

# Energy system powers hospital, community centre



Staff photo/ Steve Somerville

[Markham Economist & Sun](#)

By Amanda Persico

Markham District Energy last week launched its second district energy system, this time in Cornell.

A district energy system has been up and running in Markham Centre for more than a decade.

Customers of the new Bur Oak Energy Centre include Markham Stouffville Hospital with more than 705,000 sq. ft., Cornell Community Centre and Library with more than 153,000 sq. ft., Health Services Building with more than 75,000 sq. ft., Medial Office Building with more than 64,000 sq. ft., Markham Fire Station with more than 10,000 sq. ft. and another 10 million sq. ft. of future high density residential, commercial and industrial building space in the Cornell area.

“It’s not easy to start to think how something different can work when business was always done a certain way,” Mayor Frank Scarpitti said during the energy centre launch. “All customers are important. But having Markham Stouffville Hospital on one side and the City of Markham on the other is not easy because we have high expectations.”

The energy centre was built as an extension of the Cornell Community Centre parking garage with the same facade and design.

“You would not know it was there,” Markham District Energy president and CEO Bruce Ander said. “This is the opposite of not-in-my-back yard. This is how to bring district energy to the back yard and make it part of the community.”

The energy centre produces hot water, steam and chilled water for the area through a series of underground pipes that feed into each building, instead of each building having its own furnace or boiler equipment, Mr. Ander said.

The centre also provides emergency power to the hospital and community centre from a five megawatt on-site diesel engine. That’s enough to power more than 5,000 average homes.

The heat from the engine is recovered and is used to heat the buildings through a series of underground pipes, Mr. Ander said.

“It is like taking the heat created by the engine of a car to heat the car cabin,” he said. “We’re doing that on a commercial scale.”

The new system not only produces heat and steam, but electricity that is sold back to the Ontario power grid, he added.

Since Markham District Energy was established, the company has a 99.998 per cent reliability rate, meaning less than three hours of energy downtime in more than 13 years.

That means, in the case of a major power outage similar to the one during ice storm in December, power to the hospital and the community centre would go uninterrupted.

“After the seeing the impact from the ice storm, we recognize the need for reliability,” Mr. Scarpitti said. The mayor publicly thanked the province for its \$190 million in ice storm recovery funding for the GTA.

Markham District Energy is owned by the city, which is one of the first municipalities to own and operate two district energy systems.