

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

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Energy efficiency certificate trading

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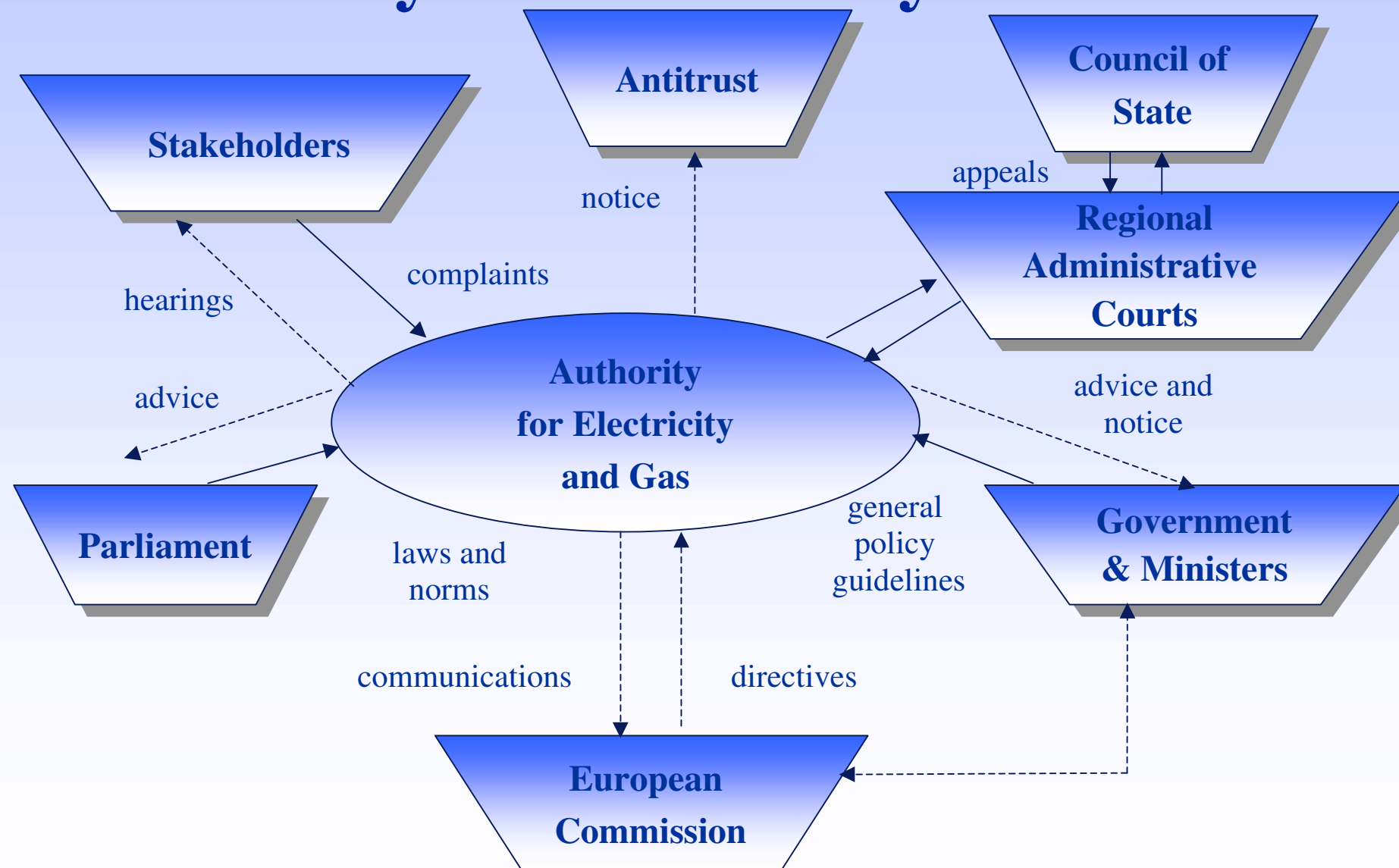
Autorità per l'energia elettrica e il gas

