Energy savings obligations, is the market really active, or is it a new way of making money using an obligation?

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Outline

- Energy Efficiency Obligations
- Global overview
- European experiences
- Costs
- Energy Efficiency Obligations in the EU, what will be the future?

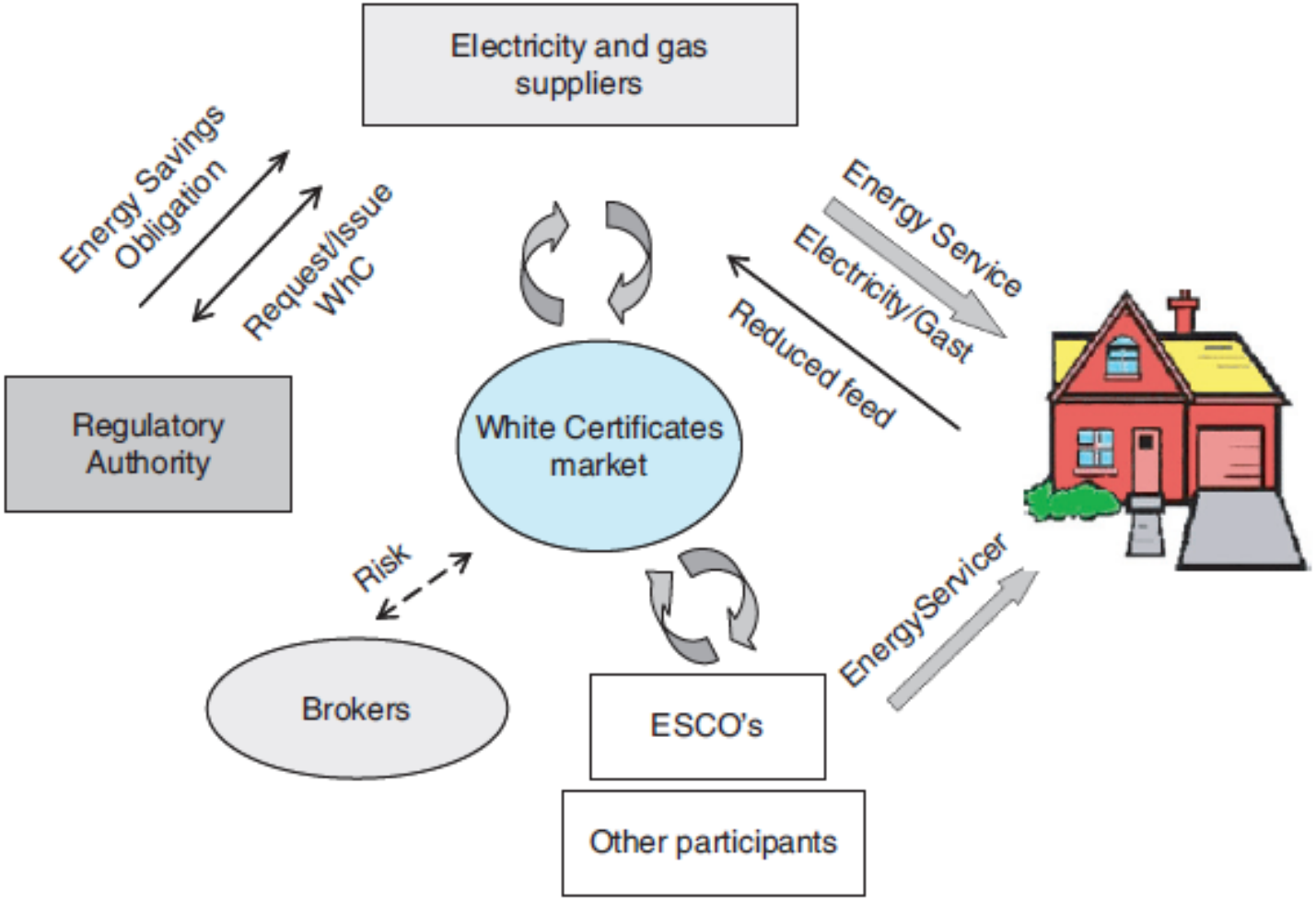


Fig. 1. White Certificate energy market.

