

# **Policies for Energy Provider Delivery of Energy Efficiency**

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# Topics

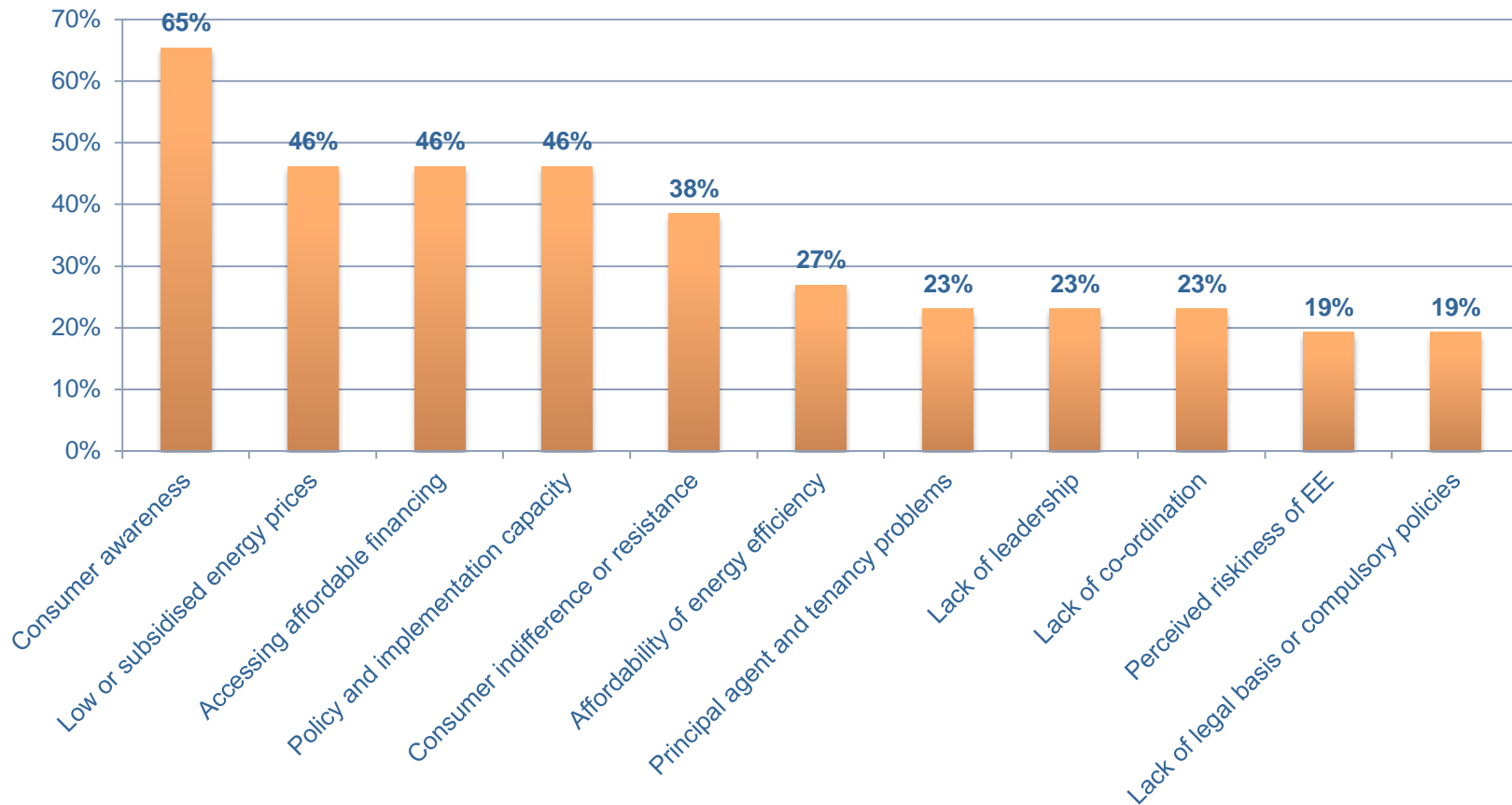
- **Why look to energy providers to deliver energy efficiency?**
- **Policy research needs for energy-provider delivered energy efficiency**
- **Exploring interactions between regulatory mechanisms and programme designs**
- **Creating opportunities for policy dialogue**



