



## Monday, March 4th, 2019

1:00 pm - 7:00 pm	<b>Registration</b> Ballroom Foyer
10:45 am - 1:00 pm	<b>Optional Tour: Tour the Canadian Museum of History</b> Depart from hotel lobby <a href="#">Click HERE for more information</a> <b>(space is limited preregistration required to attend)</b>
2:00 pm - 3:30 pm	<b>Optional Tour: Tour Measurement Canada</b> Depart from hotel lobby <a href="#">Click HERE for more information</a> <b>(space is limited preregistration required to attend)</b>
2:00 pm - 4:00 pm	<b>Exhibitor Set Up</b> Ballroom BC
7:00 pm - 9:00 pm	<b>Early Bird Meet and Greet</b> Panorama

## Tuesday, March 5th, 2019

8:00 am - 5:00 pm	<b>Registration</b> Ballroom Foyer
8:00 am - 9:00 am	<b>Breakfast with Exhibitors</b> Ballroom BC
9:00 am - 9:15 am	<b>Chair's Opening Remarks</b> Ballroom A
9:15 am - 9:30 am	<b>CGA Welcome</b>

9:30 am - 10:15 am	Ballroom A Speaker: Timothy M. Egan, President & CEO, Canadian Gas Association <b>Safety Awards</b> Ballroom A			
10:15 am - 10:45 am	<b>Refreshments with Exhibitors</b> Ballroom BC			
10:45 am - 11:45 am	<b>Keynote Address - Evolution Through Innovation</b> Ballroom A Speaker: Jesse Hirsch, Futurist & Digital Strategist			
11:45 am - 12:15 pm	<b>What's Current</b> Ballroom A			
12:15 pm - 1:30 pm	<b>Lunch with Exhibitors</b> Ballroom BC			
1:30 pm - 1:50 pm	<b>OEI Roundtable Kickoff</b> Ballroom A Speaker: David McConkey, Director, Operations, Safety & Security, Canadian Gas Association <a href="#">Click HERE for more information</a>			
1:50 pm - 2:00 pm	<b>Transition to Roundtable Sessions</b>			
2:00 pm - 3:00 pm	<b>Engineering</b> Chaudiere Chair: Shawn Khoshaien, Enbridge Gas	<b>Operations</b> Frontenac Chair: Jamie Jaques, ATCO	<b>Integrity</b> Joliet Chair: Vincent Chou, Senior Engineer, System Integrity & Standards, AltaGas Utilities	<b>Construction</b> Capitale Chair: Kerry McDowell, Canadian Utility Construction
3:00 pm - 3:20 pm	<b>Refreshments with Exhibitors</b> Ballroom BC			
3:20 pm - 4:20 pm	<b>Engineering</b> Chaudiere	<b>Operations</b> Frontenac	<b>Integrity</b> Joliet	<b>Construction</b> Capitale
4:20 pm - 4:30 pm	<b>Transition to Ballroom A</b>			
4:30 pm - 5:10 pm	<b>OEI Roundtable Wrap up</b> Ballroom A			
5:15 pm - 6:15 pm	<b>Reception with Exhibitors</b> Ballroom BC			
<b>Wednesday, March 6th, 2019</b>				
8:00 am - 5:00 pm	<b>Registration</b> Ballroom Foyer			

8:00 am - 9:00 am

**Breakfast with Exhibitors**

Ballroom BC

9:00 am - 10:00 am

**Natural Gas Innovation Fund**

Ballroom A

Speaker: John Adams, Managing Director, Natural Gas Innovation Fund

NGIF, created by the Canadian Gas Association and member companies, supports the funding of cleantech innovation in the natural gas value chain. It seeks to fill a technology development gap in the sector and invests in innovation enabling natural gas solutions for current and emerging challenges facing Canada's energy system. With access to pooled capital, leveraged intelligence and a combined backyard across Canada to field test innovation, the natural gas industry selects and advances cleantech projects led by startups and organizations with the right innovation for market uptake and commercial viability.

10:00 am - 10:30 am

**What's Current**

Ballroom A

10:30 am - 11:00 am

**Refreshments with Exhibitors**

Ballroom BC

11:00 am - 11:45 am

**Engineering/Safety - Renewable Natural Gas**

Chaudiere

Speaker: Ahmed Nossair, Manager Stations, Electrical & Controls Engineering, Enbridge Gas

Speaker: Claire Lukka, Supervisor, Stations, Telemetry and Controls, Enbridge Gas

Union Gas and EGD collaborated to develop design standards for RNG injection stations. Scope and deliverables for this project included identification of codes and standards as well as the development of an RNG station design guideline (including piping, regulation, process safety, and controls), purification and compression system selection criteria, and gas quality monitoring principles.

