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Cap and trade for Manitoba

Summary Recommendations:

1) Manitoba should align its greenhouse gas emissions targets with internationally accepted science and aim to become close to carbon neutral within 40 years.

2) Manitoba should aim for at least a 15 per cent cut of greenhouse gas emissions below 1990 levels by 2020. This is equivalent to a reduction of 28 per cent by 2020, compared to 2008.

3) Manitoba should support diverse efforts for reducing greenhouse gas emissions and shifting to a more sustainable economy. Cap and trade may be among the tools adopted in Manitoba, depending on the details of the program.

4) Cap and trade should be integrated with other carbon pricing mechanisms and greenhouse gas reduction policies.

5) GHGs produced from natural gas and transportation fuels could be brought under cap and trade by requiring the importers of fossil fuels to Manitoba to possess GHG allowances sufficient to cover the combustion of these fuels.

6) For those parts of the economy for which cap and trade is not feasible or cost-effective, an alternative form of carbon pricing such as a carbon tax should be implemented.

7) Early reduction allowances must not be granted to industries that would have reduced their emissions as a result of regulation or economic conditions aside from cap and trade.

8) Capped emitters should reduce their emissions during the 2012-2020 period at a rate at least consistent with Manitoba's economy-wide emission reduction target. If other carbon pricing mechanisms are not implemented, the reduction share of capped emitters will need to be higher.

9) Capped emissions should be phased out linearly in two periods, 2012 to 2015 and 2015 to 2020 to allow industry time to adjust, following the WCI recommendation. In a Manitoba context, this could see emissions decline at a rate of 2-3 per cent during 2012 to 2015 and 4-5 per cent from 2016 to 2020.

10) All greenhouse gas emission permits of should be distributed by auction.

11) Money from the auction should be used to implement climate change strategies, including funding for demand management, education programs, public transit and climate adaptation. Money left over could be distributed to tax payers.

12) Because of scientific uncertainty and the regulatory difficulties of offsets, more research should be conducted to ensure that offsets actually amount to additional verifiable reductions before offsets are included within the cap and trade system.

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Cap and trade for Manitoba

Introduction

Green Action Centre welcomes the opportunity to provide comments on Manitoba's cap and trade policy for greenhouse gases. Public consultation on this issue is a prerequisite to finding the solutions that will work for all Manitobans to address the critical issues of climate change. Cap and trade regimes and their associated documentation and mechanisms are complex. Detailed context for the cap and trade proposal is not currently available from Manitoba Conservation. Much of the policy information on cap and trade for Manitoba appears to rely on the research and recommendations commissioned by the Western Climate Initiative. In this initial comment, Green Action Centre will outline a number of concerns, principles and recommendations, but we believe that further consultation will be required as more specific measures are proposed.

Context

The Intergovernmental Panel on Climate Change (IPCC) anticipates that with a business as usual scenario, the planet will warm by as much as 6.4 °C during the twenty-first century.[i] Currently, levels of carbon dioxide in the atmosphere are at approximately 390 parts per million and increasing at a rate of 2 parts per million annually. Scientists from NASA's Goddard Institute for Space Studies and other leading science agencies have estimated that unless we quickly return these levels below 350 parts per million, we are at a dangerous risk of catastrophic, run-away global warming, which future generations may not be able to arrest.[ii] Even at the low range of the IPCC scenarios, global food and resource shortages could undermine global political security by the end of the century.

Manitoba will be at the front lines of climate change. Our region is expected to have higher levels of warming than the global average. Some models predict that much of our province may experience a 10 °C to 14 °C degree increase in average annual temperature by 2080 compared to the norms of the late 20th century.[iii] Climate change will also pose enormous challenges on our infrastructure and ecosystems, including increased flooding along our river valleys, drought in our fields and melting sea ice and loss of species along Hudson Bay, where important heritage sites could be lost to rising sea levels. Manitoba has as much incentive as any region to take responsibility for stopping the emissions that cause global warming.

