



# MARKET MECHANISMS FOR WHITE CERTIFICATES: A IEA-DSM INTERNATIONAL ACTIVITY

**Antonio Capozza**

**CESI**

**T&D Networks**

## **A national energy policy which involves:**

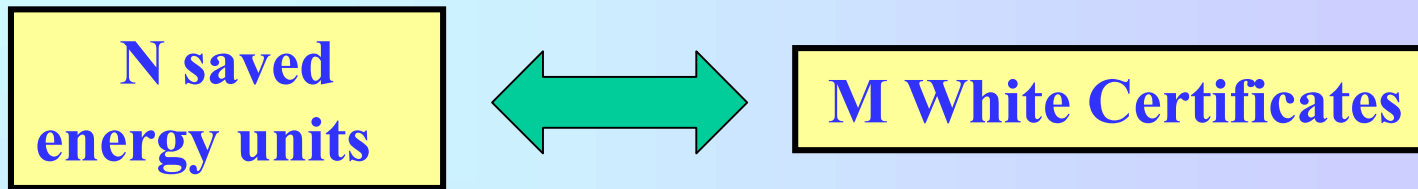
- Energy Saving programmes**
- on energy end-uses**

# STEP I

- A Public Board (e.g. Governmental) defines:
  - Energy saving national targets (e.g. Mtoe/year)
  - Eligible Energy Saving Projects
  - Obligation-bound actors (**OB**)
  - Allocation of the global targets on **OB**'s
  - Eligible implementers of Energy Saving Projects (**EI**)

## STEP II

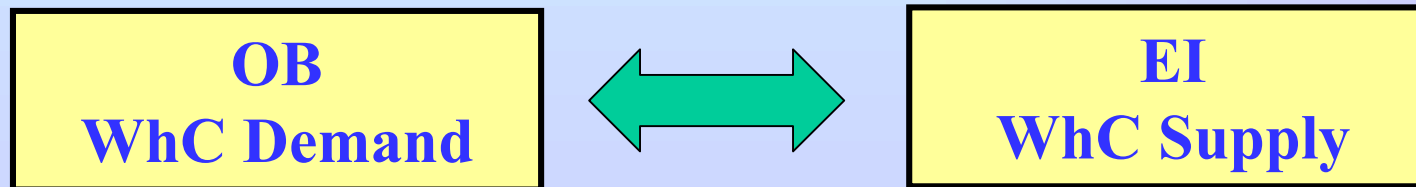
- Equivalence between attained target and a proportional amount of **White Certificates (WhC)**



- **“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*)

## STEP II

- **OB** must comply with a WhC target obligation: WhC demand
- **EI** may gain and own WhC: WhC supply

