The Climate Action Network / Réseau Action Climat - Canada (CAN)

Comments on Environment Canada's *Offset System for Greenhouse Gases Overview Paper* and *Technical Background Document* released for public consultation on August 11, 2005

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General comments

The federal government's April 2005 Plan to implement the Kyoto Protocol, *Moving Forward on Climate Change: A Plan for Honouring our Kyoto Commitment* (2005 Plan), proposes that domestic emission offset credits be available for use by large final emitters (LFEs) to meet their greenhouse gas (GHG) reduction targets as well as for purchase by the government's new Climate Fund. The government first committed to implement a domestic offset system in its previous *Climate Change Plan for Canada* (November 2002), to provide an element of flexibility in how LFEs could comply with their emissions targets, but a lack of Cabinet decision-making on the LFE system for a lengthy period caused considerable delays in its development. Budget 2005 extended the purchase of offset credits to the federal government, under the Climate Fund. The 2005 Plan requires the Climate Fund to reduce annual emissions by 75-115 Mt carbon dioxide equivalent (CO_2e) throughout the 2008-2012 period – making it the largest single initiative among those that the Plan proposes to reduce annual emissions by a total of 270 Mt, the amount needed to meet Canada's Kyoto Protocol target. Given that the Kyoto commitment period begins in little more than two years, Canada urgently needs to demonstrate that its domestic offset system will result in real, environmentally-effective emission reductions to comply with our international obligation.

While the overall idea of an offset system is straightforward, critical decisions remain to be made on the details. The offset system can be compared to a corporate *financial* system. A *financial* system that delivers real profits must be based on rigorous *financial* accounting. In the same way, a system of offset credits will only deliver real reductions if based on rigorous *emission* accounting. Unfortunately, several accounting loopholes stand a real chance of being allowed in the domestic offset system. Any one of these loopholes in the offset system will result in the Climate Fund and the LFE system delivering significantly fewer emission reductions than the 2005 Plan requires. Since Canada's Kyoto target is fixed, **every tonne of reductions that the LFE system and the Climate Fund fail to deliver through the domestic offset system is an extra tonne that the government – and taxpayers – will have to find and pay for elsewhere.**

The 2005 Plan acknowledges that the federal government intends "to make major on-the-ground implementation steps in all area of the Plan before the end of 2005", which includes setting up "the rules for the offset system, including criteria for qualifying offset credits" (p.46). As a starting point, the 2005 Plan clearly defines the founding principle of what constitutes an offset credit: "emission reductions would have to go beyond BAU [business-as-usual] practices, so that offset credits are not awarded for reductions that would occur in the absence of the offset system" (p.22). The 2005 Plan also states that the federal government would establish the rules of the offset system in the "coming months" (p.22) after the plan's release, and in "consultations with provinces, territories, industry, Aboriginal peoples and stakeholders".

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The Climate Action Network/Réseau Action Climat Canada and its member organizations welcome these statements of the urgency of setting up the rules of the domestic offset system, is pleased that Environment Canada has published the *Offset System for Greenhouse Gases Overview Paper* and *Technical Background Document* and is grateful for the opportunity provided to comment on them. CAN believes that, if the system is well designed, offset credits can be a good way to encourage domestic GHG emission reductions. However, CAN is deeply concerned that, as it currently stands, the federal government's proposed offset system does not uphold the highest standards of environmental effectiveness and does not respect the founding principle of what constitutes an offset credit, as defined in the 2005 Plan.

The domestic offset system should be viewed as an additional source of financing for projects that reduce or remove GHG emissions. The offset system complements existing and future climate change programs designed to reduce non-price barriers, and it will be ineffective if those programs are not left in place. The offset system must therefore not preclude regulatory, financing and other measures. As currently proposed, the effectiveness of offset credits as a financial incentive is significantly limited by their expected low price. Regulatory measures have been and remain a cost-effective and successful means of achieving many environmental objectives and must not be discarded in favour of an offset system which has uncertain outcomes. CAN strongly urges the federal government to not allow the offset system to preclude existing or future regulations and financial incentives in areas where these policy tools are more effective in reducing GHG emissions, such as low-impact renewable energy sources, building construction and retrofits, appliance and equipment efficiency, and vehicle fuel efficiency. CAN also encourages the government to consider adopting other market instruments, such as carbon taxes, to build on and enhance the offset system.

The development and refining of the offset rules by the federal government will be important to find a balance between the interest of buyers, sellers and traders in having easy access to offset credits and the public interest in having effective environmental benefits and compliance with international obligations.

Comments on key issues

1. Additionality [*Overview Paper* (OP), p.1]. Additionality is the requirement that offset credits be granted only in respect of emission reductions resulting from practices going beyond businesss-as-usual. The proposed offset system would likely result in large amounts of offset credits going to business-as-usual projects that take Canada no closer to its Kyoto target. This would be both environmentally dishonest and, with respect to credits purchased by the Climate Fund, a waste of public money. It would also result in a further weakening of emission reduction requirements for LFEs. The LFE system is supposed to achieve 36 Mt of reductions below the 2010 business-as-usual projection, but the proposed offset system would allow industry to purchase credits from business-as-usual projects and use them towards this 36 Mt requirement.