The Government of Manitoba has committed to achieving a 6 per cent reduction of greenhouse gas emissions compared to 1990 by 2012. We applaud this ambitious target. According to a report by the Office of the Auditor General, meeting this target is becoming exceedingly unlikely.[iv] Between 1990 and 2008, Manitoba's emissions increased by 3.3 million tonnes of carbon dioxide equivalent or 17.6 per cent.[v] We hope that further medium and long-term targets are established in agreement with the warnings of the international scientific community. According to the IPCC, in order to prevent a temperature increase of 2 °C above pre-industrial levels, developed countries would need to reduce emissions 10-40 per cent below 1990 levels by

2020 and by up to 95 per cent by 2050."[vi] Manitoba should align its greenhouse gas emissions targets with this science and aim to become close to carbon neutral within 40 years. As a mid-term goal, Manitoba should continue to aim for at least a 15 per cent cut of greenhouse gas emissions below 1990 levels by 2020. This is equivalent to a reduction of 28 per cent by 2020, if a baseline of 2008 is used. Rather than encourage resignation and complacency, Green Action Centre hopes that the gap between targets and results stimulates creative and urgent action to further reduce emissions.

The Government of Manitoba has blamed our inability thus far to meet these targets on increased population.[vii] This claim is not credible. At the time the *Climate Change and Emissions Reductions Act* was passed in 2008, the Government of Manitoba was already predicting strong population growth of 1.1 per year.[viii] Actual growth has been approximately 1.3 per cent per year. Meanwhile, although the economy of Manitoba has fared better than most since the 2008-2009 recession, it did not achieve growth rates of 3.7 per cent anticipated for 2009 in 2008.[ix] Growth was marginally negative in 2009 and is only forecast to reach 2.6 and 2.7 per cent in 2010 and 2011 respectively.[x] Other provinces have achieved absolute reductions in greenhouse gases relative to 1990 including Prince Edward Island (-0.7 per cent) and Quebec (-0.9 per cent) while achieving comparable population and economic growth over the 1990 to 2008 period. If we have not met our targets, it is because we have not sufficiently invested in the policy tools and programs necessary for reaching our objectives.

The role of cap and trade in meeting Manitoba's targets

Green Action Centre supports diverse efforts for reducing Manitoba's greenhouse gas emissions and shifting to a more sustainable economy. Cap and trade may be among the tools adopted in Manitoba, depending on the details of the program. At the same time, we should recognize the limits of what cap and trade can achieve and ensure that it is integrated into a wider range of policy instruments and public education programs so that all industries, communities and consumers are able to take on their share of the necessary reductions in greenhouse gases. By putting a price on carbon, cap and trade (supplemented with a carbon tax and other regulatory requirements) can help to create a more favourable regime for initiatives that shift us towards a greener economy.

Manitoba is a signatory of the Western Climate Initiative, a group of four provinces and seven U.S. states working together to reduce their greenhouse gas emissions in the region by 15 per cent below 2005 levels by 2020. Cap and Trade is among the tools being put forward by the WCI to meet its greenhouse gas reduction targets. The cap and trade system proposed by the Government of Manitoba would be "a regulated, market-based approach to reducing greenhouse gas (GHG) emissions"[xi] Under a cap and trade system, the government sets a cap, or limit, of the maximum amount of gases that regulated industries are allowed to emit. Industries acquire permits to emit their share of the cap. Each industry has several choices of how it meets its cap target:

- It may reduce its emissions to the level of its permit;
- It may reduce its emissions below its target, leaving space under the cap for it to sell to other regulated industries;
- It may exceed its cap target, and purchase cap space from industries with excess available;
- It can bank its emission allowances for future years.

Some cap and trade systems also include offsets, which regulated industries can purchase from industries or projects outside the regulated cap system. Under an offset arrangement, projects that reduce greenhouse gas emissions, produce renewable energy, or store carbon (e.g. in forests or wetlands) are able to sell permits or credits to industries within the cap and trade system. Offset projects may be local, regional or international in scope.