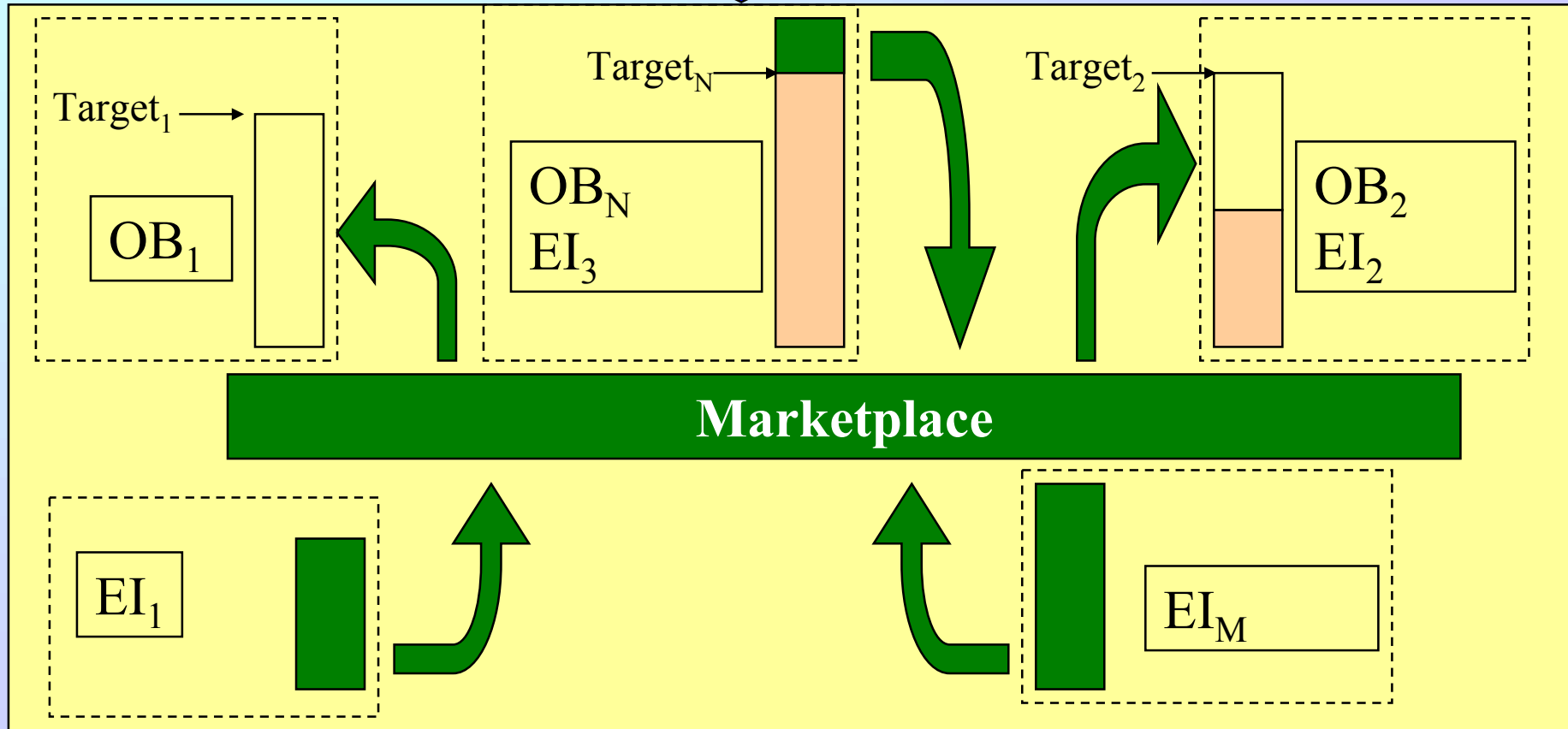


## STEP III

- **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, since:
  - they have no target to matchor
  - they gained WhC above their target

# GENERAL SCHEME

Public board: mandatory EE (=WhC) targets



Obligation-bound actor (OB)

Eligible Implementer (EI)

■ WhC excess

■ Gained WhC

## MATTER TO BE DISCUSSED

- Obligation-bound actors = WhC target fulfilment:
- **who?**
  - producers?
  - distributors (e.g. in Italy, distributors over a threshold)?
  - retailers?
  - energy/fuel suppliers?
  - consumers?



## MATTER TO BE DISCUSSED

- Eligible implementers of Energy Saving Projects = WhC gain:
- **who?**
  - obligation-bound actors?
  - exempted actors (e.g. distributors below the threshold)?
  - energy services companies (ESCO)?
    - minimum requirements? official register?
  - consumers?
    - all? only large ones?
  - market intermediaries?
  - any economic actor? over a threshold?

# MATTER TO BE DISCUSSED

- Allocation criteria for Energy Savings targets on OB (= WhC targets) :
- **how?**
  - number of served customers?
  - volume of distributed electricity?
  - turnover?

# MATTER TO BE DISCUSSED

- Eligible (= WhC generating) Energy Saving Projects:
- **what about:**
  - criteria
  - size
  - evaluation of the saving impact = n. of WhC generated
  - persistence of the saving effects
  - additionality (how to prevent from free-riders)
    - based on increase of turnover?
    - based on innovation?
    - based on present market?
  - monitoring mechanisms (duration, responsibilities)

## MATTER TO BE DISCUSSED

- Non-compliance regime (grace periods, penalties, etc)
- Trading mechanisms:
  - participants to the market
  - lifetime of certificates
  - frequency of transactions
  - safety rules
  - banking
  - borrowing/grandfathering (if applicable)

## MATTER TO BE DISCUSSED

- Chance of extra-national enlarged market:
  - within EU (Proposal EU Directive on EE in end-uses)
  - within OCDE
- Interaction with other EE policy tools
- Interaction with other trading schemes:
  - Renewable Energy Commitment scheme (*Green Certificates Trading*)
  - Carbon trading scheme (*Black Certificates Trading*)
- Possible cost-recovery mechanisms
- Rebound effects (unexpected upshots)

# About IEA Demand-Side Management

## WHAT'S IEA

### International Energy Agency

- established in 1974 within Organisation for Economic Cooperation and Development (OECD)
- programme of energy cooperation among its 26 Member countries + EC

# About IEA Demand-Side Management

## ORGANISATION

- Collaborative programmes conducted under Implementing Agreements, signed by Government Agencies
- At present, 40 Implementing Agreements:
  - fossil fuel technologies,
  - renewable energy technologies,
  - efficient energy end-use technologies,
  - nuclear fusion science and technology
  - **Demand Side Management**

# About IEA Demand-Side Management

The Demand-Side Management Programme  
involves 17 Members:

Australia

France

Spain

Austria

Greece

Sweden

Belgium

Italy

United Kingdom

Canada

Japan

United States

Denmark

Korea

EC

Netherlands

Finland

Norway



# About IEA Demand-Side Management

- 15 Tasks have been initiated in IEA-DSM,
- 9 have been completed.
- Each Task is managed by an Operating Agent from one of the participating countries.