The need to go beyond business-as-usual is mentioned just once, in the Introduction [OP, p.1][2], but is then mentioned neither in the Offset System Principles [OP, p.3], nor in the Offset System Rules (OP, p.3-4). Furthermore, there are no procedures to apply this concept in the offset system itself, nor is there any reference to the 2005 Plan's founding principle of what constitutes an offset credit, as noted above, which succinctly defines additionality.

[2] "Through the offset system, individuals, businesses and organizations will be able to earn offset credits when they implement projects that result in incremental emission reductions or removals beyond what project proponents would have done under normal business practice (i.e., 'business as usual')".

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Practical rules can be adopted to ensure business-as-usual projects cannot receive credits, as demonstrated by the Kyoto Protocol's Clean Development Mechanism (CDM), which uses an "Additionality Tool" that provides a quite rigorous and clear way to do this. CAN recommends that the additionality guidelines used by the Clean Development be adopted by Canada's offset system.[3] It is true that the CDM has suffered from administrative bottlenecks, but this is a result of dramatic under-funding of the CDM Executive Board, and because there are few buyers and experienced sellers – it is not a result of additionality rules. Additionality rules actually contribute to decreasing uncertainty because they make it very clear to project proponents whether their projects will qualify or not. Before the government dismisses the use of a tool identical or similar to the CDM Additionality Tool in Canada's offset system, it must conduct a proper examination of the experience of using the tool in the CDM, quantify the expected volume of credits that could be granted to business-as-usual projects if such a tool is not adopted in the offset system, and consult stakeholders on the outcomes of both evaluations.

Projects that began operating in 2000 (i.e., that were probably planned as long ago as 1997 or earlier) are very likely to be business-as-usual projects. Yet the government is proposing [OP, p.4] that such projects be eligible for credits. The section on selection of project baselines [*Technical Background Document* (TBD), para 84-91] fails to contemplate the possibility that the project is the baseline — i.e., that the project is business-as-usual, and therefore provides no assurance that additionality will be addressed through baselines. [TBD, Para 90] comes closest, when it mentions barriers, but there is no assurance here. The same section [TBD, para 86] says that the baseline scenario "best represents the activities that would occur in the absence of the project." This is a clear violation of the principle established in the 2005 Plan (p.22), that the baseline for projects receiving offset credits is what would have occurred "in the absence of the offset system."

If the government is serious about reaching Canada's Kyoto target, it must change the proposed offset system rules to ensure business-as-usual projects cannot receive credits, as stipulated in the 2005 Plan. Most importantly, the principle of additionality as articulated in the 2005 Plan (p.22) should be added to the Offset System Principles.

2. Non-Kyoto-compliant offset credits [OP, p.3; TBD, para 28]. The federal government undermines its Kyoto plan by its proposal that offset credits be granted for reductions that Canada cannot count towards our Kyoto target. This is the case for reductions (i) occurring outside of Canada, (ii) reductions occurring during 2006 and 2007, and (iii) forest management sinks if Canada chooses not to count these for purposes of achieving its Kyoto target (however, see the discussion in the third bullet point below as well as section 26).

In the subtitle of the 2005 Plan, the federal government boasted that the plan was for "*Honouring our Kyoto Commitment*." However, by allowing offset credits be granted for reductions that Canada cannot count towards its Kyoto obligation, the government is doing the opposite of what it committed to in its 2005 Plan. Including non-Kyoto offset credits undermines the offset system and creates an unnecessary burden on taxpayers, because the government will need to purchase additional emission reduction credits to replace non-Kyoto credits used by LFEs and the Climate Fund. Like the additionality loophole, non-Kyoto compliant offset credits would also result in a further weakening of emission reduction requirements for LFEs. According to the 2005 Plan, the LFE system is supposed to achieve 36 Mt of Kyoto-compliant reductions below the 2010 business-as-usual projection, but the proposed offset system

[3] The CDM guidelines require that a project show that it is not business-as-usual because 1) an alternative exists that is more economically attractive, 2) is not economically viable without sales of carbon credits, or 3) several significant barriers exist.

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would allow industry to purchase non-Kyoto compliant offset credits and use them towards this 36 Mt requirement.

Canada cannot count ***reductions in 2006-07*** towards meeting its Kyoto target because the target only begins to apply in 2008. Although it is not made clear in the Offset System papers, it was made clear in a briefing to ENGOs by Environment Canada that credits would be granted for 2006- and 2007-vintage reductions. It is true that projects that are up and running in 2006-07 are helpful for Kyoto, but Canada can only count for Kyoto the reductions that those projects achieve during 2008-12.

