SESSION VI: CLIMATE CHANGE AND ENERGY EFFICIENCY POLICIES

A European regulator's perspective

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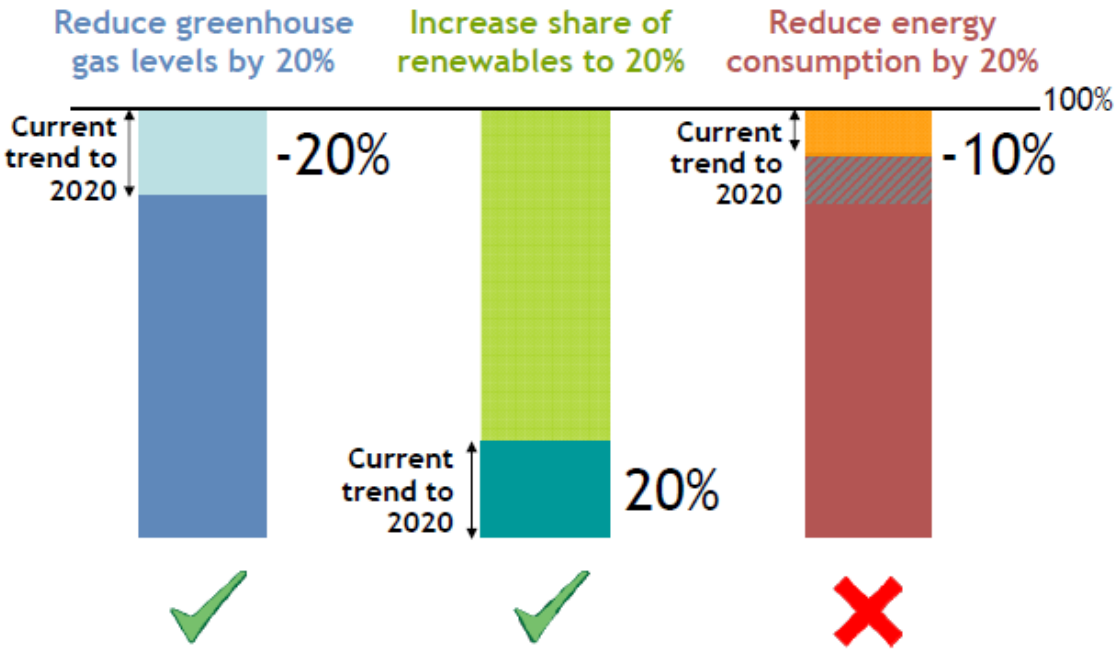
Eu 20-20-20 goals for energy 2020

EU has three goals for 2020:

1) -20% reduce greenhouse levels;
2) +20% increase share of renewables;
3) -20% reduce energy consumption.



Energy Efficiency Policy

- **Different instruments among EU countries**: traditional measures prevail (fiscal incentives, labelling and codes) but new and innovative policies being adopted by some countries (e.g. Tradable White Certificates in the UK, Italy, France and Poland)

- Move towards the adoption of a EU common policy framework: **recent proposal for a new Directive on Energy Efficiency** to fill the gap between the 20% target and energy savings delivered so far by existing policies

- **Non-binding targets but binding measures!**

EU new directive on EE – proposal

June 2011

Non-binding national targets, however very specific obligations:

- **Public sector**

- Legal obligation to purchase high energy performance products and to renovate each year at least 3% of owned buildings

