



Ingenium

Canada's Museums of Science and Innovation  
Musées des sciences et de l'innovation du Canada

# LET'S TALK ENERGY

THE YEAR IN REVIEW  
PROGRESS REPORT — 2017



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# MESSAGE FROM THE CEO and LTE'S STRATEGIC PLAN

## LET'S TALK ENERGY THE YEAR IN REVIEW



Looking back, 2017 has been a productive year for Let's Talk Energy (LTE), and I'm thrilled to report that we've made great strides towards our mandate to enhance energy awareness and literacy among Canadians.

Over the past year – which marks the end of phase one of LTE – we've reached an impressive 3.1 million Canadians. This has been achieved through exhibitions, Talk Energy Week, digital tools, outreach, conferences, and collaborations – both across the country and even internationally.

Travelling exhibitions, from both LTE and partner institutions, made many stops across Canada and in Mexico. The permanent LTE exhibitions in Ottawa saw higher than average attendance, as more Canadians visited the national capital for Canada's 150th anniversary.

Reaching youth with science-based information about energy and climate change is one of LTE's main goals. The LTE website offers a wealth of educational resources, developed by LTE and educational organizations throughout the country. Parents and teachers can download these resources directly from the website ([energy.techno-science.ca](http://energy.techno-science.ca)), for use at home and in the classroom.

The outreach highlight in 2017 was Talk Energy Week (TEW), which took place from February 18 to 25. This year's TEW reached new heights by hosting a Facebook Live panel discussion with our special guest, the Honourable Catherine McKenna, Minister of Environment and Climate Change. Additional energy awareness events were held across the country.

We owe a large part of our success to the incredible support and commitment of our partners, many of whom have been with the LTE initiative since it was launched in 2010. I would like to take this opportunity to thank all of our partners for their continued support, as we look ahead to strategic plans through 2020.

Here in Ottawa, the Canada Science and Technology Museum (CSTM) in Ottawa opened in November after a little more than three years of planning and construction. I am happy to share that energy and climate change are among the featured themes in the museum's new exhibitions and programming.

A handwritten signature in black ink, appearing to read 'Fernand Proulx'.

**Fernand Proulx**  
**Interim President and CEO**  
**Ingenium – Canada's Museums of Science and Innovation**

## The LTE strategic plan

While Let's Talk Energy is approaching the end of its originally planned lifespan, it has become clear that the initiative is playing a vital role in the landscape of energy and climate change literacy in Canada. Therefore, we have committed to the extension of the program. We're moving strategically into the future knowing who we are being called to be by our constituents, and how best to connect with Canadians in delivering energy and climate change awareness. The LTE team is consulting with key stakeholders – both internally and externally – to develop clear work plans for our ongoing initiative. Most importantly, we're excited for the road ahead for Let's Talk Energy. Years of expertise, and dedication from a wonderful team, has brought the initiative to a state of heightened awareness; our stakeholders now ask for us by name when seeking to respond to inquiries related to energy and climate change education. We would like to very sincerely thank our extraordinary volunteer, Graham Taylor, for his hard work and dedication in leading us through the strategic planning process. Graham's wealth of experience has proven invaluable in supporting Let's Talk Energy.





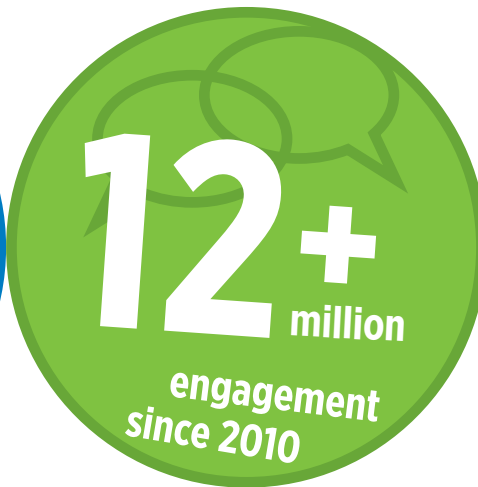
## Let's Talk Energy

Engaging ideas  
for Canada's future

**Launched in 2010**, Let's Talk Energy is a national program that aims to enhance energy and climate awareness among Canadians, to contribute to a prosperous and sustainable future.