Geological sequestration of US CO_2 in Canada and cross-border trucking projects, two categories of non-Kyoto-compliant emission reduction projects that Environment Canada presented at the *National Consultations on the Design and Implementation of a Greenhouse Gas Offset System for Canada* in Ottawa (19 September, 2005) as examples of projects that would qualify under the proposed domestic offset system, should not be eligible for offset credits. If the government wants to promote additional, non-Kyoto compliant GHG reduction initiatives, including improved forest management (see third bullet point below and section 26), CAN recommends that it does so under separate financial incentive programs or other policy options that could be created in partnership with industry and the US government or individual state governments – outside of the budget allocation for Kyoto compliance.

- ***Cross-border trucking*:** Cross-border truck traffic using advanced technology trucks should not qualify for full credits because a portion of the emissions would occur in the US and trucks operate in a North American context. Advances in vehicle emission reduction in Canada are largely the result of regulatory measures implemented in the United States that trickle down into Canada. There are only a handful of heavy and medium truck assemblers in North America and the most effective means of reducing GHG emission from these fleets is to implement regulatory measures which require manufacturers to produce advanced, low-emitting vehicles. If the federal government wants to hasten the deployment of less emitting heavy vehicles through non-regulatory means, it should do so primarily through direct and stable incentives to the industry, not through an offset credit system which will be prone to market uncertainties and instabilities.

- ***Carbon capture and storage (CCS):*** The draft *IPCC Special Report on Carbon Dioxide Capture and Storage* (SRCCS) makes it clear that there remain significant risks and uncertainties associated with CCS. Given these concerns, CAN currently does not view CCS as an adequate and sustainable solution to climate change. Granting non-Kyoto compliant offset credits for ongoing experiments in carbon storage by piping CO_2 into Canada from the United States is a diversion of public financial resources away from the large-scale deployment of the more sustainable and inherently safer approaches of energy conservation, energy efficiency and renewable energy, which can generate Kyoto-compliant credits. It is also another form of government incentive to LFEs, particularly the oil and gas industry. From a polluter-pays perspective, this is unacceptable, as it places the burden on the taxpayer to develop and deploy CCS technology. In other words, responsibility and liability for emissions will be transferred from industry to taxpayers or other parts of society. The oil and gas industry, which is the single most important contributor to rising emissions in Canada, can afford to make the investment in this technology and under an adequate LFE regulatory system it would be in the industry's interest to do so according to a schedule set out by government.

- ***Forest management sinks:*** The offsets paper makes it clear that "forest management projects may be eligible [to qualify as offsets], even if Canada elects not to include forest management officially towards its GHG reductions under the rules of the Kyoto Protocol" [OP, p.4]. If Canada elects not to include forest management in its Kyoto accounting, granting offset credits

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nonetheless for forest management would result in a diversion of the Climate Fund's limited resources from projects that could produce Kyoto-compliant reductions. Canada must therefore determine whether it intends to include forest management towards its emissions obligations under Kyoto, before it determines whether forest sinks should be included in the offset system. Potentially, if forest management is not counted towards Canada's Kyoto target, carbon credits from forest management could nonetheless be purchased by a fund that is distinct from the Climate Fund and funded outside of the budget allocation for Kyoto compliance (see section 26 below).

3. Nuclear energy and large hydroelectricity projects [TBD, para 205]. Nuclear energy and large hydroelectricity projects must not be eligible to generate credits in the offset system.

Environment Canada's statement at the *National Consultations on the Design and Implementation of a Greenhouse Gas Offset System for Canada* in Ottawa (19 September, 2005) that the federal government will not grant any offset credits for refurbishment of nuclear plants is welcome and should be added to the Offset System papers, and CAN recommends that this statement be also applied to refurbishments that increase original electricity output.

The *Technical Background Document* qualifies hydroelectric and nuclear energy projects as "non-emitting energy" [para 205]. While nuclear electricity generation stations are not direct sources of GHG emissions, they produce other hazardous wastes which cannot be ignored. It is well documented that nuclear electricity generation results in releases of tritium into water, tritium, carbon-14 and radioactive particulates into air,[4] and the production of low-level radioactive waste and nuclear fuel waste. Radioactive wastes are also created during the production of the uranium fuel. As of 2003, there were 6,800 m^3 of nuclear fuel waste, 2.29 million m^3 of low level radioactive waste and 213 million tonnes of uranium mill tailings in storage in Canada.[5] A recent National Academy of Sciences report presented the findings that even low levels of ionizing radiation are harmful to humans.[6]

Beyond the documented health and safety risks associated with radioactive materials, nuclear electricity generation should be excluded from the offset system on the basis of cost and reliability. The risks associated with a breakdown alone would create a huge liability for the federal government, which is likely to be the largest buyer of nuclear offset credits.