Energy efficiency obligations

- Energy efficiency obligations/white certificates (EEOs) are powerful tools to deliver efficiency benefits
- Variety of EEO structures and approaches are working well in the US, EU, AUS, China, Canada, elsewhere
- Obligations on retail providers, wires/pipes companies, government agencies, special efficiency agencies, and others
- Key features of successful EEOs: Growing ambition; clear obligation; stable source of revenue; consumer protection, and good measurement

EEOs on Energy providers

- EEOs put the responsibility for energy efficiency on the actors in the sector directly connected to the purchase and sale of energy
- Consumers need help to invest – (audits, advice, financing, incentives, etc.) Energy providers can overcome barriers, work directly with consumers, or support those who do.
- Energy providers are a logical and stable source of revenues: avoiding ups and downs of annual public funding and providing incentives for efficient delivery.
- **HOWEVER: Global experience shows other approaches work too.** (Member States can take different approaches under EED Article 6)

Trade of obligations

- A public mandate requires an energy provider to prove their activities have resulted in energy efficiency improvements by eligible end use customers
- In some systems installers can earn a ‘White Certificate’ for the energy savings achieved – not necessarily tradable
- Openly tradable WCs: when parties other than the obligated energy providers can earn WCs in their own right and trade them in the market place. Really only in Italy and Texas; limited trading in France, China.

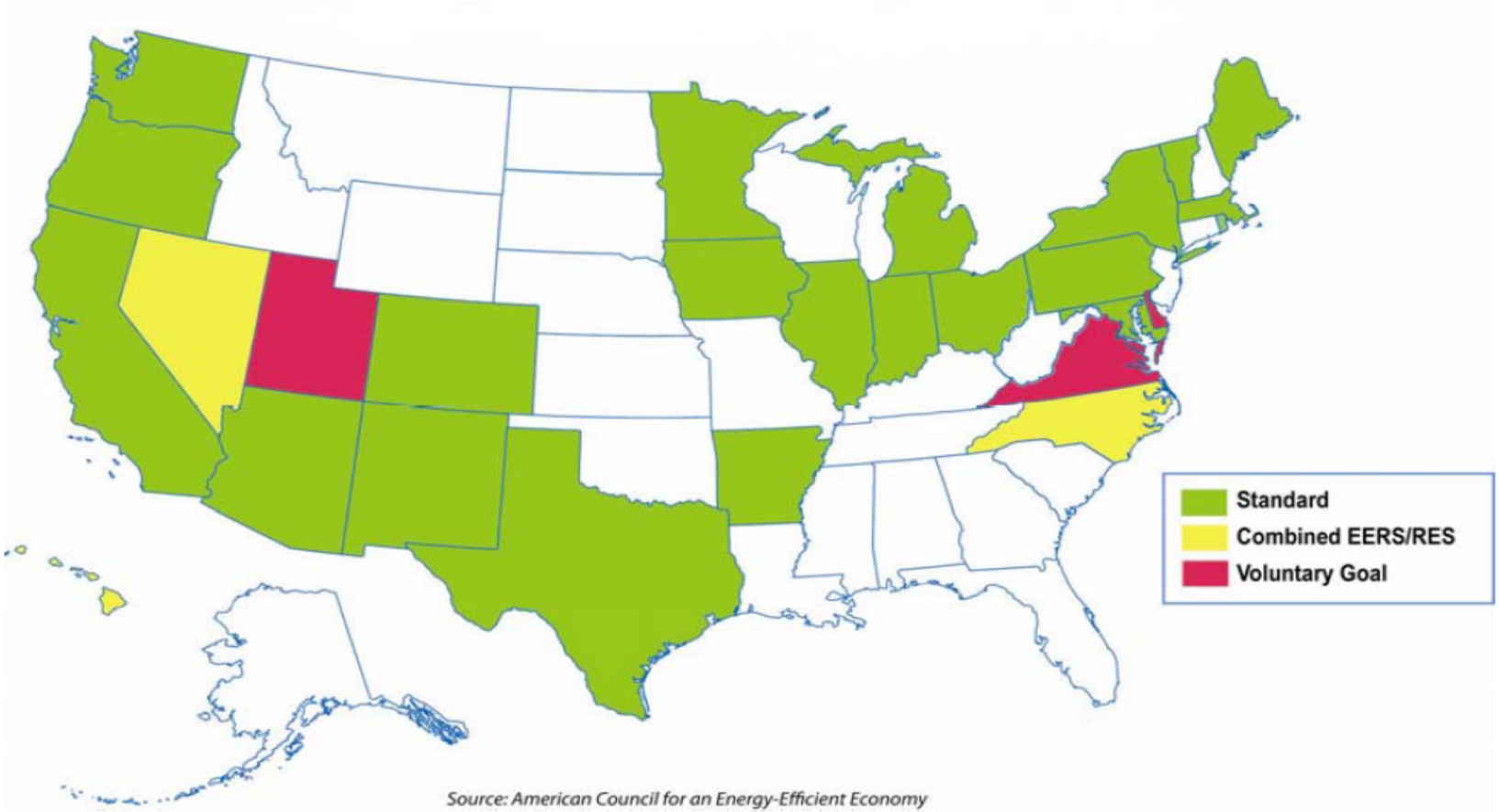
Global Experience with EEOs

- Europe: 7 Member States or Regions
  - UK, France, Italy, Denmark, Flanders (changing), Ireland & Poland (starting)
- 24 US States ("EE Resource Standards")
- Australia: 3 largest States -- New South Wales, Victoria, South Australia
- China: "Efficiency Power Plants"
- Brazil: 1% for public purposes, ½% for EE
- Other nations acting: Canada, Mexico, India

