



# Natural Gas Technology Futures Workshop

## “Utilities Regulation in a Low Carbon World”

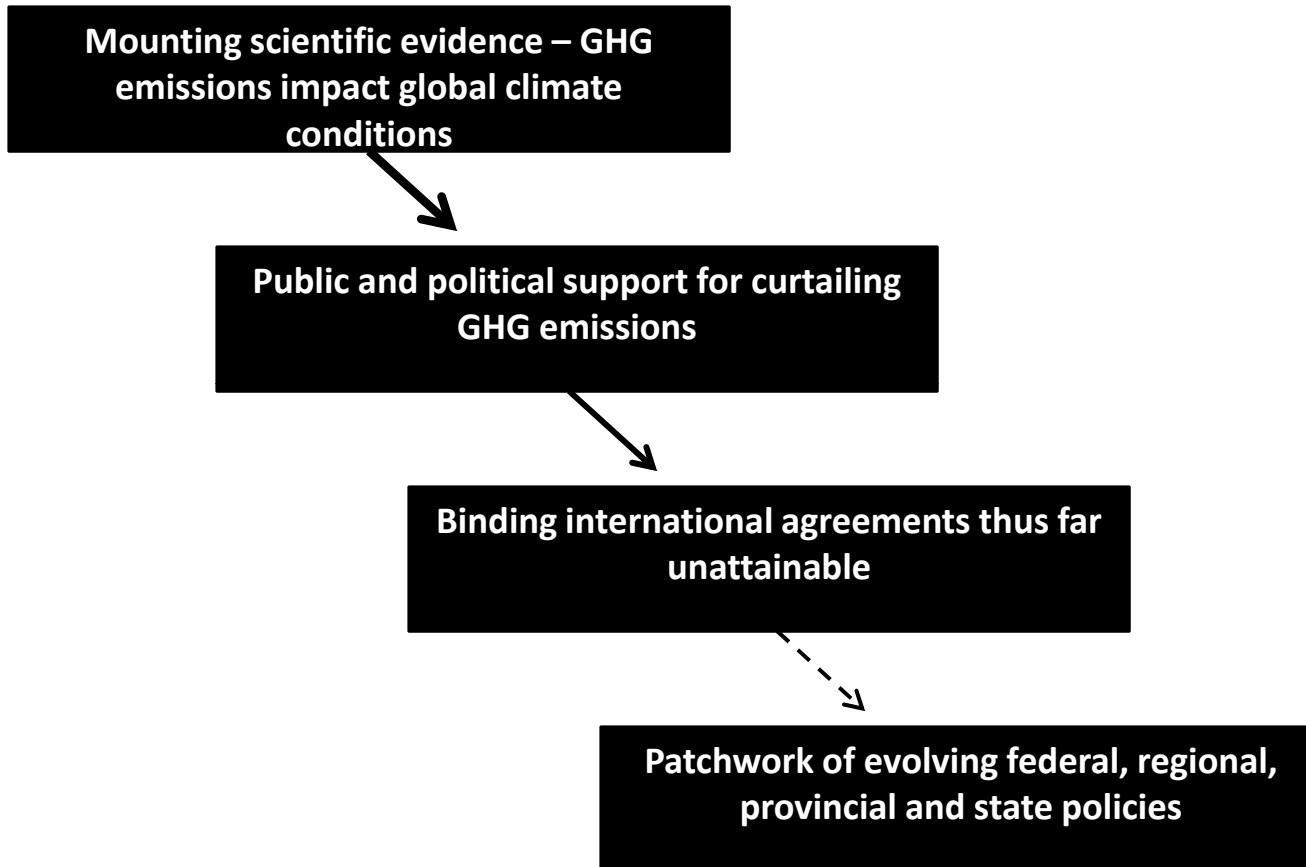
Presented by:  
**James M. Coyne,**  
Senior Vice President  
Concentric Energy Advisors, Inc.