# Why should energy providers deliver energy efficiency?

- Well positioned in the energy marketplace
- Strong technical and administrative capacity
- Ability to mobilize funding
- Shared responsibility – with government - for energy security and sustainability
- Well positioned to help overcome the main barriers to climate solutions

# Energy providers are well positioned to address the market failures and institutional barriers facing energy efficiency



*End-user awareness, low energy prices, access to financing, and implementation capacity are the most common barriers*

# Energy efficiency policy trends

## ■ Europe

- UK Carbon Emission Reduction Targets (CERT)
- Italian, French, and Belgian White Certificates (WhC) schemes
- The proposed Energy Efficiency Directive

## ■ North America

- Rapid growth in energy provider EE spending
- Diversity of regulatory mechanisms

## ■ Asia-Pacific

- China's new DSM Rule
- India's investor-owned utilities
- Australia's retailer obligation programmes

# Regional patterns in energy provider-delivered energy efficiency

Region	Sales (TWh)	Revenues (USD Billions)	EE Spending (USD Billions)	Spending metric (%)
North America	4,200	400	6.1	1.5
EU 27	3,350	650	3.0	0.5
China's new DSM rule	4,700 <sup>1</sup>	410	1.2 (imputed)	0.3
Brazil	425	50	0.5 billion	1.0 <sup>2</sup>

<sup>1</sup>2011 data

<sup>2</sup>System benefit charge level

Sources: Nevius, Eldridge and Krouk, 2009;  
Barbose, Goldman and Schlegel, 2009

A vertical decorative strip on the left side of the slide features a blurred city skyline at night with warm lights. Overlaid on this is a white line graph that trends upwards from the bottom left towards the top right, symbolizing growth or progress.

# **Policy research on energy provider-delivered energy efficiency**

# Review of Energy Provider-delivered energy efficiency programmes

- **Desk study of programme types**
  - **Incentives**
  - **On-Bill Financing**
  - **Equipment replacement**
  - **Advice and assistance**
  - **Direct installation**
- **Outreach and survey of innovative and proven programs**
  - **Through networks of utility providers**
  - **Directly to investor-owned and municipal utilities**
  - **29 program profiles as of 9 December 2011**



# Focus on Innovative Programs

- Explore the range of measures and programme types
- Highlight both proven practice and promising new approaches
- Analyse variations in programs and their effectiveness:
  - Impact and cost-effectiveness
  - Compatibility with energy market design and regulatory frameworks
  - Variety in types of energy providers
  - Trends and opportunities.
- Metrics used to analyze and compare EE programs (resources and effectiveness)
- The regulatory conditions are that allow for innovative programs
- Policy recommendations for a successful program environment