11:00 am - 11:45 am

**Operations/Build and Construct: Operational Safety can be enhanced by the use of CNG during pipeline repairs**

Frontenac

Speaker: Kaitlyn McNamara, Operations Engineer, ATCO

Speaker: Nicole Lehto, Supervisor Construction & Growth, Enbridge Gas

Speaker: Kyle Billion, Engineer in Training, Enbridge Gas

This session will discuss Union Gas' recent experience in maintaining service to the Town of Atikokan while replacing a segment of pipe on our lateral.

ATCO has expanded its fleet of CNG trailers in recent year. This fleet has been used to maintain numerous large supply interruptions across Alberta lasting up to a week feeding upwards of 1,800 customers for that period. This presentation will outline the capabilities, lessons learned and future capabilities of this fleet.

11:00 am - 11:45 am

**Integrity/Technology and Innovation - Advancements in Reliability Modelling for Natural Gas Assets**

Joliet

Speaker: Brad Patzer, Manager Integrity Distribution System & Reliability, Enbridge Gas

Enbridge has developed over 83 advanced reliability models leveraging progressive statistical algorithms to provide a POF for over 10 million discrete assets, along with 40-year failure predictions and Asset Health Indices. This new knowledge is transforming the DIMP and how EGD manages their gas carrying assets within the Distribution Network. Solutions to issues like data truncation, data censoring, repairable versus non-repairable will be presented, along with the overall methodology and impacts to EGD's Asset Management.

11:00 am - 11:45 am

### **Pipeline Damage Prevention**

Capitale

Speaker: Doug Lapp, President, Ontario Regional Common Ground Alliance

The Common Ground Alliance in the last few years have started to document pipeline hits across Canada and the cost associated to them. This seminar is to go over the statistics and involves new technology to decrease the damage and cost associated to the gas utilities.

11:45 am - 1:00 pm

### **Lunch with Exhibitors**

Ballroom BC

1:00 pm - 1:45 pm

### **Engineering/Safety - CNG Installations**

Chaudiere

Speaker: Alexander Hadjis, Senior Engineer, Engineering Growth, Enbridge Gas

Speaker: Rohan Service, Sr Advisor Business Development, Enbridge Gas

Concept by Enbridge Gas to use CNG for main reinforcement, peak shaving and for new communities - joint presentation between Engineering, Business Development and will include Natural Gas for Transportation.

1:00 pm - 1:45 pm

### **Operations/Build and Construct - Pilot Pipe Splitting/Pulling Program**

Frontenac

Speaker: John Vestergaard, Operations Field Supervisor, Enbridge Gas

Speaker: Laura Wong, Sr Pipeline Engineer, Enbridge Gas

Speaker: Andy Braithwaite, HammerHead Trenchless

Review Enbridge's most current pilot program of pipe extraction and replacement technology. We have teamed up with HammerHead to execute this new pilot. Review process and results.

1:00 pm - 1:45 pm

### **Integrity/Technology and Innovation - Go/No-Go Determination of Electrofusion Joint Integrity**

Joliet

Speaker: Dalton Crosswell, JANA Corporation

The integrity of installed electrofusion joints has been difficult to determine. This is due to the hidden nature of the fusion that takes place and no practical method for gas operators to non-destructively test these joints. An NDT tool has been designed for gas operators to automatically recognize flaws in electrofusion joints that can lead to failure and provide an automatic pass/fail rating of the joint. The technology and operator field experience are discussed.

1:00 pm - 1:45 pm

### **Solutions and Best Practices for Hard to Operate Valves**

Capitale

Speaker: Joe PirkI, VP, Sales, Services & Training, Sealweld Corporation

Best Practices when performing preventative maintenance activities on both Plug Valves and Ball valves. The importance of valve lubrication and its role in valve operation and prolonging valve life cycle. The workshop is from the field perspective and a must see for field, supervisory, and engineers.

1:45 pm - 2:00 pm

### **Move to concurrents - no coffee service**

2:00 pm - 2:45 pm

### **Engineering/Safety - Mental Health in the Workplace**

Chaudiere

Speaker: Chris Eskelson, Operations Supervisor, ATCO

Employee health and safety is a core value in our workplaces, but often times the focus lands on our physical health. The

reality is that our mental health is just as important and needs to be promoted and supported as such. This presentation explores the benefits of a mentally healthy workplace and looks at how ATCO is breaking down stigmas and encouraging people to support both themselves and their coworkers who may be facing mental health challenges.

