

Renewable Portfolio Standards for Alberta

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Introduction

The Alberta Government's *Provincial Energy Strategy 2008 (Energy Strategy)* has indicated the Government's plans to introduce a renewable fuels standard, which would require that gasoline and diesel fuel sold to consumers contain ethanol or biodiesel.¹ The use of renewable fuels is one approach to reducing greenhouse gas emissions associated with transportation because the emissions associated with ethanol or biodiesel are less than those associated with fossil fuels. Notably absent from the *Energy Strategy* is a similar plan to require a renewable portfolio standard (RPS) for electricity. An RPS is a regulatory approach that requires a certain percentage of the electricity generated in the province be from renewable energy sources such as wind or solar power. This article briefly describes an RPS and describes how such a standard may be implemented. This article concludes by suggesting that the failure to include an RPS in the *Energy Strategy* may be a missed opportunity that should be explored further, but recognizes several challenges to the implementation of an RPS in Alberta.

Background

The *Energy Strategy* introduces the Government's intention to implement a renewable fuels standard. British Columbia, Saskatchewan, Manitoba and Ontario have renewable fuel standards in place. The federal government is in the process of implementing a similar requirement. The Alberta Government suggests that the use of renewable fuels has the potential to reduce carbon dioxide emissions by approximately one million tonnes per year.² The Government is to be commended for recognizing the benefits of renewable fuels and for planning to create regulations requiring its incorporation into fuels bought at the pump.

Similar benefits might be realized through regulatory incorporation of renewable energy sources into the province's electricity generation mix. Alberta's *Climate Change Action Plan*, released in 2002, called for 3.5% of electricity to be from renewable sources.³ This recommendation was voluntary, however, and was not repeated in the Government's *Climate Change Strategy*, released in 2008.⁴

What is a renewable portfolio standard?

An RPS is a regulatory control over electricity generation. Central to an RPS is the setting of a minimum required amount of renewable energy to be generated for the province. This minimum amount would normally be expressed as a percentage of overall generation capacity and that percentage could increase gradually over time as technology and pricing improves. A RPS may be implemented as a control on generation in jurisdictions where generation planning is regulated. In Ontario, the Ontario Power Authority is required to prepare integrated power system plans that comply with ministerial directives setting out goals relating to increases of generation capacity from renewable energy sources.⁵ In jurisdictions where electricity retailers are

regulated, an RPS may be implemented by requiring that all retailers include a minimum percent of renewable electricity in their supply portfolio.⁶ Retailers can generate their own renewable electricity or buy it from another party to meet this requirement.⁷

Energy Strategy's failure to include RPS

In Alberta, regulators take a hands-off approach to electricity generation, considering neither the economics of nor need for a generating unit when issuing an approval.⁸ The *Energy Strategy* states: “[we] defer to the market to determine what mix and proportion of energy sources Alberta will ultimately use...”.⁹ Electricity from investor-owned generators is sold into a Power Pool, created under the *Electric Utilities Act*, at market rates.¹⁰ This deference to the market is a rejection of government intervention in the determination of an appropriate electricity supply mix and the rejection of RPS. This seems like a missed opportunity given that the principle of an RPS is similar to, and has the same general appeal of, a renewable fuel standard.

The position of the Alberta Government may be influenced by the nature of the province’s electricity regulation scheme, which differs from other provinces. In many other jurisdictions, the government owns electricity infrastructure. In these jurisdictions, the decision to incorporate more renewable electricity generation is a simple one. In other areas, electricity infrastructure may be owned by a private corporation that has its rates regulated by the government. In such cases, the generation, transmission, distribution and retail sale of electricity are all regulated and rates for each function are set. Often each of these functions is carried out by the same entity as a vertically integrated operation. In these jurisdictions, implementation of an RPS may also be fairly simple.

In Alberta, however, electricity infrastructure is owned by a combination of investor-owned and municipally owned companies. Various parties undertake a wide range of functions, and electricity is largely deregulated. As noted above, generation is not regulated at all and the retail sale of electricity is not fully regulated. Albertans can choose to purchase electricity from a regulated rate provider or from a competitive retailer, whose rates are not set.

Given that generation is currently unregulated, a decision to require that a certain percentage of the electricity supply mix be made up of renewable electricity would involve the creation of regulations that change the way that the Power Pool purchases electricity. Additionally, because electricity retail is only partially regulated, regulations to implement an RPS would have to take into account a number of challenges that may not be faced by other jurisdictions that have not deregulated their electricity industries.¹¹ For instance, unregulated retail customers with existing contracts entered into before an RPS is implemented would likely seek to have their existing retail prices honored through grandfathering of their contracts. If this were done there would be a possibility for differential treatment as between regulated and unregulated purchasers. In addition, different reporting requirements may have to be created for different types of retailers. However, if an RPS can deliver the same kind of benefits as a renewable fuels standard, it may be argued that a similar intrusion into the market is appropriate to ensure that renewable energy sources make up an appropriate percentage of Alberta’s electricity supply mix.

- ¹ Alberta Department of Energy, *Launching Alberta's Energy Future: Provincial Energy Strategy* (Edmonton: Government of Alberta, 2008) at 35, online: Alberta Energy <http://www.energy.gov.ab.ca/Org/pdfs/AB_ProvincialEnergyStrategy.pdf>.
- ² Alberta Department of Energy, *Talk About Bioenergy* (Edmonton: Government of Alberta, 2008) online: Alberta Energy <http://www.energy.alberta.ca/BioEnergy/pdfs/FactSheet_RFS.pdf>.
- ³ Alberta Environment, *Albertans & Climate Change: Taking Action* (Edmonton: Government of Alberta, 2002) at 3, online: Alberta Environment <<http://www.environment.gov.ab.ca/info/library/6123.pdf>>.
- ⁴ Alberta Environment, *Alberta's Climate Change Strategy: Responsibility/Leadership/Action* (Edmonton: Government of Alberta, 2008), online: Alberta Environment <<http://environment.gov.ab.ca/info/library/7894.pdf>>.
- ⁵ *Electricity Act, 1998*, S.O. 1998, c. 15, s. 25.30.
- ⁶ Clean Air Strategic Alliance, Renewable and Alternative Energy Project Team, *Recommendations for a Renewable and Alternative Electrical Energy Framework for Alberta* (Edmonton: Clean Air Strategic Alliance, 2007) at 16, online: Clean Air Strategic Alliance <http://www.casahome.org/wp-content/uploads/2007/05/RAreport29May2007_FINAL_incl-BoardRevisions.pdf>.
- ⁷ *Ibid.*
- ⁸ *Hydro and Electric Energy Act*, R.S.A. 2000, c. H-16, s. 3.
- ⁹ *Supra* note 1 at 45.
- ¹⁰ S.A. 2003, c. E-5.1.
- ¹¹ *Supra* note 6 at 17.

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