

# Project could reshape electricity use

LISA TALLYN  
Staff Writer

Halton Hills Hydro Inc. is launching a pilot energy storage project this week that could mean substantial savings for industries and utility companies on their hydro bills, and change the way they manage their electricity use.

The project could also potentially spark interest in a \$100 million manufacturing venture for southern Ontario.

Dan Guatto, president of Halton Hills Hydro Inc. (HHHI), said the load shifting project being run at the HHHI office in Acton, will use five large ZEBRA (sodium and nickel chloride) batteries imported from Switzerland to store electrical energy bought at a lower cost during non-peak nighttime hours to be used throughout peak daytime hours, when power is significantly more expensive. The power will be used to supply the hydro used in the utility's office building.

The typical difference in price for power purchased between 11 p.m. and 7 a.m. vs. peak hours is five to eight cents per kwh, said Guatto.

"Software will be used to judge when the best time to charge is, and will judge when is the best time to discharge, optimizing the financial efficiency of this thing," said Guatto.

The system was designed and installed by Mississauga-based BET Services Inc., while Angus GeoSolutions Inc. of Georgetown created the software that manages charging and discharging.

Guatto said they believe the load shifting project is the first of its kind anywhere using sodium nickel chloride batteries, which he explained are not environmentally hazardous, can be used



Halton Hills Hydro is launching an energy storage project this week that uses large ZEBRA batteries, shown here with the utility's president Dan Guatto, to store electrical energy bought at non-peak nighttime hours to be used throughout peak daytime hours.

Photo by Ted Brown

indoors, and are recyclable. The batteries have a total output of 100-kilowatt hours, but can be scaled up to one-megawatt hour, or higher.

The project was developed through the utility's conservation and demand management program, which Guatto said was mandated by the provincial government "to create a culture of (energy) conservation" in Ontario.

"We'd like to manage it (the load shifting project) with both efficiency of the technology in mind, and the status of the market price in mind to achieve the highest savings in energy costs,"

said Guatto. "We believe this can be scaled up dramatically to create even greater shifting of the load to off-peak hours."

"It could be scaled up or scaled down to fit any load," said Guatto, who believes the system could eventually be adapted for residential use.

"We hope to make a big opportunity out of it. There's value for the environment and for the business that would use such a system," said Guatto. "It's one technology that can help to improve the way electricity is used in Ontario."

Over the next couple of months Guatto said they want to

determine the true costs of implementing the project and how much savings could be realized with the hope of marketing the system through one of HHHI's affiliate companies, such as Southwestern Energy Inc., to commercial and utilities customers. He said there has already been interest from both those sectors in the project.

Both the Ontario Power Authority and the Independent Electricity System are watching the Acton test to see if it could be more broadly implemented to relieve transmission bottlenecks during peak times.

The idea of storing electric power in batteries on a utility scale has been dismissed over the years because of high cost and lack of adequate technologies in the market.

Guatto said he's convinced the Zebra batteries could buck the trend.

The problem is volume.

If 100,000 Zebra batteries can be manufactured annually out of a single plant, the economics become attractive. But currently the ZEBRA batteries, a total of 2,000 annually, are only manufactured in one facility located in Switzerland.

HHHI has looked at licensing the technology from MES-DA, the Swiss company that owns the technology and facility where the batteries are manufactured, with an eye to establishing a North American manufacturing operation for large-scale production.

A preliminary business plan estimated the facility would cost \$117 million over five years, creating 900 new jobs by 2015 and a venture with \$275 million in annual sales.

—With files from  
Torstar News Service

## 'Fireball lit up the whole field'

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"I heard it (the fire) before I saw it," said Coman. "It was such an intense fireball, it just lit up the whole field."

Halton Hills firefighters and police were called to the fire at approximately 1:40 a.m. When firefighters arrived the barn was fully engulfed in flames.

A spokesperson for the fire department said firefighters concentrated on protecting the adjacent property, including a large gas tank and barley field.

Coman was worried the blaze might spread to his property and he and his wife, along with residents of five neighbouring homes, were evacuated by police until the fire was under control.

Tanker trucks and several Acton firefighters were called in to help battle the blaze that took several hours to burn itself out. In total, 23 firefighters responded.

Zylstra said the barn had only been used for storage for the past few years. The fire department spokesperson said the barn was in the process of being torn down and there was no insurance on it and no real dollar loss from the fire.

Zylstra said they were lucky the wind was blowing away from the other buildings on the property when the barn went up in flames. He said the adjacent grain crops are still quite green and didn't burn in the blaze.

The barn originally stood on a farm at Highway 7 and Kennedy Road in Brampton.

"It was on the Bull farm," said Zylstra. "My dad moved it here in 1948. It had five storeys in it including the foundation, and was used for laying hens and chicks for several years."

Zylstra was relieved when it rained early Monday, soaking the smoking foundation and ensuring it wouldn't flare up again or possibly set the grain crops in the fields around it on fire.

—With files from Ted Brown,  
staff writer

## Report indicates country roads a haven for speeders

MELANIE HENNESSEY  
Special to The IFF

It appears that rural roads in north Halton continue to be a haven for speeders.

According to the 2005 State of the Regional Road System Report presented to the Region's planning and public works committee last Wednesday, at least half a dozen segments of local rural roads made Halton's top 20 list of high-speed locations.

They include:

- Winston Churchill Blvd., 500 metres north of Hwy. 7
- Winston Churchill Blvd., between 5 and 10 Sideroads
- Regional Rd. 25, 500m south of 32 Sideroad
- No. 20 Sideroad, west of Guelph Line.
- Guelph Line, north of Steeles Avenue.
- Derry Road, east of Millborough Line.
- Tremaine Road, north of Britannia Road.

Region staff has explained before that speeding is predominant in the rural area because there are no indicators on rural roads for drivers to slow down, like parked cars or curbs.

The report also reveals that the majority of drivers in Halton are traveling between five and 20 km/h over the posted limits and the number of motorists who break the speed limit by more than 35 km/h has increased from zero per cent in 2004 to .5 per cent in 2005.

The document goes on to point out that traffic congestion, particularly along the east-west corridors in south Halton, continues to be problematic.

"Regional roads in south Halton such as Dundas Street and Upper Middle Road are experiencing levels of severe congestion during the peak periods," the report says.

"In north Halton, parts of Derry Road, Steeles Avenue, Ninth Line, Winston Churchill Boulevard and Regional Road 25 are experiencing moderate levels of congestion."

On a more positive note, it indicates that about 71 per cent of the regional road system pavement is considered to be in satisfactory or good condition.

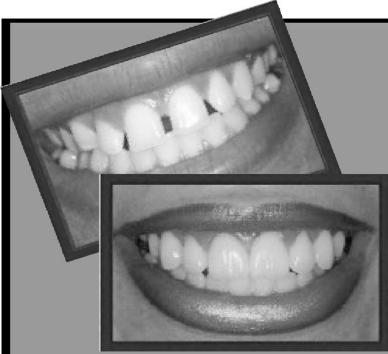
The report also analyzes Community Safety Zones, which have increased fines for speeding, that have been set up on Maple Avenue in Georgetown and Guelph Line in Brookville. It concludes that the measure has "little or no effect when it comes to dictating an appropriate speed within these zones."

At the committee meeting, Burlington Councillor John Taylor argued that Community Safety Zones don't work.

He said that there's no proof that doubling fines results in a significant reduction in speeders.

"It's nothing more than a cash grab," he said.

Despite Taylor's argument, the committee went on to support maintaining the zones on Guelph Line and Maple Avenue. The matter will go before regional council today (Wednesday).



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