# Exploring policy-program interactions

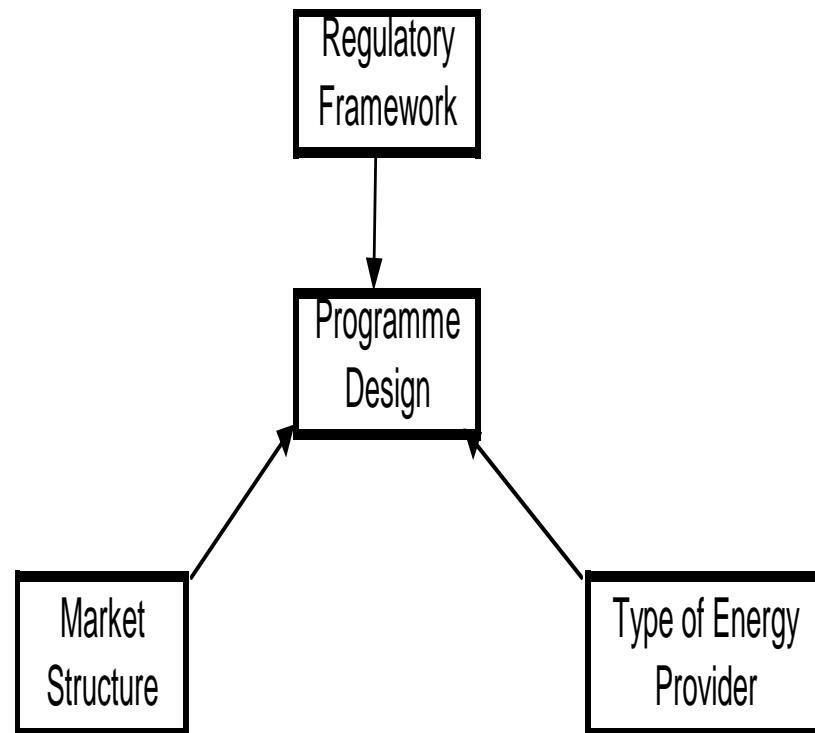
- **What does tradability contribute to an obligations scheme?**
- **Are “distributional safeguards” needed? How should they be provided?**
- **Setting an energy savings target trajectory**
- **Encouraging innovation while managing overhead costs**
- **Importance of oversight**
- **Competitive effects of obligations in liberalized markets**
- **What role can capacity and energy markets play?**
- **How important is additionality?**
- **Balancing long-lived and short-lived efficiency measures**

# Exploring institutional arrangements

- **Determining obligated entities**
- **Choosing eligible entities**
- **Assigning administrative responsibility**
- **Building monitoring and verification capacity**
- **Selecting a market operator**

# Comparative analysis of programmes

- **Market, institutional and regulatory interactions**
- **Program compatibility with market designs and regulatory frameworks**
- **Extending EE policies to cover upstream energy providers**
- **Exploring untried combinations of regulatory mechanisms and programme designs**



# Consideration of which energy providers might be obligated

- Who is most frequently tapped to deliver energy efficiency?
- What regulatory mechanisms might mobilize other energy providers?
- What type of energy efficiency programmes might they undertake?

Energy provider entities	Market Structures			
	Integrated and regulated	Unbundled and regulated	Unbundled and partially competitive	Unbundled and fully competitive
<b>Electricity</b>				
Transmission				
Distribution				
Retail				
<b>Fuels</b>				
Transmission				
Distribution				
Retail				

**Often involved in delivering energy efficiency**

**Seldom involved in delivering energy efficiency**

# Metrics for energy provider-delivered energy efficiency

- **Projecting economic and technical potential**
- **Setting realistic targets for energy providers**
- **Benchmarking and comparing results across providers and types of energy provided**

Impact	Cost
<ul style="list-style-type: none"> <li>• Energy savings by electric utility by sector in GWh</li> <li>• Energy savings by gas utility by sector in TBtu</li> <li>• Savings as % of sales</li> <li>• Savings as % of peak demand</li> <li>• Energy efficiency target as % of total sales</li> <li>• Carbon dioxide reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Total cost per kWh saved; per TBtu saved</li> <li>• Administrative costs per kWh saved; per TBtu saved</li> <li>• Spending per ratepayer</li> </ul>



# Creating opportunities for policy dialogue



# Outreach and engagement strategy

- **Regional workshops**
  - North America
  - Europe
  - Asia – India, China, Australia
- **Workshop conveners**
  - IEA and IPEEC member governments
  - Regulator associations
  - Energy provider associations
- **Other partners**
  - WBSCD and WEF
  - Academics and NGOs



# Regional policy dialogue partners

Region	Regulator network	Energy provider network
International	International Confederation of Energy Regulators (ICER)	WBCSD WEF
Europe	Council of European Energy Regulators (CEER)	Eurelectric Eurogas
US	National Association of Regulatory Utility Commissioners (NARUC)	Edison Electric Institute American Gas Association NRECA and APPA
India	Forum of Indian Regulators	Council of Power Utilities
China	State Electricity Regulatory Commission	State Grid Southern Grid
Australia	Australian Energy Regulator, Australia Energy Market Commission State energy regulators	Energy Retailers Association Energy Supply Association Energy Networks Association

## Discussion and questions

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