

Appendix 8

Swedish Project on White Certificates:
Reporting on the 1st Workshop
**“Expectations at the National
Level”**

Contribution to the IEA-DSM Task XIV on White Certificates
8 – 9 November 2004. London, UK

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Purpose of presentation

To provide an overview of the work done in Sweden so far and in relation to the IEA-DSM task

- General research framework
- Outcomes of the 1st national workshop

Project objective

- To increase the knowledge and understanding of this policy instrument, with the aim to analyse it from the Swedish perspective
- To learn from the experience that the UK, Italy and France when it comes to the analysis, evaluation and implementation of WhC schemes

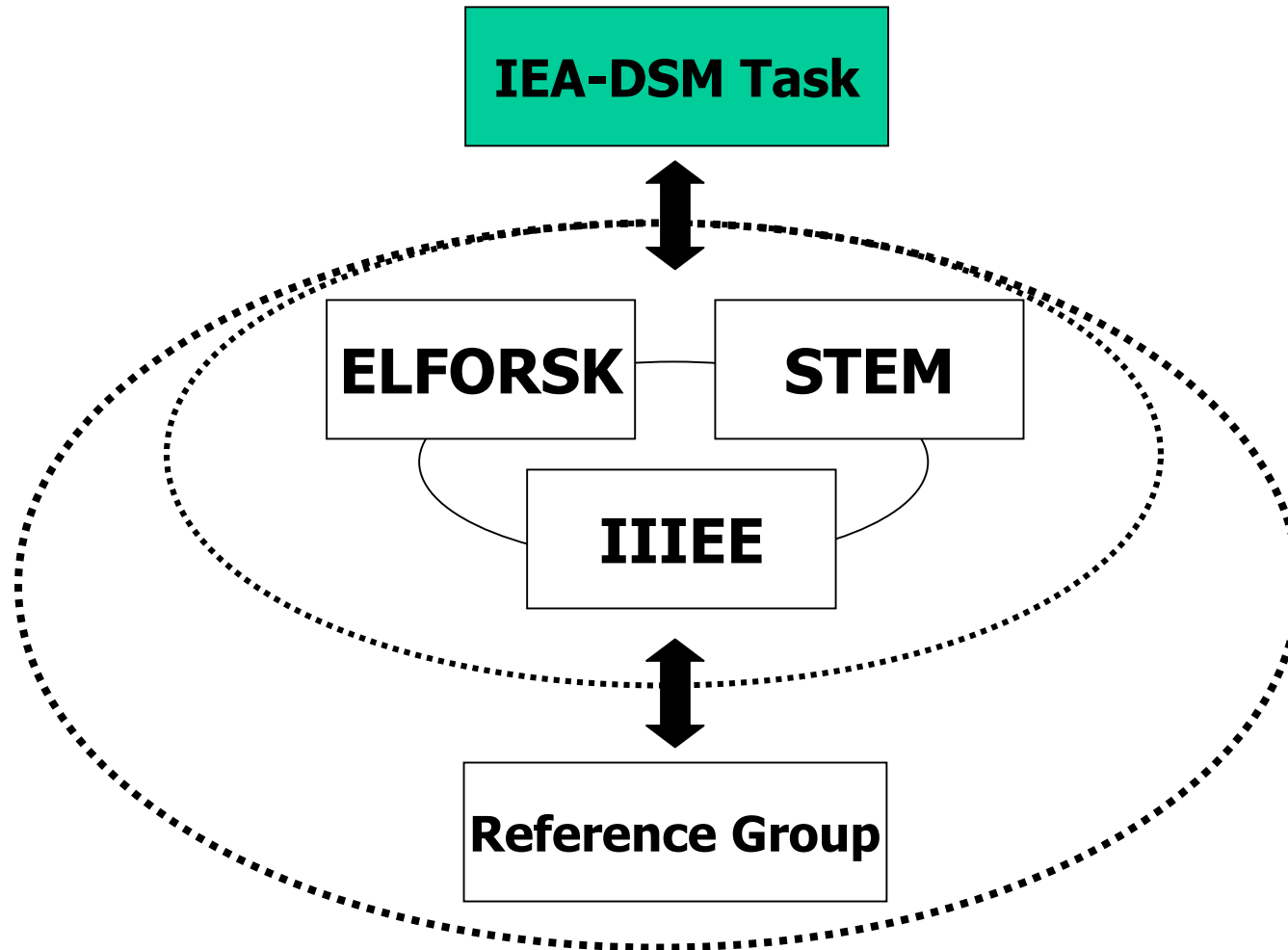
Research questions

- In addition to the questions posed by the IEA-DSM task, the Swedish study seeks answer to:
 - How do white certificates affect the deregulated electricity market?
 - What effects could white certificate expect to have at the society - industry and consumers, environment and Government finances?

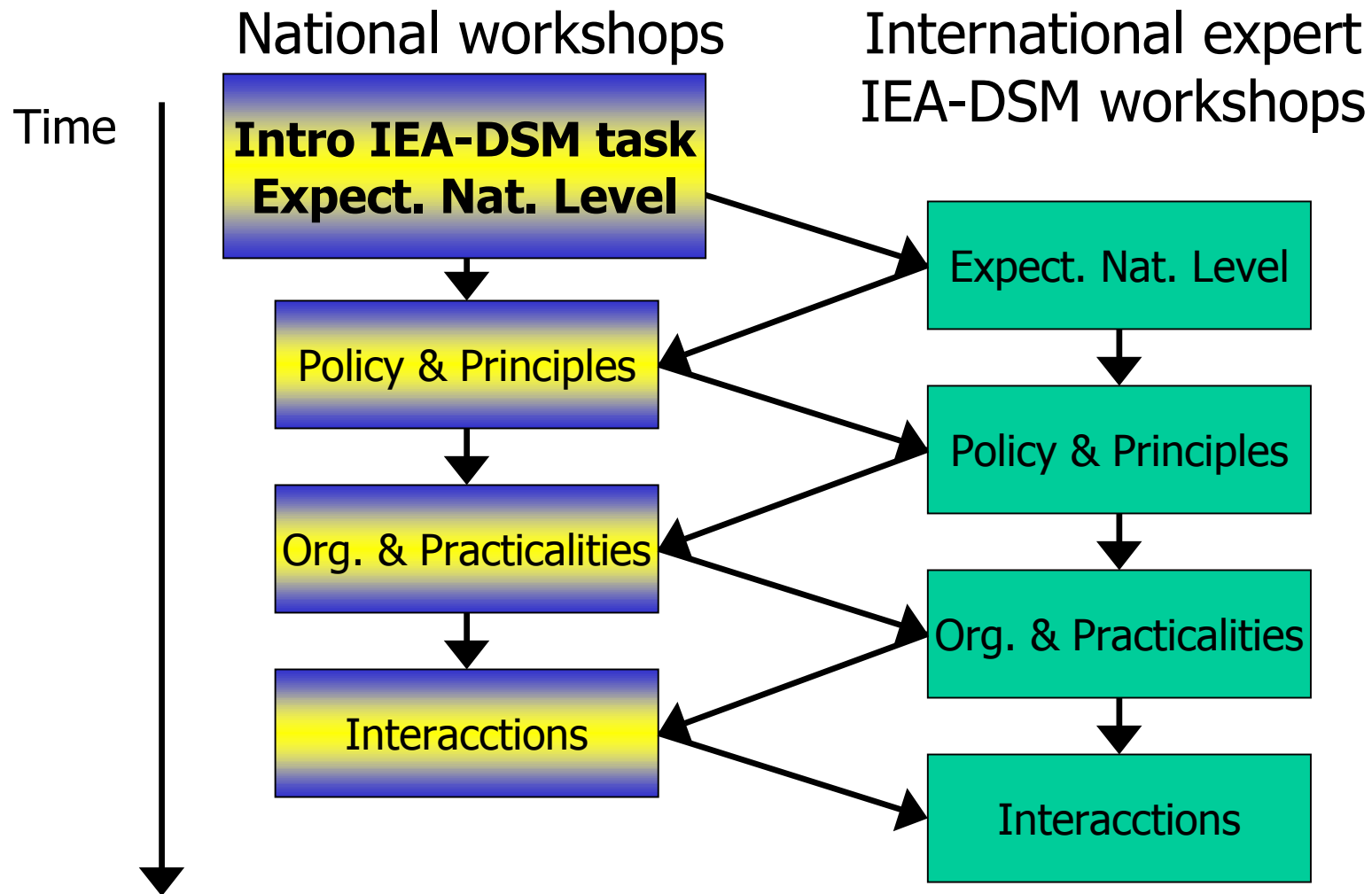
Research questions (cont.)