**Programs and activities in every province and territory**

**445,000 people reached through 2016-2017 events**



Only  
energy-  
awareness  
week  
of its kind  
in Canada



2+ million people  
reached through  
events in malls, partner  
museums, webinars,  
and speaker series in  
high schools



1,478 MPs, MPPs,  
and Senators  
received personalized  
letters informing  
them about  
Talk Energy Week



**Social media yearly reach of**

**1,300,000+**

**30**

Canadian Energy Literacy Network  
members across Canada working  
together to increase energy and  
climate literacy





# EXHIBITIONS



## From Earth to Us

As part of the CSTM renewal, the **From Earth to Us** exhibition opened in November 2017. This interactive exhibition explores how we transform natural resources to meet our needs and wants – and the resulting impact this has on the world around us.

Visitors can delve into topics such as mining, materials, metallurgy, energy, climate change and water resources. They can enter a prospector's tent and get a taste of the adventurous life of a gold explorer, wander through a virtual mine, learn about inspiring, female miners; and discover past, current, and future mining technologies. Walk through an Energy Street where you can install a hydroelectric dam and operate a nuclear fusion reactor. Then, take a few minutes to visit the glacier – a contemplative space where you'll hear the voices of those who are experiencing climate change first-hand. With over 2,000 artifacts – all prepared and installed by the museum's conservation team over the past year – visitors have much to explore, including smart cars, toasters, a real nuclear reactor core, and an Energy Street lit by 1,867 stunning, retrofitted lightbulbs from the CSTM collection. **From Earth to Us** was designed and installed by Bouw Design.

As **From Earth to Us** was developed, significant artifacts were added to the collection reflecting innovations in the energy sector. Most notable among these is the Tesla Powerwall battery. There are still very few of these in Canada and currently just one in Ottawa. These batteries are a step toward developing a better home energy storage system. We are also proud to showcase some new solar technologies, such as perovskite solar cells, on loan to the collection from award-winning Saule Technologies. These cells complement our existing collection of solar cells dating from the 1920s to 2010.



# TRAVELLING EXHIBITIONS

# Climate Change is Here

The outdoor travelling exhibition, **Climate Change is Here**, was a hit in Mexico at the start of 2017 and remained at Universum Museo de las Ciencias (UNAM) until the end of April. The exhibition reached over 225,000 individuals and was featured in over 30 articles. It has come back to Canada and plans are in motion for a western tour in 2018. In addition, LTE adapted the exhibit to a smaller, indoor format with fewer panels – in order to share it with more than 500 international delegates gathered in Montreal for the UN's Intergovernmental Panel on Climate Change in September.



## New climate change exhibit

While our first travelling exhibition focused on climate change continues its global tour, we're putting the polish on a second iteration which considers climate change adaptations and mitigations – specifically in the Canadian context. **Climate Change: Adaptation and Mitigation** (working title) is intended for indoor display and features 18 large-scale, photographic stories accompanied by minimal text. The exhibition asks visitors to consider the idea of 'and' instead of 'but' when it comes to climate change. There are many truths related to this issue, and they even sometimes conflict with one another; this is a key idea when considering climate change and its varied implications. Scheduled to launch in early 2018, **Climate Change: Adaptation and Mitigation** will have its first public showing in Ottawa before hitting the road for the next three years.



