



25th world gas conference
"Gas: Sustaining Future Global Growth"

Strategic Collaboration in Innovation and R&D – Growing the Gas Business

Strategic Panel 8 – Innovation & New Technology: The Key to Increase the Gas Business

World Gas Conference – Kuala Lumpur

Collaboration for Next Generation Natural Gas Energy Solutions

Mel Ydreos
Chair, Energy Technology and Innovation Canada

June 7th, 2012



Patron



Host

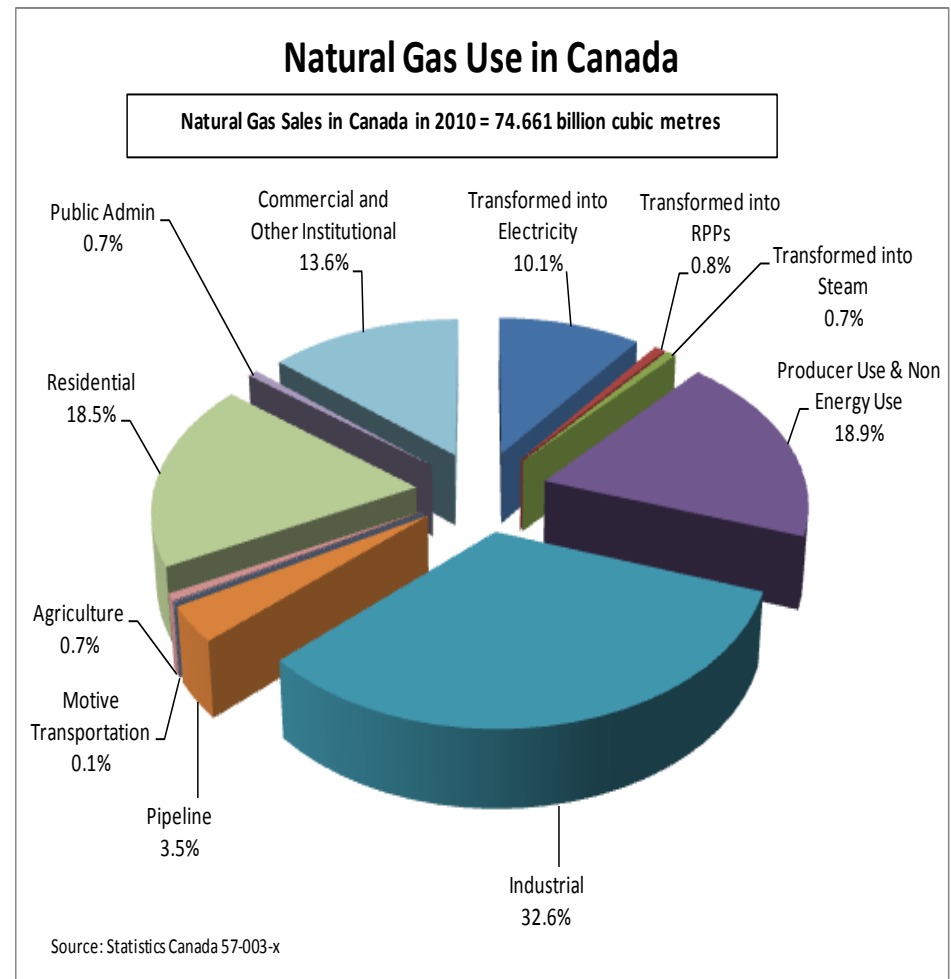


Host Sponsor



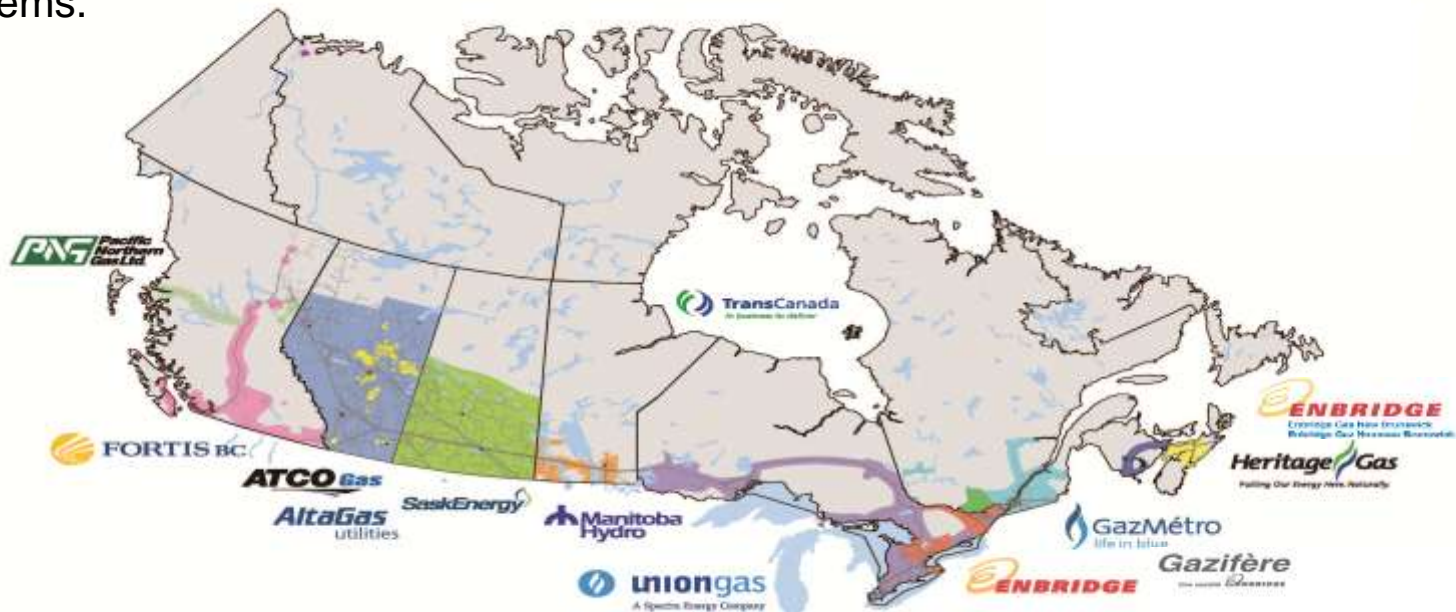
The Customer: Energy Consumers Coast to Coast to Coast

- Natural gas meets over 30% of Canada's energy needs today.
- Future opportunities
 - Expanded use in homes and businesses with new technology applications.
 - Closer integration with alternative energy services (like renewable for electricity).
 - Broader use for power generation to meet flexible market demands and lower emission requirements.
 - New market opportunity in transportation as a low cost clean burning alternative.



The People: Smart Energy Service Companies

- ETIC is a project of the Canadian Gas Association. CGA transmission and distribution members are noted on the map below.
- We are the nation's gas distribution companies, delivering energy services to over 6.2 million homes, businesses, and other establishments; covering well over half the population.
- We also represent transmission companies, manufacturers, and suppliers.
- Natural gas meets 30 per cent of Canada's energy needs, principally through our systems.



The Challenge: Energy Innovation & Technology Coordination

- In Canada, different organizations and groups participate, govern or influence the sale and distribution of energy,

BUT few are aligned.

- Canadian natural gas utilities have similar technology and innovation interests,

BUT little coordination, leveraging of resources, and communication amongst each other.

