

# 26<sup>th</sup> World Gas Conference

**1 – 5 June 2015 – Paris, France**

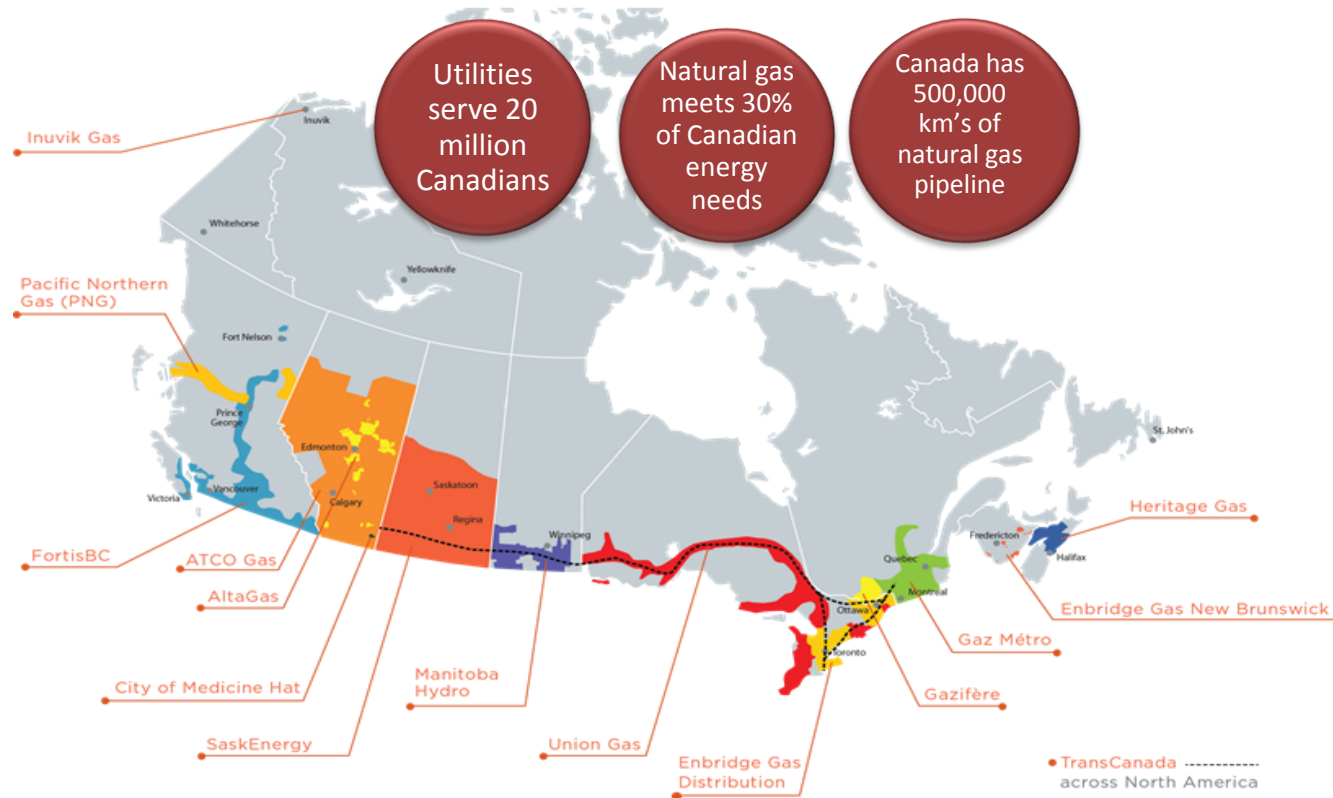


## Natural Gas Utility Collaboration: Driving Funding for Gas Technology Funding

Paul Cheliak  
Director, Market Development  
Canadian Gas Association

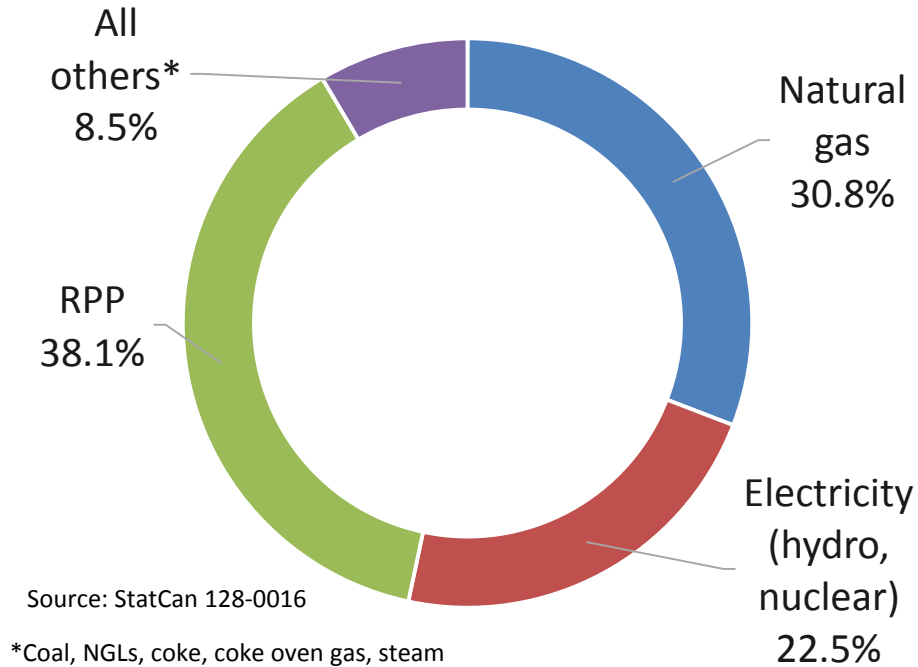


# Canadian Natural Gas Utility Pipeline Infrastructure



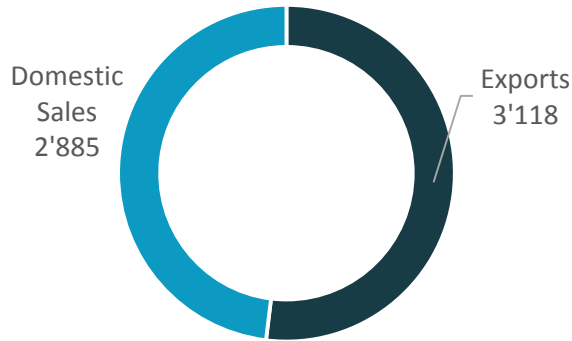