# TALK ENERGY WEEK

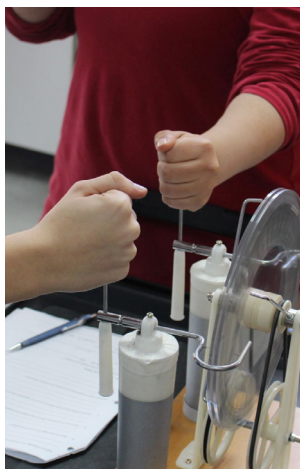
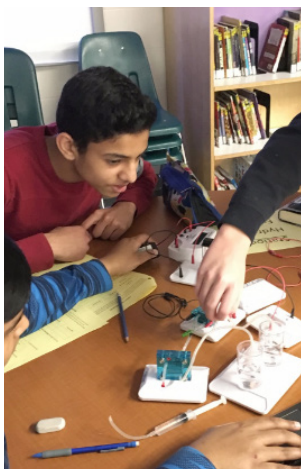
## Youth engagement

This year, LTE engaged 417 students across Canada via the annual speaker series. In addition, LTE welcomed the Honourable Catherine McKenna, Minister of Environment and Climate Change; Red Bull athlete Will Gadd; and Indigenous youth leader Andrea Brazeau to the stage at the Canada Aviation and Space Museum, to participate in the second iteration of Talk Energy Week webinars. Hosted on Facebook Live for the first time, teachers were invited to tune in with their classes. In addition to the 200 students present, many classes tuned in across Canada. With a focus on climate change, the livestream was broadcast in English and simultaneously translated into French.



## Partner activities

Alongside Hydro Ottawa, LTE delivered energy programming to schools in the National Capital Region, with a highlight on Talk Energy Week. Canada's largest science, technology, engineering and math (STEM) outreach organization, Actua, provided programming on Talk Energy Week themes during their camp and science club sessions, with a special focus on girls and Indigenous youth in STEM.



## On Thin Ice

As part of LTE's growing focus on the intersection of energy and climate change, LTE staff members Jason Armstrong and Jonathan Boutin travelled to the Athabasca Glacier in December. As part of a team investigating glacial changes due to climate change, Jason and Jonathan were accompanied by Red Bull athlete Will Gadd, glaciologist Martin Sharp, and a team from the Discovery Channel. The team went deep into the glacier to discover what lies beneath the ice, and what might be at risk if the climate continues to warm the earth.





All "On Thin Ice" pictures: John Price Photography



## Social media

Let's Talk Energy's social media presence is continually growing, successfully engaging millions of people across Canada and around the world. Using Twitter, Facebook, Pinterest, YouTube, and Instagram, LTE creates targeted, educational content about what our initiative, our partners, and the world are doing in relation to energy and climate change. Social media also allows for immediate, two-way dialogue between the LTE team and Canadians. This allows LTE to pose energy-related challenges, such as: "How can we make (our town) a fossil fuel free town?"

## Follow us:



@enertweets



@TalkEnergy



@letstalkenergy



LetsTalkEnergy

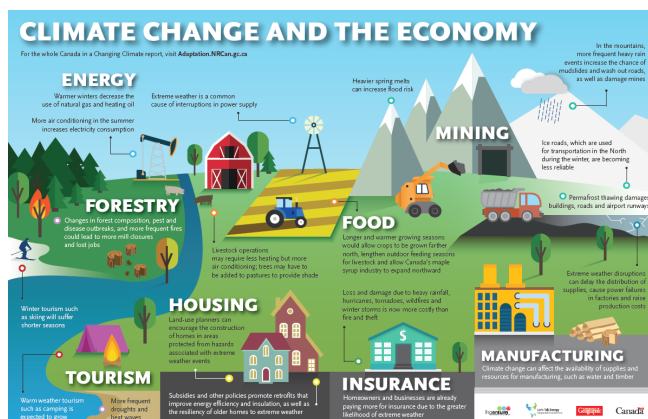


Let's Talk Energy

## Snapchat

The LTE team is experimenting with using Snapchat geofilters to engage people in event locations. Geofilters are special overlays that communicate the "where and when" of a Snap in a fun way. Our first Snapchat filter was designed for the Generation Energy Youth Summit in Winnipeg, Manitoba.

## Lesson plans and infographics



In collaboration with Natural Resources Canada and Canadian Geographic, LTE has developed and released two lesson plans and six infographics that explore climate change in Canada. They are available free of charge on the LTE website (<http://energy.techno-science.ca/en/resources/climate-change-lesson-plans.php>). These lesson plans and infographics cover a variety of subjects, including the living world, society and the economy, health and urban living, and health of the oceans.



