The corporate race to cut carbon

Companies worldwide are now competing to cut their carbon emissions, but is this trend one of environmental concern, hard-headed business or careful PR? Kurt Kleiner investigates.

Last month, Internet search company Google announced it would go 'carbon neutral' by the end of the year. The month before that, automaker General Motors joined a coalition of businesses calling for governments to regulate greenhouse-gas emissions. At about the same time, 300 corporate representatives packed into a London conference centre to learn how they too could reduce their carbon emissions. Corporations, consultants, academics and even some environmentalists agree that the last year has seen a fundamental shift in the way many businesses view climate change. For most corporations, the question is no longer whether global warming is happening, but how to get ready for it. "I've been working at the interface of business and the environment for 15 years. I've never seen this pace of change," says Nicholas Eisenberger, managing principal at GreenOrder, a New York firm that works with companies on sustainability strategies.

Consider just a few recent examples of corporations rushing to embrace greenhouse-gas emissions reductions: last autumn Richard Branson, chairman of Virgin Group, pledged to invest \$36 billion to develop lower-carbon fuels. In April, Virgin Atlantic announced that it would fly a Boeing 747 using biofuels by 2008. US retail giant Wal-Mart announced last year that it hoped to sell 100 million compact fluorescent light bulbs each year by 2008. It also pledged to reduce emissions in its trucking fleet by 20% and energy use in its stores by 30%. Even Rupert Murdoch, the head of media conglomerate News Corporation and the notoriously conservative Fox News network, pledged in April to make his media empire carbon neutral by 2010.

CARBON CONSTRAINTS

Although many companies are happy to project an air of environmental concern, the recent activity has more to do with hard-headed business decisions than social responsibility. Executives think

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they will soon face a 'carbon-constrained' economy in which greenhouse-gas emissions are taxed, capped or otherwise regulated. "There's a real level of concern," Eisenberger says, "there will be winners and losers." According to Andrew J. Hoffman, a professor of sustainable business at the University of Michigan, "it's not philanthropy, it's a business motivation, and that's the way it ought to be."

The EU instigated a cap-and-trade system for major carbon emitters in 2005, and will gradually extend the caps to other business sectors while clamping down further on the amount of carbon allowed. But even in the US, which has been reluctant to impose any limits on greenhouse-gas emissions, business leaders smell a change in the air. In a report for the Pew Center on Global Climate Change¹, the University of Michigan's Hoffman found that out of 31 major North American corporations surveyed, almost all expect to see future government-imposed limits on greenhouse gas emissions, and 84% of them expect to see the regulations before 2015.

"I think there's a tipping point," he says. "Companies are recognizing that something is going to happen and are saying, 'We'd better make sure we don't get caught holding the bag'."

In May, automaker General Motors announced it would join the US Climate Action Partnership (US-CAP) — a coalition of businesses and environmental groups that are calling on the US to enact mandatory limits on greenhouse-gas emissions. Ford and Chrysler followed suit weeks later. "I think there is a general assumption now among a lot of folks that a carbon-constrained economy is coming. They're looking for some ground rules on how to operate," says Tony Kreindler, a spokesman at Environmental Defense, which is a member of US-CAP.

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Andrew J. Hoffman

COMPETITIVE ADVANTAGE

Oil giant BP is also calling for regulations. In the meantime, it has pledged to reduce its internal greenhouse-gas emissions by up to a million tonnes a year at a cost of \$350 million. It also invests heavily in wind, solar, and other zero-emissions technologies, and says it expects to spend \$8 billion on its alternative energy businesses over the next decade. "First of all we see this as a business opportunity. Climate change is real. There are costs associated with mitigation and adaptation. And we believe that doing nothing is not a realistic option," says Bill Gerwing, BP's director of environmental policy. Even investors are getting in on the act. The Carbon Disclosure Project, a coalition of 284 institutional investors with assets of \$41 trillion, asks corporations to provide information about their carbon outputs and their plans for cutting them.

Investors use the information to gauge how well a company is likely to do in a carbon-constrained economy. So far, 2,400 companies are listed.