# Canadian Energy Use

Energy final demand - Canada - by type (%)



# Canadian Natural Gas Export and Demand

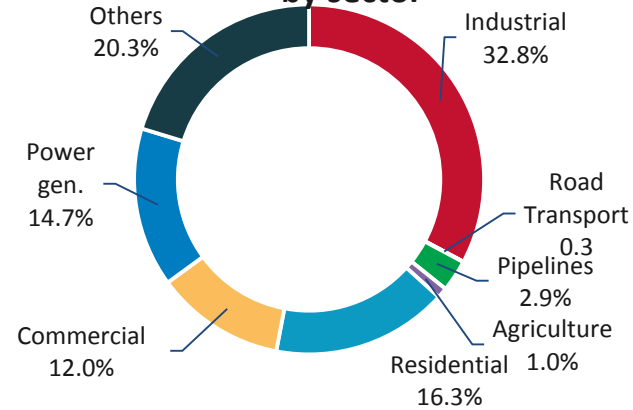
**2013 - Natural Gas Consumption and Exports (bcf)**



Source: Statcan 131-0001

In 2013, Canada exported over half its gas to the US

**2013 Natural gas - final demand- by sector**

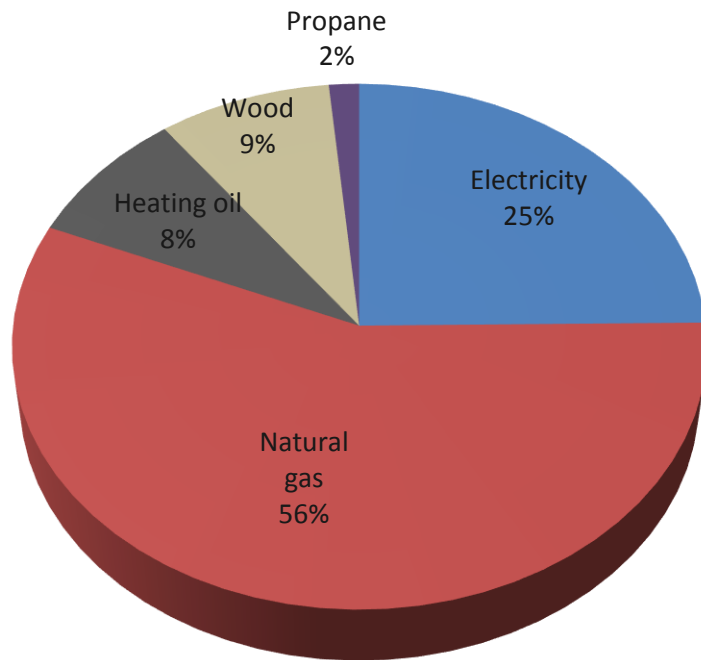


Source: Statcan 128-0016

Less than 0.5% of Canada's natural gas use is for transportation.

