



Canadian
Gas Association

Association
canadienne du gaz



New Frontiers in Regulation

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The voice
of Canada's
natural gas
delivery industry



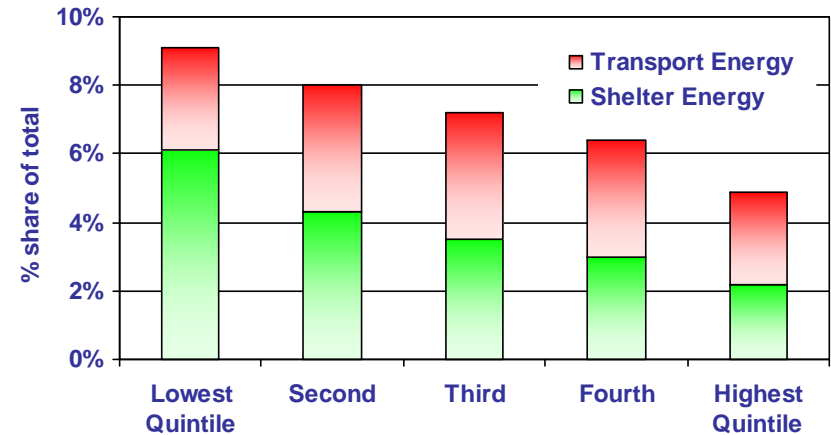
Growing Macro Challenges With Significant Implications for Energy Services

- Growing demand for energy services
- Expectation of security, reliability and affordability
- Demand for cleaner energy
- Competition for material and labour inputs
- Resistance to community energy infrastructure
- Cost of delivered energy services

Highlight: Price Challenge

- Energy prices are increasing and volatile after a long period of low and stable prices
- Electricity commodity market values and volatilities are masked by regulation in many provinces
 - Increases risk for natural gas utilities
- Energy end-use patterns are shifting
 - Lower end-use per customer
 - Increased competition from electricity and renewables
 - Higher efficiency standards for buildings and equipment
- Short-term “price” politics are at odds with long-term infrastructure and environmental progress

Estimated Household Expenditure Shares
2005, by income quintile

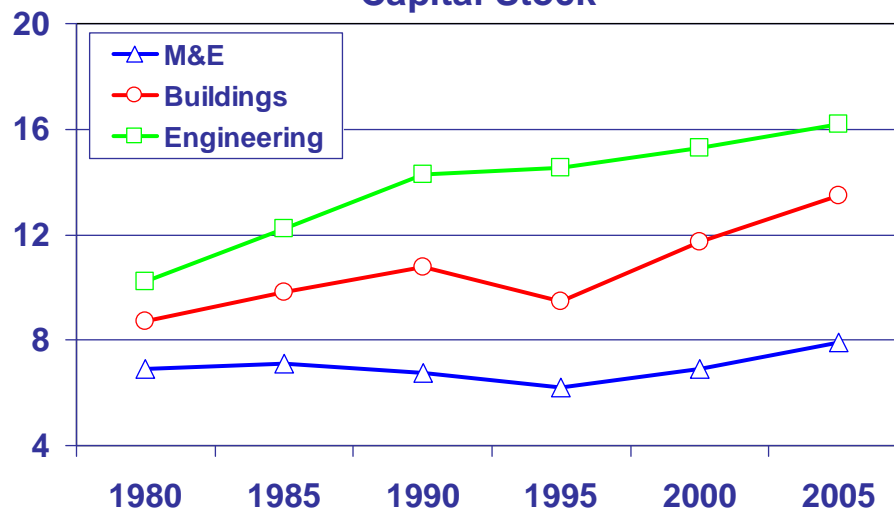


Source: StatsCan data, CGA estimate

Highlight: Infrastructure Renewal Challenge

- Replace infrastructure
- Grow infrastructure
 - Population growth
 - Supply diversification
 - Storage expansion
- Advance infrastructure
 - Incorporate distributed generation
 - Partner with renewables
 - Develop and demonstrate new technology
- Fund infrastructure

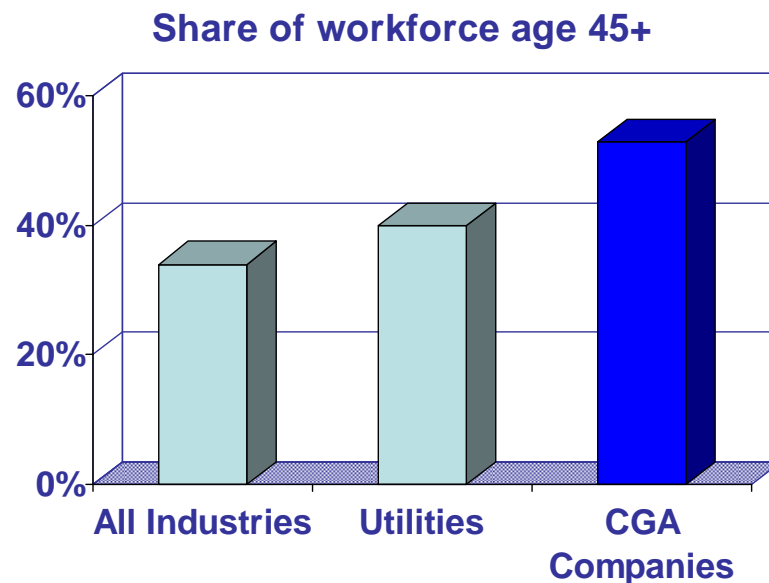
Average Age of Natural Gas Distribution Capital Stock



