

Climate Action Network Canada's perspective on the role of "offset" credits in Canada's covenants and emissions trading system for large industrial emitters

This document consists of extracts from *Doing Their Bit: Ensuring Large Industrial Emitters Contribute Adequately to Canada's Implementation of the Kyoto Protocol*, published in June 2003 by the Climate Action Network Canada (CANet) and available at <http://www.climateactionnetwork.ca> and <http://www.pembina.org>.

1. Introduction

To comply with the Kyoto Protocol, Canada needs to secure a reduction in its annual GHG emissions of 240 megatonnes of carbon dioxide equivalent (Mt CO₂e) below the latest official federal government projection of what emissions would be in 2010¹ under a "business-as-usual" scenario in which no deliberate action was taken to reduce emissions. The federal government's *Climate Change Plan for Canada* (November 2002)² proposes that a covenants and emissions trading system for large industrial emitters should secure 55 Mt of the 240 Mt "Kyoto gap".

Under this system, the government will negotiate greenhouse gas (GHG) emissions targets with large industrial companies. These targets will be enshrined in negotiated, legally binding agreements called covenants. Companies will be able to combine three or four different ways of meeting their targets:

- by reducing emissions from their own facilities;
- by purchasing "offsets" — credits granted to projects that reduce emissions from sources that are not covered by covenants;³ and
- by purchasing emissions units from outside Canada, available through the three international emissions trading mechanisms of the Kyoto Protocol.⁴

In principle, the granting of offset credits to projects that reduce emissions from sources not covered by covenants has merit from both economic and equity perspectives. Without reducing industry's financial responsibility to secure emission reductions, it allows companies to secure those reductions outside large industry if that is a less costly option than physically achieving those reductions at large industrial facilities. The offsets mechanism could also have the desirable result of creating a flow of resources to help financially hard-pressed sectors like municipalities and agriculture reduce their GHG emissions.

From a strictly environmental perspective, however, offset credit creation creates precisely no benefit. If emissions are reduced from a project outside large industry, and credits are granted for those reductions and sold to a large industrial emitter, the credits will allow that emitter to emit more than it would have done otherwise — by exactly the amount by which the project reduced emissions. In other words, *offset*

¹ The year 2010 is commonly used as a proxy for the entire Kyoto Protocol commitment period of 2008–2012, as it is the middle year of that period.

² Government of Canada (2002), *Climate Change Plan for Canada*, available at <http://www.climatechange.gc.ca>.

³ For the most part these are likely to be non-industrial sources, but offset credits could also potentially be granted for reductions in emissions from small industrial emitters or for reductions in fugitive emissions not included in covenants.

⁴ It is also likely that companies over-achieving the targets in their covenants will be able to generate emissions permits in respect of the amount by which targets are exceeded; these permits could then be sold to other companies as a fourth way for the latter to meet their targets.

credits will simply become part of the 55 Mt to be secured through the covenants and emissions trading system. Emission reductions for which offset credits are granted will make no contribution at all to closing Canada's Kyoto gap beyond the 55 Mt.

The *Climate Change Plan for Canada* proposes to allow the creation of offset credits for “agricultural and forestry sinks and emission reductions” and possibly also for landfill gas capture (subject to consultation with other levels of government as to whether offset credit creation or regulation is the best approach). However, the federal government's current thinking is to open up offset credit creation much more broadly. This means that offset credits could potentially be granted for emission reductions in transportation, buildings, small industrial emitters, and fugitive emission sources in large industry but not included in covenants.

In theory, offset credits could also potentially be granted for activities to promote renewable electricity and the energy efficiency of electricity consumers, on the following grounds: Such activities have the effect of reducing output, and therefore emissions, from large thermal electricity⁵ generation facilities. Despite the fact that they physically occur at large industrial facilities, these emission reductions will not be captured by covenants that set emissions intensity targets, because the reductions result from reduced output, not reduced intensity.

2. A threat to environmental integrity

The possibility of opening up offset credit creation broadly poses a major threat to the environmental integrity of several extremely important areas of the *Climate Change Plan for Canada*, as illustrated in the figure on page 3. The following table shows the emission reduction targets that the *Plan* lays out, *over and above* the 55 Mt from covenants, in all the areas in which offset credits could potentially be granted.

