



Let's Talk Energy

Engaging ideas  
for Canada's future



Parlons énergie

Idées d'avenir  
pour le Canada

## Newsletter

June 2012

**LET'S TALK ENERGY – ENGAGING IDEAS FOR CANADA'S FUTURE**, a national multi-year program exploring Canada's energy system from production through consumption, aiming at enhancing energy awareness and literacy amongst Canadians to contribute to a sustainable energy future for Canada.

*energy.technomuses.ca*

### **MESSAGE FROM THE PRESIDENT AND CEO CANADA SCIENCE AND TECHNOLOGY MUSEUMS CORPORATION**

Recognizing that energy is a highly complex issue, starting in the fall 2010 and following a pan-Canadian tour, the Canada Science and Technology Museums Corporation engaged a diverse group of experts from industry, government, academia and the non-government sector to provide input and advice on facts and opportunities in many aspects of the **LET'S TALK ENERGY** initiative.

I am pleased to welcome a new Co-Chair to the Energy National Advisory Committee. Mike Cleland is the Nexen Executive in Residence at the Canada West Foundation. Mike has extensive experience in energy and environment policy from multiple perspectives. With a background in urban planning, Mike has had a distinguished career in the federal government, including as Assistant Deputy Minister of the Energy Sector at Natural Resources Canada, and has held leadership positions in both the Canadian Electricity Association and the Canadian Gas Association. I would also like to take this opportunity to thank his predecessor, Susan Swan, President of the Imperial Oil Limited Foundation, for the year of excellent leadership she brought to this Committee. You can find more information about the Committee (Terms of Reference and membership) on our website. [http://energy.technomuses.ca/english/NAC\\_members.html](http://energy.technomuses.ca/english/NAC_members.html)

I hope that you will find our **LET'S TALK ENERGY** newsletter of interest and, as always, I look forward to your feedback.

Denise Amyot

## **FASCINATING EXHIBITIONS**

### **LET'S TALK ENERGY HONoured BY THE CANADIAN MUSEUMS ASSOCIATION**

At its Annual Gala on April 25, the Canadian Museums Association awarded a special honourable mention during its presentation of awards for excellence in exhibitions. Three CSTMC exhibitions on energy—**Energy: Power to Choose** at the Canada Science and Technology Museum; **Green Skies Ahead** at the Canada Aviation and Space Museum; and **Energy Park: Nature at Work** at the Canada Agriculture Museum—were honoured, bringing the **LET'S TALK ENERGY** initiative favourable recognition from a jury of its peers within the Canadian museum field.

### **INFORMATION KIOSKS**

Six new **LET'S TALK ENERGY** information kiosks were installed in March 2012 in Atlantic Canada and Quebec at the following locations; the Discovery Centre in Halifax (NS), Eptek Art & Culture in Summerside (PEI); the Biosphère in Montréal (Qc), La Cité de l'énergie in Shawinigan (Qc), the Musée du Fjord in La Baie (Qc) and at the Musée de la nature et des sciences in Sherbrooke (Qc). With these new placements, a total of 12 interactive kiosks are now distributed from coast to coast allowing Canadians across the country to learn more! We sincerely hope to attract more sponsorships to enable the placement of even more kiosks in museums and science centres, as well as in other public spaces such as airports.

### **BRASSICA CARINATA: FROM PLANT TO BIOFUEL**

This summer, visitors to **Energy Park: Nature at Work** at the Canada Agriculture Museum will be able to examine *Brassica carinata* (Abyssinian mustard). This plant of Ethiopian origin is cultivated for the oil extracted from its seeds, which can be used in biofuel. On April 17, Porter Airlines made the first commercial flight in Canada propelled by biofuel, travelling from Toronto to Ottawa. The plane's biofuel was composed of 1% *Brassica carinata*, 49% *Camelina sativa* and 50% Jet A1 fuel.

### **ENERGY ARTIFACTS INSPIRED VIDEO GAME THAT IS FINALIST IN PREMIERE GAMING AWARD**

Congratulations to RocketOwl™ Inc. for having their social game Greenspace™ selected as a finalist for best social/casual video game at the Canadian Videogame Awards on April 21. Artifacts from the Canada Science and Technology Museum Energy Collection featured in the **Energy: Power to Choose** exhibition were used as inspiration to create the Greenspace™ gaming environment. RocketOwl™ Inc. is an Ottawa, Ontario based company dedicated to exploring possibilities and solutions in green technology through virtual environments, digital challenges and the power of play. The game is available to play on Facebook at <http://apps.facebook.com/green-space>.

