

CANADA'S 2007 GREENHOUSE & AIR POLLUTION REDUCTION ACTION PLAN

On April 26th, 2007, after the Clean Air Act fiasco, the federal Government released a new GHG and air pollution reduction action plan. This plan proposes regulated emissions intensity reductions for GHGs and fixed regulated reduction caps on four families of smog-causing air pollutants. The first regulations will take effect in 2010.

"Tough Industrial Regulations" To Take Effect in 2010

Who should read this Report?

This new federal clean air plan will affect both major emitters (who will be regulated), and non-regulated companies (who will be able to sell "offset credits").

What is the Plan?

Turning the Corner: An Action Plan to Reduce Greenhouse Gases and Air Pollution promises "tough industrial regulations" to be unveiled over the next 18 to 24 months, while promoting "investment in technology and innovation in Canada."

The concept is set out in the supplementary document *Regulatory Framework for Air Emissions*. This presents "short-term industrial emission reduction targets, actions for transportation sources, actions on consumer and commercial products, and the regulatory framework for improvement of indoor air quality." (Download the *Framework* document from www.willmsshier.com).

In this Q&A Report we cover ...

- ◆ The targets of the GHG and air pollution control programs
- ◆ Proposed phase-in timelines
- ◆ What sectors are affected
- ◆ How the regs will be developed
- ◆ Compliance options offered
- ◆ Future trade in emission credits
- ◆ Squabbles over federal-provincial jurisdiction
- ◆ Costs and compliance issues

GHG sector-based regulations will not come into force until 2010 – but the plan anticipates that regulated industries will implement GHG intensity reductions of 6% per year from 2007 through 2010!

What will be regulated?

The plan has two separate components and approaches. Greenhouse gas (GHG) regulations will require regulated facilities to reduce intensity of emissions (emissions per unit of production), rather than reduce absolute emissions.

Conversely, absolute emission reduction caps will apply to four classes of air pollutants: nitrogen oxides (NO_x), sulphur oxides (SO_x), volatile organic compounds (VOCs), and particulate matter (PM). Other air pollutants of concern will be regulated in future.

What are the basic targets of the GHG program?

The framework is rich in concept; short on details. The Government says it is "committed to reducing Canada's total

emissions of GHGs, relative to 2006 levels, by 20% by 2020 and by 60% to 70% by 2050." In absolute terms, the Government's action plan is intended to reduce GHG emissions by 150 million tonnes by 2020. The plan proposes a mix of regulatory and non-regulatory actions, with the primary emphasis on reducing GHG emissions intensity from seven targeted sectors.

While federal action is anticipated to make "a vital contribution to the government's commitment to reduce national absolute [GHG] emissions," Ottawa is counting on help from provincial and territorial governments to hit the final target. Whether or not this happens, the Government predicts absolute GHG emissions "from all sources are expected to begin to decline as early as 2010 and no later than 2012. Thereafter, absolute emissions continue to decline." This appears to be based on the assumption that emission-intensity reductions will outstrip the increased emissions from production growth, eventually achieving absolute reductions.

What are the basic targets of the air pollution program?

Fixed national emission caps will first be imposed on four classes of air pollutants that contribute to smog. Regulations for individual sectors will take effect between 2012 and 2015. Emitters are going to have to implement significant reductions by 2015 to avoid the costs of non-compliance. By 2015, NO_x is to be reduced by 40% to a cap of 600 kilotonnes (kt), SO_x by 55% to a cap of 840 kt, VOCs by 45% to a cap of 360 kt, and particulate matter by 20% to a cap of 160 kt.

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These are absolute caps (not intensity-based), and will be allocated by regulation into sector-based caps. The sector-based caps will be subdivided into specific caps/credits for each regulated facility (how this works will be figured out during the regulation-making process). The plan does not appear to provide for credit to facilities that made significant reductions in acid gas pollutants prior to 2006 – perhaps that will be worked out in the allocation of facility-specific caps and credits.

The domestic emissions cap and trade systems will only apply to NO_x and SO_x – not to VOCs or PM emissions.

Controversial exemptions for oil sands projects from VOCs and NO_x caps have been proposed.