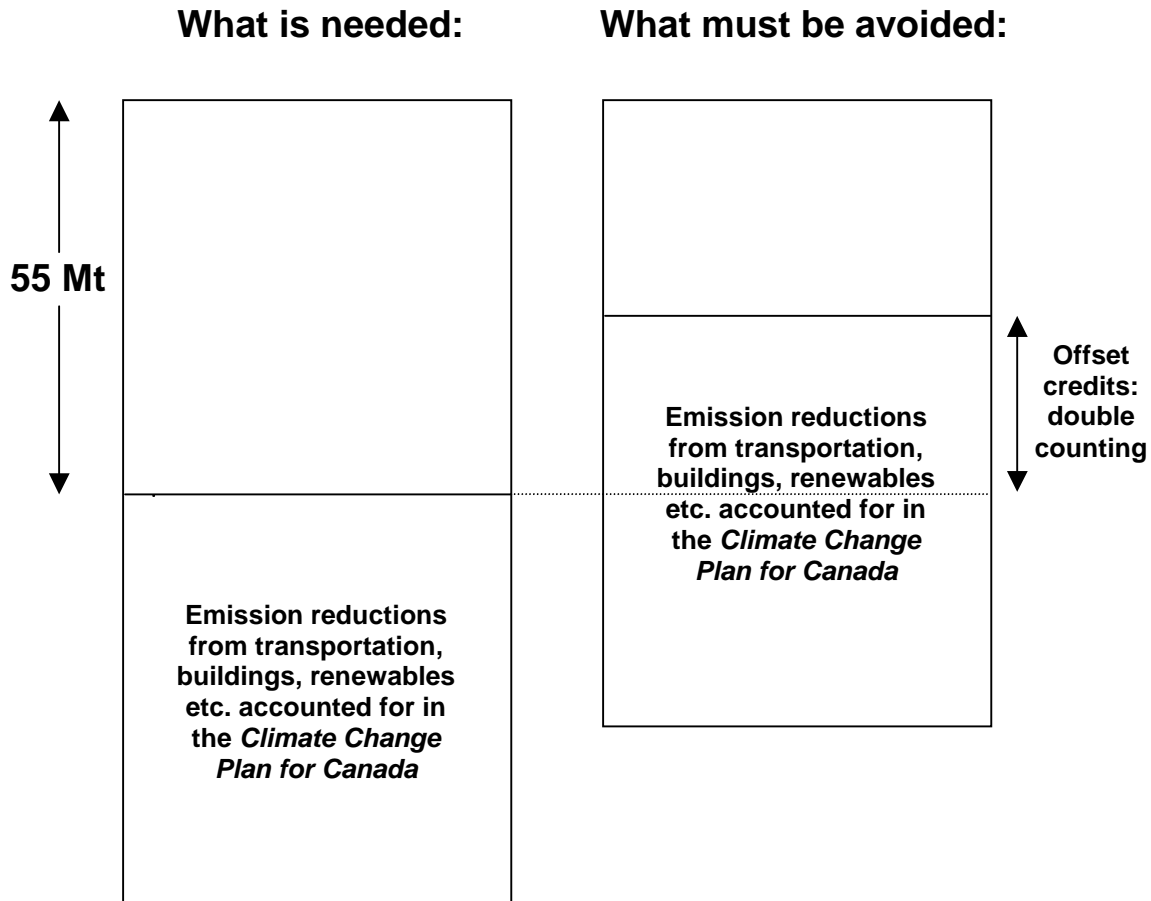
| | |
|--|--------------|
| Agriculture (<i>Action Plan 2000</i>) ⁶ | 6 Mt |
| Landfills (Green Municipal Funds) | 2 Mt |
| Transportation | 21 Mt |
| Buildings | 8 Mt |
| Small industrial emitters (in part <i>Action Plan 2000</i>) | 3 Mt |
| Fugitive emissions from large industrial emitters | 4 Mt |
| Low-impact renewable electricity (in part <i>Action Plan 2000</i> / Budget 2001) | 7 Mt |
| Increased interprovincial electricity trade (<i>Action Plan 2000</i>) ⁷ | 5 Mt |
| <i>Total:</i> | <i>56 Mt</i> |

Every offset credit granted in these areas represents one fewer tonne of emission reductions that Canada will be able to count towards this 56 Mt total — and one more tonne making up the 55 Mt to be secured through covenants. Looked at another way, granting offset credits for emission reductions in the above areas will result in double counting: these reductions may be counted as part of the 56 Mt, but they will also be counted a second time as part of the 55 Mt.

⁵ I.e., fossil fuel-fired electricity.

⁶ The *Climate Change Plan for Canada* implies that these are enhancements to carbon sinks, rather than emission reductions as such.

