

## MARKET MECHANISMS FOR WHITE CERTIFICATES: ISSUES AND CHALLENGES IN DEVELOPING NEW POLICY MEASURES

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Establishment of

## **Energy Saving programmes on energy end-uses**

# STEP 1

A Public Board (e.g. Governmental) defines:

Energy saving national targets (e.g. Mtoe/year)

Eligible Energy Saving Projects

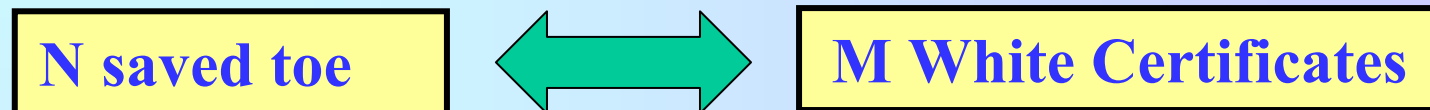
Obligation-bound actors (**OB**)

Apportionment of the global target on **OB**'s

Eligible implementers of Energy Saving Projects  
(**EI**)

# STEP II

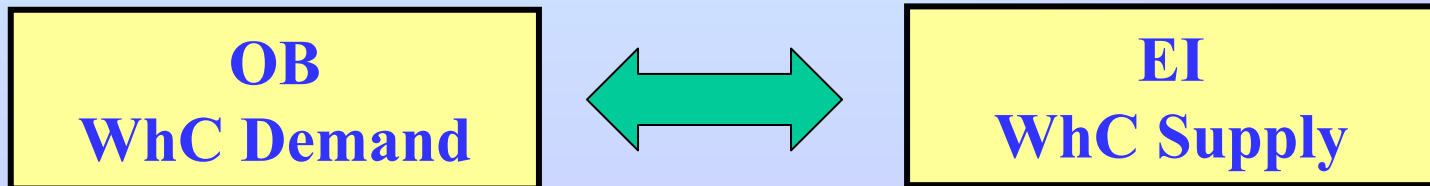
Equivalence between attained target and a proportional amount of **White Certificates (WhC)**



**“White certificates”**: certificates issued by independent certifying bodies confirming the claims of market actors for savings of energy, as a consequence of energy end- use efficiency measures (From *Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on energy end-use efficiency and energy services*)

