

## **Toxics Watch Society of Alberta and Pembina Institute Recommendations to the Government of Alberta on the Implementation of the *Climate Change and Emissions Management Fund***

*Prepared by Nashina Shariff<sup>1</sup> and Johanne Whitmore<sup>2</sup>*  
*November 2007*

In 2002, the Government of Alberta introduced the *Climate Change and Emissions Management Amendment Act*<sup>3</sup> (hereafter referred to as the Act). The government later adopted the *Specified Gas Emitters Regulation*<sup>4</sup> under this Act (hereafter referred to as the Regulation) to require that existing industrial facilities in Alberta emitting more than 100,000 tonnes of greenhouse gases (GHGs) per year reduce (on paper) their emissions intensity by 12% starting July 1, 2007. (Smaller percentage targets apply to new facilities.) The Regulation outlined several compliance options for meeting these targets, including making \$15 per tonne CO<sub>2</sub>e payments to an uncapped Alberta-based technology fund for GHG emissions in exceedance of targets.

Currently, the only information available to the public regarding the technology fund is found under (i) Section 10 of the Act, which establishes the Climate Change and Management Fund (hereafter referred to as the Fund), and (ii) Section 8 of the Regulation, which describes the ways that regulated industries can use the Fund. However, many key details about the design and implementation of the Fund remain unresolved. The Toxics Watch Society of Alberta and the Pembina Institute welcome the opportunity to provide recommendations on the Government of Alberta's proposed framework for implementing the Fund.

While we strongly support the principle of regulating emissions from large industrial emitters, we believe that payment into a technology fund (or other technology investment vehicle) is not an acceptable means of achieving compliance with regulated targets. Counting technology investments for compliance purposes allows industry to meet targets on paper only, by allowing emitters to borrow reductions from the future. Use of a technology fund provides no assurance of when reductions will occur, nor of the volume of reductions. To encourage technology development, the Government of Alberta should instead establish appropriate long-term expectations for emission targets and prices, along with complementary measures as needed to address market failures.

If payments into the Fund are to be retained as a compliance option, the concerns outlined below about the Fund's design must at a minimum be addressed.

---

<sup>1</sup> Toxics Watch Society of Alberta, email: [nashina.shariff@toxwatch.ca](mailto:nashina.shariff@toxwatch.ca), phone: 780.915.8946

<sup>2</sup> Pembina Institute, email: [johanne@pembina.org](mailto:johanne@pembina.org), phone: 819.483.6288, ext. 33

<sup>3</sup> See [http://www.qp.gov.ab.ca/documents/Acts/C16P7.cfm?frm\\_isbn=9780779723386](http://www.qp.gov.ab.ca/documents/Acts/C16P7.cfm?frm_isbn=9780779723386)

<sup>4</sup> See [http://www.qp.gov.ab.ca/documents/Regs/2007\\_139.cfm?frm\\_isbn=9780779725403](http://www.qp.gov.ab.ca/documents/Regs/2007_139.cfm?frm_isbn=9780779725403)

## 1. General Comments

The Government of Alberta's provincial GHG intensity target of 50% below the 1990 level by 2020 under the Act and its accompanying Regulation will allow Alberta's emissions to increase significantly. The facility-level intensity targets will allow oil sands producers to be in compliance with their targets in 2010 while more than doubling their real emissions over the 2003 level. If recent economic growth rates continue, Alberta's total GHG emissions will rise to 72 % above the 1990 level by 2020.<sup>5</sup> Such a dramatic increase in Alberta's absolute GHG emissions would:

- (i) take Canada even further away from its legally binding Kyoto target;
- (ii) jeopardize Canada's ability to advocate for and meet the deep emission reduction targets post-2012 that will be needed to meet the ultimate objective of the United Nations Framework Convention on Climate Change – to prevent dangerous climate change; and
- (iii) create a burden on the rest of Canada by transferring responsibility and financial liability for Alberta's emissions to the federal government and other provinces.

Several provinces – including Québec, Manitoba, Ontario, British Columbia and Nova Scotia – have committed to absolute emission reductions by 2020, and some have set Kyoto-level targets. Alberta's current target-setting approach is increasingly out of step with its provincial peers. This represents a substantial liability for Canada, as Alberta is the largest industrial and total emitter among Canadian provinces. Instead, Alberta must contribute in an equitable manner to helping Canada make best efforts to meet its legal obligations under the Kyoto Protocol, and must pursue long-term absolute emission reductions that are in line with what the science indicates is required to prevent dangerous climate change. To achieve this goal, Alberta should put in place absolute emissions reduction targets

- at least 25% below the 1990 level by 2020 and
- at least 80% below 1990 levels by 2050.<sup>6</sup>

Absolute targets for emission reductions are a critical step towards taking meaningful action on climate change in Alberta in a manner that is consistent with science and equity.