Key questions to consider:

Which industries are regulated?

The effectiveness of a cap and trade system depends firstly on the choice of which industries fall under the cap and which lay outside it. If too few industries are regulated, then it will skew the economy by providing an advantage to the unregulated sectors, while leaving many important sources of greenhouse gas emissions unaffected. If too many industries are regulated, the system will become costly to administer and too much effort will be wasted regulating minor sources of greenhouse gases. Cap and trade systems are best suited therefore to economies dominated by many relatively large sources of emissions rather than emission profiles in which diffuse non-point sources account for the bulk of the emissions.

In Manitoba, greenhouse gas emissions come from a wide variety of sources. No one sector is responsible for the bulk of Manitoba's emissions. Transportation and agriculture are the two largest sources of emissions, representing 33.4 per cent and 34.7 per cent of Manitoba's emissions. Because these sources represent hundreds of thousands of trucks and automobiles and thousands of farms across the province, they present special problems for regulation within a cap and trade system. By contrast, the 8 largest polluters with emissions greater than 100,000 tonnes of CO_2 equivalent in Manitoba represented only 10 per cent of the province's total greenhouse gas emissions in 2008. Nationwide, large final emitters represented 36 per cent of Canada's emissions.

GHGs produced from natural gas and transportation fuels could be brought under cap and trade by requiring the importers of fossil fuels to Manitoba to possess GHG allowances sufficient to cover the combustion of these fuels. The cost of these allowances would then be passed on to customers. Dispersed emission sources may also be handled through an adjunct offset program. For example, Manitoba Hydro requires recipients of insulation subsidies to sign an agreement to assign any greenhouse gas savings from the retrofit to Manitoba Hydro. Hydro then aggregates the savings from program participants for potential sale as offset credits once a GHG regulatory regime is established. We address problems with offsets below (p. 9).

Manitoba's largest emitters (Source: Environment Canada)

Reporting Company	City	GHG, 2008 (tonnes CO2e)	GHG,2009 (tonnes CO2e)
Koch Fertilizer	Brandon	684,089	722,084
Manitoba Hydro	Brandon	467,713	167,970
Brady Road Landfill	Winnipeg	299,565	312,060
TransCanada PipeLines	Rapid City	290,214	131,052
HudBay Minerals	Flin Flon	185,190	166,146
Minnedosa Ethanol Plant	Minnedosa	174,377	184,345
Graymont Western	Faulkner	157,582	136,710
Summit Road Landfill	Winnipeg	106,491	101,661
Total		2,365,221	1,922,028

The Western Climate Initiative proposal would regulate all sources above 25 000 tonnes of GHG CO_2e.[xii] This would cover approximately 10 further sources of emissions. Data is not available for which facilities would be covered. It is likely that these facilities would add somewhere between 250 000 and 1 million tonnes to the above total. This would make the capped regulated sector responsible for between 12 and 15 per cent of Manitoba's total emissions, as of 2008.

Within Manitoba, several of these emission sources are expected to decline substantially for economic or regulatory reasons. In 2009, Manitoba's 8 largest emitters collectively achieved a 20 per cent reduction compared to 2008. Further reductions are expected in the subsequent years with or without cap and trade regulation as regulations come into force to capture methane at Brady Road Landfill and to wind down the operation the Brandon Coal Generating Station except under emergency conditions.

If Manitoba follows through on plans to shut down Brandon coal generation and capture methane from Brady Landfill, then, combined with the closure of the HudBay smelter, Manitoba stands to reduce greenhouse gases by a further 645 000 tonnes over 2009 for a total reduction of over 1 million tonnes in this sector since 2008. This would be a much larger reduction than was promised under the *Beyond Kyoto* plan without Manitoba engaging in a cap and trade system. Yet, despite these significant reductions already, Manitoba's overall emissions continue to climb because of increases in other sectors.

