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GE's Green Machine

By Ann Monroe

A decade ago, General Electric was one of the United States' prime environmental villains, dumping toxic waste into the Atlantic Ocean from Puerto Rico to New York, and battling for more than a decade with the Environmental Protection Agency over cleaning up the PCBs it had dumped into the Hudson River. To many, it seemed a company that put profit well above any environmental concerns.

So it was a surprise this summer to see CEO Jeffrey Immelt touted in the world press (and on the cover of Forbes) as an environmental pioneer. What put him there? GE's announcement, last May, of a major package of environmental products and initiatives it calls Ecomagination. To hype it, GE brought out the heavy guns: at a series of events in Washington (and later in Germany), Immelt was backed up by environmental organizations and surrounded by officials from corporate clients like ConocoPhillips and Airbus. Next week [9/26] Immelt [ck this] plans to bring his road show to Tokyo, where environmentalist tktk and some of GE's Japanese clients are expected to lend their support. ( GE が来週リ

リースを出すと言っているのでアップデートします )

What's behind this seismic shift? Immelt and his company see big bucks to be made by selling clean and efficient technology to customers coming under increasing pressure to clean up their own acts. GE's aim: to be the go-to company for businesses looking to

increase energy efficiency and cut emissions.

GE is way behind companies like DuPont and British Petroleum in jumping on the environmental bandwagon. But its new venture is way beyond anything other big diversified conglomerates are doing in the environmental arena, says Heather Langsner [ヘザー・ラングズナー], a senior analyst at investment research firm Innovest. By packaging its green products under the Ecomagination label (even hiring an independent consultant to verify its claims of "significantly and measurably improved" environmental and operating performance) and then touting that package around the world, it has put itself in an environmental spotlight. GE plans to double R&D spending in areas like alternative energy, turbines, airplane and locomotive engines, light bulbs and plastics, and to double sales of clean products to \$20 billion over the next 10 years. (GE's total industrial sales are currently about \$100 billion.) The company also promises to clean up its own act, improving energy efficiency by four percent annually and getting greenhouse gas emissions below their 2004 level by 2012. (The goal of reducing emissions, rather than slowing their growth, is shared by fewer than two dozen companies worldwide, says the World Resources Institute, the NGO whose president appeared with Immelt in Washington.) Immelt is even calling for the United States to set "meaningful" limits on greenhouse gases. The company isn't making specific profit projections, but says it expects its Ecomagination businesses to be extremely profitable.

Given rising concern about global warming--and rising oil prices--GE's move makes good business sense, says Langsner. By investing in next-generation

technologies, she says, "they're likely to be in the forefront of some very hot markets."

But for all its long-term potential, the company's move is rife with shorter-term risks. Though she applauds the move, Elizabeth Elliott McGeveran [エリザベス・エリオット・マゲベラン], a vice president at the U.K. firm of F&C Asset Management, isn't boosting her rating of the stock, currently at neutral to underweight. Ecomagination is a long-term project, she explains; in the short term, it's unlikely to have much effect on the bottom line.

GE's green focus began developing about three years ago, says Vice Chairman John Rice, who ran the company's energy business at the time and now heads all its industrial businesses. "The tide was turning in the energy business," he says. Europe is aiming for 12 percent renewable energy by 2010. China, home to 16 of the world's 20 most polluted cities, has set aside \$85 billion for environmental spending. The company saw huge markets for technologies that Rice predicts will keep GE's energy business growing at 15 percent indefinitely,

GE is focusing on cleaner, not cleanest. Though it's active in pure renewable markets like wind and solar, Rice argues those alone won't fill the world's energy gap in the foreseeable future--if ever. So GE is pushing technologies like coal gasification, prohibitively more expensive than coal but 50 percent cleaner burning. With a 250-year supply in the United States, "coal isn't going away," Rice says, "but neither are environmental concerns." GE's goal of getting coal gasification cheap enough to compete economically with coal "would be a very disruptive innovation," says Langsner.

The Ecomagination initiative has two fronts. First, GE ransacked its massive existing product line for efficiency-boosting, emission-reducing products and came up with a long list: high-efficiency gas turbines, emission-cutting locomotives, water-saving pesticide spreaders and more. In some of these areas, the company is already a market leader. Its quiet and efficient jet engines and its super-efficient locomotives already dominate their markets, says McGeeveran. And its acquisition of Enron's wind-power business made it a leader in that market.

In other businesses, the company is to some extent playing catch-up. Its most efficient domestic appliances don't begin to match the energy savings of those made by many European companies. And though its acquisition this year of Ionics [アイオニックス] made it one of the world's biggest manufacturers of desalination systems (a market that's expected to double in the next decade), it faces tough competition from long-established players like Danaher Corp. [ダナハー] and ITT Industries.

GE is also investing heavily in new technologies. It plans to boost its annual R&D in cleaner technologies from \$700 million last year to \$1.5 billion by 2010. (Its total R&D spending last year was \$3.1 billion.) The company has high hopes for a new hybrid locomotive that uses fuel cells to store braking energy. When it goes on sale in 2008, GE expects it to make up 34-40 percent of its locomotive sales volume. On the coal gasification front, GE is finalizing agreements with two U.S. utilities to build demonstration plants, due on line before the end of the decade. "We are aggressively marketing this technology and have had

dozens of companies express interest," Rice says. GE expects these first plants to cut the cost difference between coal and coal gasification by about 50 percent, with subsequent designs getting it close to zero. Another potentially disruptive technology the company's working on, Langsner says, is organic light-emitting diodes. "They could replace conventional lighting, with astounding energy benefits."

GE's Ecomagination hoopla, though, has exponentially increased its vulnerability to bad publicity if it doesn't keep its own environmental face squeaky clean. Indeed, while some environmental groups have hailed the program, many others, which haven't yet forgiven the company its foot-dragging on cleaning up the Hudson, assailed it as hypocritical. Immelt's pledge to "make coal sexy again" has also come in for ridicule, especially after GE ran TV ads featuring toned male and female coal miners. A failure by GE to achieve its goal of actually reducing emissions rather than slowing their growth could backfire badly. And if green markets don't take off as quickly as GE hopes or if the company puts its money on the wrong technologies, its plans for profit could evaporate, notes Henry Lee, director of the Environment & Natural Resources Program at Harvard's John F. Kennedy School of Government.

Right now, though, the company looks pretty prescient. Oil, which Rice said a few weeks ago he'd never imagined would reach \$67 a barrel, topped \$70 in the wake of Hurricane Katrina this month. The price of carbon emissions in the European Union's emission trading market more than tripled in the first half of this year.

But here's a question: If a lot of the Ecomagination initiative is stuff GE was doing

anyway--which it is--why make such a fuss about it?  
"There is a bit of packaging here," Rice admits. But he argues that creating a high-profile initiative "is causing us to think more creatively about businesses we might be in," including potential acquisitions of companies or technologies. It's also a good marketing tool, says

Eileen Claussen [アイリーン・クローセン], president of the Pew Center for Climate Change. "They are going to customers with this push, saying this is the stuff you better start buying."

Harvard's Lee suggests an additional motive.

"Immelt has taken over from the world's best manager," he points out. By getting out in front of what Lee calls the "controlling element" in the markets GE faces, Immelt is positioning himself as his own style of leader. Memo to Jack Welch: put that in your pipe and smoke it.