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Think Green: Wal-Mart Designs Canadian Distribution Center to Save Costs, Increase Sustainability

As the largest retailer on the planet, Wal-Mart is well known for creating profits by keeping costs under control. A significant cost for the company is energy. In 2010 it opened a new $115 million state-of-the art sustainable distribution center in Western Canada designed specifically to reduce energy costs and at the same time reduce the company's environmental impact.

The 400,000 square foot warehouse in Alberta is a fresh and frozen food distribution center that serves 104 retail outlets in the surrounding region. Instead of relying solely on petroleum-based energy sources, the company generates electricity from solar panels and two, 30-kilowatt wind turbines on site. The turbines generate about 100,000 kWh per year which is roughly equivalent to the amount of power used by 40 average-sized Canadian homes annually. Inside the building the workspace is illuminated by solid-state light-emitting diode (LED) lights which not only save money but produce less heat than traditional fluorescent lighting which lowers energy required to cool the refrigerated facility.

In addition, the entire fleet of 71 lift trucks and material handling vehicles used to move inventory around the warehouse to packing and distribution points are now powered by hydrogen fuel cells. The new technology allows warehouse workers to recharge trucks during operation onsite.

New high-efficiency dock doors and doorways feature electronic monitoring to ensure that doors are not left open unnecessarily, requiring additional electricity generation to maintain the required internal temperature for inventory.

Sources:

Walmart. News. *Walmart Canada Opens Its First Sustainable Distribution Centre*. *Walmart.com*. Walmart, 10 November 2010. Web. 27 May 2014.

"A Peek Inside Wal-Mart Canada's 'Green' Distribution Center." *Supply Chain Quarterly*. Quarter 1, 2012. Web. 17 May 2014.

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