US - 24 US States with EEOs

State Energy Efficiency Resource Standard (EERS) Activity

October 2011



EU Experience with EEOs

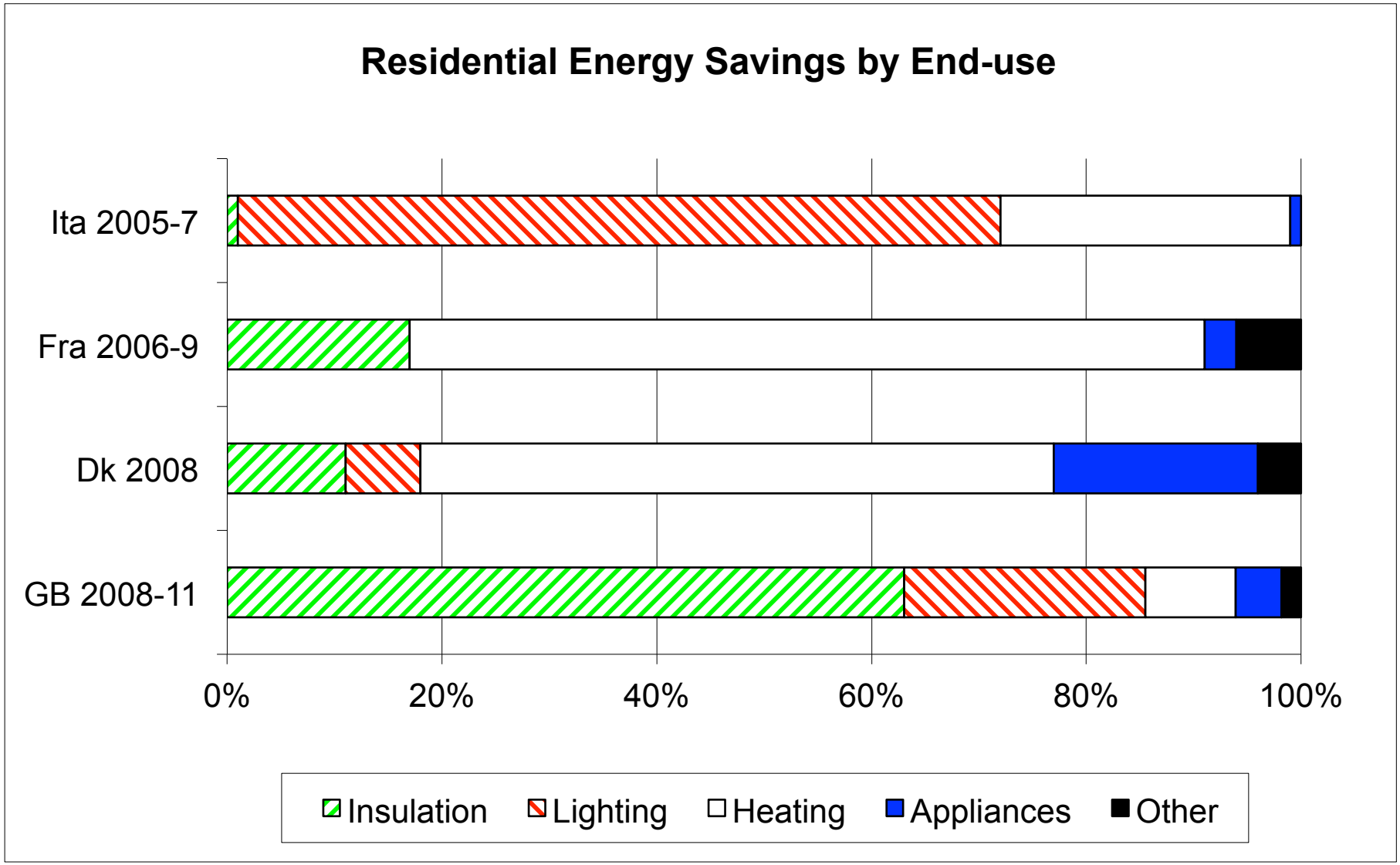
(Up to 2011)