Despite being a major investor in nuclear power, the federal government has failed to consider that the lack of reliability of nuclear power as well as its high cost excludes it from being a reasonable alternative to fossil fuel generation. The large increase in the use of coal generation in Ontario is a result of the unreliability and technical problems that forced a significant portion of the province's nuclear capacity to be taken offline in 1997. Maintenance costs have been grossly underestimated and have led Ontario to abandon plans to rebuild nuclear reactors Unit 2 and 3 at Pickering Nuclear Generating Station. The refurbishment of Unit 1 alone is costing $1 billion.[7]

[4] Canadian Nuclear Safety Commission, 2005. *Radioactive Release Data from Canadian Nuclear Generating Stations: 1994-2003*. INFO-0210 (Revision 12). CNSC: Ottawa.
[5] Low-Level Radioactive Waste Management Office, 2004. *Inventory of Radioactive Waste in Canada*. Submitted to Natural Resources Canada. LLRWMO: Ottawa.
[6] National Academy of Sciences, 2005. *Health Risks from Exposure to Low Levels of Ionizing Radiation: BEIR VII – Phase 2*. NAS: Washington.
[7] Ontario Power Generation, 2005. *Ontario Power Generation Not Proceeding with the Refurbishment of Pickering A Units 2 and 3*.

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Nuclear power would also be disqualified under the surplus criterion [TBD, para 43]. Nuclear power receives large and permanent subsidies from the federal government through AECL and therefore emissions reductions would not be surplus to those associated with these subsidies.

Large hydroelectric projects can release substantial methane emissions, caused by decomposing organic materials. Methane has a 100-year global warming potential 23 times greater than CO_2. Furthermore, large hydroelectric projects destroy ecological habitats and systems, and have significant social impacts on communities which must be relocated.

CAN recommends that only electricity generation projects that meet the federal government Eco-logo certification should be eligible for offset credits.

4. Principles and rules for the offset system [OP, p.3-4]. Without proper design and rules, an offset system is only a market instrument that will seek out the cheapest emission reduction credits, not the best environmental outcome. If Canada wants an offset system that promotes transformational changes towards a sustainable low-carbon economy, its point of departure must therefore be the promotion of projects that contribute to sustainable development, with rules and modalities designed to deliver this outcome. Therefore, in addition to the currently proposed "key principles" and "offset system rules" set out in the *Overview Paper*, CANet believes that the environmental credibility of the domestic offset system depends critically on adding the following criteria:

- **Additionality:** (See also section 1 above.) The federal government's commitment in the 2005 Plan, which states that offset credits must result only from emission reductions that go beyond business-as-usual practices, "so that offset credits are not awarded for reductions that would occur in the absence of the offset system" (p.22), must be reinstated. This principle was a commitment made by the federal government to Canadians as a whole prior to development of the Offset System papers, and must therefore be reflected in the offset system's rules and principles.
- **Environmental effectiveness and sustainability:** Programs should not be assessed only on their GHG reduction benefits. In addition to a project's ability to reduce GHG emissions, project eligibility for offset credits must also adequately address environmental impacts unrelated to GHG emissions, such as radioactive by-products from nuclear energy. Consideration of biodiversity benefits and criteria is also essential. Viewing GHG emission reductions as the only "environmental benefits" (p.3) to be considered for project eligibility is not an environmentally sustainable approach; on the contrary, it could entail significant costs in other areas of the environment.
- **Market transformation:** Market transformation is the ultimate goal of any policy to change behaviour and technology usage. A project should not only be judged on how much emission reduction it can deliver, but on what it can ultimately leverage in the way of market transformation. For this reason, the offset system should build on, not replace, existing market transformation programs, and focus on projects that leverage future transformative actions.
- **Transparency:** All information regarding projects qualifying for offset credits, the verification of these offset credits and the amount of offset credits granted to a project must be accessible to the public. Otherwise, the credibility of the offset system will be questioned and accountability will be hampered. See especially the following point.
- **Accountability:** For the offset system to be credible, it must maximize opportunities for public scrutiny of offset projects. As part of the verification process of projects, the offset system must allow for a public comment period (e.g., 30 days) on individual projects before projects are approved to receive credits and before their quantification protocols are fixed. This would result in only very minor delays but would have the benefit of vastly increased accountability, public credibility and support for the system.

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- **Honouring Canada's Kyoto Commitment:** The offset system must not allow offset credits to be granted for emission reductions that Canada cannot count towards its Kyoto target (e.g., reductions occurring in other countries and reductions occurring before the Kyoto period).
- **Permanence:** The offset system must adequately account for leakage and impermanence of biological and geological carbon storage.
- **Cost-effective**: GHG emissions must be reduced at the lowest cost possible, but at the same time must not compromise other criteria. Costs born by the federal government and the overall Canadian economy must be accounted for.

