

mation projects designed to address immediate regional concerns in many parts of the world.

Petro-Canada, which invested more than \$350 million on environmental protection over the last two years, is finding ways to reduce emission of greenhouse gases from processing activities. Gases such as carbon dioxide, methane and CFC's, are linked to global warming and ozone layer damage. The company monitors its CFC's inventory, and works towards environmentally friendly replacements.

Petro-Canada has extensive procedures in exploration, development and production, refining, distribution and marketing operations to prevent environmental damage and has comprehensive emergency response plans in case of accident.

It has also led the industry in regular environmental audits of its operations, which ensure rigorous standards. By the more efficient treatment of waste, Petro-Canada has reduced water consumption used for cooling and in processes at

refineries. The company is also improving water treatment systems at its Lake Ontario and Montreal refineries at a cost of more than \$70 million over the next five years to ensure potentially harmful substances are effectively removed before discharge.

Safeguarding the environment is an essential part of the company's commitment to Canadians. Petro-Canada believes the process it has implemented is producing effective solutions that provide sufficient energy for Canada's real needs and maintain a clean environment for the use of future generations.

But, Alcan stresses, achieving environmental objectives is costly and takes time. New investment costs can be forced up by a fifth, and these must eventually be paid by the consumer. Enforced closure of plant penalises local communities with lost jobs and income. 'People must accept that it will take time to move from the standards of yesterday to tomorrow's high expectations', says the company.

Garbage – the politics of blue (boxes)

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*Extracts from an article
on the efforts of Canada's
municipalities to find
markets for blue-box
discards.*

In Toronto, when a milk carton dies, it goes to landfill. In Edmonton, it is sent to Italy for reincarnation.

The long fibres in milk cartons can be recycled into tissue paper and mills in Italy are eager for all the milk cartons Edmonton can ship, going so far as to pay the shipping costs. Where the city once received as much as \$135 a tonne for the cartons, prices are down at the moment and the next load may fetch as little as \$25 a tonne. Even so, Italy is a market and keeps what would otherwise be garbage out of Edmonton's overcrowded landfill site.

The recycling of milk cartons is just one example of the kind of ecological entrepreneurship that sets Edmonton's recycling programme apart from other Canadian municipalities – and lends credence to Mayor Jan Reimer's claim that the city has the best recycling programme in North America.

In addition to newspapers, cans and glass, mainstays of blue-box programmes, Edmontonians put out for pickup such castoffs as cardboard, boxboard, magazines, and an astonishing range of scrap metal, from aluminium deck chairs to engine blocks.

'If your blue-box collector can lift it without hurting his back he will put it in the truck and it will never go to the landfill,' says Cornelius Gunther, executive director of the Edmonton Recycling Society, one of two companies contracted by the city to run the blue-box programme.

The key to the success of the programme, Mr Gunther says, is the tireless pursuit of markets. 'We are unsophisticated, but very aggressive,' he says. The marketing is left to brokers, whose job it is to find buyers for the contents of blue-boxes. And they do though not necessarily close to

home. In fact, much of the contents goes to British Columbia, some goes to the north-west U.S. and some to Pacific Rim countries.

Revenues from the sale of blue-box materials represents about 12% of the Edmonton Recycling Society's operating costs. The rest comes from the contract price of \$3.30 per household per month it receives from the city.

But Edmonton's recycle or bust philosophy is an anomaly.

In Toronto where staff say *they* have the best recycling programme in the country – the blue-box will take a wider range of materials than in most places across the country.

But, generally speaking, Metro Toronto won't accept materials in the blue-box for which there is not an obvious market – and Metro officials do not look much beyond the rich range of industries in southern Ontario.

Even with plentiful markets close at hand, the cost of doorstep recycling, currently estimated at \$190 a tonne (about the same price as in Edmonton), is subsidised by Metro's policy of extremely high fees to commercial and industrial concerns to dump waste.

The high price tag is a deliberate attempt to keep things out of the dump and to subsidise the cost of what is recycled. One Metro councillor calls it a new form of sin tax, with waste being the sin.

Few cities seem inclined to imitate Metro's efforts to make throwing things away more expensive than recycling. Instead, in many cities in Canada, municipal recycling programmes totter on the edge of insolvency, prey to falling prices for old newspaper. In many more places, recycling programmes do not exist at all because municipal leaders say there is no market for the recyclables