Country	Obligated Company	Eligible Customers	Administrator
Belgium - Flanders	electricity **distributors**	residential and non energy intensive industry and service	Flemish Government
France	**retailers** of non-transport energy + **importers** of road transport fuel	All (including transport) except EU ETS	Government
Italy	electricity & gas **distributors**	All including transport	Regulator (AEEG)
GB	electricity & gas **retailers**	Residential only	Regulator (Ofgem)
Denmark	electricity, gas, fuel oil & heat **distributors**	All except transport	Danish Energy Authority

EEOs in the EU – MS Choices on Targets, Ambition, Spending (2011 data)

Country	Nature of saving target	Current size of target	Estimated annual spend by companies €M {€/person}
Belgium – Flanders	1st year primary energy	0.6 TWh annual	60 {14}
France	lifetime delivered energy	345 TWh over 3 years to end 2013	340 {5}
Italy	cumulative 5 year primary energy	5.3 Mtoe in 2011	530 {9}
GB	lifetime CO2	293 MtCO2 in 4.75 years to end 2012	1440 {24}
Denmark	1st year delivered energy	6.1 PJ annual	100 {18}

EU EEOs – Where do the savings come from?



Conclusions from global & EU experience

- EEOs have been successful policy tools in a variety of markets and geographic regions
- Obliged entities and administrative models can be tailored to state or national conditions
- Many states (US and AUS) and EU MSs have evaluated their programmes and expanded them
- EEOs can deliver advantages of EE to energy systems, consumers, and economies without relying on Treasury funds
- **Key features are: Clear mandate, growing ambition, stable funding, and accountability for results.**

Energy Efficiency Directive

Article 7

Energy efficiency obligation schemes

1. Each Member State shall set up an energy efficiency obligation scheme. That scheme shall ensure that energy distributors and/or retail energy sales companies that are designated as obligated parties under paragraph 4 operating in each Member State's territory achieve a cumulative end-use energy savings target by 31 December 2020, without prejudice to paragraph 2.

9. As an alternative to setting up an energy efficiency obligation scheme under paragraph 1, Member States may opt to take other policy measures to achieve energy savings among

EEOs in the EU, what is the near future?

- EED stimulate: EEO or alternative measures
- EU countries with EEO will continue with this but also with other policies and measures
- Majority of EU countries is investigating the implementation of EEOs as an additional tool
- Some EU countries will (almost for sure) not implement EEO
- EU countries will decide by the end of 2013 and report early 2014 in their National Energy Efficiency Action Plan (NEEAP)

Costs for EEO, what do we know?

- Italy
  - Average annual cost per household: maximum level of 3,7 €/year in 2009
  - Average annual cost per additional kWh saved: < 1,7 c€
- Denmark
  - Average utility cost 2006-2009: Approx. 4.5 Euro cents per kWh first year savings
- Flanders
  - Costs are incorporated in the electricity tariffs
- UK
  - additional cost to the energy company of marketing, selling, reporting, planning, etc. are about 18% of the energy companies' direct costs on energy efficiency measures.

Average annual cost per household

year	ELECTRICITY Sector		GAS Sector	
	€c/kWh	€/household/year *	€/m³	€/household/year**
2005	0.00	0.1	0.01	0.2
2006	0.01	0.2	0.02	0.3
2007	0.01	0.3	0.05	0.7
2008	0.04	1.0	*0.13*	*1.8*
2009	*0.05*	*1.5*	*0.16*	*2.2*
2010	*0.07*	*2.0*	*0.21*	*3.0*
2011	*0.09*	*2.4*	*0.24*	*3.4*
2012	*0.10*	*2.7*	*0.27*	*3.7*

* assuming an annual consumption per household of 2700 kWh

** assuming an annual consumption per household of 1400 m³

NOTE: forecast values are shown in blue italic type

Source: AEEG

Costs expectations

- General
  - Increasing costs over years for energy savings
  - Additional costs (and over years increasing) for customers; but these are a minor component in the energy costs
- Either way, in reality most of the costs are passed on in some form to the end user and, by doing so, it is consistent with the “polluter pays” principle (ECEEE report 2012).

Will the EEO be without profit for the obligated party?

- Energy providers have a direct contact with the customer, but in a competitive market a more short-time and price driven relation?
- Will an EEO be used to get a long time contract with the customer?
- How transparent will the reporting (and to whom?) be on the 'real' costs (and profits) for the energy saving measure implemented?

The future will prove;

are we now a believer or

are we suspicious?

Thank you for your attention