## **ENGAGING PROGRAMMING**

### **CAFÉ SCIENTIFIQUE**

The Canada Science and Technology Museum hosted a Café Scientifique on March 27<sup>th</sup> at the Fox and Feather pub in Ottawa on the future of energy in Canada. Approximately 35 people engaged with the three speakers: Tom Levy from the Canadian Wind Energy Association, Cindy Christopher from Imperial Oil Limited, and John Stewart from the Canadian Nuclear Association. Discussion included topics such as the ability of renewable sources to meet baseline demand, the importance of storage, why liquid fuels are so important in the transport sector, and the feasibility of individuals producing their own power with micro wind and solar. The timing of this event was intended to coincide with the “Planet Under Pressure” conference in London, England.

### **ENERGY TAKES CENTRE STAGE AT THE CANADA SCIENCE AND TECHNOLOGY MUSEUM**

#### **EARTH HOUR—MARCH 31**

For the second year in a row, the Museum took advantage of Earth Hour—during which people are encouraged to turn off their lights for one hour—to hold a star party. More than 600 people were able to observe the Moon, Saturn and Mars in all their splendour, thanks to the largest telescope in Canada, as well as telescopes provided by the Royal Astronomical Society of Canada. Astronomy presentations in the Museum’s inflatable planetarium, and Hydro Ottawa’s Owl mascot, enchanted young and old alike.

#### **EARTH DAY—APRIL 22**

During Earth Day, young visitors to the Museum enjoyed the amusing tale of an enquiry by forest creatures into the mysterious disappearance of several trees. Other activities included a scavenger hunt related to various means of transport, and a workshop on building robots from recycled materials.

## **ENERGY DAYS—MAY 12 AND 13**

Energy Days celebrate the environment and energy conservation. The Electric Vehicle Council of Ottawa presented several prototype electric and human-propelled cars, and the Museum also held a special depot, collecting more than 5.5 tons of electronic waste. In addition, the Museum offered visitors programming that included games and scientific experiments, along with a performance by the unique musical ensemble, Junkyard Symphony.

## **UNIQUE PARTNERSHIPS**

### **MUSEUM AFFILIATED PARTNERS PROGRAM (MAPP)**

The Museum affiliated partners program (MAPP) is a national network of museums and science centres committed to increasing energy literacy in Canada.

We will regularly feature stories and achievements of **LET'S TALK ENERGY MAPP** partners in this publication.

### **Western Development Museum (WDM); Saskatoon, Saskatchewan**

The Western Development Museum is currently re-creating a straw gas car and balloon, inspired by experiments into the use of straw as an alternative fuel source at the University of Saskatchewan in 1917. The straw gas-powered car was demonstrated a year later on a McLaughlin D-45 outfitted with a 300-cubic foot gas bag suspended overhead. The experiment was abandoned as impractical, but nearly a century later the University of Saskatchewan is exploring the production of fuels from biomass and is now a leader in biodiesel and ethanol research in Canada. The exhibit will open at the Saskatoon WDM this fall and will link alternate energy experiments of the past with the present. [www.wdm.ca](http://www.wdm.ca)

### **Glenbow Museum; Calgary, Alberta**

Glenbow Library and Archives in Calgary holds one of the largest archival collections relating to the Canadian petroleum industry. This collection includes corporate records from several large energy industry firms from the past and present, personal papers from many industry legends, files of several notable consultants, and records of prominent industry associations and professional groups. The Calgary-based Petroleum History Society has worked closely with the Glenbow Library and Archives to build the collection and has contributed several hundred interviews from its extensive oral-history projects. Further information about these materials can be found at <http://www.glenbow.org/collections/search/>.

## **Biosphère; Montréal, Quebec**

Humans face many energy and resource management challenges everyday. New technologies play a role in finding solutions to protect the environment and reduce our environmental footprint. In order to increase public awareness of renewable energy sources, the Biosphère has acquired two wind turbines to convert the wind's kinetic energy into electricity. Two different types of wind turbines were set up on the highest platform of the building. The energy produced represents approximately one-quarter of the electricity consumption, including heat, for a single-family home. For more information on the wind turbines and other new technologies adopted by the Biosphère, visit <http://www.ec.gc.ca/biosphere/default.asp?lang=En&n=13ECDA48-1>.