- Are white certificates a suitable policy instrument for Sweden?
- How could the application be able to look in Sweden?

Working groups



Working approach



1st Nat. Workshop

- Objectives
 - First, to briefly depict the on-going IEA-DSM task on WhC and how this relates the national study and vice versa
 - Second, to identify and approach the expectations at the national level
 - UK, Italy and France

Reference Group and the EEC

- Questions:
 - Some energy companies may have both energy supply/distribution and energy services. Should this be separated somehow? Which of these services are subject to the issuance of certificates?
 - What do the companies do in order to reach the customers and carry out the measures? How companies chose their costumers?
 - Which companies are satisfied with the system? Why?
 - Who is responsible if anything goes wrong? E.g., isolation doesn't achieve the forecasted performance

Reference Group and WhC in Italy

- Questions:
 - Are the yearly goals set in energy terms or amount of certificates as such?
 - What happens in the end of the determined period for a specific measure - can you include "newly carried out" measures in the following period? If not, these measures will be worth less at the end of the period?

Exploring National Expectations

- Views & opinions from the reference group:
 - Who is the most suitable responsible party?
 - Where should the energy improvements and savings take place?
 - How can these schemes stress long-term investments?
 - How to deal with free-riders?

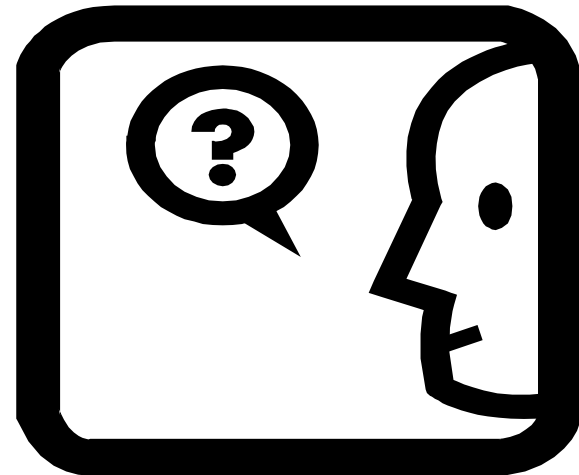
Policy Goal?!

Conclusions

- There is great interest to get an in-depth understanding of WhC schemes:
 - Is a WhC scheme the right policy choice for Sweden?
 - Policy goal?
 - But Part of mix of policy instruments !
- Guidance from EC in order to develop common ground for future harmonization
- The UK, Italy and France: Why and how this policy instrument was selected? Why the specific design was finally chosen?

Your comments are
more than welcome !

[thanks]



Reporting on the First National Workshop Expectations at the National level

Prepared by Luis Mundaca & Lena Neij
IIIEE, Lund University

November 2004

1. General background

The recent escalation of oil prices, the increased awareness of energy related environmental problems, including the threats of human-induced climate change, are contributing to re-think, once again, the energy use. Worldwide energy efficiency is about one third, meaning that the inefficiency of converting primary energy to useful energy is around two thirds (UNDP, UNDESA & WEC, 2002). By looking at our present and future energy needs, greater energy efficiency has a fundamental role to play in the energy policy debate. The underlying issues addressed by this policy debate are either increasing energy supply or reducing energy demand. Clearly, the above mentioned economic, environmental and social drivers indicate that focusing only on the supply side isn't a wise option.