The offset system rules, however, must NOT allow that the following projects listed under *Coverage of the Offset System* [OP, p.4] be eligible to receive offset credits, for reasons described in section 2 of this paper. These include:

- "Projects that store carbon in Canada … regardless of the origin of such carbon."
- "Projects originating in Canada, but where some of the emission reductions may be realized in another country."
- "Forest management projects … even if Canada elects not to include forest management officially towards its GHG reductions under the rules of the Kyoto Protocol."

5. Defining business-as-usual [OP, p.1]. The guidelines on quantification should include the three basic additionality criteria developed for the CDM that address the business-as-usual issue: 1) an alternative exists that is more economically attractive, 2) the project is not economically viable without sales of carbon credits, or 3) several significant barriers exist. This would clarify the eligibility process with respect to baselines as well as make the offset system more environmentally sound.

6. Environmental benefits [OP, p.3]. Programs should not be assessed only on their GHG reduction benefits. In addition to a project's ability to reduce GHG emissions, project eligibility for offset credits must also adequately address environmental impacts unrelated to GHG emissions. For example, the environmental concerns associated with the requirement for increased application of herbicides in current zero-till practice need to be taken into account. Incentives should be directed towards the development of practices that simultaneously build soil carbon and minimize herbicide use.

7. Scope and simplicity [OP, p.2-3]. CAN welcomes the broadening of the scope of the offset system, particularly as it can now be used to leverage the large untapped energy efficiency potential that remains underused due to market barriers. If implemented without too complex a registration process, the offset system should lead to a wide participation from all sectors.

8. Surplus [OP, p.4; TBD, para 41-43]. CAN supports the rule that a project's reduction/removal be incremental to a specified federal GHG regulation, program or incentive, or exceed the performance level under listed Climate Change Incentive Measures. However, to remain logical, the concept of surplus should also require project proponents to demonstrate that reductions or removals are incremental to all existing regulatory requirements and incentive programs (provincial and federal). Projects should not be eligible to generate offset credits for doing what the law requires or for doing what is already sufficiently incented by an existing program (see also section 1 above on additionality).

Currently, there are insufficient details on how reductions that go beyond those delivered by provincial or federal government programs and incentives will be estimated [para 43]. It is assumed that the amount of reductions associated with a program or incentive is known so that they can be deducted from the offset, but there are no procedures specified for doing this. For example, an EnerGuide for Houses grant may provide $1000 towards a $4000 building retrofit. Does this mean 25% of the emission reductions are due to the program? The same question arises for WPPI and RPPI. The role of the surplus requirement should

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be explicitly built into the requirements for setting the baseline [para 43]. If the surplus requirement does not address this issue, then each quantification protocol will have to.

9. Start date of projects [OP, p.4; TBD, para 31]. Offset credits should only be issued from projects developed starting in 2002 at the earliest. Projects that were implemented before 2002 cannot be counted as they are implicitly included in the BAU projections[8] underlying the 2005 Plan. Granting offset credits to such projects would be a clear violation of the principle established in the 2005 Plan (p.22), that the baseline for projects receiving offset credits is what would have occurred "in the absence of the offset system." Projects that began operating earlier in 2002 (i.e., that were probably planned as long ago as 1997 or earlier) are very likely to be business-as-usual projects, especially since Canada's ratification of the Kyoto Protocol was in serious doubt before late 2002 (see also section 1 above on additionality).

10. Simplifying the project approval process [OP, p.6]. Standardized quantification protocols with standard baselines and monitoring procedures are a good idea. It is very important, however, that the defaults used in these protocols are based on average emissions factors and not low-end-of-the-range values, so as not to penalize those using the standard protocols. This appears to be case [TBD, para 76] with conservativeness having been dropped as a criterion when applying ISO standards, but it needs to be stated more clearly.

CAN is pleased to see that energy efficiency and renewable energy protocols are being developed as priorities for the offset system. To ensure credibility of the offset system, we recommend that these protocols be developed in consultation with ENGOs and other stakeholders. The key challenges in developing a simple offset protocol for energy efficiency and renewable energy technologies are defining eligibility of measures and the measurement and verification of emissions reductions. This is especially true for technologies where no measurements are usually made, such as energy efficiency and distributed renewable thermal technologies. However, there are new approaches for overcoming these barriers that should not prevent development of simple protocols. These include the use of standard equipment performance measures, and thermal output meters for solar, earth and biomass heating systems

11. National emission intensity factor [OP, p.7 ;TBD, para 203, 2006, 212-213]. The fundamental objective of the offset system is to obtain the maximum reduction in Canada's GHG emissions, while addressing environmental impacts unrelated to GHG emissions. We acknowledge that Environment Canada wants to create a level playing field across the country for alternative energy projects. However, the reality is that displacing a kilowatt-hour of coal-fired electricity with wind power has greater environmental value than displacing a kilowatt/hour of hydroelectric power. We certainly want to provide incentives for development of wind power (and other clean, sustainable energy sources) across Canada, but we believe that doing this through an offset program is not the most effective way.