# OUTREACH AND SPECIAL PROJECTS

Here are a few of the many outreach activities LTE supported throughout the last year, followed by a complete list of outreach and special projects in 2017.

## Generation Energy Drawing Contest

Children at museum-based day camps throughout Canada answered our call to draw their visions of an 'energy future.' These drawings were shared with our partners at NRCan and featured prominently at the national Generation Energy Forum in Winnipeg.

## The Intergovernmental Panel on Climate Change

At the request of Environment and Climate Change Canada, LTE attended the Intergovernmental Panel on Climate Change last September. The LTE team shared our energy interactives and a scaled version of our travelling exhibition, **Climate Change is Here**, with over 500 delegates. Visitors to the interactive exhibition generated power on our energy bike, explored compelling imagery, and took away digital versions of our new climate change curricula and infographics.

## Outreach sites





# CONFERENCES

## Canadian Network for Environmental Education and Communication: See Change

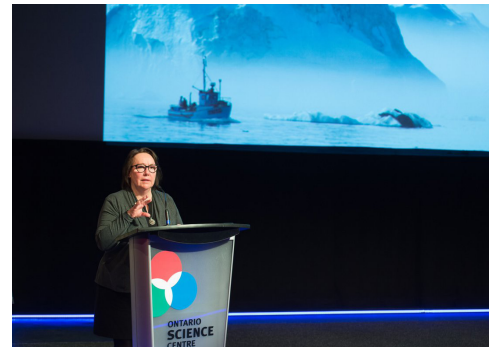
Wolfville, NS – May 2017

LTE presented two separate sessions at the Canadian Network for Environmental Education and Communication (EECOM) at Acadia University. The first session focused on how to use board games to teach energy issues, while the second session explored the role of collaboration in energy and climate education. Both sessions were well attended, and participants were provided with teaching resources and collaboration tools.

## Canadian Association of Science Centres

Toronto, ON – May 2017

Presenting alongside the Ontario Science Centre and the Franklin Institute, the LTE team presented a session at the Canadian Association of Science Centres (CASC) focused on how museums and science centers can address climate change with their visitors. The session explored what role science centres and museums play as advocates for sustainability and climate change in their communities.



CASC/ACCS

## Livable Cities Forum

Victoria, BC – September 2017

Shane Patey, a member of the LTE team, was invited to participate in a panel discussion at the Livable Cities Forum. The panel focused on the co-location of adaptation and mitigation efforts related to climate change in Canada, and Shane shared LTE's mandate to educate Canadians. All of the stakeholder delegates – nearly 300 people from municipalities throughout Canada – are seeking to make changes within their jurisdictions, to make their communities low-carbon resilient. Other speakers included chief resiliency officers from Toronto, Montreal, and Vancouver, numerous municipal and provincial politicians, and sustainability experts working to implement policy and infrastructure changes throughout Canada.

# Renewables in Remote Communities

Whitehorse, YT – October 2017

The Renewables in Remote Communities conference focused on increasing human and financial capital as they relate to renewable energy in remote locations. The LTE team participated in a number of relationship-building and consulting exercises throughout the week of the conference. We were invited to provide feedback on two federal government initiatives: an online tool to report on northern renewable energy with Indigenous and Northern Affairs Canada, as well as an “off-diesel” challenge led by NRCan. Energy in remote and northern communities is a theme we hope to explore during Talk Energy Week 2018.

## Generation Energy Youth Summit and National Forum

Winnipeg, MB – October 2017



In collaboration with Student Energy and The Public Policy Forum, LTE hosted a youth summit at the Manitoba Museum last fall. Youth gathered to share their own ideas, as well as ideas brought from their respective communities, about Canada’s energy future. By managing multiple social media streams throughout the day, LTE played a pivotal role in bringing the event beyond the walls of the museum. In addition, LTE facilitated a one-hour, livestream event where Natural Resources Minister Jim Carr joined youth in a panel discussion. The livestream event has been viewed by over 7,000 people.