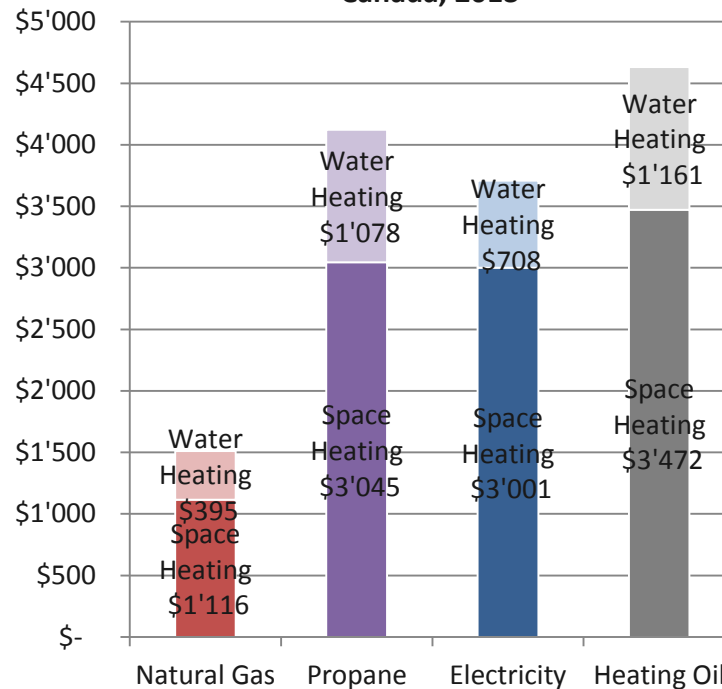
# Canadian Energy Costs: Residential Analysis

Residential Space & Water Heating Energy Choices in Canada



Source: NRCan End Use Database

Residential Space & Water Heating Costs - Canada, 2013



Sources: StatsCan, Hydro Quebec, Kent Marketing, Canadian Gas Association

# Overview: 3 Pillars for New Gas Technology Funding

## **Pillar 1: Utility to Utility Collaboration**

- CGA's Energy Technology and Innovation Canada

## **Pillar 2: Utility to Government Collaboration**

- CGA's \$30 million Fund with Sustainable Development Technology Canada

## **Pillar 3: Utility Rate Payer Funding for Technology**

- CGA's \$280 million proposal for an Innovation Levy on the Rate Base

# Pillar 1: Utility – Utility Technology Collaboration: \$10 Million

## ***Energy Technology and Innovation Canada***

*Collaboration for Next Generation Natural Gas Energy Solutions*

*ETIC Vision: To ensure that natural gas enabled technologies remain a significant part of Canada's low carbon energy future, through strategic investment in technology commercialization and innovation*

### **Focus Areas**

- ☒ Traditional heat
- ☐ Remote LNG + CNG
- ☐ Transportation
- ☐ RNG
- ☐ CHP

### **Project Details**

- ☐ 16 Projects, \$8M
- ☐ 1 Project, \$40K
- ☐ 3 Projects \$100K
- ☐ 3 Projects \$1M
- ☐ 1 Projects \$100K

### **2014-15 Projects**

- RNG Technology Roadmap
- Natural Gas Cooling Study
- Gas v. Electric Competitiveness
- Gas in Net Zero in Buildings
- mCHP Test Standard for NA
- Small scale LNG comparison
- Compact Furnaces
- Low Cost Condensing Economizers

## Pillar 2: Utility to Government Funding: \$30 million



**The SD Natural Gas Fund™ is a collaboration to support technology development in downstream natural gas.**

- CGA will contribute up to \$15 million and SDTC will contribute up to \$15 million, creating a fund valued at up to \$30 million over three years.
- The Fund will make investments in end use natural gas technologies in the residential, commercial, industrial, power generation, transportation and renewable natural gas sectors

*Interested in Applying For Funding: <https://www.sdtec.ca/en/apply/sd-natural-gas-fund>*



# Pillar 3: Proposed Innovation Strategy

## Collaborative Innovation Consortia

- Government, Utilities, Private Stakeholders
- Centralized expertise and RD&D capacity
- Technology advisory council with broad stakeholder representation
- Projects segmented by utility function and by time horizon