**OB** must comply with a WhC target obligation:  
WhC demand

**EI** may gain and own WhC: WhC supply



**A market can be established where WhC demand and offer match:**

**OB** can buy lacking WhC to reach their target

**EI** can sell their WhC surplus:

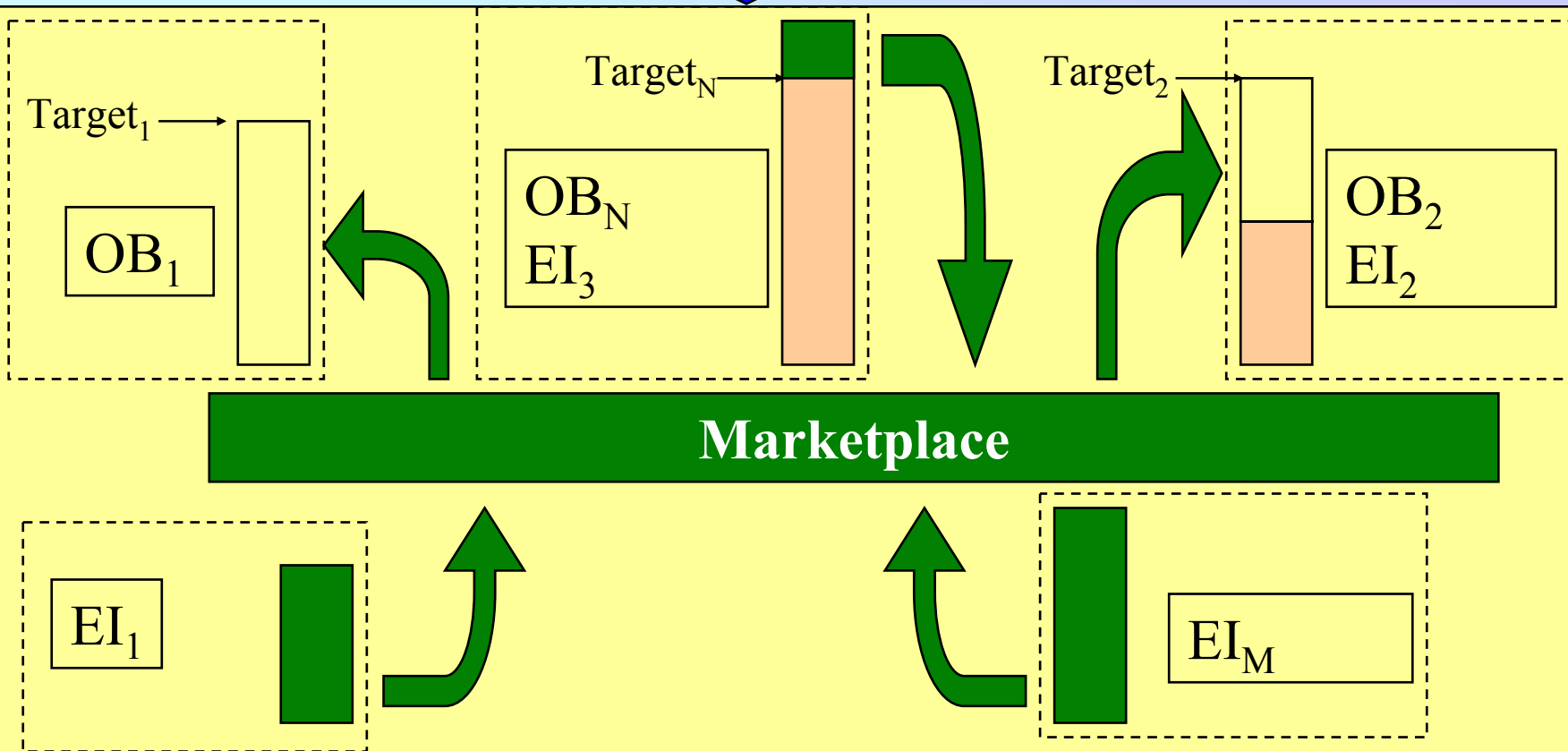
they have no target to match

or

they gained WhC above their target

# GENERAL SCHEME

Public board: mandatory EE (=WhC) targets



Obligation-bound factor (OB)

Eligible Implementer (EI)

WhC excess

Gained WhC

Obligation-bound actors = WhC target fulfilment:

**who?**

producers?

distributors (e.g. in Italy, distributors over a threshold)?

retailers?

consumers?



Eligible implementers of Energy Saving Projects =

WhC gain: **who?**

obligation-bound actors?

exempted actors (e.g. in Italy: distributors below the threshold)?

energy services companies (ESCO)?

minimum requirements? official register?

consumers?

all? only large ones?

market intermediaries?

Apportionment criteria for Energy Savings targets  
on OB (= WhC targets) : **how?**

number of served customers?

volume of distributed electricity?

Eligible (= WhC generating) Energy Saving  
Projects:

criteria

size

valuation of the saving impact = n. of WhC generated

persistence of the saving effects

## Trading mechanisms:

participants to the market

lifetime of certificates

frequency of transactions

safety rules

banking

Interaction with other trading schemes (REC, ET)

Chance of extra-national enlarged market:

within EU (Proposal EU Directive on EE in end-uses)

within OCDE

## Italian targets

Twins Ministerial Decrees of April 2001

Mandatory quantitative targets of primary energy savings 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

## Obligation-bound actors

### Electricity and Gas Distributors

Threshold: 100.000 customers as at 31.12.2001

gas: 22 distributors; 60% of total customers

electricity: 8 distributors; 98% of total customers

## Apportionment criteria

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

## Eligible Energy Saving projects

only demand-side actions (energy savings in generation uneligible)

illustrative list: 14 classes of projects with more than 35 sub-classes; among the others:

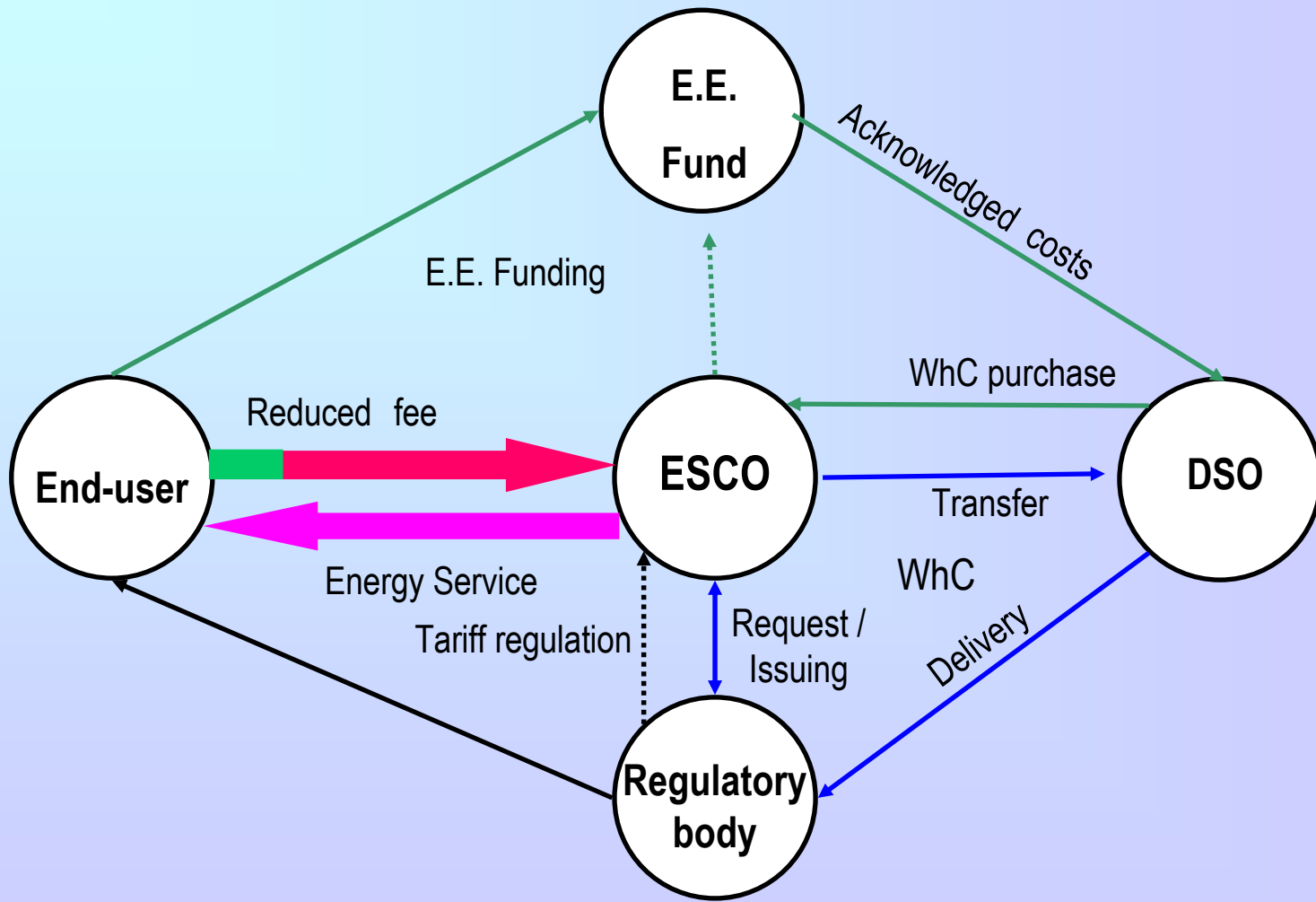
- use of high efficiency electric devices/motors,
- substitution with electric energy where convenient
- containment of electricity leaking (stand-by)
- increasing efficiency of lighting systems
- power factor regulation in final uses
- improving the combustion efficiency
- building insulation

## Eligible Implementers of the Projects

distributors (directly or via controlled companies)  
ESCOs (still to develop)



# A POSSIBLE TRADING SCHEME - Italy



## Implementation

time-shift of targets: 2 years

planned start-up: May 2004

Energy Savings certification = WhC issuing:  
within 2004

WhC trading: from 2005 on

Handled by the Electricity Market Operator

First verification of target matching: May 2005

## Other interested Countries:

UK and New South Wales (Australia) are handling a similar scheme

France is going to introduce WhC trading

Sweden and Norway are interested in principle to the subject

Interest was stated also by Germany, Holland and Hungary

# WILL IT WORK?

A new task on WhC trading is going to be launched  
within IEA-DSM:

Italy

France

Norway

Sweden

UK

Hungary (as observer)

**THANK YOU**

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