⁷ This could have the effect of increasing output of large hydroelectricity generation at the expense of thermal electricity.



The threat to the environmental integrity of the *Climate Change Plan for Canada* posed by the granting of offset credits in areas such as transportation, buildings and renewable electricity. The 55 Mt are the emission reductions to be secured through covenants for large industrial emitters.

CANet's position is therefore that no activities must be eligible for earning offset credits unless it can be demonstrated that they go clearly beyond the activities needed to meet the emission reduction targets that the *Climate Change Plan for Canada* lays out for transportation, buildings, renewable electricity, small industrial emitters, fugitive emissions, agriculture and landfills. In technical terms, for each project the baseline below which credits are generated must be fulfilment of the *Plan*.

Beyond this minimal requirement, offset credit creation will not be the most appropriate way to incent emissions reducing activities in many areas. Credits worth \$10 per tonne of CO₂e (considered a likely price) represent a financial incentive worth, to give one example, of, at most, 1 cent per kilowatt-hour of renewable electricity.⁸ **CANet calls on governments to provide stronger financial incentives than this — for example, by increasing the Wind Power Production Incentive — combined with low-impact**

⁸ This assumes the most favourable case where renewable electricity is displacing coal-fired electricity with a typical emissions intensity of around 1 kilogram (kg) CO₂e per kilowatt-hour. If 1 tonne CO₂e is worth \$10, 1 kg is worth 1 cent.

renewable energy portfolio standards, to ensure that Canada catches up with other industrialized countries in the implementation of low-impact renewable energy like wind power.⁹ In areas like vehicles, buildings and energy-using equipment, CANet’s position is that offset credits are no substitute for regulated energy efficiency standards. In addition, it is argued in Section 4 that reductions in industrial electricity consumption should not be eligible for offset credits.

Some will argue that restricting the supply of domestic offset credits will simply push large industrial emitters to purchase credits offshore, through the international emissions trading mechanisms of the Kyoto Protocol. Purchases of international emissions units are problematic,¹⁰ but they remain preferable to undermining Canada’s ability to close its 240 Mt Kyoto gap beyond the 55 Mt from covenants.

3. Offset rules

Project-based offset credit creation will require the federal government to specify detailed rules covering issues including

- additionality (does the project go beyond what would have happened in the absence of the possibility of creating credits?)
- project baseline (a quantified statement of what would have happened in the absence of the possibility of creating credits)
- project boundary (what emission sources are included?)
- crediting lifetime (over what period are credits created before the baseline is revised?)
- permanence (to ensure that storage of carbon in biomass — plants or soil — will not be reversed at some point in the future)
- emissions measurement and verification
- environmental impacts unrelated to GHGs.

Opportunities for environmental integrity to be undermined exist in each of these areas respectively:

- granting credits for business-as-usual practices that would have occurred in the absence of the possibility of creating credits (“non-additional” projects) causes overall emissions to increase, as the credits will allow their purchaser to emit more than it would have done otherwise
- a baseline set, for example, at a historical emissions intensity level will, over time, tend to generate increasing numbers of credits that do not correspond to genuine emission reductions, by failing to account for “autonomous” intensity reductions over time that would occur in the absence of the possibility of creating credits
- a boundary that is too narrow will fail to account for “leakage” effects where emission reductions from the project induce emission increases elsewhere

⁹ Low-impact renewable energy does not include large hydro.

¹⁰ Environmental organizations have four long-standing concerns with the unlimited use of international emissions units: (i) the more international emissions units Canada uses to comply with the Kyoto Protocol, the smaller the health and environmental co-benefits of GHG emission reductions in Canada; (ii) many international emissions units are likely to be of questionable environmental value (e.g., “hot air” units from the former Soviet bloc and Clean Development Mechanism units that may be granted for business-as-usual activities); (iii) Canadian purchases of emissions units from the developing world serve to sustain the inequity between developed and developing nations in terms of per-capita use of scarce atmospheric capacity to absorb GHG emissions; (iv) purchases of international emissions units blunt the incentives to restructure Canada’s economy towards low-GHG activities, needed if Canada is to meet successfully the challenge posed by the progressively tighter caps on our national emissions that we must expect over the next several decades.

- a crediting lifetime that is too long risks, over time, generating increasing numbers of credits that do not correspond to genuine emission reductions as the baseline becomes increasingly inappropriate
- a failure to address permanence could result in credits being granted for storage of carbon in biomass (plants or soil) with no assurance that the carbon will remain stored after the end of the crediting lifetime
- a failure independently to verify emission reduction measurements according to rigorous criteria will create an incentive to cheat
- projects that reduce GHG emissions or enhance GHG sinks can have environmental impacts related to non-GHG air or water emissions, land use, biodiversity, pesticides, genetically modified organisms, etc.

