Options for a White Certificates scheme in the Netherlands

IEA/DSM, Maastricht, 11 October
2006

Vlasis Oikonomou, SOM Research Institute, Department of Economics, University of Groningen
What are White Certificates?

Similar concept with emissions trading schemes
Certificates that represent energy savings generated through energy saving measures.

These measures consist a part of the obligation set to the energy suppliers/ distributors for achieving energy saving in their customers.

The purpose of WhC:
- Accounting tool
- Trading commodity
<table>
<thead>
<tr>
<th>Basis</th>
<th>France</th>
<th>UK 2002-2005</th>
<th>UK 2005-2008</th>
<th>Italy</th>
</tr>
</thead>
</table>
| **Drivers/Background**     | Revival of the energy demand-side management policy due to:  
• National Kyoto targets  
• Security of supply of Energy sources.     | • UK Climate Change Programme  
• Part of a package of measures within the Energy Efficiency Action Plan | Id                      | Statutory obligation to achieve energy efficiency targets due to:  
• National Kyoto targets  
• EU Directives on market liberalisation of electricity and gas |
| **Global energy saving targets** | Extensively analyzed in IEA/DSM Task XIV | | | |
| **Other type requirements** | None specified, obligation to be achieved in relation to suppliers in Great Britain. 50% of energy savings to be achieved from a “priority group” of low-income consumers | 50% from electricity/gas consumption reduction | | |
| **Obligation bound entities** | Energy suppliers of:  
• electricity,  
• natural gas, GPL  
• cooling and heating and domestic fuel (not for transports),  
Possibility to form consortia of fuel suppliers | Electricity suppliers and gas suppliers | Electricity and gas suppliers | Electricity and gas distributors |
Policy background in the Netherlands

Energy efficiency rate is low:

- Yearly energy efficiency improvement rate is 1%
  (0.7% autonomous, 0.3% due to policy)
- Should be 1.5% / year
- Political debate: towards 2% yearly or more…
- EE & ES directive: indicatively 9% in the 9th year
Energy efficiency policies and measures in the Netherlands

- Energy taxes
- Energy Performance audits for existing buildings
- Voluntary energy saving schemes
- Environmental permits including energy management obligation
- Tax deduction
- Labelling
- Energy performance standards for new buildings

More information can be found in EU SAVE “White and Green” project
A general design

Government

Allocation
Setting of energy saving targets to the market parties in the system

Measures
Which measures are eligible for certification?

Target groups
Where can the measures be implemented?

Counting rules
Method to calculate the saving effect of the measures

Existing Labels
a) Energy-Index buildings; b) energy labels for technologies.

Obligated party
'make or buy'-option

"Self realisation"
Selling (realisation) of energy saving measures

Building owners

Market Parties

Issuance*
issuance of EE-certificates on the basis of proved and realized measures

Market parties without obligations
installers, ESCO’s, building companies, corporations e.a., that sell measures (realisation)

Purchasers of efficiency measures

Issuance* of /to the account holder

General market parties
searching, makelen, financing, advising, etc...

Transfer
transactions between parties

Target groups

Settling
periodical intake certificates of necessary certificates

Control & audits**
of registration methods; in case of fraud, wrong registration and doublecounting

Transactions
overbooking of certificates of/to the account holder

Monitoring & evaluation
Confirmation of realisation and market effects

Sactions
Setting and receiving the penalty in case of shortage of certificates

Legends:
Orange = Government role
Blue = Obligated Party
Yellow = General market parties

*certification can eventually also be acquired through the market or an intermediary organisation.

** In this simple model is assumed that verification of projects is not necessary (anders dan steekproefsgewijze controles)
Some characteristics

- Period: 2008-2020
- 50-80 PJ primary energy as “additional” savings (in average 65 PJ)
- Target groups: households and tertiary sector
- Obligated party: Energy suppliers
- Threshold: Proportional to energy delivered to target groups
- Banking and borrowing allowed
- Non-obliged parties can create certificates
Eligible measures

• Building-linked: Strong links with the Energy Index and the EPBD Directive
  • White and brown goods
    • Small goods
  • Innovative goods
  • Behavioral measures
    • Leasing goods
Certification

Deemed savings approach based on a realistic ‘energy saving value’ (similar to ongoing Italian Energy Efficiency Titles scheme)

E.g. corrections for rebound, effective life span of measures, misuse, etc.

Certification preferably can be based on

EPBD energy-efficiency index (ДЕI-approach)
energy-efficiency labels for appliances (labels better than the ones with high market share)
Making things simpler...

- Register & certificates electronic & web-based
- Using existing EPBD tools and software to provide EI and ДЕI calculation
- Thresholds for certification
  - Either based on a minimum energy saving value or on a minimum number of measures (e.g. per 50 dwellings with improved EI; or per 1000 efficient dryers sold)

- Electronic proof of sales allowed
- No consumer involvement with certificates.
Currently

- Design options for a White Certificate scheme discussed
- Alternative policy options also on the agenda (e.g. tenders for energy efficiency without obligations)
- How can market players be triggered is under research.
- Links of White Certificates to energy certificates (EPBD) as from 2008
- Some more definitive results are expected in the coming months, after the elections
Thank you

For more information you can contact me: v.oikonomou@rug.nl