In March, Jonathan Lash and Fred Wellington of the World Resources Institute wrote an article in the *Harvard Business Review*² in which they advise executives to gauge their exposure to risk from climate change and carbon regulation, and to take action to mitigate the risks and even benefit from the opportunities. The first challenge for a company is taking a realistic inventory of the amount of carbon it emits. Clearly some businesses will have greater emissions than others — utilities and fossil fuel companies have obvious risks. But even the most service-oriented businesses also use electricity, transportation, paper and other supplies.

However, without regulations, there are no clear standards for how to measure carbon emissions, Hoffman says. Some companies only measure emissions coming out of their plants, whereas others include emissions from the electricity they use. Some express the measure in carbon emitted, others in fuel used. Whichever method companies choose to evaluate their carbon footprint, for most, increasing energy efficiency is the easiest and most cost-effective way to begin reducing greenhouse gases, says Jennifer Layke, deputy director of the Climate and Energy Program at the World Resources Institute. Fairly simple measures such as switching to more efficient lighting or weatherproofing a building improve efficiency, with the added advantage of lower energy bills.

CREATIVE CUTS

Other companies have become creative about cutting carbon. Since 1990 Canadian pulp and paper mills have reduced their greenhouse gas emissions by 44%, in part by using more waste wood products such as bark as fuel for their plants, according to the Forest Products Association of Canada. US retail giant Wal-Mart has chosen to replace conventional lighting with more energy efficient light-emitting diodes. Its stores feature vast frozen food sections lit by fluorescent lights that are inefficient at the cold temperatures in the freezers. Wal-Mart announced that this year it would begin putting LEDs, which are unaffected by cold, in freezer cases across 500 stores, saving \$2.6 million a year in utility bills and reducing its carbon footprint in the process.

In pledging to go 'carbon neutral' by 2008, Google has said it will work with the independent Environmental Resources Trust to verify its carbon footprint.

Having already improved efficiency at its data centres by developing new a.c. to d.c. power supplies for its computers, the company has now promised to build 50 megawatts of renewable energy supplies, including a 1.6 megawatt solar panel at its Mountain View, California headquarters. The remainder of the carbon it emits will be offset by investing in initiatives such as the use of anaerobic digesters on cattle ranches in Brazil to reduce methane produced by pools of cattle waste.

Even the National Football League boasted a carbon neutral Superbowl this year. The carbon emissions from increased energy use and transportation during the February event in Miami were calculated at 235 tonnes, although that figure doesn't account for the carbon emitted by 150,000 people travelling to the Superbowl in the first place. To offset the emissions, the NFL accepted \$2,000 in donated carbon offsets from two companies and planted 3,000 trees.

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John Stauber

ALTERNATIVE APPROACHES

Other companies are going beyond energy efficiency and offsets. They see the carbon-constrained economy as a

business opportunity, and are retooling. General Electric is investing in new technology that it expects to be profitable in a carbon-constrained future. In 2005 Jeffrey Immelt, chairman and CEO of the manufacturing giant, announced the company would spend \$1.5 billion over 20 years on technologies as diverse as greener coal-fired power plants, low-emission jet engines, hybrid locomotives and solar power. Although the investments won't pay off immediately, General Electric wants to get in on a growing market segment. Clean Edge, a San Francisco market research firm, estimates that the market for clean energy technologies increased from \$40 billion in 2005 to \$55 billion in 2006 in the US alone, and could hit \$226 billion by 2016.

Investments in reducing carbon emissions are already paying off, according to the Climate Group³, a non-profit advocacy organization. In a survey of 137 businesses and municipalities, which together emitted the equivalent of 3.5 billion tonnes of CO₂, they found emissions were down by an average of 14% since the beginning of reduction programs, some of them going back decades. Dow Chemical saved \$4 billion between 1994 and 2005 owing to reduced energy costs, and DuPont saved \$3 billion between 1990 and 2005.

Companies will want to cut costs regardless of climate change, but at least two things have changed in the corporate world view. First, according to Layke of WRI, worries about climate change have encouraged executives to spend time, effort and money on energy efficiency measures that in the past they might have

Wal-Mart plans to sell 100 million compact fluorescent light bulbs each year from 2008.

