Traders of nothing: how carbon emissions may save capitalism

Saunders, C., 2003, Australian Financial Review, January 18–19, p45–46

The provisions in the Kyoto Protocol for carbon emissions trading, which create a system for companies to buy and sell the absence of pollution, may amount to the ultimate capitalist market.

Ben Feldman works for a company that sells nothing. More precisely, it sells something, but that something is nothing. But actually, what you get is the absence of something. It isn't very expensive, just $3 a tonne. But the price is going up soon, so the time to buy is now.

It sounds like the best scam since Bre-X, but believe it or not, Feldman is a leader in a whole new industry that may, one day, make the absence of things almost as valuable as things themselves. His company, New York-based Natsource, is a self-described "pioneer in energy and environmental brokerage". As its director of policy and research, Feldman is involved in helping companies buy and sell the right to pollute, in much the same way that a stockbroker exchanges equities.

Feldman's job, and his company's success, is one of the more peculiar side effects of the Kyoto Protocol. The provisions for carbon emissions trading in the international agreement have created a global market for a new breed of financial adviser: the carbon broker, who helps companies buy and sell the absence of pollution.

Trading, as a practice, is ancient and has very concrete roots. One person has something the other wants and then gives it to them (Hey, buddy, can you spare a potato?), or decides on something they want in return (I'll trade you the potato for this rock). If it's a more uncommon item, the value will be higher (Nah, there are lots of rocks but I'll swap you the potato for your loincloth), and higher as inflation develops and the laws of supply and demand emerge (Make it two loincloths). Eventually the service industry evolved (I'm short on loincloths, but I'll wash yours for the potato), and as materials became too cumbersome to trade, currency, representing labour or a commodity, was created. Soon, concepts such as interest emerged that gave value not to an item or its use, but to the owner's inability to use it during the time it was borrowed. Then, somewhere between there and here, the whole system went haywire. It has become so abstract that few people understand it any more.

Now emissions trading is poised to introduce a whole new level of abstraction to the international economy, making pollution reduction a major industry and the absence of pollution a hot commodity.

Emissions trading began to develop towards the end of the 20th century as the US Environmental Protection Agency looked for ways to encourage municipalities to cut their air pollution. A system emerged that recognised regions that went beyond their required cuts and allowed them to sell the excess to regions that were having a tough time getting with the program.

But since the climate change meeting in Johannesburg last September, when China, Russia and Canada promised to join the European Union in ratifying the Kyoto Protocol, it has become increasingly clear that, with or without the US (which withdrew its support for the pact after George W. Bush became President), there will soon be a global market for carbon dioxide emission reductions.

It isn't big business yet, but emissions trading is a rapidly growing field. According to Natsource's research, between July 2001 and July 2002, the worldwide market for carbon credits totalled about 40million tonnes. That's a sharp increase almost as much as was traded in the previous five years combined. Feldman attributes this largely to major economies, such as the EU and Japan, ratifying the Kyoto Protocol.

Kyoto won't come into force until enough industrialised (or "Annex I") nations ratify the agreement to account for 55 per cent of Annex I carbon emissions. All the same, many companies are already experimenting with carbon trading. TransAlta, for example, began trading emissions in the early 1990s and has been an active participant in the emerging market. The Calgary-based utility is North America's largest emitter of greenhouse gases. TransAlta has pledged to cut its emissions to zero by 2024, through a combination of actual emission reductions, credit purchases and strategic investments. In 2000, the utility bought 24,000 tonnes of carbon emission reductions from Hamburg Electric, a German utility that has invested in wind energy.

But a market is a two-way street, and buyers can also be sellers. That same year, TransAlta made a 210,000-tonne emission reduction sale to American company Murphy Oil.

So far, TransAlta has bought about 80 million tonnes of carbon emission reductions, either through anticipated credits or through involvement in developing world projects (one involved changing cattle feed in Uganda so that the cows belched less frequently). Natsource helped broker some of the deals. TransAlta has also experimented with bilateral and electronic trading systems.