- The Opportunity:

WORK TOGETHER and in an aligned fashion.

VISION & MANDATE

- ❖ Broker investment in innovation in downstream, end-use markets.
- ❖ Collaborate amongst CGA membership and third parties in support of innovation.
- ❖ Leverage funding and expertise nationally and internationally.
- ❖ Remove barriers to deployment of desired technology and policy.

Initial Technology Focus Areas

Integrated Community Energy Systems



Renewable Natural Gas



Transportation



Industrial Processes



Next Generation Water Heater

- Obtain data on the installation, performance and customer satisfaction of four different high efficiency natural gas water heater technologies
- 4 Technologies being tested:
 - On-Demand Water Heaters
 - On-Demand Condensing Water Heaters
 - Hybrid Water Heaters
 - Condensing Storage Water Heaters

Role of NG in Smart Energy Grids

- To demonstrate the contributions that natural gas can make to a smart low carbon energy grid.
- Partners:
 - GDFSuez
 - Advanced Energy Research and Technology Center Stony Brook University
 - ETIC (Natural gas utilities)
 - NRCan
 - Saskatchewan Research Council

Ecoenergy Innovation Initiative

- The goal is to address technical gaps related to:
 - the conversion of biomass feedstock to Renewable natural Gas (RNG) for distribution in the natural gas grid.
 - The use of both RNG and intermediate process gases for combined heat and power

Next Steps

- Identify and prioritize projects consistent with four focus areas.
- Identify interested partners / funding opportunities – private industry, agencies, institutes, government.
- Undertake communications, outreach, education to target audiences on the initiative.
- Solidify the initiative at an operational/process level to ensure effective use of resources, ongoing coordination, effective prioritization of projects.



THANK YOU

|