## **La Cité de l'énergie; Shawinigan, Quebec**

For millennia, mankind's only sources of energy were fire, wind, water and physical strength. The invention of the steam engine changed things once and for all. More recently, oil and electricity have created a world more dependent on energy than ever. What will be tomorrow's energy sources? The dynamic exhibition **The Ages of Energy** takes a fresh look at the energy issues that have dominated global headlines. <http://www.ec.gc.ca/biosphere/default.asp?lang=Fr&n=13ECDA48-1>

## **VIRTUAL TOOLS**

### **NEW EDUCATIONAL ACTIVITY KIT LAUNCHED FOR EARTH DAY**

The Canada Agriculture Museum made a new downloadable Educational Activity Kit available online. This new resource features activities exploring the role of the Sun as a primary source of energy, and examines the production and use of energy on the farm, in the classroom, and at home. Aimed at Grade 1 teachers and students, the theme of energy is approached through activities related to science and technology, mathematics, and languages and art. The Educational Activity Kit is available at [http://agriculture.technomuses.ca/english/schoolprograms/agpdf/EAK\\_Energy/Educational\\_Activity\\_Kit\\_Energy.pdf](http://agriculture.technomuses.ca/english/schoolprograms/agpdf/EAK_Energy/Educational_Activity_Kit_Energy.pdf)

## **SPECIAL PROJECTS**

### **SCIENCE TWINNING PROJECT: YOUTH-INSPIRED ENGAGEMENT ON GLOBAL SUSTAINABILITY (SCENARIOS 2012)**

SCENaRios is a project in which students aged 15-18 working with various science centres and museums around the world collaborate to focus on a global issue and develop solutions through research and discussion. The Canadian team is coordinated by the

Canada Science and Technology Museums Corporation and has been paired with youth from the United States and Denmark on the topic of sustainable energy. The Canadian team recently visited Plasco, a waste-to-energy company in Ottawa, Algonquin College's new LEED™ certified green building, a house that produces its own solar and wind energy and TransAlta's wind farm on Wolfe Island, Ontario. In addition they met with Cindy Christopher of Imperial Oil Limited to discuss innovations in the oil industry including increased efficiency in production and Imperial's efforts to produce fuel from algae. The students held a videoconference with their counterparts in Copenhagen and California on May 12 and exchanged on what they have learned. A final video presenting their vision for the future of global energy and highlights from their field-trips will be seen as part of the June 19<sup>th</sup> web discussion at the Rio Summit, and will be available on the **LET'S TALK ENERGY** website.

## **CASCADE AWARD FOR BEST ENERGY LITERACY PROJECT**

This year, **LET'S TALK ENERGY** entered into a partnership with Canadian Association of Science Centres to introduce an annual CASCADE award recognizing the Best Energy Literacy Project to be presented by the association each year at its annual conference. The first such award was presented on May 5, 2012, to Science World British Columbia for its initiative "B.C. Green Games". This province-wide program was created to increase students' awareness of environmental issues and their ability to become local leaders and improve sustainable practices in everyday life. Energy conservation and efficiency are central themes of this annual contest. Its reach across the province has been significant: while 60% of provincial population resides in metropolitan Vancouver, in 2011 only 45% of participant projects were from this urban area. Since the program's inception in 2009, 350 projects have been uploaded to an on-line repository for ongoing reference. Congratulations Science World British Columbia! [www.bcgreengames.ca](http://www.bcgreengames.ca)

More information on all projects nominated for this award is available at <http://www.canadiansciencecentres.ca/?n=7-123&lang=1>

## **WE'RE TALKING ENERGY AT THE CANADA SCIENCE AND TECHNOLOGY MUSEUMS CORPORATION**

This year, the Canada Science and Technology Museums Corporation undertook an energy-saving lighting replacement initiative. New LED lampposts, fixtures and bulbs installed at the Canada Science and Technology Museum and at the Canada Aviation and Space Museum have replaced halogen lighting. They will consume less energy and reduce cooling costs in the summer, and the reduced heat from the traditional bulbs will help preserve museums artifacts. New timed light zones in the Collection Reserve area

will also reduce energy consumption. Savings from this initiative will be reinvested in future energy improvements.

## THE COLLECTION

### CURATOR'S CORNER

The Canada Science and Technology Museums Corporation's Collection includes more than 300,000 unique items that highlight the role science and technology play in transforming the lives of Canadians. Artifacts in the energy collection range from the first electrical generators used at Niagara Falls to the latest in organic based solar cells.

### Solar Powered Fence Chargers

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