But if there is no international treaty regulating greenhouse gas emissions, and there are no permits yet, how did Hamburg Electric have anything to trade? Or, more to the point, why did TransAlta pay for it?

One big reason companies are involved in pre-Kyoto trading is that they need to learn how to incorporate emissions trading into their businesses.

Rochelle Pancoast, manager of acquisitions for TransAlta's Carbon Market Initiative, says the company is preparing for a carbon-constrained future. "Considering we are a large emitter of greenhouse gases, we think it's wise to act early so we can learn what the market's about," she says.

"The worst thing that could happen to a company is to not be ready for big and significant change in the marketplace," says Stephen Guilbeault, who heads up Greenpeace's climate change campaign in Canada. He points out that preparing for Kyoto is especially important for energy companies, because they are such big carbon emitters.

In the past few years, a number of big players in the oil business, such as BP and Suncor, have redefined themselves as "energy companies" and invested in green power.

As an example of how the new carbon economy is driving the market, Greenpeace's Guilbeault points to Shell, which bought Siemens Solar and became the world's largest producer of photovoltaic panels.

Not only is the solar market likely to increase after the Kyoto Protocol comes into force, but Shell will be able to use this arm of its company to reduce emissions and generate credits to sell on the open market (or offset its own emissions at below-market prices).

Another reason for companies to get involved in emissions trading is that it is in the energy industry's interest to create the market system they want before governments try to do it for them.

"We don't necessarily require or even suspect that the government would ever reduce something simply based on our experience," says TransAlta's Pancoast, ``but we do hope to influence the process based on our experience and our learning, and our ability to show that something works. For TransAlta, Pancoast says, part of the motivation is to establish and prove an inexpensive trading system that gives it access to international markets. Because each signatory to Kyoto will implement the agreement in its own way, it is in the interest of a producer in a developed country to establish a precedent of trading emission credits with companies or projects in developing countries.

It's also smart to learn the process while prices are low. Carbon credits are cheap at present because there's no guarantee that certain types of emission reductions will be granted credit status when Kyoto comes into force. And it probably will come into force. Canada ratified the agreement just before Christmas, meaning only Russia's official ratification is now needed. Even companies in the US will end up complying. Many have divisions in countries bound by Kyoto, and others will want to avoid losing lucrative foreign trading partners.

If companies such as TransAlta are playing their cards right, their stockpiled credits will save them a bundle when regulation comes in. If they're not so lucky, they'll have bought a whole lot of worthless nothing.

Natsource's Feldman expects that the absence of emissions will eventually be traded on some form of exchange. There are already models in the US. The biggest emissions market there is for sulphur dioxide, one of the main pollutants in acid rain. Sulphur dioxide emissions are exchange-traded, and there are standard contracts and permits. The Chicago Board of Trade also runs an auction of Environmental Protection Agency permits, and nitrogen oxide permits are traded between companies in the US either directly with each other or through brokers.

There are basically two types of emissions trading: permits and credits. Permits are handed out by governments and represent the right to emit greenhouse gases.

Credits are generated by industry and represent a reduction in emissions, which in turn is translated into a right to emit when sold to another company.

Take the City of Toronto, for example. It probably won't fall under the permit system when the Canadian government unveils its Kyoto strategy, says Robert Hornung, policy director of the Pembina Institute. Permits will be granted to major emitters in key industries. By reducing its emissions, however, Toronto could generate carbon credits it could sell on the carbon market. The city claims that it has reduced greenhouse gas emissions from its operations by about 60 per cent. According to the Toronto Atmospheric Fund, this represents about 226,000 tonnes of carbon dioxide. Much of the city's reduction came from capturing the gases (mostly methane) given off from its landfills. This type of reduction is relatively easy to measure and verify, says Hornung, and therefore is a likely candidate for credit status.