## Regulatory Oversight and Program Management

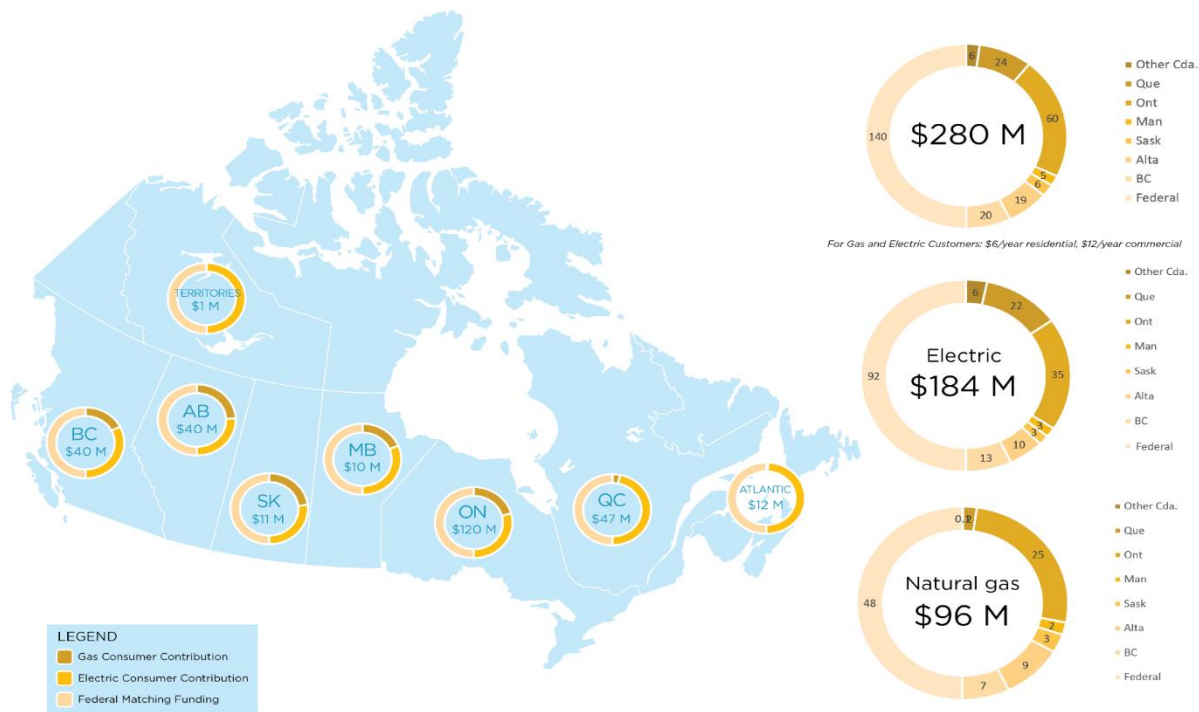
- Majority of funding directed to collaborative projects with some utility-specific projects
- Multi-year (3+) innovation plans subject to regulatory approval (with funding authorization)
- Regulatory guidance for business case evaluation criteria
- Some discretion to optimize portfolio of projects
- Annual reports with traditional utility cost/management oversight

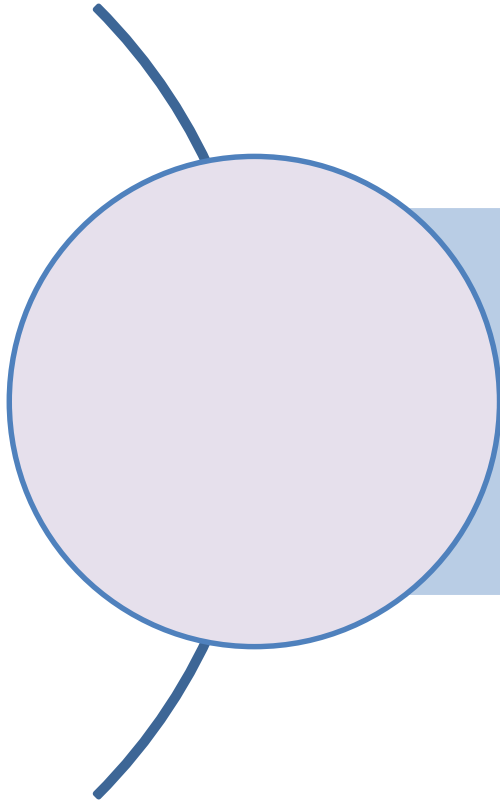
## Funding

- Customer funded with reconciling mechanisms
- \$3-12/customer/year on gas and electric = \$140 m/yr, proposed to be matched by Federal Government.
- Pursue co-funding opportunities

# Pillar 3: Utility – Federal Collaboration: \$280 Million

## Canada's Energy Utility Innovation Funding Potential





**Paul Cheliak, Director of  
Market Development  
Canadian Gas Association**  
[pcheliak@cga.ca](mailto:pcheliak@cga.ca)