

# Data Centers Canada takes the heat off cooling

Energy conservation is part of DCC's business plan

**H**OW MUCH WOULD YOUR BUSINESS be willing to pay for electricity before you said enough is enough?

Electricity costs weren't always at the top of Paul Di Benedetto's list. Since opening his business in 2004, working his business plan and delivering on his company's commitments were Mr. Di Benedetto's most pressing issues. But lately, the Managing Director of Data Centers Canada has realized that in order to win — and keep — customers long-term at his company's 8,000-square-foot data centre in Vaughan and another facility located in downtown Toronto, he needs to take a stand on energy consumption.

"Let's face it," says Mr. Di Benedetto. "The energy requirements in this business are significant, and in time, they will only increase. There is a tipping point for our customers, who shoulder these costs, and there's also a tipping point for the environment. For the

sake of my business and also for my community, I have to pay attention to these issues."

Data Centers Canada's (DCC) business is to develop, own and operate data centres. Customers such as government agencies, banks and mid-size enterprise clients, both Canadian and global, rely on DCC to provide them with space, electricity and bandwidth, at a fixed monthly rate. Customers like the utility model because they don't have the in-house expertise to run their own data centre, nor are they necessarily interested in investing the capital required to build their own. For this type of customer, plug-and-play is the way to go.

The average DCC customer rents two cabinets of space (with their own equipment), requires 80 amps of power and pays approximately \$2,000 a month for the security of knowing their data centre needs, including multiple levels of redundancy, are taken care of.



Data Centers Canada  
Managing Director,  
Paul Di Benedetto

**DATA CENTERS CANADA**

“OUR ELECTRICITY COSTS ARE BETWEEN 30 AND 40 PERCENT LESS THAN WHAT OUR CUSTOMERS WOULD PAY AT A COMPETITOR’S DATA CENTRE”



“A few thousand dollars a month might not seem significant to some people,” says Mr. Di Benedetto. “But as the world relies on computers more and more, the requirements for data centres will grow. Companies will need ever-increasing amounts of bandwidth to keep up with information flow; and ever-increasing amounts of energy will be required not only to run these data centres but also to cool the servers they house. There’s a price tag on all that. But also, our energy resources are limited. For our customers’ sake, and for the sake of our own business, we need to find ways to manage these costs.”

And that’s why Mr. Di Benedetto says his

team is constantly looking for smarter ways to leverage their infrastructure. For example, they use ‘free cooling’ — a process by which cold air is inducted from outside during the winter months to cool server cabinets. With free cooling, DCC can turn off the air conditioning and chillers altogether, allowing the company to save between \$3,000 and \$4,000 each month on electricity costs.

They also use ‘cold air containment’ so that cool air flowing into the cabinets stays contained and doesn’t get absorbed by warmer air. Other energy-saving measures that DCC is considering include: LCD lighting to help minimize cooling costs, UPS battery

Free cooling allows DCC to save between \$3,000 and \$4,000 each month on electricity costs — savings that enable the company to stay on a competitive footing with customers.

systems which plug directly into an on-site generator and ‘fly wheel’ UPS systems which don’t end up in landfill.

“Our goal is to become a green data centre based on a sustainable business model. Today, our electricity costs are between 30 and 40 percent less than what our customers would pay at a competitor’s data centre. There’s no way I want to give any of them a reason to move,” says Mr. Di Benedetto.

## Going green has its rewards

In 2008, PowerStream launched the **Data Centre Incentive Program** in order to reward data centres that take measures to reduce their energy consumption.

Incentives will be paid to program participants at a rate of \$800/kW to a maximum of 50 percent of the project cost for verified peak kilowatt reductions.

Operational and planning actions such as virtualization, standardization, right-sizing, energy-efficient equipment and design will all systematically reduce power consumption and can be applied to many IT and non-IT systems, such as computer systems, server technology, storage devices, and power management devices. HVAC and air flow systems, fans and motors, and other non-IT systems are also eligible for the program.

For more information, visit [www.powerstream.ca](http://www.powerstream.ca), and look under the ‘Energy Management’ tab.