- **Energy Sector**

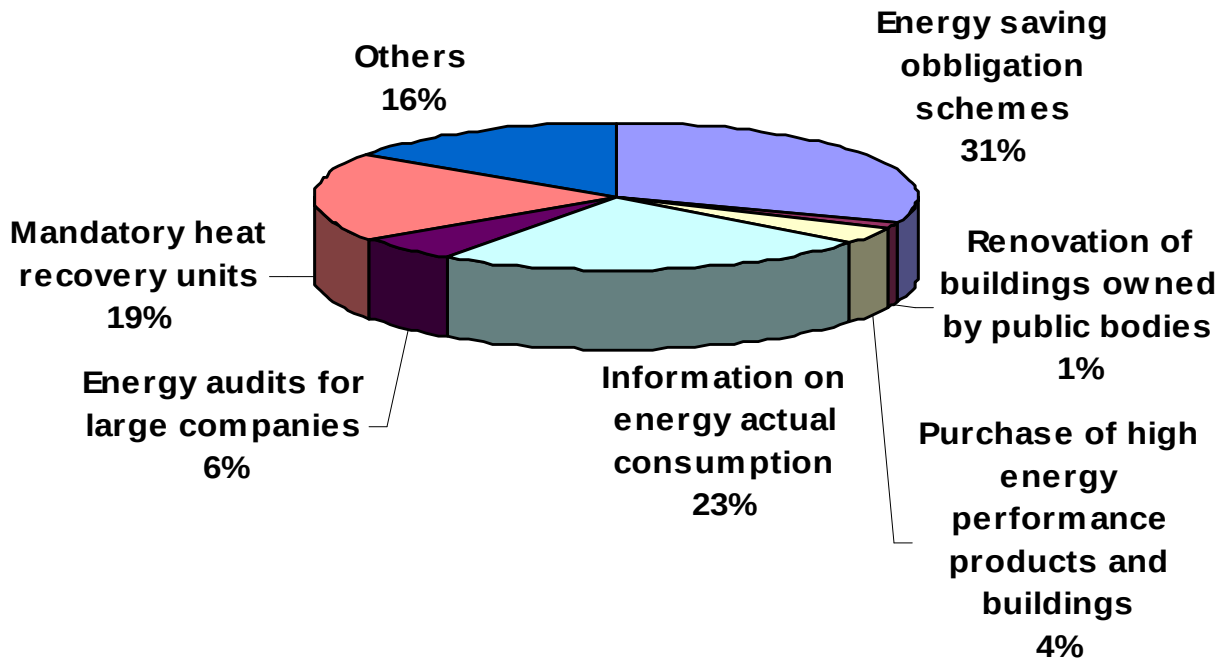
- **Energy saving obligation** on energy utilities to save every year an equivalent of 1.5% of their energy sales
- **Mandatory CHP** for new generation capacity and high-heat-demand industrial installations
- **Network regulation** to enable energy efficient solutions and technologies (e.g.: demand response, dynamic pricing, …)
- Promotion of **energy services companies** (ESCOs)

- **Consumers**

- **Empowering final consumers** via an easier access to consumption and price data and a more frequent and informative billing
- **Mandatory energy audits** for large companies

New EU directive: breakdown by policy

The 20% savings objective for EU27 agreed by the European Council translates into a reduction of primary energy use by 368 Mtoe in 2020.



Source: based on the EU Commission Impact Assessment accompanying the proposal

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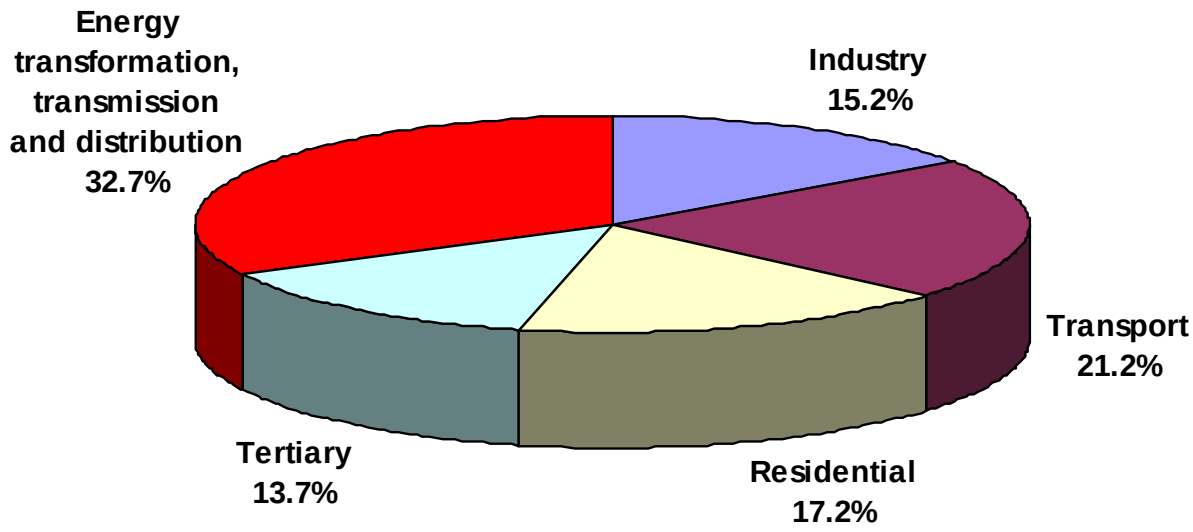