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**



Accountability of the Regulatory Authority for Electricity and Gas



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

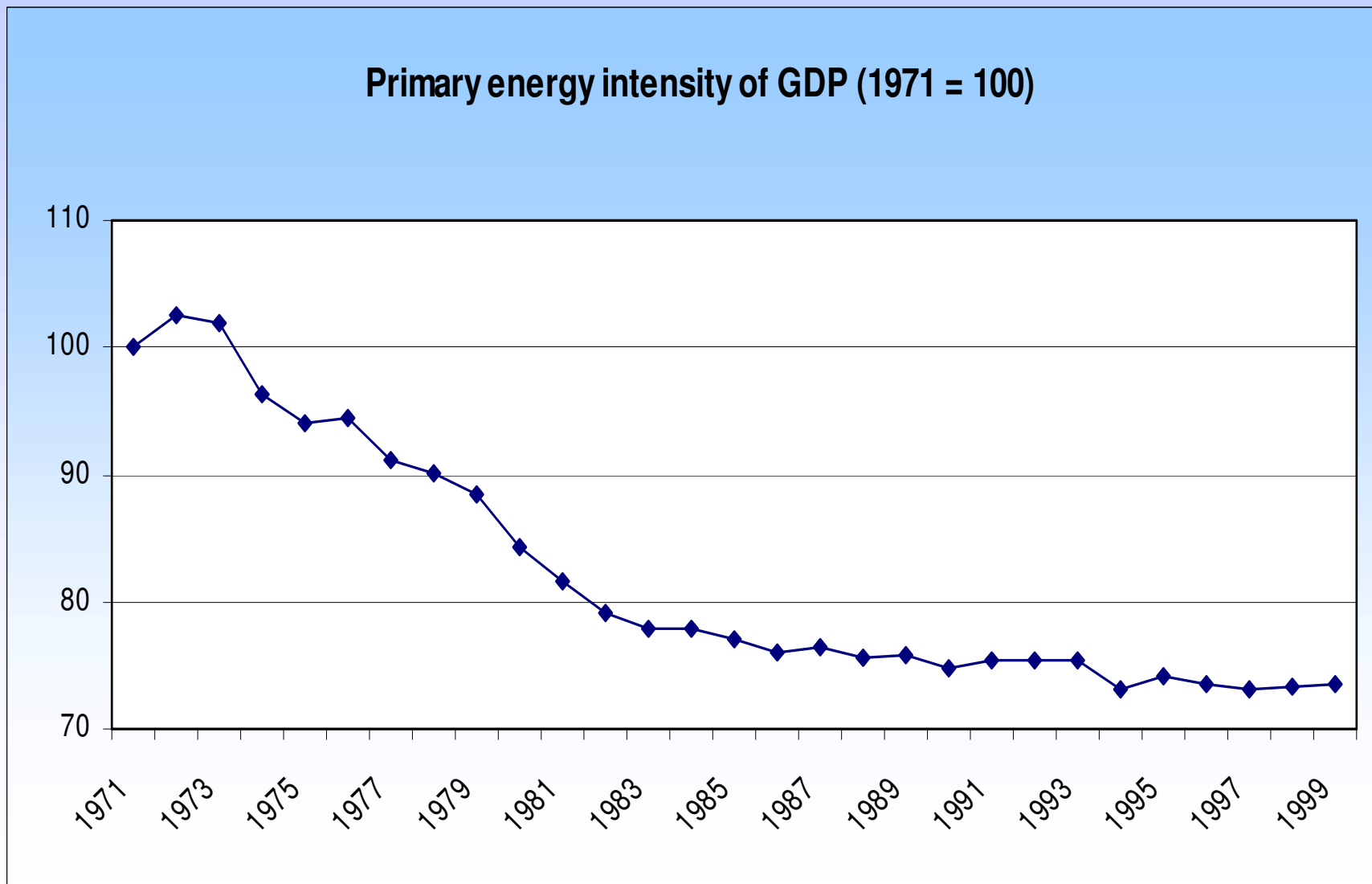
◆ **Other economic benefits:**

- development of energy services companies (ESCO)
- trade balance
- cost-efficiency...



