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# Policy Pyramids:

An Evaluation Framework for Industrial GHG Mitigation Policies

IEPEC Conference, Rome 13 June, 2012 Julia Reinaud and Amelie Goldberg





#### **Decision-makers Matter!**

#### Need to make a compelling business case to the board Productivity gains "sell"

#### **Chief Technology Officer**

"Do we know what energy efficiency practices and technologies are available?"

**Driver: knowledge** 

#### **Financial Director**

"Do we have the money to invest and are we willing to spend it on FF?"

**Driver: Financials** 

#### **CEO**

"Are we committed to prioritize EE above other investments?"

**Driver: Commitment** 

#### **Marketing Director**

"Do the public and market demand us taking EE measures?"

Driver: Public and market demand

Source: Ecofys in Reinaud and Goldberg, 2011

#### **Regulatory Affairs Officer**

"Does this government policy require us to take EE measures?"

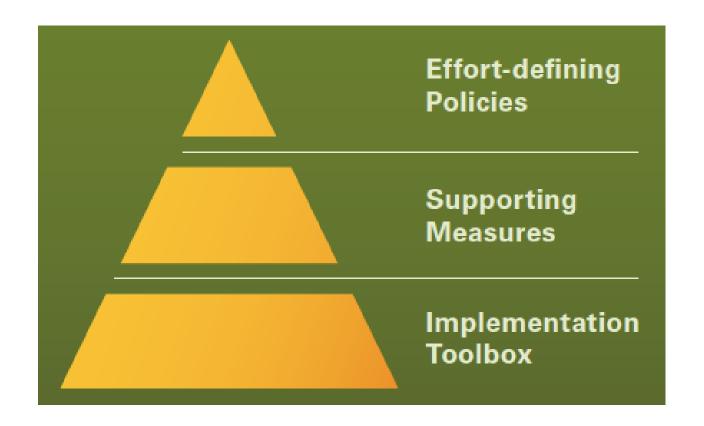
**Driver: Policy obligation** 

#### China **United States (Federal)** Relevant Policies Main Indo Relevant Policies Main Industry Characteristics Policy Pyramid Policy Pyramid Year(s) Policy measur Country Large Number of EE Policies Large Number industry **Effort Defining Policies** Effort Defining Policies able Energy Direct Financing Facility Albania ient Energy Use Programme (PRONUREE) Argentina Fund Argentina Argentina Development of New Argentinian Energy Argentina artification Institute (IRAM) Argentina Argentina Bolivia Bolivia Bolivian Institute of Standardization and Quality (IBNORCA) Bolivia Vice Ministry of Electricity and Alternative Energy Sources Bolivia Vice Ministry of Electricity and Alternative Energy Sources Bolivia Brazil Minimum Energy Efficiency Levels Brazil ANEEL Energy Efficiency Program Brazil National Programme for the Rational Use of Oil Products and Natural Gas Brazil National Climate Change Plan (PROCEL) and National Programme for the US-11: E3: Economy - Ener 1985 -Brazil Rational Use of Oil Products and Natural Gas (CONPET) CN-13; EE Fir 2002 -Minimum Energy Performance Standards (MEPS) Brazil Implementation Toolbox 1985 -Brazil National Electricity Conservation Program (PROCEL) Implementation Toolbox 2002 - 2006 Brazil Three Country Energy Efficiency Project White Papers on GHG Contr Cambodia Cambodia 2004 - 2009 ASEAN Plan of Action for Energy Cooperation (APAEC), 2004-2009 Information S part of US-1a) Training prog Support & co-funding of ene 2008 -Incentives for the Introduction of Efficient Electric Motors Chile training (as part of US-2a) Technology C CORFO Energy Efficiency Loan Programme Chile Tools & guidance for GHG Guidelines for 2006 -Country Energy Efficiency Programme (PPEE) Chile part of US-3) Lists of regis Country Energy Efficiency Programme (PPEE) Chile Training Centers, Software 12005 -Study tours a ISO 50001 standard, Energy 2006 -Voluntary Agreements in Chile Chile iepd.iipnetwork.org ieep.unido.org Guidelines for Energy Mana 2004 -Chilean ESCO Business Market Chile

### **Presentation Outline**

- 1. The "Policy Pyramid"
- 2. Overview of U.S. & China policy packages
- 3. Key Messages from a "Policy Pyramid" perspective

### The Policy Pyramid



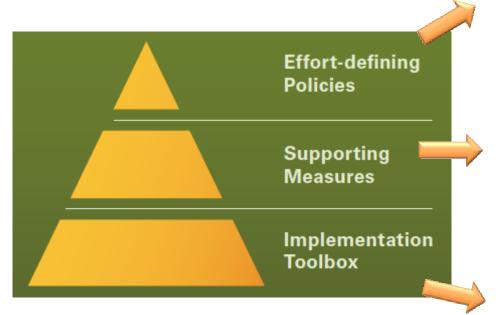
The Policy Pyramid allows you to see policy interrelations and visually understand the policy hierarchy

### **Key Questions**

### Have China and US policy makers:

- •Established a coherent set of effort-defining policies?
- •Defined mutually reinforcing supporting policies?
- •Provided a detailed and comprehensive implementation toolbox?