Hence Green Action Centre recommends that, for those parts of the economy for which cap and trade is not feasible or cost-effective, an alternative form of carbon pricing such as a carbon tax should be implemented, as in B.C. It is important that all segments of the economy and all emissions sources that are practical to cover should be subject to carbon pricing.

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Early Reduction Allowance

A cap and trade system is only effective if it reduces regulated emissions beyond what would otherwise occur. If the cap is set at a level above the level which would occur without the regulation, then it is not only ineffective at reducing regulation and a waste of effort, it could hinder the fight against climate change by flooding other jurisdictions with excess credits.

The Western Climate Initiative proposes mechanisms for recognizing early emission reductions during the period 2008-2011. To be eligible under the WCI, reductions must be voluntary, additional, real, verifiable, permanent, and enforceable.[xiii] To be considered for early reduction allowances, Manitoba facilities should show how they strictly meet these criteria. Those industries that have reduced their emissions to fulfill regulatory requirements, like Manitoba Hydro, or the anticipated reductions at Brady Road Landfill, would not qualify as voluntary. Similarly, the closing of the HudBay smelter in Flin Flon in 2010 would not count as an additional reduction. Decisions on this closure were made in consideration of economic and technical conditions in the face of scheduled more stringent pollution standards rather than as an effort to reduce greenhouse gases.

If Manitoba is too generous at granting early reduction allowances or credits for involuntary reductions achieved through regulation, this could distort the market for credits across the whole Western Climate Initiative region. This would increase emissions and exacerbate global warming. Allocating early reduction allowances to reductions that would have occurred without cap and trade would have the effect of increasing region-wide emissions.[xiv] Under such conditions Green Action Centre would oppose Manitoba's participation in the Western Climate Initiative's cap and trade program.

Note that granting credits for early reduction is primarily a fairness issue for cap and trade schemes that distribute free allowances based on historic emissions. In that case, a current emitter would receive more allowances, which could be monetized in a market, than a former emitter who took early action to reduce emissions. That would reward the late actor. But if allowances must be paid for at the outset, as under Green Action Centre's recommended 100 per cent auction of allowances (see p. 8), the fairness issue disappears. Industries that make early reductions in emissions for whatever reason do not require a gift of allowances for their actions under a distribution by auction. They are "compensated" for their prior reductions by not having to purchase allowances for their discontinued emissions in the first place, unlike those who did not take early action to reduce emissions.

How much is the cap reduced each year?

Manitoba has committed to reducing greenhouse gas emissions 6 percent below 1990 levels by 2012. Manitoba must soon develop new targets for the subsequent period. Ontario has set a target of 15 per cent below 1990 levels by 2020. British Columbia has a target of 33 per cent below 2007 levels by 2020. To be among the most ambitious provinces in Canada, Manitoba would need to adopt a target of 15 per cent below 1990 levels by 2020. This level is at the low range of the 10 to 40 per cent cut recommended for developed countries by the IPCC.[xv] Manitoba should lead the way by adopting emission reductions at least as large as those committed to by other provinces.

To achieve this reduction, Manitoba will need to make significant reductions across every sector of its economy. Large emitters will need to lead the way. Cap and trade, if properly implemented, can be a tool for helping them make their share of the needed reductions. In *Beyond Kyoto*, the Government of Manitoba committed to a reduction of greenhouse gases among large final emitters of 650 000 tonnes of CO_2e by 2012.[xvi] Because of the economic and regulatory conditions referred to above, Manitoba's large emitters are likely to achieve this result. If this occurs it will possibly be the only sector to meet its *Beyond Kyoto* targets. In order to reach a mid-term target of 15 per cent below 1990 by 2020, further reductions will be needed in all sectors. In total a 15 per cent target would require approximately a 6 million tonne reduction compared to present levels. Assuming the 12 to 15 per cent share of greenhouse gases produced by the regulated industries, they would need to cut back their emissions by at least 720 000 tonnes between 2012 and 2020 in order for them to meet their share of the target.