CAN therefore believes that while using a defined average intensity factor to calculate the offset credits to be given to projects smaller that a defined size is a sound idea, use of a national average is problematic. In jurisdictions that have a low carbon intensity electricity sector—provinces that have significant hydroelectric power, for example—electricity saved will be credited with more offsets than actually deserved based on the actual amount of reduced GHG emissions. Meanwhile, projects that displace electricity with high carbon intensity, like coal-fired power, will be given fewer offset credits than the emissions actually displaced. This favours projects that have the smallest GHG benefit, and will generally discourage project proponents from using the offset system.

[8] These projections were orginally made in December 1999 (Kyoto "gap"of 199 Mt), but were substantially updated in February 2002 (Kyoto gap of 238 Mt) and then revised again for the April 2005 Plan (Kyoto gap of 270 Mt).

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CAN therefore proposes that for small projects, credits should be based on the amount of GHG emissions that are reduced based on provincial average intensity factors. Having an intensity factor for each individual province is one potential solution that strikes the right balance between simplicity and accuracy.

12. Project size [OP, p.7]. The only size criterion proposed is for small power projects (50-200 MW) [OP, p.6; TBD, para 206]. Similar measures are needed for fuel and thermal energy sources, or better still a small size threshold in tonnes/year reductions should be used. The size criteria should be set in a way that encourages small distributed generation units, and ensures that larger projects with potentially significant environmental impacts are treated with appropriate rigour. For this reason, the size threshold for small projects should be set equal to 50-100kt CO_2e. The following would provide an appropriate clarification:

- Minimum size project that can register as an offset project = X tonnes/year [TBD, para 30]. Projects smaller than X are considered "micro projects".
- Maximum size of project that can use average emissions coefficients (simplified) = Y tonnes/year (example given is between 50 and 200MW) [OP, p.7; TBD, para 206]
- Maximum size of offset project = Z tonnes/year (or no limit)

13. Micro projects [OP, p.7-8; TBD, para 30]. CAN supports the idea of paying for emissions reductions from micro projects (smaller than the minimum size X), but believes that the offset system may not necessarily be the appropriate vehicle for doing so, except under some circumstances. Micro projects involve small GHG reductions and are therefore likely to generate only small revenues through the offset system. If an average national emissions factor is used, the amount paid for a small reduction may also not be worth applying for. Furthermore, including micro projects in the offset system could discourage the government from developing new incentives and other programs targeting small-scale emission reduction technologies over the coming years (e.g., solar thermal and electricity, small hydroelectricity plants).

However, the offset system should allow the aggregation of small projects into large enough "bundles" to register under the offset system. Municipalities or utilities should be given the opportunity to aggregate reductions from energy efficiency and renewable energy initiatives, and to register these aggregated reductions as regular offsets. Examples include municipal Local Improvement Charge programs used to finance energy efficiency in buildings, and utility Demand Side Management programs that induce electricity savings. The municipalities and utilities would pass on the benefit of offset sales to the program participants. The advantage of such a system would be that individual program participants would benefit from the offsets process without the administrative burden while municipalities and utilities would benefit from additional financing and increased participation. CAN recommends that offset rules be developed to allow the registration and emission reduction verification of such programs. CAN would welcome an opportunity to prepare a submission on this issue.

In the case of other individual small projects that cannot be aggregated, direct financial incentives and other governmental programs should be used to finance them directly.

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Comments on more technical issues

14. Credit creation [TBD, para 7]. There is no table of contents for the proposed *Project Document*, and there is some confusion between the scope and purpose of the *Project Document* and the *Required Elements for a Quantification Methodology* [para 79]. They appear to have the same purpose and contents. This needs to be clarified.

15. Transparency and public input [TBD, paras 10-11 and 81]. The document is unclear on the amount of opportunity there will be for public review of projects to ensure the rules are being properly applied, prior to decisions being taken to approve projects as eligible to receive credits and before their quantification protocols are fixed. Posting the project document on a public web site is good, but there must be sufficient time allowed for public and stakeholder input, and there must be some response process for saying why a public change or view was not accepted. There must also be an opportunity for public input on new protocols including the standard ones that are to be issued this fall and subsequently.

16. Validation and registration of a project. The queuing process must be fair so as not to favour those using standard protocols to the extent that others are delayed too much [TBD, para 12].

Environment Canada needs to specify what type of external expertise will be used for validation of a project [TBD, para 13].

It is unclear whether a Verification Body still be needed if a project uses a standard protocol or is below the small size threshold [TBD, para 19]. If so, the costs/fee to the proponent should be kept to reasonable limits – especially for smaller projects.

17. Scope of the offset system [TBD, para 28]. The scope of the offset system should not include projects outside of Canada's Kyoto inventory (see section 2 above). This is a misuse of public climate change funds, does not contribute to our Kyoto commitment and can be viewed as just another subsidy for certain industries.

