

# Canada broadcaster seeks to revolutionize energy consumption

May 2 2010, by Gaelle Lussiaa-Berdou

---

Imagine loading your dishwasher after supper and walking away, allowing radio-activated technology and your energy provider to figure out when it would be cheapest to wash your dishes.

Sound like science fiction? Not in Canada, where the nation's public broadcaster wants to ease pressure on the [power grid](#) by operating [household appliances](#) from afar.

The system would use FM radio frequencies to send signals to household appliances embedded with a 'smart grid' digital system.

Using new technology still being developed, it would search for off-peak hours -- likely at night -- to adjust a thermostat or turn on a washing machine, thus saving [energy](#) and cutting electricity bills.

The technology could revolutionize the way electricity is consumed in Canada and around the world, according to the Toronto-based company e-Radio Inc, which along with national broadcaster CBC Radio and its French-language counterpart Radio-Canada, have partnered to provide the service in the future.

The system is being designed to minimize the use of energy-guzzling appliances during peak-use periods, when power grids are most susceptible to breakdown.

"A highway can only carry so many cars per hour per lane. Similarly, our

electrical generation and distribution system has a certain capacity and the peak capacity is like rush hour," said Jackson Wang, president and chief executive of e-Radio, which developed the technology.

"When you have loaded up your grid with as much generation capability, if you have more demand than that, then you get into serious trouble," Wang said.

In central Canada, utility companies like Toronto Hydro are introducing new time-of-use rates to persuade consumers to use less electricity at peak times of day.

The new e-Radio technology would allow Canadians to regulate their [energy consumption](#) in a more economic way.

Wang said the system would only work with so-called smart appliances equipped with [computer chips](#), explaining it was "not yet possible to equip old equipment with the technology."

Nevertheless, the possibilities of managing energy consumption in more efficient ways is generating excitement in some circles.

"We know about e-Radio. What they're doing is very interesting," said Tanya Bruckmueller, spokeswoman at Toronto Hydro.

In January, e-Radio tested their technology in a real residential setting. "We were able to activate electrical appliances throughout the greater Toronto area. Things like fridges and thermostats were all receiving the CBC signal and doing smart things with it," Wang said.

CBC radio and Radio-Canada were seen as natural allies for the project because unlike private radio stations their frequencies reach most of [Canada](#).

"We already have a vast network of transmitters that allow us to reach 98 to 99 percent of the population," said Michel Tremblay, Radio-Canada's senior vice-president of corporate strategy and business partnerships.

Tremblay said listeners should not fear the technology's potential, nor would it have any effect on the quality of the radio signal.

"No listener will ever know what data is being transferred for whatever usage," Tremblay said.

But skeptics have already voiced their concerns.

Some worry about the noise associated with running appliances at night and others fear that dishwashers or washing machines could leak while people are not closely monitoring the appliances.

Others are uncomfortable about the state encroaching on areas of private life.

"I'm a little scared of delegating tasks in my private life to a state company," a consumer identifying himself as 'Brunolauze' wrote on CBC's website.

(c) 2010 AFP

Citation: Canada broadcaster seeks to revolutionize energy consumption (2010, May 2) retrieved 19 April 2024 from

<https://phys.org/news/2010-05-canada-revolutionize-energy-consumption.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------