Manitoba may wish to consider placing a higher share of the needed reductions on the regulated sector, given the emphasis the government is placing on cap and trade as an emission reduction strategy. Unlike British Columbia where a broad carbon tax is in place, cap and trade is the primary carbon pricing tool under consideration in Manitoba. This means that it is likely necessary that the large final emitters make a disproportionate share of the reductions in order to meet province-wide targets. Another option would be for Manitoba to consider a broader carbon pricing strategy similar to that adopted in British Columbia to encourage all sectors to participate fully in the needed reductions.

The Western Climate Initiative recommends that capped emissions be phased out linearly in two periods, 2012 to 2015 and 2015 to 2020 to allow industry time to adjust.[xvii] For example, according to such a schedule, reductions under the program could begin at 50 000 tonnes per year 2012-2015 and increase to 104 000 tonnes per year 2015-2020 to reach total reductions of 720 000 tonnes by 2020. This would provide a phase in period during which industries would be required to reduce their emissions at first by 2 to 3 per cent annually, increasing to 4 to 5 per cent annually by 2020. Reductions on this scale are realistic, achievable and would have overall beneficial economic and environmental impact.

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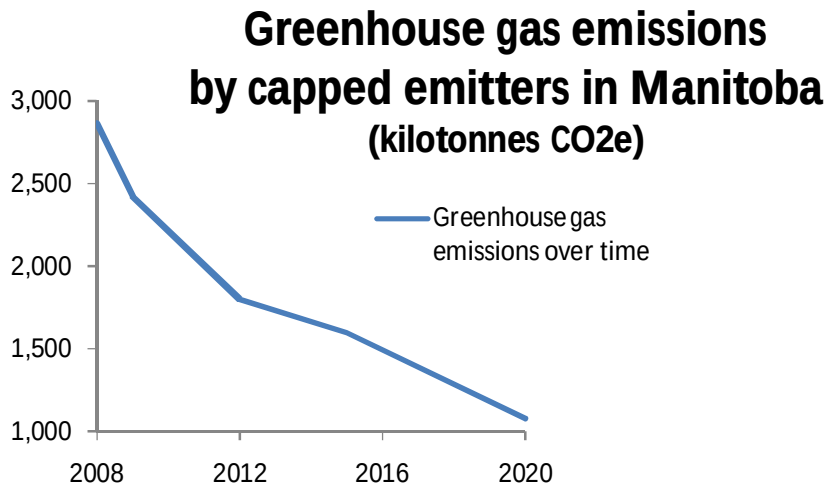

If large scale emitters with emissions greater than 25,000 tonnes annually were to reduce their emissions according to this schedule, we would expect to see a pattern similar to the chart above. There is a sharp reduction in emissions due to regulatory measures and plant closures in the period before cap and trade begins. Between 2012 and 2015, emission reductions would slow, followed by a faster reduction after 2015 as companies are able to phase in their climate action plans over time. Figures in this graph are estimates only. Manitoba has not released the numbers of all the potential large emitters who would be covered by the program.

How are the permits to be distributed?

"Each Partner [within the WCI] has the flexibility to decide how best to allocate its allowance budget within its jurisdiction."[xviii] In Manitoba, permits should be distributed according to principles of environmental justice and fairness. Underlying the distribution of permits should be an acknowledgement that greenhouse gas pollution inflicts costly damage to the environment, to communities around the world and to people here in Manitoba. Reducing greenhouse gases is everyone's responsibility, but especially the responsibility of those who cause the largest greenhouse gas emissions. Under a cap and trade system, carbon permits are valuable and tradable commodities. These commodities should not be distributed to those who are currently the biggest polluters, as this would reward past damaging behaviour. Rather all permits should be auctioned in an annual market.

As noted earlier, an auction system immediately "compensates" large final emitters who no longer emit because their polluting facilities have been shut down for whatever reason by saving them the expense of purchasing allowances that current emitters must buy.

How are funds realized through the auction of GHG emission allowances to be distributed?