The *de minimis* threshold to screen out projects whose size would not support the administrative costs associated with the offset system needs to be defined [TBD, para 30]. The minimum should be based on expected proponent costs of registering a project and verifying emissions, compared to the income expected from the sale of offsets at an average price (say $10 per tonne). The threshold should be set in tonnes/year (see section 12 above).

Additionality tests should be used for all projects but they are especially imperative for projects that are already started [TBD, para 31] (see sections 1, 8 and 9).

18. Support for 8 year credit period [TBD, para 35]. CAN supports the proposal to allow offset credits to be earned for up to 8 years, after which the BAU baseline of a project should be re-evaluated. This period of time is appropriate to encourage investment in projects with a longer time frame. CAN also supports some payment for credits earned beyond 2012 at full or some discounted value. We hope that negotiations on the post-2012 international climate regime will lead to international agreement to allow use of credits from projects started in the Kyoto period [para 36].

19. Surplus rule [TBD, para 41-42]. We support the requirement that GHG emission reductions/removals must be surplus. However, to ensure that the offset system is credible, the surplus criteria must be extended to all existing federal and provincial regulatory requirements and incentive

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programs (see sections 1 and 8). The surplus rule also needs to be built into the requirements for setting the baseline of all project types (e.g., allocation of reductions according to fractional investment by government and proponent), or in each standard or custom protocol (e.g., the protocol for energy efficiency projects would address the treatment of grants for energy efficiency).

20. Quantification methodology for a project [TBD, para 76]. CAN supports the dropping of conservativeness criteria from ISO requirements as it means that proponents will not be penalized for using default values for emissions factors. They may submit their own assessment if they think there is a difference from the defaults. Defaults must be the best available or average values of the emissions coefficients (see section 10 above).

21. Description of project [TBD, para 80]. "Expected level of activity" needs to be defined.

22. Requirement for environmental information [TBD, para 81]. CAN believes that the offset system must address environmental impacts somewhere in the offset screening process (see also section 4 above). It would be counterproductive to approve offset projects that cause environmental impacts in other areas than GHG emissions. The offset system should at least require a proponent to demonstrate that their project met environmental assessment requirements of other programs, and that there are no negative environmental or social impacts related to the project. If the project has been through an environmental assessment process, that report should suffice. This information would provide the public with an opportunity to review and comment on these assertions and would be useful for credit purchasers before deciding to buy offset credits

23. Guidance on leakage [TBD, paras 82, 93-94]. Project proponents are required to "identify all SSR [sources sinks or reservoirs] that are controlled, related and affected by the project", otherwise referred to as *leakage*. However, the Offset System papers do not provide any guidance on how proponents should identify or measure leakage. As accounting for leakage can be very complicated, the offset system needs to provide guidance on how projects proponents must account for leakage, particularly for agricultural and forest sink projects.

24. Need further guidance on baseline scenarios [TBD, para 84-91]. The Offset System papers should clarify that a baseline scenario represents not just "what would have happened in the absence of the project" [TBD, para 84 and 86], but also, as noted in the 2005 Plan (p.22), what "would occur in the absence of the offset system." CAN recommends that the offset system adopt the CDM additionality tool which requires that project proponents demonstrate that the baseline scenario reflects what would have happened if (i) the most economic option were used; (ii) the carbon financing was not available (i.e. offset system); and (iii) market barriers remained in place. Without this simple screening for additionality, there will be no guarantee that offsets will contribute to Canada's Kyoto commitment (see sections 1 and 4 above).

Encouraging a wide range of project types and innovation is good, but not at the expense of additionality [TBD, para 85].

25. Cogeneration [TBD, para 214-216]. The federal government must not allow industrial cogeneration to be included in the offset system as was suggested in the recently released *Notice of intent to regulate greenhouse gas emissions by Large Final Emitters*, published in the *Canada Gazette Part I*, July 16, 2005. All industrial-scale fossil fuel-fired electricity generation must be considered as part of the LFE sector and assigned emission intensity targets in a manner that is consistent with the targets assigned to other electricity generation (i.e., a 12% reduction in intensity from business-as-usual levels, as indicated in the 2005 Plan). In addition, the government must assign LFE emission

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intensity targets in a manner that prevents windfall emissions credits accruing to relatively low-emitting fossil fuel fired generation. CAN points out to the government that cogeneration is an economically viable, GHG-emitting fossil fuel-based form of electricity generation and must be treated as such in any emissions trading system put in place in the country.

Small cogeneration plants in small manufacturing and commercial and institutional buildings with a capacity of less than 5 MW may be included in the offset system. However, it would be important that these units report their emissions through Canada's mandatory GHG reporting system.

26. Requirements for forest and agricultural project sinks [OP, p.6; TBD, para 157-198]. Including forest and agricultural sink projects in the offsets system may only be acceptable if it occurs in a manner which ensures that the credits created will be eligible for use by Canada for meeting its Kyoto obligations and if it ensures that any emission reductions credited to sinks are incremental to BAU activities, as originally defined in the 2005 Plan (p.22) (see sections 1 and 2 of this paper).