Additional targets will eventually be set for other air pollutants of concern, such as mercury from electricity generation, and benzene emissions from the natural gas, and iron and steel sectors. Finally, the Government will develop national air quality objectives for particulate matter and ground-level ozone, after assessing health and environmental effects.

What is the 2006 baseline?

We don't know the GHG baseline numbers ... yet. The Government intends to compel facilities in the regulated sectors to submit 2006 emissions info and "other relevant data" under a section 71 *CEPA 1999* order to be published in the *Canada Gazette*. There will be a one-time credit of up to 15 million tonnes (Mt) available to companies that proactively reduced GHGs between 1992 and 2006.

Caps for the four classes of smog-causing air pollutants were derived from NPRI reports, and subjected to considerable reductions based on comparisons with other jurisdictions, available technology and industry-specific factors. By 2015 the caps will require reductions of 40%-55% from 2006 levels for NO_x, SO_x and VOCs.

How will calculations based on 'emission intensity' affect targets?

The Government remains committed to the 'emission intensity' concept – whereby GHG emission limits are linked to some unit of production, a barrel of

GHG sector regulations will not take effect until 2010— but regulated industries are expected to reduce GHG emission intensities by 6% per year from 2007-2010 (from 2006 baseline)

oil, perhaps, or a kilowatt hour. Widely supported by industry advocates and decried by NGOs, the use of emission intensity based targets could permit absolute emissions to remain constant or even increase over both the short and long-term if production increases outstrip the annual emission reduction targets.

The Government insists that as its short-term emission intensity reduction targets come into force in 2010, they "will result in absolute reductions in emissions of GHGs from industry as early as 2010 and no later than 2012, even if the economy grows as expected." Critics of the approach disagree vehemently.

On the positive side, the emission intensity approach ties targets to production. As a result, the Government says that companies "will not be able to claim emission reduction credits by shutting down production for economic reasons or obtain credits for moving production out of Canada." It remains to be seen if a company closes a plant for "environmental reasons" whether it can then claim emission reduction credits.

What are the timelines for the GHG program?

For existing facilities, the GHG emission intensity reduction target for each sector is based on an improvement of 6% each year from 2007 to 2010 to produce a total theoretical reduction of 18% from 2006 emission-intensity levels by 2010. After that, an annual 2% emission intensity improvement will be required, resulting in an industrial emission intensity reduction of 26% by 2015. Somehow, the government calculates that between the mandated intensity reductions balanced against productivity increases, there will be an absolute reduction of 20% of GHG emissions in 2020 (over the 2006 baseline).

Emission intensity reduction targets will only apply to combustion and non-fixed process emissions. "Fixed process emissions" – those tied to production and that cannot be reduced by current technology – will have a 0% reduction target in 2010. Reductions will be imposed if new technology is developed.

New facilities – defined as those that come on line in 2004 or later – are granted a three-year grace period. On the assumption that they are using the latest technologies, they will only be subject to annually intensity reduction targets of 2%, starting in their fourth year of operation, "based on cleaner fuel standards."

What are the timelines for the air pollution program?

The government's goal is to publish the sector-specific draft air pollution regulations by spring 2008. Air pollutant cap regulations will come into force "as soon as possible between 2012 and 2015."

Which industrial sectors are affected?

The following industrial sectors will be required to reduced GHGs and/or air pollutants:

- ◆ electricity generation produced by combustion
- ◆ oil and gas (including upstream oil and gas, downstream petroleum, oil sands, and natural gas pipelines)
- ◆ forest products (including pulp and paper and wood products)
- ◆ smelting and refining (including aluminum, alumina, and base metal smelting)
- ◆ iron and steel, and iron ore pelletizing
- ◆ potash, cement, lime production
- ◆ chemicals production, including fertilizers.

The transportation sector (auto, marine, aviation and off-road) will be subject to a separate processes, agreements and regulations for reducing emissions and increasing fuel efficiency.

How will the air pollution sector regulations be set?

According to the Government, "the regulatory framework for air pollutants – that is, the targets, the compliance

mechanisms, and the timeframe for the entry into force of the regulations – will be finalized by fall 2007.”