Source: based on the EU Commission Impact Assessment accompanying the proposal

1. The economics of the new directive (a)

EU vs. National budget

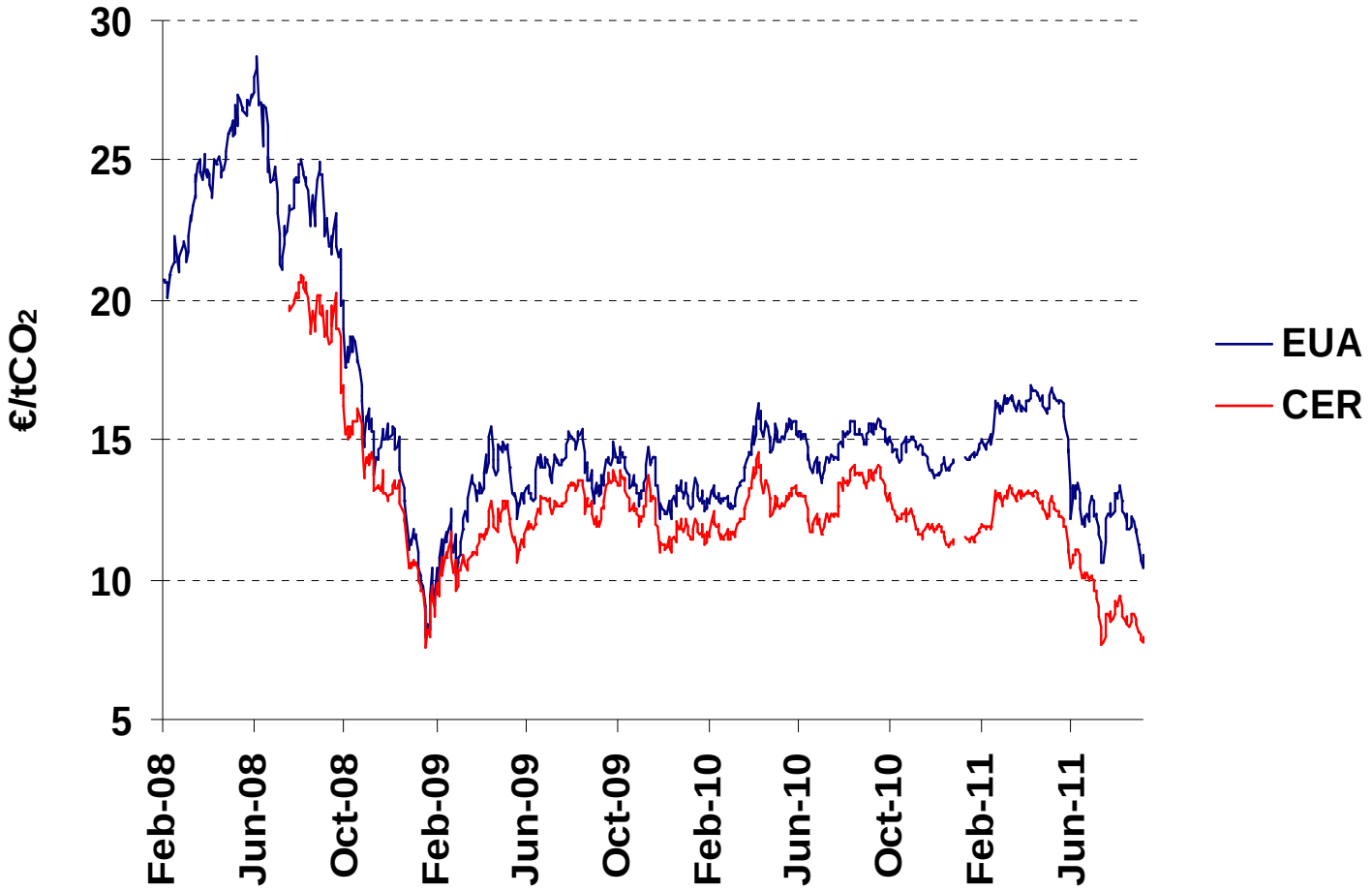
→ Total burden on national budgets

Cost-recovery issues

- Existing Tradable White Certificates (TWCs) mechanisms are financed through:
  - network tariffs (Italy)
  - passed-through into retail prices (UK)
  - passed-through into retail prices not allowed by regulator (France)
- Cost of compliance can be estimated in the range of 1-3 Eurocent/KWh for companies
- An assessment of a common White Certificate scheme at EU level has shown that such system would create excessive administrative costs