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devoted to a new product line or new advertising campaign. More importantly, executives are making decisions based not only on current energy prices, but on the likely price of energy once carbon emissions cost money. Despite all the action, however, businesses remain cautious, Hoffman says. He calls energy efficiency the “low hanging fruit” — it’s relatively cheap and easy to do. But although companies are eager to be one step ahead of the competition, they’re cautious about being two steps ahead. They don’t want to invest money when they’re not sure what the payoff will be. Instead, they want to be ready to make changes when regulation takes place. That involves knowing how much carbon they emit, and how much it will cost them to reduce emissions compared with how much it will cost to purchase allowances or offsets. “Once there’s a price for carbon, the whole game changes. The key is to be ready at the right time,” Hoffman says.

CORPORATE ‘GREENWASH’

But some critics don’t buy the story of corporations that have seen the light on climate change. One of them is John Stauber, executive director of the Center for Media and Democracy, a watchdog organization that keeps tabs on corporate public relations campaigns. “The problem is that the easiest thing to do is to give lip service — probably eloquent, well-thought-out lip service — but lip service,” he says. Stauber suspects ‘greenwash’ — a term coined in the 1980s for corporate environmental campaigns that are all show and no substance.

“With a problem as big as climate change, voluntary measures are not adequate to the task. They actually turn out to be counterproductive. They give the appearance of action, but they can be discarded at any time,” he says. Worse still, a good greenwash campaign tends to take the pressure off governments to enact regulations that really could do some good. Instead, greenwashing campaigns are designed to convince the public that the environmental problem is being taken care of by enlightened corporations, Stauber says. “Voluntary measures and smart decisions that save corporations money and lots of greenwashing are not a substitute for national and international agreements on a binding regulatory framework.”

Another sceptic is Deborah Doan, chair of the Corporate Responsibility Coalition that campaigns for stronger regulation of business. “I think the intentions are probably not bad of those companies that are trying to demonstrate a commitment. But within a competitive marketplace, they can’t do so unless there’s a regulatory framework in place,” she says. Stauber and Doan argue that the market won’t allow significant voluntary action. Action will always cost more, and competitors who don’t limit emissions will have a competitive edge.

But Gerwing of BP says that such critics have things the wrong way round. “What they’re describing would be a very short-sighted model, driven by quarterly profits. I think that companies will be at a competitive disadvantage if they do not explore the impacts that eventual policies on climate change will have on their business. Those that don’t get on board early are at the threat of being disadvantaged.”

REAL REDUCTIONS?

Another criticism thrown at companies claiming to go green is that offsets fail to reduce emissions. Dozens of organizations have sprung up in the last decade that will sell an offset for a tonne of carbon from anywhere between \$4 to \$22. They invest the money in projects such as tree planting, wind farms and coal mine methane reduction, all aimed at reducing the total amount of carbon dioxide in the atmosphere. The economic argument is straightforward. If your goal is to eliminate a tonne of carbon from the atmosphere, it doesn’t matter whether you do it by reducing the emissions from your factory

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Google plans to expand its use of solar panels to include a 1.6 megawatt solar panel at its Mountain View, California headquarters.

or investing in a third-party project. "It allows money to flow to the lowest cost mitigation. Therefore the overall cost of addressing climate change in society is lower," says Mike Burnett, executive director of the Climate Trust, a carbon offsets firm in Portland, Oregon.

But offsetting has raised objections, one being that it allows companies to get away with paying to pollute. A report by the pressure group Carbon Trade Watch⁴ says that offsets encourage people to think that they can continue 'business as usual' without making any significant changes in their lives, the equivalent of offsetting indulgences for your climate sins. Critics also worry that there are no recognized standards for offsetting. It's not easy to know if the offset you bought really reduced total carbon dioxide in the atmosphere by a tonne, or if it went to a project that would have been built anyway or that is likely to be abandoned before it is finished, or even if that tonne had already been sold to someone else.

Burnett admits the industry is in flux. "I've been calling it the Wild West since the last century," he says. He believes the key is to select an offsetting company that is careful with the projects it sponsors. Good offset companies only fund

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projects that would not have been built without the offset funding and account for the carbon reductions realistically.

Eventually, he says, the industry will settle on agreed-upon standards.

How much change can be expected from voluntary corporate effort is a reasonable question. Yet corporations do seem to have turned a corner. "We are looking at a time when corporate executives are waking up in the middle of the night and asking 'what is life going to be like for my children?'" says Dave Hamilton, director of the Sierra Club Global Warming and Energy Program. Companies and corporations are now seeing climate change as a real business risk, and perhaps even as a human risk.

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