CANet calls on the federal government to develop rigorous rules for offset credit creation that address threats to environmental integrity in all the above areas, and that require all relevant documentation for projects accepted for credit creation to be made publicly available, with an appropriate review period, so that organizations and individuals acting in the public interest can ensure that the rules are being properly applied. CANet insists in particular that these rules must require tests for additionality, distinct from the baseline selection procedures, to satisfy the *Climate Change Plan for Canada*'s statement that, "Offsets would have to . . . go beyond business-as-usual practices."

Some will argue that a set of rigorous rules along these lines will place major obstacles in the way of offset credit creation, increasing transaction costs to an unreasonable degree. CANet believes that it is possible to design rigorous rules that uphold environmental integrity while remaining practical. For example, the rules could deem as automatically additional certain classes of desirable activities that clearly go beyond business-as-usual and beyond what is already accounted for in the *Climate Change Plan for Canada* (see Section 2).

Offset rules relating to questions of timing (years for which offset credits will be granted, and earliest start dates for eligible projects) are discussed in Section 5.

4. Offsets for reductions in industrial electricity consumption?

It was pointed out in Section 1 that, because emission reductions at thermal electricity generation facilities that result from output reductions will not be captured by covenants that set emissions intensity targets, offset credits could potentially be granted for activities to promote the energy efficiency of electricity consumers. However, emission reductions for which offset credits are granted simply become part of the 55 Mt and do not contribute to closing the Kyoto gap beyond the 55 Mt. Instead, reduced industrial electricity consumption provides an important opportunity to achieve some of the 20–30 Mt of reductions that the *Climate Change Plan for Canada* proposes to realize through the Partnership Fund (shared investments with partners including the private sector) and/or the further 10–20 Mt of reductions it estimates will occur as a result of provincial government actions not involving federal partnerships.

CANet therefore calls on the federal government to work with provinces to introduce new measures to significantly reduce industrial electricity consumption, for example through a combination of demand side management programs mandated by provinces and federal financial incentives. CANet's position is that reductions in industrial electricity consumption should generate emission reductions additional to the 55 Mt from covenants and that offset credits should therefore not be granted for such reductions.

5. Timing for offset credit creation

Two important questions of timing are also raised by the proposed offsets system:

- For which years will offset credits be granted in respect of emission reductions from eligible projects?
- What will be the earliest project start date (defined in some clear way) allowed for projects accepted for offset credit creation?

The use of offset credits granted for years prior to 2008 for compliance with targets set by covenants for 2008-2012 would represent a transfer of liability from industry to the government (i.e., to taxpayers), because pre-2008 units would have no value for the federal government in complying with the Kyoto Protocol. Similarly, a promise to grant offset credits for years post-2012, before Canada knows what national emissions target it will face under a second Kyoto Protocol commitment period, represents a pre-allocation of a portion of Canada's limited national supply of post-2012 rights to emit before we even know how large that supply will be. (In addition, as argued in Section 3, a crediting lifetime extending, for example, for as long as 2008–2017 risks generating many credits that do not correspond to genuine emission reductions.)

In light of these considerations, **CANet's position is that if Canada's covenants and emissions trading system begins full operation prior to 2008, banking of offset credits granted in respect of emission reductions occurring prior to 2008 into the 2008–2012 period should be disallowed or at least tightly limited. For a system beginning full operation in 2008, the federal government should make binding commitments to grant offset credits only in respect of emission reductions occurring during the years 2008–2012**, even for projects that may start earlier than 2008. To create a sufficient incentive for desirable emission reduction projects extending beyond 2012, it may be appropriate for the government to make commitments to grant credits post-2012, but such commitments should be conditional on a review and possible revision of project baselines at the end of 2012.

With regard to the earliest start date for projects accepted for offset credit creation, the key requirement is to protect environmental integrity by ensuring that projects earning credits are "additional" (see Section 3), i.e., go beyond business-as-usual practices. A project starting before the rules for offset credit creation have been announced is very likely to be a "non-additional" project that was going to occur regardless of the possibility of creating credits. **CANet's position is therefore that the earliest start date allowed for projects accepted for offset credit creation should be the date at which the federal government makes a definitive announcement of offset rules, but that such an announcement should be made soon so as to encourage a prompt start for desirable emission reduction activities.**