Not only are out-of-province projects excluded from eligibility in the REP (s.4) but out-of-province renewable energy that is imported will not count towards the target identified in s.2.

The Fairness Advisor

Based on its survey of best practices emerging from other jurisdictions, AESO recommended that a fairness advisor be retained. The AESO report provides very little advice on the role of a fairness advisor, how such a party might be selected, what fairness means in this context, and who is the relevant constituency – bidders, incumbents, others? The legislation is not much more informative. Section 6 suggests that the advisor will have two responsibilities: (1) to advise on the development of the competitive process, and (2) to ensure implementation of the program. One question that comes to mind is the potential role of the fairness advisor in relation to the form of the renewable electricity support agreements. Can we expect the fairness advisor to be opining on the form, for example, of any “change of law” provision?

One might also question why we need a fairness advisor when we have both the MSA and the AUC with *statutory* responsibilities for supervising and considering complaints in relation to the ISO. Is the ISO perhaps more comfortable retaining its own fairness advisor than having to deal with the MSA and the AUC? And if so is that a relevant consideration? Clearly the province acceded to this arrangement and, as noted above, the Bill shields the ISO from investigation by both the MSA and the AUC but only “regarding the development of a proposal for a renewable electricity program” (s.16(1)). This shield is quite narrowly framed since this language appears to be a reference to the ISO's responsibilities under s.5 of the Bill. It likely does not extend to the distinct activities of implementation of REPs (s.7) or the administration of RESAs (s.9).

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