

# Clean energy becomes a selling point

May 16 2012, By Chris Turner

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As somewhat bewildered Apple shoppers in San Francisco, New York and Toronto learned firsthand this month, Greenpeace has a new enemy: dirty data. To attract attention to its report, "How Clean Is My Cloud?" - which draws attention to the coal and nuclear power plants supplying energy for the "cloud computing" server farms of many prominent digital businesses, including Apple and Amazon - Greenpeace launched a series of coordinated in-store protests at Apple stores across North America. Activists carried black-and-white balloons or came dressed as cleaning crews, spraying down windows to cleanse the company of its dirty greenhouse gas emissions.

As is often the case with Greenpeace's provocative street theater, the anti-Apple effort attracted a mix of widespread publicity and criticism. (Apple has claimed that its coal dependency is being overstated, and, as Dana Hull notes in the San Jose Mercury News, many of the shoppers at the San Francisco [Apple store](#) didn't understand what the "Clean Our Cloud" slogan was referring to.) The core of Greenpeace's argument, though - that coal continues to fire entirely too much of the world's electricity grids - is solid. And it points, perhaps, to an emerging business opportunity, a way for the green and virtuous grids to distinguish themselves in a marketplace that until now has always treated one kilowatt-hour the same as any other.

Case in point: Iceland. Owing to its vast [geothermal resources](#) - the island sits atop a highly active volcanic zone - Iceland's [electricity grid](#) is completely powered by emissions-free renewable energy. And as GE's Ecomagination blog reports, the country's government has begun to

solicit business from data center managers across Europe by touting its green credentials.

"This is the beginning of a new chapter in the industrial life of Iceland," Foreign Minister Ossur Skarphedinsson said. "The greatest advantage in the future will be green, renewable energy with no carbon."

Already, Iceland has persuaded U.K.-based data hosting company Verne Global to open a data center on the island. And with relatively inexpensive power and a cool maritime climate that reduces the amount of power required to cool a data center, it could be just the start. If kilowatt-hours become more than just power - if electricity flows are scrutinized the same way as the fuel economy of new cars, for example - then green grids might have a substantial advantage in a marketplace that is no longer monolithic.

Wal-Mart has a new fresh-food distribution center outside Calgary, Alberta. The facility is basically a giant refrigerator-freezer, slapped down on the Canadian prairie to sort food shipments for all of western Canada, and Wal-Mart Canada built it to be a global model of energy efficiency and green energy.

The building's south face is clad in solar panels, and there's a wind turbine out front by the visitor parking lot, but the most striking feature might be the hydrogen-powered fleet of forklifts and haulers moving pallettes of food around inside. And, in particular, the provenance of their fuel. A poster at an information kiosk says Wal-Mart looked at the total carbon footprint of various generating sources for the electricity to make the hydrogen fuel, and it turned out that making it in Quebec - whose grid is mainly emissions-free hydroelectric power - was cleaner than using Alberta's coal-powered grid.

There's a great little nudge in the ribs contained in the info kiosk text:

"As Alberta increases its renewable energy production and decreases its coal energy generation, manufacturing hydrogen in Alberta may become a more viable option." The world's largest retailer, in other words, is making the same basic argument that Greenpeace and Iceland are: The future's in a coal-free grid.

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