## 2. Uses of the Fund

The potential uses of the Fund as laid out in the Regulation and the Act are too broad to ensure that the Fund delivers incremental, real and near-term emission reductions. Currently, Section 10(3) of the Act states that the Fund can be used for projects related to:

- *Energy conservation and efficiency;*
- *Demonstration and use of new technologies, systems or infrastructure with potential for significant reductions in greenhouse gas emissions in the discovery, recovery, processing, transportation and use of Alberta's energy resources;*

---

<sup>5</sup> According to Statistics Canada (CANSIM Table 384-0002) Alberta's real GDP increased by a factor of 1.855 between 1990 and 2005. If this rate continues between 2005–2020, but emissions intensity falls by half, emissions in 2020 will be  $(1.855)^{2/2}=1.72$  times their level in 1990.

<sup>6</sup> According to the Intergovernmental Panel on Climate Change, to stabilize atmospheric GHG concentrations at 450 ppm CO<sub>2</sub>e, industrialized countries' GHG emissions must fall to 25–40% below the 1990 level by 2020 and to 80–95% below the 1990 level by 2050. See Gupta et al., "Policies, Instruments and Co-operative Arrangements," in Metz et al., eds, *Climate change 2007: Mitigation. Contribution of Working group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press, 2007), 776. Also available online at [http://www.mnp.nl/ipcc/pages\\_media/AR4-chapters.html](http://www.mnp.nl/ipcc/pages_media/AR4-chapters.html).

- *Demonstration and use of new technologies that have potential for significant reductions in greenhouse gas emissions through the use of alternative energy and renewable energy sources;*
- *Demonstration and use of greenhouse gas capture, transportation, use and storage technology;*
- *Development of opportunities for removal of greenhouse gases from the atmosphere through sequestration or sinks;*
- *Measurement of the natural removal and storage of carbon; and*
- *Climate change adaptation.*

Many of the investment areas proposed in this list, notably climate change adaptation and the measurement of the natural removal and storage of carbon, will not lead to any emission reductions, while other areas, such as the demonstration of new technologies or opportunities, provide no guarantee of significant real emission reductions within any predictable timeframe. This will result in regulated industrial emitters delivering significantly fewer emission reductions than indicated by their 12% targets.

The Fund should be viewed as a privilege that the government has granted to regulated industries that allows them to invest in new, lower-emitting projects as a lower-cost alternative to reducing their own emissions. Therefore, to ensure that investments by the Fund do not diminish the environmental outcome of the Regulation, investments must be equivalent to the emission reductions foregone by the regulated industries that make payments to the Fund for compliance purposes. Otherwise, every tonne of reductions that large industrial emitters fail to deliver through the Fund will be an extra burden on the climate and an extra tonne that the Government of Alberta – and taxpayers – will ultimately have to find and pay for elsewhere.

The framework for implementing the Fund should therefore limit its use and scope primarily to projects that will deliver incremental, real and verifiable emission reductions in the short term (2008–2012), including Kyoto-compliant credits or other incremental offset projects. Investments in demonstration projects should be allowed only to the extent that they meet these criteria.

The Toxics Watch Society of Alberta and the Pembina Institute believe that investment in adaptation, measurement and reporting activities, and research and demonstration of new technologies are important. However, any funds turned over to the Government of Alberta for compliance with emission-reduction targets must be spent on achieving emission reductions. Additional funds should be made available to address other aspects of addressing climate change.

### **3. Criteria for Disbursement**

Preventing the further weakening of the Regulation depends critically on the rigorous implementation of the Fund. A failure to place strict and appropriate criteria on the disbursements of the Fund will result in loopholes that significantly reduce the level of emission reductions delivered by the Regulation.