Potential impact of the new directive on EU ETS market

Trends of carbon prices



1. The economics of the new directive (b)

Expected economic benefits

- Energy procurement cost reduction (lower bills for households and firms => competitiveness)
- < energy import dependence
- Technological innovation
- New business opportunity (ESCO)

Economic expansion

2. GOVERNANCE OF EU EE (a)

- Subsidiarity principle: energy policy does not fall under the esclusive competence of EU.
- Member States have to transpose the directive into national law.
- By 2014, the Commission shall assess whether the Union is likely to achieve its target of 20% primary energy savings by 2020 and possibly propose **mandatory national targets**
- It is not defined how the individual targets for each Member State will be set (i.e. **the burden sharing process**) should the Commission set mandatory targets in 2014

2. GOVERNANCE OF EE (b)

EU framework vs national implementation …Top down again ?

- Regulators are considering the trade-off between a common framework for coherent and mutually reinforcing mechanisms and different national mechanisms

- Example of a locally based best practice: a market approach to EE (Italy, France, Poland) [Eu average cost of energy saving (2.6 Euro cents/KWh) vs. Italy av cost of energy saving (TEE) (1.7 Euro cents/Kwh)]

Hints for discussion-1

Governance

- **EU framework – national/local implementation**

- **Energy obligation schemes:**
  - a **minimum energy efficiency obligation** would best serve the purpose of the Directive because of differences in Member States;
  - However, **basic common criteria** are needed –i.e. measurement, monitoring and verification criteria- to quantify and verify energy savings across Member States

Hints for discussion-2

Regulatory tools

What is the most effective mix of regulatory tools to achieve energy efficiency? Locally defined ?

- **Market approach**
- **Obligations and sanctions**
- **Stakeholders involvement**

An example of good mix: TEE, to promote innovation and get EE results, involving stakeholders

Network regulation – local and EU ?

- The development of demand solutions for consumers, the integration of distributed generation and energy storage require adapting network regulations to smart grids
- Network regulation should ensure that the most energy efficient solutions in network operations, management and the dispatch of generation resources are available and systematically applied
- Network regulation better reflecting energy efficiency performance criteria will result in:
  - Savings from demand response
  - Saving from integration of distributed generation
  - Savings from reduced network losses

Hints for discussion-3

Roles for Regulators - today

- **Some European Energy Regulators don't have relevant competences on energy efficiency matters; these rest mainly with the government and ad hoc governmental agencies.**
- **Some Energy Regulators play a role in the management of market-based schemes and/or in the roll-out of smart meters**
- **Regulators responsible for network tariffs: cost-reflective, no incentives for increased sales**
- **Some regulators responsible for billing: importance of clarity and enabling customers can understand**
- **Some regulators involved in information dissemination activities to raise public awareness on energy-saving practices.**

Role for Regulators – tomorrow?

- ACER **role** will make it easier for national regulators to contribute to the overall effort of achieving energy savings and to ensure proper market functioning at the same time.

- **In particular, where energy efficiency incentive schemes are financed via energy tariffs, national energy regulators should be directly responsible** for the definition of the technical and economic regulation of these schemes.