Money from the auction could be used to implement important climate change strategies, including funding for demand management, education programs, public transit and climate adaptation.

According to The Pembina Institute[xix] a key question for cap and trade is, will the value of carbon be distributed rationally and fairly? They recommended a 100 per cent auction of allowances to monetize their value with a transparent expenditure of proceeds on clearly defined priorities. Green Action Centre recommends a similar approach. (See Appendix A)

How much of a role can offsets play in the system?

Offsets have been proposed as part of the Western Climate Initiative cap and trade system. Offsets are among the most problematic aspects of cap and trade, and the most subject to abuse.

Offsets are credits for reductions made by actors outside the capped sector which can be sold as credits into the capped market. One of the benefits of offsets is that they provide an incentive for small and medium enterprises to reduce their emissions even though they are not required to because of their relatively small emissions. Sometimes, they may be able to reduce their emissions more cheaply than larger industries. Their ability to reduce emissions cheaply can have a positive impact on the efficiency of the system and of the economy as a whole.

Agriculture in particular may be targeted as an industry in which many opportunities for easy emission reductions exist. Improved soil testing, restoration of wetlands and improved management of grazing lands are all ways to reduce carbon emissions while increasing long-term productivity. Carbon offsets could help fund some of the investments farmers need to move to sustainable agriculture.

Too many offsets will distort the market for cap space, reducing auction revenues to government, limiting funding for other climate programs, while providing industry the opportunity to continue polluting. Another concern with offsets is that their trading requires complex systems of trading and regulation. Unless a strong regulatory framework is in place, it is impossible to verify that real reductions have occurred. Regulating offset markets can be costly, reducing the efficiency of the cap and trade system.

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At this stage however, we do not feel that the scientific understanding of the greenhouse gas impacts of different agriculture and forest practices is advanced enough to justify these industries to be used as offsets. Too often, offsets act as a subsidy for practices such as herbicide-intensive zero-till agriculture, that are already commonplace, or which are of debated environmental benefit. It is acknowledged that Manitoba's boreal forest is a vast store of global carbon, but not as clear that, at present, it is a carbon sink.[xx] Both forest companies and conservationists are seeking carbon credits for either forest management with harvesting or preservation. We advocate that more research be conducted to ensure that offsets actually amount to additional verifiable reductions prior to offsets being included within the cap and trade system.

Appendix A: Funding Priorities for Cap and Trade Auction Revenue

The Pembina Institute has formulated priorities for revenues derived from a national cap and trade system. These could be adapted for a Manitoba context. They are:

- To protect specific industry sectors that would otherwise be expected to suffer substantial "carbon leakage"— a transfer of production to foreign competitors with similar emissions levels, which would be counterproductive because it would not reduce emissions. The potential for carbon leakage is, however, often exaggerated. Protection should be targeted at sectors that are independently shown to have a high likelihood of suffering a substantial impact.
- To protect low-income Canadians. Just as it is widely agreed that tax changes should not result in an increase in the cost of essential goods and services for those on low incomes, so any increase in energy prices resulting from a cap-and-trade system should be compensated for the same people.
- To ensure adequate public spending on greenhouse gas reductions. An effective federal climate plan will need to include substantial public investment in areas where infrastructure is publicly owned (e.g., transit, electricity grids), where it is difficult to regulate (e.g., building retrofits), or where the carbon price may not initially be high enough to produce needed results (e.g., renewable electricity).
- To help developing countries combat climate change. There is a strong legal, moral and pragmatic case for rich countries to provide substantial financial support to assist with emission reductions in emerging economies and to help the most vulnerable cope with the impacts of climate change.

Carbon value that is left over after these objectives have been met could be distributed to Canadians through tax cuts (or public debt repayments) or equal per capita rebates.[xxi]

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[xiv] A similar effect occurred when Europe initiated its emissions trading system. The collapse of dirty, inefficient industries in Eastern Europe created a surfeit of "hot air" credits that undercut the pricing of emission allowances in the first round of trading.
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