

Mobilizing Youth to Become a

Summer Camp Energy Days

This summer, Horizon Utilities Corporation helped kids in Hamilton and St. Catharines learn what it means to be part of 'Generation Conservation' through the first summer camp program focused on energy safety and conservation.



Generation Conservation Summer Camp Energy Days was piloted this summer in day camp programs run by the YWCA Hamilton, the Hamilton Wentworth District Catholic School Board and the City of St. Catharines. (Photo courtesy of Horizon Utilities)

Generation Conservation Summer Camp Energy Days, with materials developed and supplied by Horizon Utilities, was piloted in day camp programs run by the YWCA Hamilton, the Hamilton Wentworth District Catholic School Board (HWDCSB) and the City of St. Catharines. Targeted at kids aged five to 12, Generation Conservation Energy Days are jam-packed with fun games, creative activities and hands-on science experiments designed to teach what electricity is, how it works, how to use it safely and how to come up with a plan to conserve.

"It is all about the thrill of scientific discovery," says Sandy Manners, Director of Corporate Communications, Horizon Utilities. "Watching a child assemble an electrical circuit and hearing their cries of delight when they light up the LED bulb captures what the program is all about."

Interactive exercises like 'The Electron Game', 'What Appliance Am I?' and 'I Spy Electrical Danger', help campers retain what they're learning. Participants also build a circuit to light an LED bulb and use a meter to measure the wattage required to power common household appliances. Hands-on concepts are further reinforced through a workbook and craft activities.

Generation Conservation Summer Camp Energy Days complements the 10-lesson Generation Conservation curriculum program sponsored by Horizon Utilities.

Horizon Utilities' Develops Popular 'Generation Conservation' Grade 5 School Curriculum Program in Cooperation with Area District School Boards

In the fall of 2007, Horizon Utilities launched *Generation Conservation*, an exciting new energy conservation program for Grade 5 students attending public and Catholic schools in Hamilton and St. Catharines. Sponsored under Horizon's *kidzpower™* brand, this unique education program aims to do for energy conservation, what was done for blue box recycling - mobilize youth to become a generation of conservers.

Conservation Generation was first piloted in Durham Region in 2006/07 by CGC Educational Communications in partnership with three area LDCs - Whitby Hydro Electric, Oshawa PUC Networks and Veridian Connections. CGC worked with Horizon Utilities and area school boards in Hamilton and St. Catharines in 2007/2008 to update the program to align with the requirements of the new Science curriculum released last year by the Ministry of Education.

Under *Generation Conservation*, Horizon Utilities is providing teachers' guides and workshops, student workbooks, and classroom materials, free of charge to 195 schools, 400 teachers and 7,500 students and their families.

Each classroom receives a kit of classroom materials for use in conducting the experiments in each module. The program also includes a personal workbook for each child. Children are required to take these workbooks home, perform energy audits, discuss energy with their families and, hopefully, make some changes in their own lives to conserve energy.

"We fully expect that *Generation Conservation* will be instrumental in carrying the conservation message into our communities, and in helping teachers, students, and their families understand what they can do to make a difference," said Max Cananzi, President and CEO.

Energy is an abstract concept that must be made more concrete in order for students and their families to change their behaviours and take action to conserve energy. Ultimately, the only way for conservation to be successful is through effective science education and an increase in science literacy. *Generation Conservation* achieves these goals.