2:00 pm - 2:45 pm

**Operations/Build and Construct - Assessing Worker Competence Using Mobile Technology**

Frontenac

Speaker: Mike Gilbert, AltaGas Utilities

This session will provide an overview of how AltaGas Utilities uses mobile technology to complete competency assessments on workers who perform tasks and activities, in accordance with AUI's Competency Assessment Plan (CAP). The purpose of CAP is to establish training, assessment, and qualification criteria to reduce risks to the company and enhance the safety of workers and the general public. Mobile competency assessments have improved AUI's efficiency in completing and recording worker assessments.

2:00 pm - 2:45 pm

**Integrity/Technology and Innovation - Integration of GIS and Cathodic Protection information & monitoring systems**

Joliet

Speaker: Fernando Velandia, Corrosion Control Engineer, Manitoba Hydro

Speaker: Scott Bowing, Fortis BC

Integration of GIS and Cathodic Protection information & monitoring systems - Manitoba Hydro has been integrating the cathodic protection information coming from field into a GIS database to improve information management and decision making process. The Stage 1 includes the implementation of computerized data collectors. Stage 2 is the installation of the CPManager Module to the GIS software, that automatically uploads the information from data collectors which also generates work orders, reports on CP performance, downtime, pending work orders, and sections below target. The stage 3 is the installation of remote monitoring units. Fortis BC will present their Cathodic Protection database and how that is being leveraged to provide real time reporting and managing systems.

2:00 pm - 2:45 pm

**Clean Energy Technology in the LNG Sector**

Capitale

Speaker: Manfred Klein, MA Klein & Associates / Gas Turbines for Energy Network

Canada is in a position to offer the cleanest LNG fuel supply to the world. New technologies include innovative gas turbine energy systems that have low air pollution and GHG emissions, with reliability and high efficiency in natural gas processing and pipeline operations. This presentation summarizes innovations in Canadian gas turbine compression and electrical power systems, as well as lifecycle technology considerations for LNG facilities to achieve part of a resilient future in clean energy.

2:45 pm - 3:15 pm

**Refreshments with Exhibitors**

Ballroom BC

3:15 pm - 4:00 pm

**Regulatory Reconciliation and the Canadian Registration Number (CRN)**

Ballroom A

Speaker: Jim Young, PTAC Chair and Director, Land, Prince Edward Island Department of Communities, Land and Environment

Speaker: Stephen Head, Manager of Strategic Policy, Strategy and Stakeholder Engagement Branch of the Standards Council of Canada

Jim will present on the Regulatory Reconciliation and Cooperation Table (RCT), which was created under the Canadian Free Trade Agreement (CFTA) to oversee a regulatory reconciliation and cooperation process. As Chair of the Provincial-Territorial Advisory Committee (PTAC), Jim will speak to the role of PTAC as the working group under the RCT responsible

for developing an agreement to align jurisdictional requirements for the Canadian Registration Number (CRN), including the process, status, and next steps.

4:00 pm - 4:45 pm

**Measurement Canada – World-class regulator and innovation enabler**

Ballroom A

Speaker: Diane Allan, President, Measurement Canada

4:45 pm - 6:00 pm

**Reception with Exhibitors**

Ballroom BC

6:00 pm - 7:30 pm

**Dinner**

Ballroom A

**Thursday, March 7th, 2019**

8:00 am - 12:00 pm

**Registration**

Ballroom Foyer

8:00 am - 9:00 am

**Breakfast with Exhibitors**

Ballroom BC

9:00 am - 9:45 am

**Cyber Security: a technical problem or a people problem?**

Ballroom A

Moderator: John Bryk, Cyber and Physical Threat Intelligence Analyst, Downstream Natural Gas Information Sharing & Analysis Center (DNG-ISAC)

Speaker: Barry Callele, Director, Industrial Control System (ICS) Security, Enbridge Gas

Speaker: Ken Anderson, Chief Cyber Security Architect, ATCO

Speaker: Julia Scouten, Senior Cyber Security Advisor Partnerships/Partenariats, Canadian Centre for Cyber Security

The term “cyber security” is widely used and, it seems, increasingly so as time goes on, but what is really meant by “cyber security”? How does it relate concretely to me in my role? Through this panel, we will demystify the term and consider what types of threats are most pertinent to natural gas utilities, and what targets are most attractive to adversaries:

SCADA and actuators? customer information? trade secrets?