The youth summit was aligned with NRCan’s Generation Energy Forum, a national event that drew nearly 800 delegates together to learn from experts and engage in discussions about our energy future. The forum was scheduled at the end of six months of national consultations with people throughout Canada. Some of these were led by NRCan, but the majority were led by Canadians in their communities. In the coming months, NRCan will be working to generate a final report reflecting the outcomes of the Generation Energy project in its entirety.

# American Association of Science and Technology Centres

San Jose, CA – October 2017

The LTE team travelled to the US to present a session at the American Association of Science and Technology Centres (ASTC). Presenting alongside the Ontario Science Centre, the Franklin Institute and the Boston Aquarium, the session explored how museums and science centers can make the topics of climate change and energy fun and non-threatening for their visitors. Drawing on extensive experience in programming, the LTE team shared best practices and guidelines for effective communication with more than 80 participants.

# Quality Urban Energy Systems of Tomorrow

Ottawa, ON – November 2017

At the Quality Urban Energy Systems of Tomorrow (QUEST) conference, the LTE team shared didactic education tools and promoted our travelling exhibit 'Climate Change Is Here' using a scaled down version of the exhibit itself. LTE staff members were joined by Ingenium Business Development. In addition, LTE hosted conference participants at the Canada Science and Technology Museum for a collection tour, to explore energy, transportation, and building science.





# COLLABORATIONS

# Museum Affiliated Partners Program – Partner Focus

## TELUS Spark

TELUS Spark in Calgary is engaged with energy sustainability and education programming across a number of areas, with the goal of connecting these issues to a discussion on global climate change.

Last November, Spark hosted a temporary exhibition on upcoming Canadian technologies affecting the country's energy landscape. This included partners in academia, industry, and non-profit organizations. With a strong focus on creating family conversations about energy, the science centre hosts a number of exhibitions that touch on climate change and energy, most notably in two exhibitions: **Energy & Innovation** and **Earth & Sky**. The first exhibition explains topics such as electricity and electro-magnetism, flow of matter, and principals of electricity, while the second exhibition highlights themes like geology and weather, changing climates, fresh and saltwater systems, and interactions in different ecosystems. TELUS Spark also offers educational school programming on topics such as pipelines, clean energy, and electricity.



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**TELUS**  
**Spark\***  
NEURONS FIRING DAILY.

## Partnerships and collaborations

Wherever possible, LTE strives to work collaboratively with individuals and organizations. We love working with others who share our passion for delivering information and tools to Canadians about energy use and climate change.

This year, our collaborative spirit shone through for Talk Energy Week when we partnered with Actua to deliver energy/climate education to Canadian students. Leading up to Talk Energy Week, we participated in an astounding journey, deep into the Athabasca Glacier, with partners Red Bull, Will Gadd, Parks Canada and the Discovery Network. Later in 2017, we worked alongside Student Energy and Public Policy Forum to pull together the Generation Energy Youth Summit, ahead of NRCan's national Generation Energy Forum in Winnipeg. By livestreaming portions of the event we were able to reach over 7,000 viewers, in addition to the bright, motivated youth participants that attended in person.

### **Our list of collaborative partners include:**

- › Actua
- › Canadian Association of Science Centres
- › Canadian Geographic
- › Daily Planet
- › Department of Fisheries and Oceans
- › Energy Exchange
- › Environment and Climate Change Canada
- › Canadian Network for Environmental Education and Communication
- › Health Canada
- › Hydro Ottawa
- › National Geographic
- › Natural Resources Canada
- › Public Health Agency of Canada
- › Public Policy Forum
- › Quality Urban Energy System of Tomorrow (QUEST)
- › Red Bull
- › Student Energy

# Acknowledgments and federal partners

## Major partners



## Supporting partners



## Contributing partners

Canadian Association of Petroleum Producers  
University of Ottawa School of Electrical Engineering and Computer Science  
Natural Resources Canada



**Let's Talk Energy**  
Engaging ideas for Canada's future



**Parlons énergie**  
Idées d'avenir pour le Canada