Annex

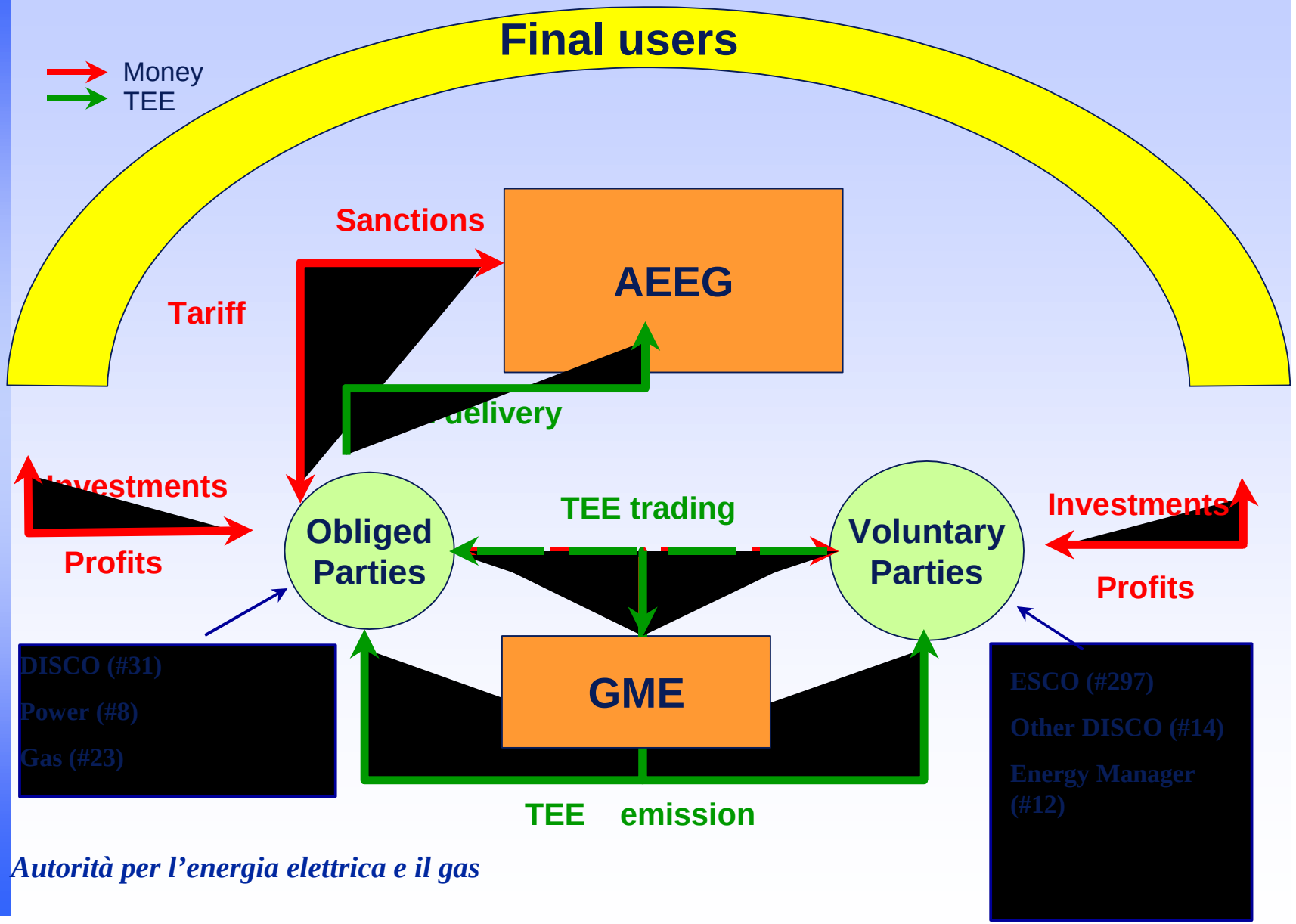
An example of best practice national implementation:TEE (energy efficiency certificate) mechanism in Italy

- TEE have been established on 2004, specifying national quantitative targets of energy efficiency improvement;
- Electricity and gas distributors (DISCOs) with over 50,000 customers are required to achieve energy saving obligations;
- The national regulator (AEEG) certifies each project of energy efficiency and assigns TEE in accordance to energy saved;
- DISCOs may achieve their energy efficiency improvements both by implementing energy efficiency projects (and gaining TEE) and by purchasing TEE from other parties;
- GME, the Italian market operator, organises and manages the Energy Efficiency Certificates Market.

Cost-recovery of the italian TEE mechanism

- The cost supported by DISCOs to achieve energy saving obligations is recovered in distribution tariffs
- AEEG, setting distribution tariffs, considers the cost of TEE paid by the distribution utilities
- DISCOs not fulfilling their obligations have to pay sanctions defined by AEEG

Regulatory Mechanism



TEE Market

Four TEE types are traded in the market:

1) Electricity

2) Gas

3) Other fuels (no traction)

4) Other fuels (only traction)

