Energy efficiency certificate trading: Food for thought from a recently launched Italian scheme

Roberto Malaman, Marcella Pavan
Regulatory Authority for Electricity and Gas, Italy

Energy efficiency certificate trading

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The Regulatory Authority for Electricity and Gas

- **Established** under law no. 481 of November 14, 1995
- **Fully operational** since April 23, 1997
- **Independent** entity with three Commissioners
- Sets its **own organisation and procedures** for decision-making
- **Self-financed** by contributions from regulated companies and entities
- **Member to the Council of European Energy Regulators (CEER)** since March 7, 2000

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Accountability of the Regulatory Authority for Electricity and Gas

- **Stakeholders**
  - hearings
  - advice

- **Parliament**
  - laws and norms
  - communications

- **Authority for Electricity and Gas**
  - notice
  - complaints
  - advice
  - general policy guidelines

- **European Commission**
  - directives

- **Council of State**
  - appeals
  - advice and notice

- **Regional Administrative Courts**

- **Government & Ministers**
Background (1)
General aims

- **Kyoto:**
  - 6.5% cf. 1990 levels between 2008-2012
  - more than 25% via enhancement of end-use energy efficiency

- **Security of supply:**
  - California
  - EU Green Book
  - concerns at the national level

- **Other economic benefits:**
  - development of energy services companies (ESCO)
  - trade balance
  - cost-efficiency…
Background (2)
The starting point - 1

Primary energy intensity of GDP (1971 = 100)
Two opposite views on potential energy saving in Italy:

- significant
  - 48% of projected energy demand in 2010 (technical potential)
- limited
  - relatively low primary energy intensity of GDP

Is the reality somewhere in the middle?
The role of public policy:

- contribute to overcome ‘traditional’ barriers to the development of the market for energy efficient products and services, i.e.:
  - lack of information
  - marketing practices to promote more energy intensive consumption habits
  - high transaction costs
  - externalities
  - splits incentives
  - etc.
The new Italian policy approach

(1)

National targets

◆ Provisions in the Ministerial decrees implementing the EU liberalisation Directives

◆ Twins Ministerial Decrees of April 2001

◆ Mandatory quantitative energy savings targets at the national level (against the “business as usual” scenario)

<table>
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<th>Year</th>
<th>Target (Mtoe/Yr)</th>
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<tbody>
<tr>
<td></td>
<td>Electricity</td>
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<td>2002</td>
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<tr>
<td>2003</td>
<td>0,5</td>
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<td>2004</td>
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<td>2005</td>
<td>1,2</td>
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<td>2006</td>
<td>1,6</td>
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The new Italian policy approach (2)

Forecasted effect on emissions

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<td>2002</td>
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</tr>
<tr>
<td>2006</td>
<td>2,9</td>
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</table>

- 7,5% of the mid-term Kyoto target (i.e. 2006 target) if 100% of the overall target for electricity distributors is achieved via cuts in electricity consumption
- the ex-post effect on emissions will range between 5 and 15% of total Italian Kyoto target
Distributors’ targets

Specific targets on each distributor:

- **Threshold**: 100,000 customers as at 31.12.2001
  - Gas: 22 distributors; 9,630,000 customers (total: about 16 millions)
  - Electricity: 8 distributors; 98% of total customers

- Apportionment on the basis of the quantity of electricity/gas distributed to final customers compared to the national total, in the previous year

- Specific regional targets can be added by Regional Administrations

- At least 50% via reduction of electricity and gas consumption
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(4)

Distributors’ targets

- Electricity saving projects
  - At least 50% of the annual target for electricity distributors

- Natural gas saving projects
  - At least 50% of the annual target for natural gas distributors

- Other primary energy saving projects

Total annual national target

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The new Italian policy approach (5)

Eligible projects

- Targets have to be achieved via the implementation of **energy savings projects**

- Projects may be implemented by:
  - distributors (directly or via controlled companies)
  - ESCOs (still to develop)

- **Eligible projects:**
  - only demand-side actions
  - illustrative list: 14 classes of projects with more than 35 sub-classes;
  - projects started in 2001, if part of a voluntary agreement and subject to AEEG’s approval
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(6)
The TEE market

- **An Energy Efficiency Certificates (TEE) market will be created**
- **Cost-efficiency should be increased**
- **Energy Efficiency Certificates (TEE) market**
  - certificates issued by AEEG following verification
  - certificates issued to electricity and gas distributors or ESCOs
  - tradable via bilateral contracts or in the TEE market
  - three types
  - banking may be allowed
- **Annual compliance control**
- **Sanctions for non-compliance**
  - “proportional and in any case greater than investments needed to compensate the non-compliance”
  - to be paid in 2004 for 2003 targets and in 2005 for 2002 ones ➔ 2003 first year without possibility to compensate under-compliance

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The new Italian policy approach (7)

The cost-recovery mechanism – Who pays?

Costs born by distributors to carry out projects in the framework of the two decrees:

- *can be recovered via electricity and gas tariffs*
- *net of any contribution from other sources*
- criteria and mechanisms to *be defined by AEEG*
- *these criteria* “have to take into account, *inter alia*, any net profits variations (+ or -) resulting from projects implementation”
The new Italian policy approach (8)

The cost-recovery mechanism

**General criteria:**

- **unit value**: €/unit of primary energy saved
- the overall cost of a unity of energy saved must be (much) less than the avoided cost
- **promotion of efficiency gains**
- the **impact of energy savings projects on distributors’ revenues** is already taken into account in the distribution tariff structure
AEEG’s tasks (1)

◆ AEEG to issue Guidelines for the design, implementation and evaluation of projects

... taking into account, inter alia, the need to promote competition, technological progress, and to protect low-income households

... and after consultation with interested parties (regions, utilities, environmental NGOs, consumers associations, etc.)

◆ Consultation paper issued on April 4, 2002

... broadening the scope for consultation to other issues ...
AEEG’s tasks (2)

To kick start the whole mechanism:

◆ Guidelines on:
  ➢ projects preparation
  ➢ evaluation of project’s results (specifically: energy savings)
  ➢ documentation to be transmitted to AEEG to allow for projects verification and validation (on a project-by-project basis)
  ➢ issuing of energy efficiency certificates (TEE)

◆ Criteria and rules for:
  ➢ cost recovery via electricity and gas tariffs
  ➢ sanctions for non-compliance

◆ Definition of TEE market rules (together with Electricity Market Operator)
Every year:

- (upon request) **ex-ante project conformity check** with legislative as well as *Guidelines* rules
- **compliance check**
- **ex-post evaluation** and **certification of energy savings**
- **annual report** and **proposals** concerning possible modification of the system
- **issuing of TEE**
- **compliance check** (with annual targets) + **sanctions for non-compliance**
Will it work?

Key issues:

◆ compatible with a competitive market? (distributors-suppliers relationships are crucial)

◆ administrative and compliance costs (a complex system)

◆ flexibility

◆ credibility and transparency

◆ promotion of market transformation projects

◆ definition of links with future trading mechanisms
Contacts

Roberto Malaman  
*Director – Quality and Consumers Affairs*

Marcella Pavan  
*Head - Energy Efficiency Policy Division*

Autorità per l’energia elettrica e il gas  
Piazza Cavour 5  
20121 Milano – ITALY

tel: +39 02 65 565 313  
fax: +39 02 65 565 230

e-mail: rmalaman@autorita.energia.it  
mpavan@autorita.energia.it