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

Antonio Capozza
T&D Networks
Establishment of

- 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)
  - 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)
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:
  - they have no target to match
  or
  - they gained WhC above their target
Public board: mandatory EE (=WhC) targets

Obligation-bound actor (OB)

Eligible Implementer (EI)

WhC excess

Gained WhC

Marketplace

Target_1 → OB_1

Target_N → OB_N, EI_3

Target_2 → OB_2, EI_2

EI_1

EI_M
MATTER TO BE DISCUSSED

• Obligation-bound actors = WhC target fulfilment: who?
  – producers?
  – distributors (e.g. in Italy, distributors over a threshold)?
  – retailers?
  – consumers?
MATTER TO BE DISCUSSED

- 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?
MATTER TO BE DISCUSSED

• 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
MATTER TO BE DISCUSSED

- **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
A POSSIBLE TRADING SCHEME - Italy

- 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)

<table>
<thead>
<tr>
<th>Year</th>
<th>Target (Mtoe/Yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Electricity</td>
</tr>
<tr>
<td>2002</td>
<td>0,1</td>
</tr>
<tr>
<td>2003</td>
<td>0,5</td>
</tr>
<tr>
<td>2004</td>
<td>0,9</td>
</tr>
<tr>
<td>2005</td>
<td>1,2</td>
</tr>
<tr>
<td>2006</td>
<td>1,6</td>
</tr>
</tbody>
</table>
A POSSIBLE TRADING SCHEME - Italy

• 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
A POSSIBLE TRADING SCHEME - Italy

- 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.
A POSSIBLE TRADING SCHEME - Italy

• Eligible Energy Saving projects
  
  – only demand-side actions (energy savings in generation ineligible)
  
  – 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
A POSSIBLE TRADING SCHEME - Italy

- Eligible Implementers of the Projects
  - distributors (directly or via controlled companies)
  - ESCOs (still to develop)
A POSSIBLE TRADING SCHEME - Italy

- End-user
  - Reduced fee
  - Energy Service
  - Tariff regulation

- ESCO
  - E.E. Funding
  - WhC purchase
  - Request / Issuing
  - Delivery

- DSO
  - Acknowledged costs
  - Transfer

- E.E. Fund
WILL IT WORK?

• 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
WILL IT WORK?

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

- Italy
- France
- Norway
- Sweden
- UK
- Hungary (as observer)
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