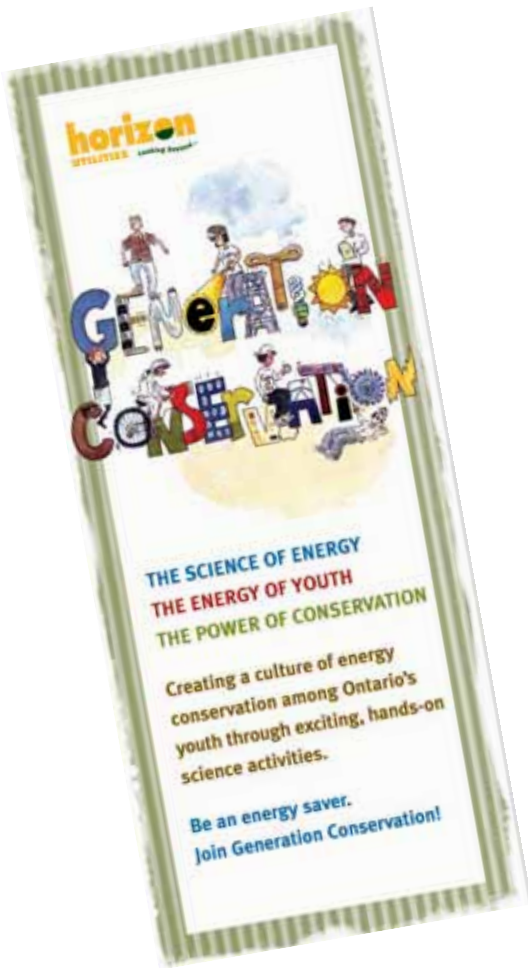
The *Generation Conservation* model is to empower youth to be a member of "Gen C" or to become a "Gen Con Kid." The ten student activities are an initiation process to joining *Generation Conservation*. Three to six months after completing the program, students work together as a class to estimate how much energy they have conserved through



Illustration from the Generation Conservation Workbook section on Appliance Testing - exploring how much energy an appliance really uses.

(Illustrator: Craig Terlson™ Trademark of P3 International, Image courtesy of Horizon Utilities)

Generation of Conservers



their own actions. At this point, upon receipt of student feedback forms, Horizon Utilities will send out a certificate for each student, officially recognizing them as members of *Generation Conservation*.

For information on Generation Conservation, please contact:
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Horizon Utilities is one of the largest municipally owned electricity distribution companies in Ontario, providing electricity and related utility services to 233,000 residential and commercial customers in the cities of Hamilton and St. Catharines. ■

Ten Hands-on Classroom Modules

EnerToys

An Introduction to Forms of Energy

Students use wind-up toys to investigate what energy is, how it is stored and how it is transferred.

Turbine Fan

The Applications of Energy

Students conduct hands-on investigations using a pinwheel, a small electric motor, a battery and an LED bulb to explore how a motor powers a fan and, when reversed, how a wind turbine generates electricity.

Energy Explorers

An Examination of Energy Sources

Working in groups, students study different forms of energy sources - hydro, gas, coal, solar, wind, nuclear, etc. They explore the differences between renewable and non-renewable sources.

Appliance Tester

The Amount of Energy Appliances Really Use

Students use a Kill A Watt™ meter to measure the actual amount of electrical energy used by small appliances. They investigate the differences in energy and cost between energy-efficient and traditional appliances.

Energy at Home

The Amount of Energy Used in Households

Students conduct an audit of the energy use in their home. They also keep an energy use diary to chronicle how family members use energy at home. These are used to identify key "energy hogs" and "phantom power" sources that should be the focus of conservation activities.

Energy Savers

An Introduction to Energy Saving Devices

Students use a Kill A Watt™ meter to compare traditional lighting against compact fluorescents and LEDs. The students use a math activity to determine how much money can be

saved using energy-efficient devices and technologies.

Smog City

Connections Between Energy Use and Air Quality

Students use a royalty-free computer simulation game - Smog City - to explore how energy use affects the environment, particularly air quality.

Energy Peaks

Exploring Changing Demands for Energy (Smart Meters)

Students interview their family members to determine the times of day at which they use the most energy in order to determine their families' peak energy use periods. They develop an understanding of the concept of peak energy use - which will prepare them for the introduction of smart meters and time-of-use pricing.

Energy Mix

The Mix of Energy Needed for a City

Students work together in groups as energy companies to develop a mix of energy sources that will provide the electricity required to meet the needs of their community. The students must develop an energy mix that is reliable and as environmentally friendly as possible.

Generation Conservation Action

Students develop their own Personal Energy Plan - citing the personal behaviours they will modify to conserve energy. As well, students develop two 30-second Public Service Announcements that encourage others to conserve energy.

Follow-Up - Earth Day - April

Students estimate the energy they have conserved by executing their Personal Energy Plans over a 2-4 month period. As a class, students are officially certified as members of Generation Conservation. They receive "Gen Con" certificates.