- CAN recognizes that forest carbon management can contribute to addressing climate change, and that forest management needs to be enhanced in Canada, in part to preserve carbon stocks. This may therefore be an appropriate area for provision of federal incentives, although if forest management is not counted towards Canada's Kyoto target, such incentives must be funded outside of the budget allocation for Kyoto compliance (see section 2). There is a need for a fuller assessment of the most appropriate policy options for ensuring better forest management, and such an assessment should consider the role of regulations versus incentives as well as other measures, such as purchase of carbon credits through a fund that is distinct from the Climate Fund, or a carbon tax. CAN would like to have the opportunity to participate in such an assessment.
- If forest management is counted under Canada's Kyoto target, then rigorous rules for accounting and verification of sink projects (especially baseline, leakage and permanence) will be need to ensure that carbon gains are real and additional to business-as-usual levels.
- All sinks projects must demonstrate that emission reduction achieved are ***additional*** to what would have happened under business-as-usual. The Offset System papers suggest [OP, p.1] that farmers adopting no-till practices should be eligible for offsets. However, in the agriculture sector there has been a general trend towards the use of low-till or no-till agriculture over the past fifteen years, and it would not be fair to provide full credit to those farmers who are only now starting to adopt these practices.
- It is generally beneficial to recognize conservation benefits (e.g., protected areas, retention, and special management) through carbon sequestration in the working forest. To ensure that offset credits reflect true environmental benefits, there may be a need for different business-as-usual baselines to apply to different types of landscapes. For example, perhaps the degraded (or converted) landscape could provide more credit per hectare than the working forest. For the working forest, business-as-usual levels will need to be set high for conservation benefits to be recognized as carbon credits.

27. Carbon capture and storage [TBD, para 162]. We agree that "projects (technologies) that capture greenhouse gas emissions and store them in a physical reservoir like a geological formation will be treated as sink projects unless they can demonstrate that storage is permanent." This is a good rule if interpreted rigorously. Experts in the field suggest that the only carbon capture and storage option that can be considered "permanent" is deep aquifer storage. This paragraph [TBD, para 162] should be interpreted so that carbon storage using old gas caverns and enhanced oil recovery are treated as sinks with a temporary life and not permanent removals.

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28. Offset credits with liability period [TBD, para 165-177]. CAN feels that it is completely impractical and environmentally unsound to allow sinks projects with a finite liability period. Even if the the liability period (i) starts at the end of the project (i.e. after 8 year credit period) and (ii) is long enough to include the harvesting period of forestation projects, the liability period would need to be 30-60 years – as high as 100 years to ensure that all carbon has been permanently sequestered. Such a long liability period would be almost impossible to administer. In the case of forestry project sinks or carbon capture and storage, the offset system would also need to make clear who is responsible to monitor these sinks during the liability period. The federal government cannot allow for a "liability period" without assigning who is responsible to monitor projects. The only reasonably reliable way to handle all sinks projects is through the temporary (one year) credit route (see our recommendation in section 29).

29. Temporary credits [TBD, para 178-183]. CAN recommends that all sinks and carbon storage projects use the Temporary Credit approach. This approach is appropriate for agricultural and forest project sinks, and possibly as well for geological carbon capture and storage. It will be important to determine how to put a value on holding a tonne of GHG out of the atmosphere for one year. We recommend that further analysis be undertaken with the aim of defining the discounted value, for compliance purposes, of a temporary credit. The analysis should give consideration to the relative reductions caused by the temporary credit in relation to the permanent credit. For example, a permanent offset is generally awarded for a tonne of emissions that would have otherwise remained in the atmosphere for 100 years. Thus the equivalent reduction by sinks would be achieved by a sink absorbing one additional tonne from the atmosphere each year for one hundred years. For this reason a temporary, one year, credit could have one-hundredth of the value of a permanent offset credit. This type of analysis in addition to analysis which examines other impacts of sinks projects relative to direct emission reduction projects should be considered in establishing the discount credit value.

30. Non-emitting energy projects [TBD, para 205]. Nuclear energy and large hydroelectricity should be specifically excluded from the offset system (see section 3). Nuclear power is highly subsidized already so there would, in any case, be no surplus emissions that would qualify for offsets [as per TBD, para 41].

It must be made clear that the simplification with regard to uniqueness and ownership provided for small non-emitting energy projects [TBD, para 207] includes thermal or fuel projects below a threshold size, as well as power projects. The simplified approach would greatly assist mid scale fuel savings, bio-fuel, solar water heating, building efficiency and other projects and programs, as well as small power projects. As noted above under recommendations on micro projects (see section 13 above), municipalities, utilities and other potential project "aggregators" should be provided with a means to register their Demand Side Management and other programs as offsets.

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