Fortunately, a variety of technical and economic alternatives exist for greater energy efficiency improvements, in particular when it comes to convert useful energy to energy services¹ (UNDP, UNDESA & WEC, 2002). For the European Union, it has been estimated that energy performance projects can reach cost-effective savings of 15% to 35%, and that a European energy service market worth 5 to 10 billion Euro per year (European Commission, 2003). Even though the existence of these numerous drivers and opportunities, several barriers (e.g., market barriers) do prevent a greater efficient use of energy. According to the UNDP, UNDESA & WEC (2002, p.13), barriers that hamper energy efficiency improvements are:

- Lack of information, technical knowledge, and training.
- Uncertainties about the performance of investments in new and energy-efficient technologies.
- Lack of adequate capital or financing possibilities.
- High initial and perceived costs of more efficient technologies.
- High transaction costs (for searching and assessing information and for training).
- Lack of incentives for careful maintenance.
- External costs of energy use, not included in energy prices.
- Social behaviour.

If the policy debate focused on achieving greater energy efficiency, the key challenge is how to better address these barriers with the right policy instruments. At the EU level, the Directive on energy end-use efficiency and energy services aims at enhancing the efficient use of energy in the Union by removing the barriers that obstruct the realization of greater energy efficiency (European Commission, 2003). The Directive includes an overall energy savings target of 1% a year and encourages several policy instruments to achieve its goal. Lately, more attention has been given to the role of tradable certificates as a policy instrument to

¹ The term “energy services” is used to describe the delivered benefits of useful energy consumption such as heating, refrigeration, lightning, cooking, transportation, etc.

support the achievement of the Directive's targets and other energy efficiency related policy goals.

The so-called "White Certificates" (WhC) schemes imply the definition of compulsory targets concerning energy savings with respect to the present or to "business-as-usual" scenario, the identification of who is responsible for the compliance, the monitoring and certification of the interventions, the issuance of the corresponding certificates and the implementation of a market platform for the trading of the certificates that help the obligated parties to achieve their individual goals.

Sweden is not absent from this policy discussion. On the contrary, it is also interested in knowing and learning more about the specific application of tradable certificates in the field of energy efficiency. Indeed, it closely follows the developments at the EU level, in particular the developments in the UK, Italy and France.

2. Swedish project on White Certificates

The main objective for Sweden to be part of the IEA-DSM task on WhC is to increase the knowledge and understanding of this policy instrument, with the aim to analyse it from the Swedish perspective. In fact, a major focal point for the Swedish participation on the IEA-DSM task is to learn from the experience that the UK, Italy and France has been accumulating when it comes to the analysis, evaluation and implementation of WhC schemes.

The Swedish project does take into account the research questions given by IEA-DSM task:

- 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 primary energy consumption and CO₂ emissions?
- What is the most suitable design for such a scheme?
- What implementation problems are involved, at national and extra-national levels?
- How can WhC interact with other schemes?

In order to develop a national study and approach these research questions, a working group has been formed. This group is composed by the STEM, Elforsk, the International Institute for Industrial Environmental Economics (Lund University) and a reference group formed by different energy companies and related business and organizations. See appendix 1.

The national research approach entails the strong involvement and participation of these stakeholders. Outcomes coming from the IEA-DSM international workshops will be discussed at the national level. These outcomes will be presented and further discussed within the reference group. The outcomes of the national workshops will then be presented to the international group of experts. Discussion and feedback sessions are highly expected. The objective is to link both the national and international work as mutual and iterative feedback and research processes. See Figure 1.