### United States (Federal): simplified policy pyramid

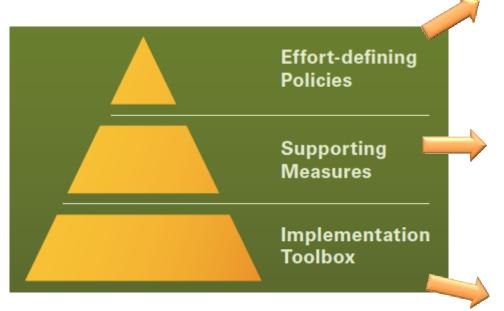


Mandatory standards on equipment Voluntary programs, including the Superior Energy Performance Program

Many measures developed at the State level, with some exceptions at the Federal level

Very detailed implementation toolbox and tools to help companies identify their energy conservation potentials Software tools (e.g. Quick PEP)

### China: simplified policy pyramid



Mandatory energy conservation targets

Top-10,000 enterprise program

Mandatory appraisals of projects & closures

**Industrial Performance Standards** 

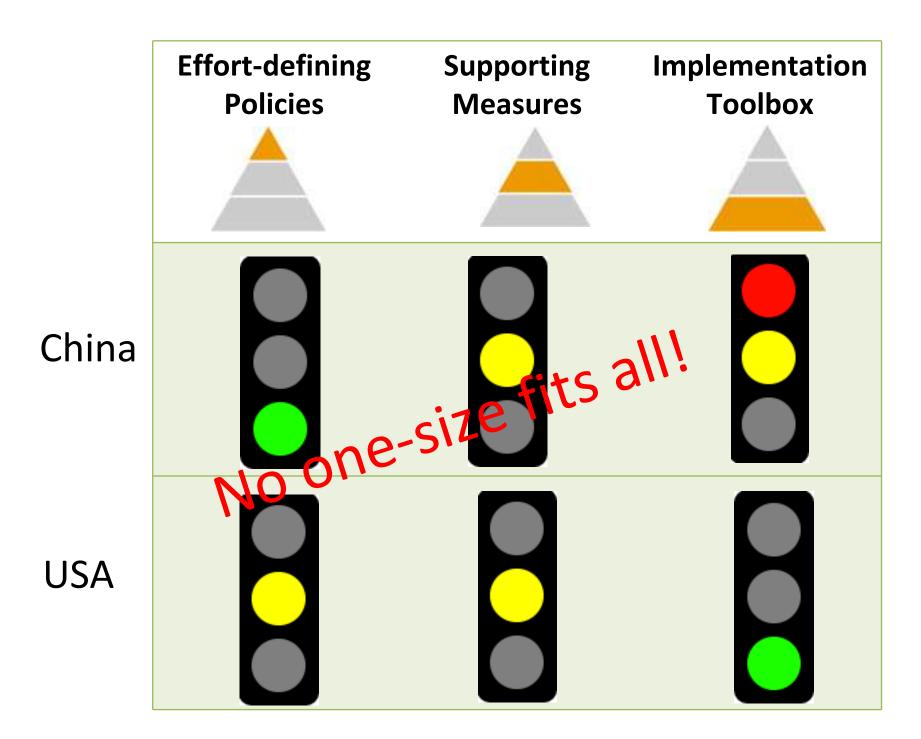
**Financial subsidies** 

Policies targeting other actors (Escos, FI)

Some are also by Provinces

Technology catalogues, guidelines from Beijing

Technical support often provided at the **provincial level** 



## **Key Messages (1)**

- Effort-defining policies are the most important driver that governments can provide
  - Voluntary versus Mandatory?
    - debate is still on as to which is most effective
    - Balance of requirements and incentives?
    - Whether and how targets and standards should be combined?

# **Key Messages (2)**

- Effort-defining policies need to be underpinned by supporting measures that reinforce drivers or remove or reduce barriers
- Need to involve all players in the market (Escos, Fls, private sector, etc.)
- The success of energy/GHG goals relies on the ability of companies of implement EE actions
- Implementation toolbox is key!
- Policy pyramid methodology is a good starting point for policy planning and formulation.

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