To maximize the emission reductions resulting from investments made by the Fund, the Fund's design framework must include the following:

- Clear criteria requiring that each tonne's worth of payment into the Fund produces a one tonne reduction in emissions. Future reductions resulting from investments by the Fund must be measured relative to a credible baseline, not an inflated business-as-usual scenario (see Section 4 below for more detail);
- Clear criteria requiring that investments made by the Fund go only to projects that result with high confidence in lower GHG emissions or higher GHG removals than would be the case if investments from the Fund were not available. In other words, investments from the Fund

- must result in projects that would not have occurred if assistance from the Fund was not available. Issuing Fund credits in respect of investments in projects that do not meet this fundamental condition will cause an increase in net global emissions because Fund credits will be used by regulated industry to emit more than their target amount, without a compensating amount of incremental reductions in emissions not covered by the Regulation;<sup>7</sup>
- A schedule that increases the payments for compliance purposes over time to at least \$30/tonne CO<sub>2</sub>e by 2009 and at least \$50/tonne CO<sub>2</sub>e by 2020;<sup>8,9</sup>
  - A mandate to reinvest the majority of revenues in offset credits representing near-term (i.e., within one to five years) emission reductions. This is essential to ensure the Regulation delivers reductions within a reasonable timeframe;<sup>10</sup>
  - Transparently applied cost-effectiveness (and other) criteria to ensure that investments are made on merit, not for political reasons. (This may require a competitive bid process or an auctioning of credits associated with particular projects to ensure that only the best projects receive Fund dollars.)

#### 4. Emissions Accounting

The Toxics Watch Society of Alberta and the Pembina Institute are deeply concerned that the reductions achieved by the Fund will not equal the tonne value of payments made into the Fund by the regulated industries, thereby significantly reducing the reductions achieved by the Regulation. To address this concern, the Government of Alberta should adopt a policy that every tonne's worth of contributions to the Fund will be matched by a one tonne emission reduction. This principle is included in the federal government's *Regulatory Framework on Air Emissions*.<sup>11</sup> Instituting a "tonne for tonne" rule would help ensure consistency with the federal framework and also significantly improve the likelihood that the Fund will deliver the reductions promised in the Regulation. As previously noted, every tonne that the Fund fails to deliver will become an extra burden on the climate and an extra tonne that the Government of Alberta will have to find and pay for elsewhere.

Another key accounting issue related to the Fund is the need to prevent all forms of double counting. Double counting will arise if industry can count a reduction for compliance purposes that has resulted from money paid into the Fund for compliance in an earlier year. There are two main ways in which double counting must be avoided:

---

<sup>7</sup> Applying a robust incrementality requirement need not be onerous. For example, under the New Zealand government's Projects to Reduce Emissions program, companies proposing projects were required to provide (i) "an investment assessment to confirm that they are additional to 'business-as-usual'..." and (ii) a "Letter on Additionality" from the CEO affirming that the company would not carry out the project if credits were not granted.

<sup>8</sup> See Green Budget Coalition, *Preliminary Recommendations for Budget 2008: Big Steps Forward* (Ottawa, ON: Green Budget Coalition, 2007). Also available online at [http://www.greenbudget.ca/pdf/GBC\\_prelim\\_2008.pdf](http://www.greenbudget.ca/pdf/GBC_prelim_2008.pdf).

<sup>9</sup> Because Alberta is a major producer of oil and coal-fired electricity, there is a widely held view among governments and industry that carbon capture and storage (CCS) technologies will have to be used on a large scale to control the province's GHG emissions. In this situation, a credible GHG price for Alberta would need to make this technology economically attractive. According to the Intergovernmental Panel on Climate Change's *Special Report on Carbon Dioxide Capture and Storage (Summary for Policymakers, 2005)*, "CCS systems begin to deploy at a significant level when CO<sub>2</sub> prices begin to reach approximately US\$25–30/tCO<sub>2</sub>". However, there are recent indications that the price to make CCS economic on a large scale in Canada may be closer to \$50/tonne CO<sub>2</sub>e.

<sup>10</sup> This concept could, for example, be implemented by putting in place a portfolio approach where the framework for implementing the Fund requires a significant portion (80–90%) of reductions to occur within the 2008–2012 period with the remainder scheduled for the medium-term.

<sup>11</sup> Environment Canada, *Industrial Regulatory Framework: Technology Fund* (presentation at consultations on Clean Air Regulatory Framework Industrial Sector Cross-Cutting Issues in Montreal, May 31–June 1, 2007).

- (i) Baselines used for target-setting or credit creation must be adjusted downwards to reflect the full amount of the reductions that result from investments made by the Fund.

If investments by the Fund produce reductions in the emissions intensity of large industry – even if the Fund only provides part of the project’s budget – double counting will occur if companies are allowed to (i) use the associated reductions towards their regulated intensity targets, or (ii) sell credits from that project to other companies.

- (ii) Alberta or federal offset credits must not be given to projects undertaken as a result of Fund investments. Double counting will occur if offset credits are issued for emission reductions that result from investments by the Fund (see also Section 3 above.)