9:45 am - 10:00 am

**Move to concurrents - no coffee service**

10:00 am - 10:45 am

**Engineering/Safety - Power to Gas (blending hydrogen with natural gas)**

Chaudiere

Speaker: Mohamed Chebaro, Enbridge Gas

Speaker: Ramses Atilano, Enbridge Gas

Producing hydrogen from renewable sources and blending hydrogen with natural gas.

10:00 am - 10:45 am

**Operations/Build and Construct - Cut-off by keyhole tools**

Frontenac

Speaker: Nicolas Bombard, Project Engineer, Natural Gas Technologies Center / Energir

Speaker: Michel Desmeules, Regional Director, CR Wall

Tools to allow the cut-off of unused residential connection in a small keyhole excavation were developed with manufacturer Kravitch. This technique allows to carry out the cut-off in one day, including the keyhole excavation and fill-up. It creates less disruption for municipalities.

10:00 am - 10:45 am

**Integrity/Technology and Innovation - Geotech Threat Management Program**

Joliet

Speaker: Matthew Dipple, Engineer-In-Training, System Integrity, SaskEnergy

Despite Saskatchewan's reputation of being flat, in the last several years SaskEnergy Incorporated has experienced a significant number of geohazard-related damages to its system, culminating in a house explosion in 2014. In response to this incident, SaskEnergy has developed a geohazard management program to address slope movement risk. The evolution of this program includes new system design and new ways of preventing, mitigating, and monitoring slope movement risk. The catastrophic incident in 2014 and subsequent system/process changes provide an instructive case study for an evolving Integrity management program.

10:00 am - 10:45 am

**A Risk-Based Approach to Legacy Cross Bore Inspection Optimization**

Capitale

Speaker: David Joyal, Implementation Technical Lead, JANA Corporation

This paper explores a quantitative risk-based approach for planning legacy cross bore inspections. Based on an analysis of the factors impacting the potential for cross bores, a Mechanistic-Bayesian model provides a baseline risk-based prioritization of inspections with Bayesian updating used to improve results. The result is knowledge of where inspection resources can be best applied based on the highest risk of a cross bore incident. Case studies show a potential 400% increase in inspection efficiency.

10:45 am - 11:00 am

**Refreshments with Exhibitors**

Ballroom BC

11:00 am - 12:00 pm

**Exhibitor Tear Down**

Ballroom BC

11:00 am - 11:45 am

**Engineering/Safety - AC Mitigation for Station and Pipelines in the Vicinity of Hydro Facilities and Impact from AC Interference and Fault Mitigation**

Chaudiere

Speaker: Renée Miller, Engineer Electric and Controls, Enbridge Gas

The installation of AC mitigation devices to protect employees and pipeline facilities from the effect of induced and fault energy from nearby high voltage AC powerlines and transformers.

11:00 am - 11:45 am

**Operations/Build and Construct - ILI Contingency Planning for Potential Stuck Pig**

Frontenac

Speaker: Tim McKenzie, Senior Advisor Construction Projects, Enbridge Gas

Presentation of methodology for contingency planning and different levels of planning and response that are prepared prior to running inline cleaning and inspection equipment in gas pipelines. Presentation will include recent examples including a stuck pig Union Gas experienced on the Bruce Lake lateral.

11:00 am - 11:45 am

**Integrity/Technology and Innovation - Cross Bore Program**

Joliet

Speaker: Patrick McKenna, Pipeline Engineer, Heritage Gas Limited

Speaker: Jennifer Richardson, Senior Operations Engineer, Heritage Gas Limited

This presentation covers the cross bore program that Heritage Gas has developed over the past few years, including implementing more stringent inspections while installing via HDD. It will then focus on how Heritage Gas has managed its legacy cross bore issues using camera work through the sewer main and laterals, in combination with a GIS tracking system for data management of areas considered "clean" from cross bores.

11:00 am - 11:45 am

**Purge Burner**

Capitale

Speaker: Nicolas Bombard, Project Engineer, Natural Gas Technologies Center / Energir

A mobile flaring device, consisting of a 280,000 Btu/h natural gas burner (2 psi adjustment pressure) and a pilot light fuelled by natural gas (3,500 Btu/h at 0.3 psi adjustment pressure). Designed for outdoor use, this device is intended to purge or simulate continuous of natural gas/ natural gas saturated with mecaptan/biogas in order to perform maintenance, testing, and inspection of gas distribution installations with operating pressures of up to a maximum of 350 psi. The device is approved by CSA.

11:45 am - 12:00 pm

**Move to closing session**

12:00 pm - 12:15 pm

**Prize Draws and Closing Remarks**

Ballroom A