Source: The Canadian Gas Distribution Industry: Investment and its Adequacy, Informetrica, forthcoming

Highlight: Workforce Demographic Challenge

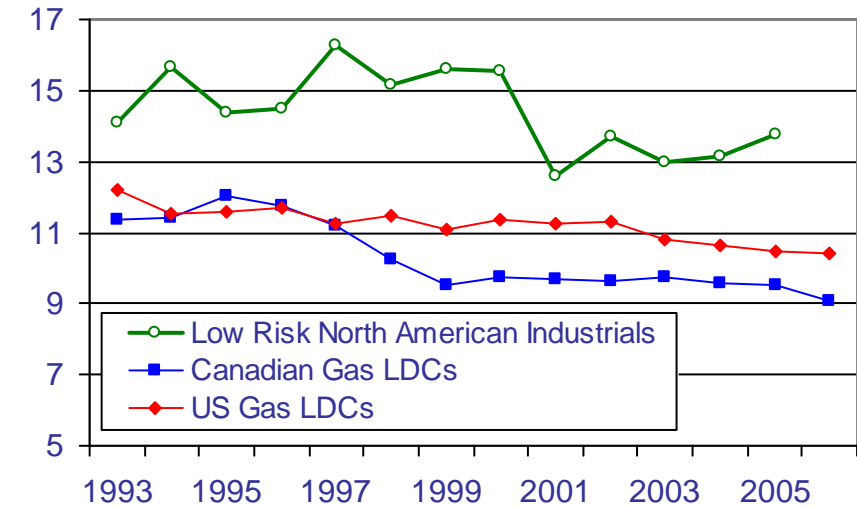
- The utility industry's employees are old, relative to other industries
 - Natural gas utilities even more so
- The implications are far-reaching
 - Results in a loss of expertise, skills and knowledge
 - Adds to the infrastructure renewal challenge
 - Relates to immigration policy and practices
- We need to be an aggressive competitor in a tight labour market
 - Incentive programs to attract more youths, aboriginals, women and immigrants
 - Retention programs to keep workers that are ready for retirement
 - Succession plans to pass on skills and knowledge to more workers



Highlight: Return on Equity

- Utilities require a fair return to build the optimal natural gas delivery infrastructure
 - Oriented towards long-term energy sustainability, rather than a short-term minimum
- A fair return should meet all three of the following standards:
 - Comparable returns
 - Financial integrity
 - Capital attraction
- The current approach is not providing a fair return

Return on Equity Comparison



Source: Canadian Gas Association, S&P Insight

How to Meet the Challenges

- The challenges are intertwined and additive
 - e.g. more demand + higher environmental expectations + community resistance = higher costs + increased risk + longer lead-times
- The solution needs to ensure that energy forms effectively:
 - Compete
 - e.g. gas heat vs electric baseboard vs heat pumps
 - Complement
 - e.g. solar water heating with natural gas
 - Interconnect
 - e.g. gas power generation
- The solution is best be provided by:
 - Accurate price signals
 - Diverse supply options
 - Inter-connected energy

Key Principles for New Frontiers in Regulation

- A comprehensive regulatory response is needed
 - Long-term **strength** of energy systems
 - **Efficiency** in processes
 - **Balance** interests
 - “Policy → Decision” **clarity**
- “Economic Regulation of Canada’s Natural Gas Delivery Industry: Policy and Regulatory Principles” CGA, 2005

Strength

- Build with a long-term goal of the optimal energy system
 - New supplies: higher cost, higher risk
 - Improved reliability
 - New technologies
 - New businesses
 - Increased diversity
 - Better environmental performance
- Recognise that the financial health of utilities is a critical variable underpinning the future
- Support innovation, efficiency and the viability of energy systems, including end-use

Efficiency

- Efficiency of both markets and regulatory processes
- Efficiency of Markets
 - Use accurate market price signals to get efficient consumer decision-making
 - Incorporate externalities to “internalize” broader policy objectives (e.g. environmental)
 - Mitigate impacts where price signals are not accurate
- Efficiency of Regulatory Processes
 - Benchmarks
 - Coordination across jurisdictions
 - Continuous improvement of processes

Balance

- Balance costs, risks and long-term goals
 - Looking to long-term strength means a different perspective on costs and risks: intergenerational equity and environmental consequences
- Encourage parties to look to long-term goals
 - Offsets a tendency towards short-term zero-sum perspectives that result in minimum systems

Clarity

- Use a direct traceable line of reasoning from the policy objectives of government to regulatory decisions
 - Policy objectives should precede regulatory rules, codes and guidance that, in turn, should precede regulatory decisions
- Support development of regulatory skills and expertise
 - Includes inviting industry knowledge

New Frontiers: Implications for Regulators

- A new world of higher costs, higher risks and accelerating change
- Communication will be critical
- Co-ordination with others must grow