

Backgrounder: The Cost to Taxpayers of Weakening Kyoto Targets for Industry

Matthew Bramley, Pembina Institute
March 2005

“Large Final Emitters” (LFEs), major industrial facilities in the oil and gas, electricity generation and other heavy industry sectors, emit close to 50 per cent of Canada’s greenhouse gas (GHG) emissions.¹ Industrial GHG emissions rose by 23 per cent in Canada between 1990 and 2002.²

The federal government’s *Climate Change Plan for Canada* (November 2002) charged LFEs with securing 55 megatonnes (Mt) of reductions in annual GHG emissions³ — a 15 per cent reduction below projected “business-as-usual” emission levels. LFEs could meet their targets by reducing their own emissions and/or by purchasing emission credits (equivalent to paying others to reduce their emissions). According to the *Plan*, Canada as a whole needed to secure 240 Mt of reductions to meet its Kyoto target. The 55 Mt allocated to LFEs represents just 23 per cent of the 240 Mt total.

Reduction targets of 15 per cent represent costs that are manageable for most industry sectors. For example, in oil sands production — the most GHG-intensive part of the oil industry — meeting a 15 per cent target would cost at most 25 cents per barrel of oil,⁴ even if the target were met purely by purchasing emission credits. (The price of oil is currently over \$US 50.) And in reality, the oil industry has abundant opportunities to reduce its own emissions more cheaply than by buying credits. According to the Petroleum Technology Alliance Canada, Canada’s oil industry could take profitable actions that would reduce annual emissions by 29 Mt.⁵

While the government appears to have accepted the need for LFE targets to be mandatory, it appears to be readying itself to announce a dramatic weakening in those targets relative to the *Climate Change Plan for Canada*. This weakening has three components:

- According to recent media reports, the overall LFE target will be reduced from the 55 Mt in the *Climate Change Plan for Canada* to somewhere between 37⁶ and 45 Mt.⁷ For the taxpayer cost calculations below, we use a mid-range figure of 41 Mt.
- Because of extra industrial production, mainly in oil sands, the “business-as-usual” projection for LFEs’ annual emissions has increased by 29 Mt⁸ over the projection used for the *Climate Change*

¹ Budget plan p.191.

² EC p.184, elec.

³ CCPC p.28-32.

⁴ Nov 4 + Feb 15 Standing Committee testimony

⁵ Globe article

⁶ Dennis Bueckert article 17Jan

⁷ Tstar article February 12

⁸ Dennis Bueckert article 17Jan

Plan for Canada. These extra industry emissions become the government’s responsibility because the government is proposing to set LFE targets in terms of “emissions intensity” instead of actual emissions. If industrial production rises even more, the 29 Mt amount will increase further.

- The government has proposed to allow LFEs to contribute to a “Technology Investment Fund” in lieu of meeting targets.⁹ The Fund is not expected to achieve significant reductions during the period when Canada must meet its Kyoto target (2008–12) because it will be focused on research and development of technologies to reduce emissions in the longer term. LFEs are expected to meet roughly half of their 37–45 Mt reduction target through reducing their own emissions,¹⁰ which means that payments into the Fund, if it is not capped, could account for as much as roughly the other half, or about 20 Mt. To be conservative, for the taxpayer cost calculations below we assume that the Fund will be capped at 10 Mt.

Each of the three weakenings in LFE targets detailed above would result in higher Canadian GHG emissions during the period when Canada must meet its Kyoto target (2008–12). In order to meet our international obligations, the federal government would therefore have to secure an additional amount of emission reductions equal to the emission increases caused by the weakenings. How much would this transfer of liability from industry to government cost to taxpayers?

To answer this question, we make two assumptions:

- *The government will have to secure the additional emission reductions by purchasing credits on the emissions trading market.* Even without weakening the LFE targets, most experts expect Canada to have to buy significant volumes of credits to meet its Kyoto target. This means that any weakening of LFE targets translates into additional government purchases of credits.
- *The price of credits will be \$10/tonne.* Currently, credits valid for compliance with the Kyoto Protocol are being offered for sale at between 4.5 and 7 Euros,¹¹ or about \$CAN 7.30–11.40 per tonne. Many experts expect the price to rise over time as the Kyoto period approaches and countries become more focused on compliance.

Using these assumptions, the three weakenings in LFE targets would result in the following costs to taxpayers.

Weakening in LFE targets	Estimated increase in annual emissions	Cost to taxpayers = increase in annual emissions × 5 year Kyoto period (2008–12) × credit purchases at \$10/tonne
Reduction in overall LFE target	14 Mt	\$700 million
Increase to “business-as-usual” emissions projection	29 Mt	\$1,450 million
Technology Investment Fund	10 Mt	\$500 million
<i>Total</i>		<i>\$2.65 billion</i>

⁹ Budget plan p. 191.

¹⁰ Dennis Bueckert, January 20, 2005. This estimate has been confirmed in briefings by relevant federal government officials.

¹¹ Evolution Markets LLC (January 2005), *Greenhouse Gas Markets Monthly Market Update*; available at <http://www.evomarkets.com/mmu>.

If the price of credits rose to \$15/tonne, the total cost to taxpayers would increase to \$3.975 billion ($\$2.65 \text{ billion} \times 1.5$).

Since these are costs that industry would otherwise have had to shoulder, they can be regarded as a subsidy to industry, one that is not discussed in the federal Budget Plan.