February 9-10, 2010  
Ottawa

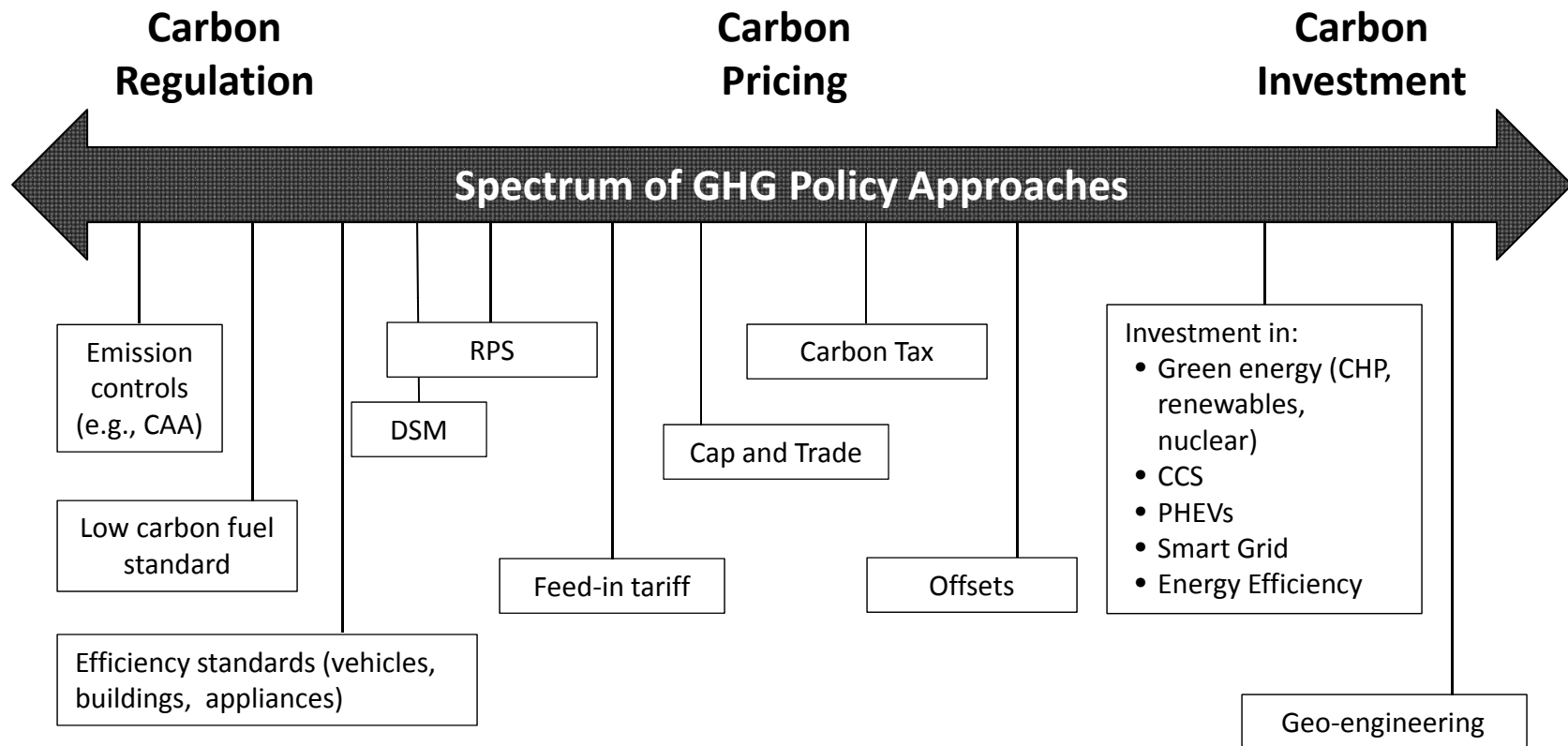
Concentric Energy Advisors® and its logo are federally registered trademarks of Concentric Energy Advisors®. Any unauthorized use is prohibited.