The Government has already completed a “benchmarking exercise” to develop the emission reduction targets and to determine how the targets will be allocated among the regulated sectors. This included assessing environmental performance, available technology and operating practices, and current operating permits in use in Canada and other jurisdictions. These were then adjusted to reflect the financial situation of the sector, and potential impacts on the economy. These numbers are to be “validated” in stakeholder consultation sessions over the coming months.

“While this validation process is underway, sector-specific regulations will be developed for the general provisions and those related to greenhouse gases, leading to publication of the draft regulations in the *Canada Gazette, Part I*, starting in spring 2008. The regulations will be revised to incorporate the air pollutant provisions a few months later, following normal regulatory procedures.” In our view, it will require strong political will to meet these deadlines.

What compliance options will GHG emitters have?

According to the *Framework*, industrial emitters in the prescribed sectors will have four primary options (six if you want to count the various kinds of emissions trading schemes available). They can:

- ◆ **reduce** their own emissions (per unit of production) through abatement actions, such as improved energy efficiency, improved energy management systems, or carbon capture and storage;
- ◆ **contribute** to a new federal Climate Change Technology Fund, which will support the “development, deployment, and diffusion” of GHG reduction technologies;
- ◆ **trade**, using one of three emissions trading mechanisms on the table, namely inter-firm trading in emissions intensity credits among regulated firms, the purchase of

There is no discussion in the framework document on who will operate the cap-and-trade system, what the federal role will be, and how it will tie into rudimentary trading systems being established in Ontario and Alberta.

emission reduction offset credits from one of the non-regulated sectors, and/or the purchase of credits from the Kyoto Protocol’s Clean Development Mechanism; and

- ◆ **take one-time credit** in recognition of early action, for verified actions taken between 1992 and 2006 to reduce GHG emissions (up to 15 Mt will be available, with no more than 5 Mt to be used in any one year).

How much will offsets cost?

No one knows. The per/tonne tariff set for buying offsets from the new Climate Change Technology Fund (CCTF) may create a ceiling for market prices. Depending on availability of CTF offsets and limits imposed on facilities, market prices may be higher or lower.

Given this pre-determined minimum purchase price, non-regulated companies can assess whether they can create, quantify and verify credits at a competitive price. Offset project examples include landfill gas energy projects, energy-efficiency retrofits and carbon sequestration on farmland.

Prices will be set at \$15 per tonne of CO₂ equivalent through 2012. In 2013, the cost will rise to \$20 per tonne, and increase annually at a rate pegged to the growth of nominal GDP. Contributions to the deployment and infrastructure component of the fund would be limited to 70% of the total regulatory obligation in 2010, falling year-by-year until the contribution limit hits zero in 2018.

Industry commentators believe that contribution to the fund should not be limited, and that the phase-out is far too early. New technologies will be challenging and costly to develop, and

will need prolonged funding.

An independent, third-party entity with a multi-stakeholder board will administer the new CCT Fund. The Government has proclaimed two basic rules for the fund: there will be “no inter-regional transfer of wealth and no government control.” Other funds, particularly provincial ones, with objectives consistent with the federal fund, could also be certified.

The federal fund could support infrastructure for carbon capture and storage, such as a pipeline in Alberta for CO₂ transport, or an east-west electricity grid linking markets from Manitoba to Newfoundland.

Does that mean international GHG credits are back on the table?

To begin, firms will be allowed to purchase GHG credits for up to 10% of their emission intensity reduction target from the Kyoto Protocol’s Clean Development Mechanism (CDM). The Government hasn’t yet determined which types of CDM credits are eligible.

Next, Ottawa will pursue “linkages” to North American emissions trading systems (such as the Western Regional Climate Action Initiative and the Regional Greenhouse Gas Initiative).

Eventually, it will explore further international linkages, as those carbon markets become “more fully developed and robust, and as emissions monitoring, verification, and reporting systems evolve further.” Nevertheless, Canadian companies will not “be allowed to use ‘hot air’ credits, which do not represent real emission reductions.”

What compliance options will emitters of air pollutants have?

They will have two, perhaps, three options. Industrial emitters can:

- ◆ reduce their own emissions;
- ◆ use a domestic cap-and-trade emissions trading system for SO_x and NO_x across Canada; and/or
- ◆ participate in cross-border SO_x and NO_x emissions trading systems (if Ottawa is able to negotiate a suitable agreement with the United States).