## 5. Interest

As noted above (see Section 3), the Fund should focus investments on near-term emission reductions. However, to the extent that the Fund’s technology investments result in delayed emission reductions, regulated industry should be required to pay the same penalty for this delay that Canada is required to pay under international climate change agreements.

Under the Kyoto Protocol, Canada is required to secure 1.3 tonnes of additional reductions in the second commitment period for every tonne by which it is out of compliance in the first commitment period. Alberta’s Fund should follow a similar structure and require the delivery of 1.3 tonnes for every investment between 2008 and 2012 that actually delivers its associated tonne between 2013 and 2017. A factor greater than 1.3 should be used for tonnes delivered in 2018 or later.<sup>12</sup>

By implementing such a system, the Fund will act as a borrowing system that allows for medium-term investments but requires that the projects pay “interest” on those investments. There is a compelling rationale for charging this “interest”: science shows clearly that GHG emission reductions need to be achieved urgently to prevent dangerous climate change and, just as there is a risk of default on financial loans, there is a risk that promised future emission reductions may not, in fact, be delivered.

In this way, the Fund will encourage near-term reductions by allowing borrowing at “no interest” in the 2008–2012 period. But investments that have high potential to produce large-scale emission reductions that may not be realized for some time can be funded through the borrowing system that takes into account the delay and risk of non-delivery.

## 6. Liability

Investments in funds such as Alberta’s have a high risk of not achieving the claimed emission reductions, because the rules allow the Fund to invest in a broad range of activities that do not necessarily have emission reductions as their primary goal. For this reason, a regulated industry that chooses to comply with its target through this compliance mechanism should be liable if its payments to the Fund are invested in projects that do not yield a “tonne for tonne” future emission reduction.

If future emission reductions are less than claimed, emitters – not governments and taxpayers – should have to compensate for those unachieved reductions. The liability for the investments should include the emission reductions not achieved as well as any “interest” that would have been owed on the project had it delivered as claimed.

---

<sup>12</sup> Note that 30% interest for delivery with a delay of five years is equivalent to an annual interest rate of only 5.4%, because  $(1.3)^{1/5}=1.054$ .

## 7. Cap on the Fund

The use of the Fund for compliance purposes allows emission reductions to be delayed into the future, thus reducing the amount of real near-term emission reductions achieved by the Regulation. To minimize this delay, the Government of Alberta should progressively cap the quantity of credits available to regulated emitters through the Fund. The federal government has capped use of their technology fund at 70% initially and has laid out a track to phase the fund out fully by 2018 (subject to a review in 2012). The Government of Alberta should at the very least build this provision into its Regulation. However, a much more stringent cap would be more appropriate.

## 8. Price Signals

Given that another purpose of the Regulation is to encourage substantial emission reductions at regulated facilities, it is critical that price signals generated by the Regulation are adequate. According to Jeffrey Rubin, Chief Economist at CIBC World Markets, “\$30 a ton [is] widely seen as a minimum price needed to stabilize [GHG] emission growth”.<sup>13</sup> Several other authorities have cited the same figure.

According to the Intergovernmental Panel on Climate Change, a GHG price of US\$50/tonne CO<sub>2</sub>e would leverage global emission reductions of 20–35% below business-as-usual emission levels by 2030 in a scenario of rapid economic growth. Even at over \$50/tonne, the price of carbon is modest relative to the cost of climate change. In his review of climate change economics, Sir Nicholas Stern found that the “social cost of carbon” – the net economic costs of damage from unchecked climate change across the globe – is about US\$85/tonne. The Green Budget Coalition (GBC), a group of 19 Canadian environmental and conservation organizations, has recently endorsed a recommendation that calls for a price on Canadian GHG emissions of at least \$30/tonne by 2009 and at least \$50/tonne in 2020.<sup>14</sup>

In contrast, the current \$15/tonne price for Fund credits creates a low price cap that will have the effect of stifling new technology innovation and deployment in Alberta. Fund credits and other compliance mechanisms must, at a minimum, be designed to send a clear price signal of at least \$30/tonne by 2009 that increases progressively thereafter.

## 9. Equivalency Agreements

While the Government of Alberta has not explicitly stated its intent to enter into an equivalency agreement with the federal government, its legislation does allow Alberta to do so. According to the federal *Regulatory Framework for Air Emissions*, “other funds that meet all necessary requirements could be certified to qualify as part of the regulatory framework. In particular, provincial funds that are consistent with the federal [technology] fund could be recognized as equivalent.”<sup>15</sup> The existence of multiple funds would make adequate public monitoring of the federal regulatory system more difficult, which would have negative consequences for accountability and transparency. Therefore, should Alberta choose to enter into an equivalency agreement with the federal government for the implementation of GHG regulations, the province should use the federal fund for compliance purposes at that time rather than an equivalent provincial fund.