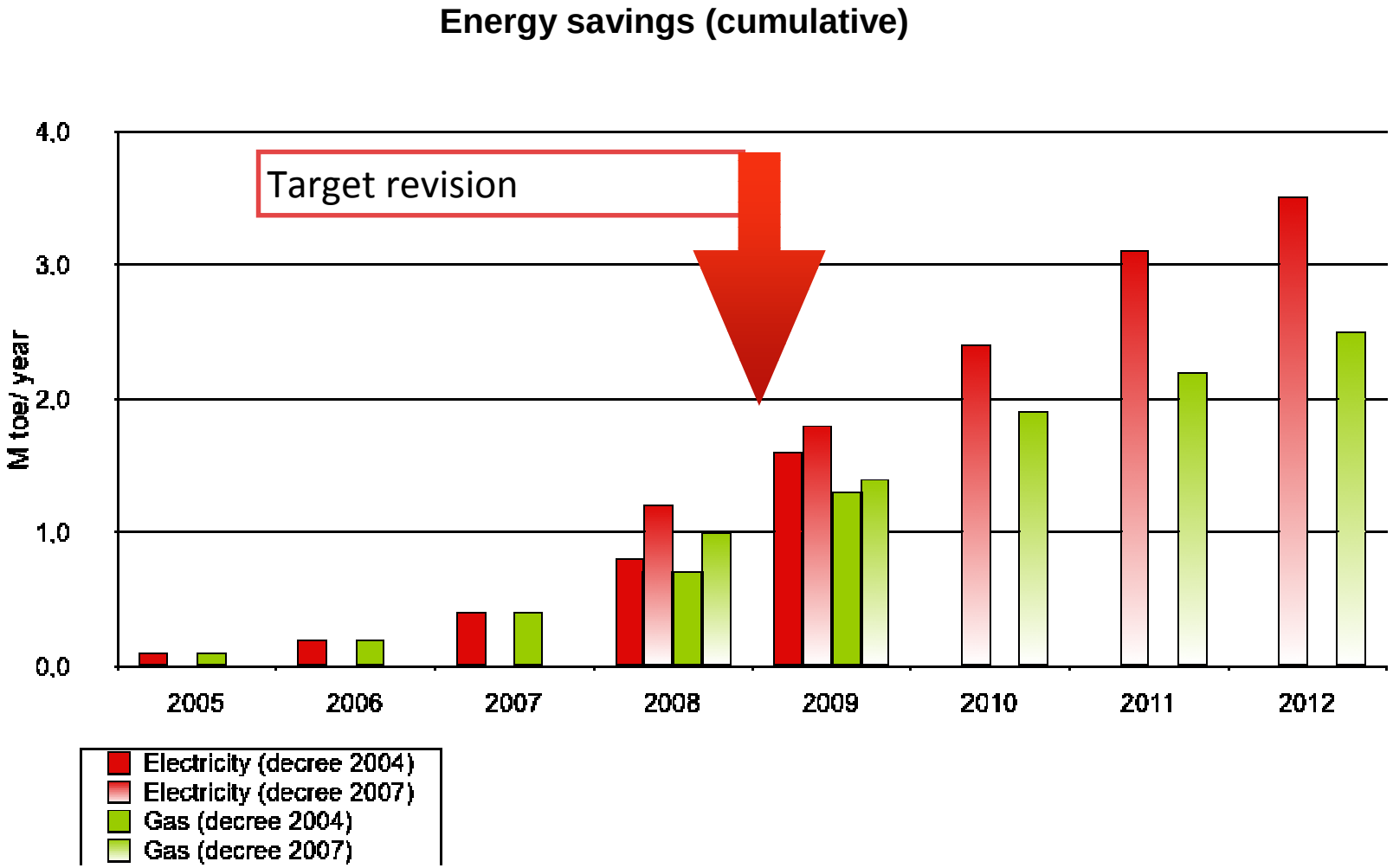
Tariff payed to obliged DISCO is:

from 2005 to 2008 =100.00 €/TOE

in 2009= 89.92 €/TOE

in 2010= 92.22 €/TOE

Targets program



Main results

- Energy savings: 7 TWh per year (= 2% of domestic consumption)
- Carbon savings: 4 Mt CO2
- Total savings 2005- May 2011: 9.6 M Toe
  - Electicity : 68%
  - Gas: 24%
  - Other fuels: 8%

- Total Cost: 531 M Euros
- Average Cost: 1.7 Euro cents/ KWh
- EU average cost: 2.6 Euro cents/kWh

Role of AEEG

- Definition of Guidelines
- Energy saving project evaluation
- Controls on realized projects
- Control of specific targets achievement by DISCO
- Sanctions
- Annual Report

Thank you!

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