# Rationale for IEA-DSM Task XIV

- WhC attractive: pursue EE benefits through market-based instruments
- Being applied in UK, Australia (New Wales) and Italy
- Being introduced in France
- Attracting in principle Netherlands, Norway and Sweden
- In line with a Proposal of EC (Dec 2003) for a EU Directive on EE in end-uses and services
- Complements with REC and ET schemes

# Objective of the study

- Deeper insight
- Discussions and exchange of experiences

through:

- periodical experts meetings
- open workshops

on a group of items belonging to the above:

**“MATTER TO BE DISCUSSED”**

# Approach

- Regular events made up of:
  - one-day thematic open workshop with national stakeholders
  - a “day after” restricted meeting of designated task experts

# Approach

Event	Workshop	Workshop subject	Task experts meeting subject	Date
1	NO		<ul style="list-style-type: none"> <li>- Kick-off .</li> <li>- Task organisation</li> <li>- Preparation of following workshop</li> </ul>	<b>7-8 June 04</b> <b>Milano</b> <b>Italy</b>
2	YES	Existing experiences and expectations at national level	<ul style="list-style-type: none"> <li>- Discussion on the past workshop</li> <li>- Preparation of following workshop</li> </ul>	<b>8-9 Nov 04</b> <b>London</b> <b>UK</b>
3	YES	Policy/principle issues	<ul style="list-style-type: none"> <li>- Discussion on the past workshop</li> <li>- First ideas on the Final Report</li> <li>- Preparation of following workshop</li> </ul>	<b>14-15 April 05</b> <b>Paris</b> <b>France</b>
4	YES	Interaction with other schemes/EE policies. National or international systems?	<ul style="list-style-type: none"> <li>- Discussion on the past workshop</li> <li>- Comparisons among national procedures for evaluation of Energy Savings</li> <li>- Preparation of following workshop</li> </ul>	<b>16-17 June 05</b> <b>Lund</b> <b>Sweden</b>
5	YES	Organisation / practical issues: additionality, penalties, costs	<ul style="list-style-type: none"> <li>- Discussion on the past workshop</li> <li>- Discussions on organisation and contents of the Final Synthesis Report</li> <li>- Preparation of the following workshop</li> </ul>	<b>27-28 October 05</b> <b>Groningen</b> <b>Netherlands</b>
6	YES	Overview and comparisons among ongoing WhC schemes	<ul style="list-style-type: none"> <li>- Discussion on the past workshop</li> <li>- Follow-ups from EU EuroWhiteCert project</li> <li>- Comments and finalisation of draft Final Synthesis Report</li> </ul>	<b>Spring 06</b> <b>Norway</b>

# Schedule of activities

Month	June 04					November 04		January 05			April 05		June 05				October 05				March 06 (?)			June 06
Event	1					2					3		4				5				6			
Deliverable						CS					CS		CS				CS				CS			FR

CS = Critical Synthesis Report of the event (workshop + expert meeting)  
 FR = Final Synthesis Report

# Development

- Duration: 25 months
- Mix of:
  - **task-sharing** (work performed by the national experts, funded by the participating Countries)
  - **cost-sharing** (amount of Operative Agent's costs, shared among the participants' Countries)

# Involved Parties

**France**

**Italy**

**Netherlands**

**Norway**

**Sweden**

**UK**

**Academia: Central European University -  
Budapest (as observer)**



# Interaction with EU projects

## **White & Green**

### EU SAVE

- presence of task 14 experts and guests  
deliverables made available to task 14

## **EuroWhiteCert**

### EU EIE

- attendance of task 14 experts/observers

# IEA-DSM Task XIV - MORE INFO?

- **SEE TASK XIV WEBSITE**

<http://dsm.iea.org/NewDSM/Work/Tasks/14/task14.asp>

- anyone is welcome as guest to share information through the Task 14 Forum - **ask OA**



Home

Tasks/Projects

Task 14

Task Summary

Publications

Links

Events

Contacts

Participation

Experts' site

Guests' site

### International Energy Agency Demand-Side Management Programme

*'Promoting Energy Efficiency and Demand-Side Management for global sustainable development and for business opportunities'*



#### Task XIV: Market Mechanisms for White Certificates Trading

<http://dsm.iea.org/NewDSM/Work/Tasks/14/WhiteCertificates.htm>

**Market-based policies for accelerating energy efficiency programmes**

- Send this to a colleague

#### General goal

This project ("Task") aims to address:

- Register your interest

- whether – and how – a scheme involving the issuing and the trading of White Certificates (WhC) provides an effective means of attaining targets of reduction of:
  1. primary energy consumption (main concern)
  2. CO2 emissions (secondarily)
- what is the most suitable format for such a scheme
- what implementation problems are involved, at national and extra-national levels
- how it can interact with other schemes.

- Contact: Operating Agent

#### Questions to be addressed

Policy and operational issues will considered throughout the task Principle (Policy) issues

1. Specificity and effectiveness of a certificate trading mechanism to promote energy efficiency projects

# Thank you

**Antonio Capozza**

**CESI**

**T&D Networks**

**Energy Trading**

**Via Rubattino, 54 - 20134 Milano**

**ph. +39 02 2125 5016**

**fax +39 02 2125 5843**

**e-mail capozza@cesi.it**

**website <http://www.cesi.it>**