Under a cap-and-trade system, total emissions from all facilities covered

under the system are capped and credits are allocated based on past emissions or by means of an auction. Each facility's allocation represents its individual emissions target; if it emits more, it must buy surplus credits from another facility. Emit less and it will have credits to sell.

There is no discussion in the framework document on who will operate such a system, what the federal role will be, and how it will tie into rudimentary trading systems currently being established in Ontario and Alberta. If that's not uncertain enough, the Government says it will also assess the feasibility of some kind of offset system for air pollutants.

Whatever system is established, a facility will not be able to evade local air quality requirements by buying the requisite number of emission credits. If a firm is located in an area where air quality does not meet national air quality objectives set in advance, restrictions will be placed on the firm's use of emissions trading credits. (Oddly, the *Framework* only refers to objectives for particulate and ozone—neither of which appears to be eligible for trading—clearly this is a work in progress).

Does the Government now support the Kyoto Accord?

No, yes and maybe. Two days before releasing the Regulatory Framework, Environment Minister John Baird released a scathing economic indictment of the Kyoto Accord. "Canada cannot reach its 2008 to 2012 Kyoto targets, as required under Bill C-288, without intentionally manufacturing an economic recession," he said. Gas prices would jump 60%, electricity bills would double and 275,000 Canadians would lose their jobs, the minister claimed.

Then, on April 26, Canada "turned the corner" with "one of the most aggressive plans to tackle greenhouse gases and air pollution in the world," Baird proclaimed. "The government supports the Kyoto process, and actions at home will be the basis for Canada's participation in future international cooperative efforts to address climate change." (However, we note that the

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proposed plan will not satisfy Canada's current Kyoto commitments.)

What is the status of Canada's Clean Air Act (Bill C-30)?

It is defunct. The opposition parties hijacked the Government's bill in committee and redrafted it to their liking. Instead, the Government will use existing regulatory powers in CEPA to implement the plan.

How does the plan overlap with provincial jurisdiction?

The feds have a clear legal right to protect the environment and the health of Canadians—all of the air pollutants targeted by the plan are already listed in Schedule 1 of *CEPA 1999*. But Ottawa has never before regulated emissions of GHGs or air pollutants across industries.

The provinces haven't started complaining about federal encroachment on their turf. But the last time the feds stepped over the federal-provincial line, with their complex fire and security requirements for PCB storage sites, every province and territory except PEI used CEPA's equivalency provisions to opt out.

The Government says "national consistency is necessary to provide a minimum level of air quality for all Canadians, to ensure a level playing field, and to protect competitiveness for Canadian industry in different regions by avoiding a patchwork of different regulations." But it won't be wielding the 'big stick' to defend these principles either. Instead, Ottawa "will work to reach equivalency agreements with those provinces that set provincial emissions standards that are at least as stringent as

the federal standards." When an equivalency agreement is in place, the corresponding *CEPA* regulations in the signing province are suspended.

We will have to wait to see how stringent the standards in the new *CEPA* regs really will be. Experience leads us to predict that provinces with the resources to create and implement their own regulations will be unwilling to cede jurisdiction over air pollution to Ottawa.

Will provincial approvals and permits be affected?

Provincial permitting or licensing systems, may be recognized as a basis for an equivalency agreement. Again, once such an agreement is in place, the federal Cabinet can declare that the new *CEPA* requirements "stand down" leaving GHGs and other air pollutants to be governed by the laws of the province, territory, or aboriginal government with which the agreement was negotiated.

How is Ottawa going to enforce compliance?

Assuming that federal regs do take precedence somewhere (and they will, at least, on federal lands), the *Regulatory Framework for Air Emissions* will be enforced using the compliance and penalty provisions of *CEPA 1999*. While the framework provides a short summary of these provisions and the powers of enforcement officers, it does not indicate how (or if) Environment Canada would manage, staff and fund the requisite increase in oversight responsibilities.

How much will it cost?

Environment Canada's preliminary analysis indicates that the [aggregate] annual economic cost of meeting both the regulated greenhouse gas targets and the regulated air pollution targets should not exceed 0.5% of GDP in any given year up to 2020. By our calculations, that's approximately \$5.86 billion (in 2006 dollars), and expected to grow at some 2.8% a year.

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