# The broad policy framework for carbon is still evolving

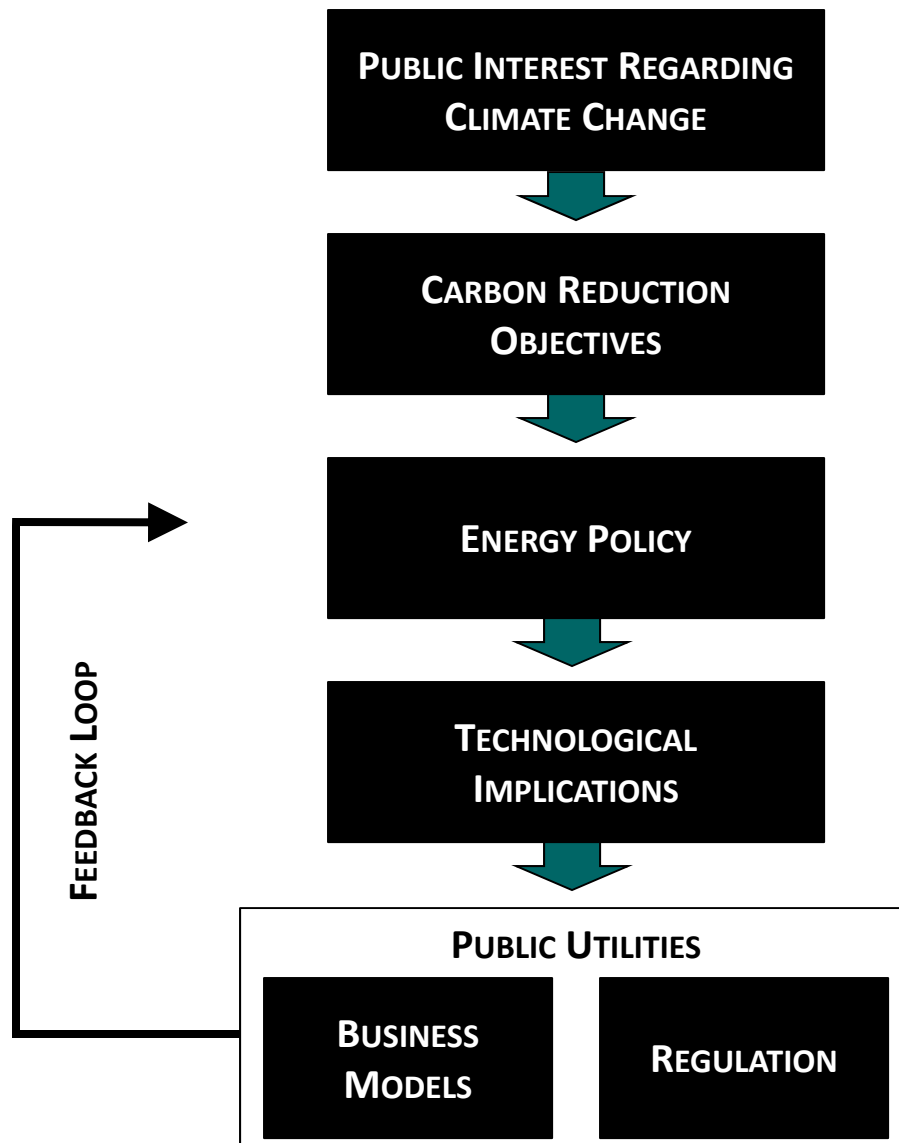
---



With a plethora of policy and regulatory approaches on the table, along with corresponding business responses



# Requiring an adaptive approach by utilities and regulators



# The new world order

---

## THE OLD WORLD

**REVENUES**

**– COST OF GOODS SOLD**

---

**= GROSS PROFIT**

## THE NEW WORLD

**REVENUES**

**– COST OF GOODS SOLD**

**– COSTS TO SOCIETY**

---

**= GROSS PROFIT**

*Source: PepsiCo CEO Indra K. Nooyi, from Davos, January 29, 2010.*



# Utility business models must evolve to meet the pressures and opportunities created by lower carbon policies

## Traditional

- Revenue and earnings growth
- Growing customer base
- Growing commodity volumes
- Growing rate base

## Progressive

- Revenue and earnings growth
- Growing customer base
- Integrated resource plan
- Proactive DSM
- Flat use/customer

## Aggressive

- Revenue and earnings growth
- Growing customer base
- Value-added energy service solutions
- Technological innovation and integration
- Diversified revenue streams
- Declining use per customer
- Declining network deliveries

**FOCUS:** Energy Delivery

Energy Delivery/Conservation

Efficiency/Carbon  
Alternatives/Energy



# Regulatory models must also evolve

## Regulatory Approach

Tool	Traditional	Progressive	Aggressive
Primary Objective	Energy Savings	Energy Savings; Manage Demand Growth	Energy Savings; Manage Demand Growth; Carbon Reduction
Cost Effectiveness Test	Ratepayer Impact; Utility Cost	TRC	Societal; Modified TRC
Avoided Costs	Commodity	Commodity/Capacity	Commodity/Capacity/Externalities/Carbon reduction
Input Assumptions	Utility costs	Utility costs; Participant costs	Utility costs, participant costs; Externalities
Adjustment Factors	Free ridership; Persistence; Attribution	Plus free drivership; Spillover and; Proportional attribution	Secondary concern (tradeoff theory)
DSM Program Design	Prescriptive	Flexible	Proportional reduction
DSM Budget	Fixed \$ Amount	% of Revenues	Objective Driven
DSM Metrics/Targets (Measuring Success)	Energy Saved/DSM \$	Short term and long term energy savings	Market Transformation; DSM Penetration; Carbon Reduction
Financial Incentive (Utilities)	Limited	Tied to Energy Savings	Tied to Societal Goals/Climate
Compensating for Lost Revenue	Minimal	LRAM	Revenue Decoupling
Conservation Impact Evaluation	Utility report, prudence review	Independent review and verification	Evaluate whether DSM results achieve program objectives
Filing and Reporting	Progress Report /Evaluation Report	Audited Program Results	Broad Evaluation Measures
Stakeholder Input	Limited/Informal	Formal/Advisory	Proactive Consultation; Direct Involvement
Integration of Gas/Electric	Limited/None	Encouraged	Mandated

Source: *Review of Demand-Side Management (DSM) Framework for Natural Gas Distributors*, report prepared for the Ontario Energy Board by Concentric Energy Advisors, February 2010.



# Key regulatory issues to be addressed

---

- Reliability implications
- Energy demand implications
  - Overall level of demand
  - Demand for new/emerging energy services
- Carbon regulatory compliance and cost recovery implications
- New competitive challenges to the traditional LDC business/loads
- New businesses areas (regulated/unregulated) for LDCs
- Reductions in traditional natural gas loads
- Rate design options to address these potential reductions