Background (2)

The starting point - 1



Background (3)

The starting point - 2

- ◆ **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?**



Background (4)

Obstacles and barriers

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)

<i>Year</i>	<i>Target (Mtoe/Yr)</i>	
	Electricity	Gas
2002	0,1	0,1
2003	0,5	0,4
2004	0,9	0,7
2005	1,2	1,0
2006	1,6	1,3



The new Italian policy approach (2)

Forecasted effect on emissions

<i>Year</i>	<i>Target (Mtoe/Yr)</i>
	Total
2002	0,2
2003	0,9
2004	1,6
2005	2,2
2006	2,9

- ◆ 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



The new Italian policy approach (3)

Distributors' targets

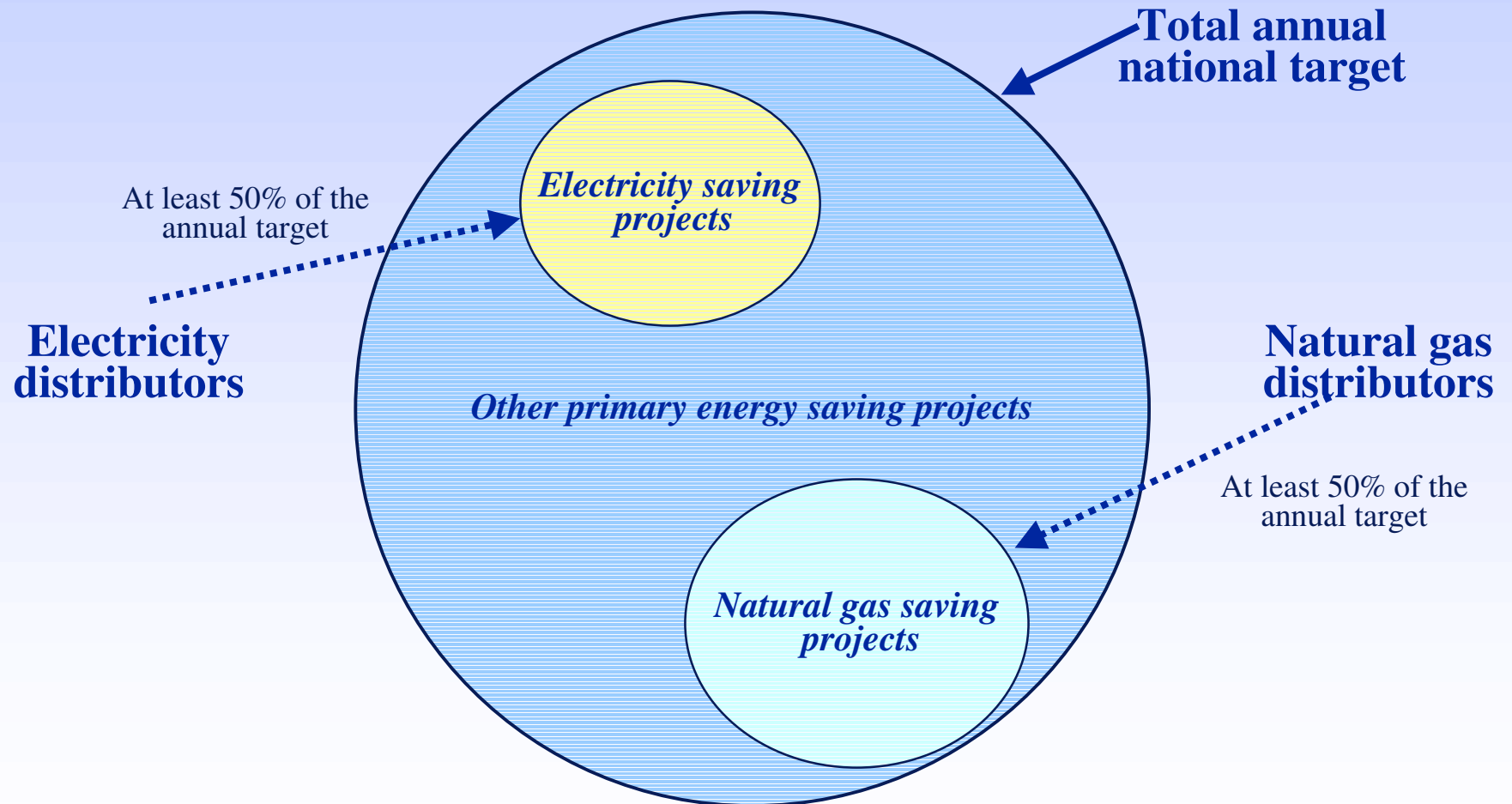
Specific targets on each distributor:

- ◆ **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**



The new Italian policy approach (4)

Distributors' targets



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



The new Italian policy approach (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



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)



AEEG's tasks (3)

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



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