Say, then, that Toronto gets credit status for its emissions reductions. The city could retire the credits and take them out of the system (making the reductions permanent), or it could sell the credits (allowing others to pollute). With the sale proceeds, it could buy a couple of houses every year to help deal with the city's growing homelessness crisis, or improve the transit system and encourage more people to leave their four-wheel drives at home. Under this scenario, Toronto would be trading in an absence of carbon dioxide emissions.

Absence, however, is a difficult thing to measure. How can an entity prove that its actions intentionally caused a quantity of carbon dioxide not to be generated? For example, the city might try to claim emission reductions generated by using more fuel-efficient vehicles. Well, how much of the reduction came through fleet change, and how much came through less driving because of an unrelated policy decision (or from another, less tangible change)?

Because it's hard to prove that an emission reduction is real, or is a direct result of a reduction project, an entire industry of accounting and accrediting agencies will spring up alongside the brokerages.

"Clearly that's where we're headed," says Feldman.

"There'll be a currency and an accountancy structure around the creation and use of that currency. And we're doing that simultaneously to market development ... It's not different from other currencies, which were developed in that way as well, where somebody said `Show me your books I'll show you mine, and agreed on something."

But in a world where it takes an MBA to figure out how to trade rocks for potatoes, the carbon currency will require more monitoring than any currency before an accounting system so complex it would make Arthur Andersen's eyes roll.

At the same time, if the market becomes open, the public could very well have the right to buy credits. A number of companies, including Natsource and Toronto-based co2e.com, are already getting into this area of brokering.

For the average person, the credits will have no direct value but once Kyoto comes

into force, it opens up a whole new world of possibilities for speculators, and environmentalists. The next time Greenpeace comes to the door for a donation, it might just be asking for a few dollars to keep a tonne of carbon out of the atmosphere, in the same way that groups like the World Land Trust buy up acres of rainforest in Brazil.

When Kyoto was written, many environmentalists were sceptical, and the biggest area of concern was this idea of emissions trading. It amounted, many pointed out, to moving pollution around, rather than actually reducing it.

Feldman, however, remains optimistic about emissions trading and predicts that for companies to remain competitive, they will have to clean up their operations.

"Governments can do a fine job of regulating ... but governments are not companies, they don't develop competitive products," he says.

So they can say everybody must meet this standard, and there are two ways of doing this. One is, everybody must meet this standard, meaning they must have this piece of technology installed on the back of their equipment. The other is ... create the competitive atmosphere that reduces the cost of production, to say "We don't really care what you do, but you must achieve this outcome."

The critics are probably right. If we want to have any impact on climate change, Kyoto's goals should have been a lot more ambitious.

But it's easy to see Feldman's point. Any company that has to spend millions of dollars buying credits from German wind power companies will probably be driven out of business. A smarter strategy is to build a better windmill, and become a credit producer rather than a credit consumer.

Still, emissions trading may have even more profound global implications than just reducing pollution (to 6 per cent below 1990 levels by 2012, in Canada's case). If you think about it, the commodification of absence might just have the potential to save capitalism from itself. Infinite growth the dream of the capitalist cannot exist in a world of finite resources. At some point, supplies run out and the market disappears.

Selling nothing, on the other hand, is environmentally friendly, and commodifying the reduction of consumption could be the basis for a market with the potential to make Adam Smith's impossible dream come true. After all, there's no end to the amount of nothing that can be sold if you can convince someone it's worth buying.

For its part, Canada fought the Kyoto Protocol at every step along the road to ratification. But the country may still be remembered in history as one of the architects of a new economy. It was Canada, after all, under pressure from industry, that pushed hardest to incorporate emissions trading into the deal. The new carbon economy won't just be the trading of the right to pollute; it will be the beginning of a new, more abstract, way of looking at the market. In fact, the industries that pushed for carbon credits may unwittingly have created a sustainable, infinite resource base: nothing.