---

<sup>13</sup> Jeffrey Rubin, “Trading Provincial Emissions,” *CIBC World Markets Monthly Indicators*, March 13, 2007. Also available online at [http://research.cibcwm.com/economic\\_public/download/mimar07.pdf](http://research.cibcwm.com/economic_public/download/mimar07.pdf).

<sup>14</sup> See Green Budget Coalition, *Preliminary Recommendations for Budget 2008: Big Steps Forward* (Ottawa, ON: Green Budget Coalition, 2007). Also available online at [http://www.greenbudget.ca/pdf/GBC\\_prelim\\_2008.pdf](http://www.greenbudget.ca/pdf/GBC_prelim_2008.pdf).

<sup>15</sup> Government of Canada, *Regulatory Framework for Air Emissions* (Ottawa, ON: Government of Canada, 2007), 12. Also available online at [http://www.ec.gc.ca/doc/media/m\\_124/toc\\_eng.htm](http://www.ec.gc.ca/doc/media/m_124/toc_eng.htm).

However, if Alberta does choose to request the use of an equivalent fund, the government must:

- Cap emitters' access to the provincial fund at the level of the federal fund, and commit, at a minimum, to phasing out use for compliance of the provincial fund on the same schedule as the federal fund;
- Match or exceed the price schedule included in the federal regulatory framework;
- Ensure the Fund has equal or greater levels of transparency and accountability to the federal technology fund.

## **10. Governance Structure**

The governance structure chosen for the Fund will have a significant bearing on the Fund's effectiveness in choosing projects that result in incremental, real and near-term emission reductions, as well as on public confidence in its effectiveness. It is anticipated that the governance structure will include a multi-stakeholder Board of Directors that will oversee the implementation of the Fund's activities. When designing the structure of the board, it will be important that issues such as conflict of interest, liability, government oversight and multi-stakeholder representation be considered.

Government oversight of the board will be essential. The Government of Alberta is responsible for disbursing the money from the Fund on behalf of Albertans, and thus must maintain overall responsibility for the actions of the board at all times. As such, the board should either be created as an arm of government, or as an arms-length authority that is accountable to the Minister of the Environment.

Avoiding conflicts of interest affecting board members will also be of great importance. Because industry members are also likely to be project proponents, the governance structure will need to ensure that no board member is in conflict of interest at any time. For this reason, the governance structure should contain explicit and comprehensive rules that address potential conflicts of interest.

Representation on the board should include government, public interest non-governmental organizations (NGOs) and industry. Ideally, the sectoral split of representation should be specified in the Board bylaws, so that the number of seats that are reserved for government departments, industry, and NGOs are specified. A board of this nature could potentially be composed of a majority of members who have a vested interest in the outcomes of the board. In that case, it would likely be difficult for the board to reach decisions on important matters.

To avoid potential stalemates, industry participation should be limited to a minority of seats. Full representation of interested industry sectors can still be assured through a mechanism like the industry councils in use at the Alberta Recycling Management Association (ARMA). ARMA's councils are sector-specific and act as advisory committees to the board. Each council elects a chair who serves as the council's representative to the board. By giving industry a sectoral council but limiting full board participation, this structure avoids potential stalemates while ensuring that industry has adequate opportunity to represent its views.

Finally, liability for the actions of the Fund must be clearly specified. As indicated in Section 6 above, the liability for specific projects that do not deliver the intended emission reductions should rest with the industry that purchases the Fund credits. This mechanism gives the accountability for the delivery of emission reductions from the projects to those who are receiving the credits. In contrast, the Fund's board should be liable for the efficient and effective operation of the Fund as would normally be the case for a Board of Directors under law, but not for the actual delivery of tonnes from the projects in which the Fund invests.

## **11. Intellectual Property**

The dollars collected by the Fund are public funds. As such, full public disclosure of the projects funded should be required for all projects that receive funding. In addition, the patent rights to new technologies created through the Fund's support should be public.

Where the Fund provides only part of a project's revenues, the intellectual property rights should be negotiated between the investors on a commercial basis. Any revenue generated from the patent rights belonging to the Fund should be re-invested by the Fund in near-term emissions reduction projects. In these cases, maximum disclosure of project information should be required, and information should only held confidential if it is necessary to protect intellectual property rights or where a compelling case can be made to do so.