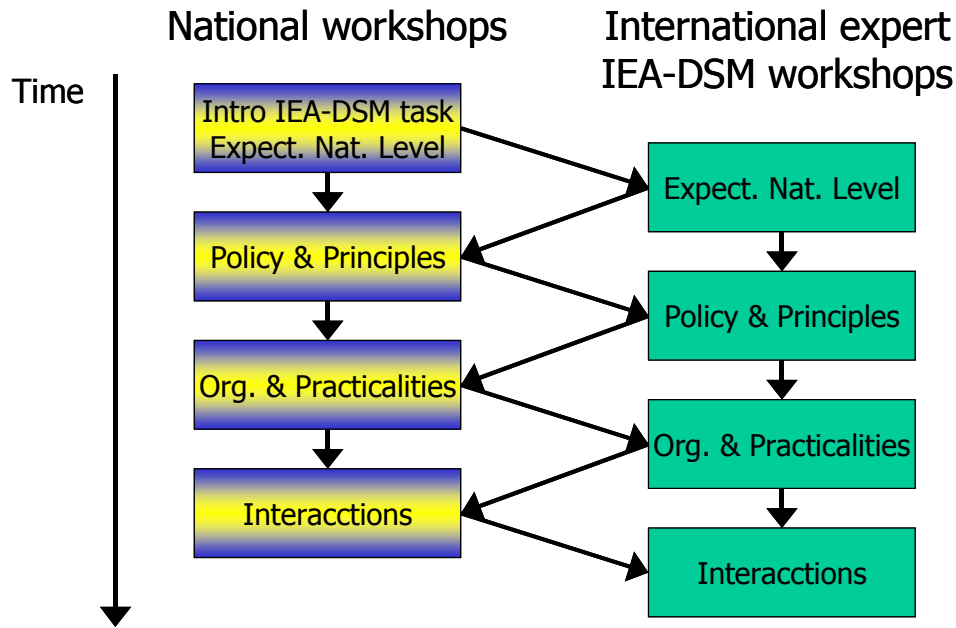


Figure 1: Schematic representation of working approach

In addition to the questions given by the IEA-DSM task, the Swedish Energy Agency (STEM) also seeks answers to the following research questions:

- How do white certificates affect the deregulated electricity market?
- What effect could white certificate expect to have at the society - industry and consumers, environment and Government finances?
- Given other instruments in Sweden and given it comparable to other countries more deregulated markets; Are white certificates a suitable policy instrument?
- How could the application be designed in Sweden?

3. First national workshop on White Certificates

The first national workshop was held the 6th of October 2004. The workshop objective was a two fold. First, to briefly depict the on-going IEA-DSM task on WhC and how this relates to the national study and vice versa. Second and in the light of the next IEA-DSM subject workshop on expectations at the national level, to introduce the reference group into the topic of white certificates as such, highlighting theoretical and practical aspects. Country profiles (i.e., Italy, the UK and France) were presented and discussed. 20 participants attended the workshop.

After tackling the first objective of the workshop, the presentation of the country profiles was held. During the discussion, the reference group brought up several questions regarding the design and the ongoing functioning of these schemes. For the particular case of the UK and Italy, the answers to some questions still remain open. These are as follows:

The UK:

- Some energy companies have both energy sale/distribution and energy services. Should this be separated somehow? Which of these services are subject to the issuance of certificates?
- What do the companies do to reach the customers and carry out EE measures? How companies chose their costumers?
- Which companies are satisfied with the system? Why?
- Who is responsible if anything goes wring, for ex if isolation gives damp problems?

Italy:

- Are the yearly goals set in energy terms or amount of certificates as such?
- What happens in the end of the determined period for a specific measure - can you include "newly carried out" measures in the following system? If not, these measures will be worth less at the end of the period?

The second part of the workshop was dedicated to the discussion of the already set of research questions regarding WhC (i.e., IEA-DSM + STEM research questions). The objective of this particular task was to trigger the discussion within the reference group as an attempt to explore national expectations regarding WhC. In the light of the discussed questions, the reference group presented their views, opinions and further questions. Some of the issues that were presented are as follows:

- What policy goal should be considered? (e.g., CO₂ reductions, energy savings, energy intensity, energy security, energy services)
- Who are the most suitable responsible parties?
- Where should the energy improvements and savings take place?
- How can these schemes stress long-term investments?
- How to deal with free-riders?

As a result of these views and questions, the main outcome of this part of the workshop was the great interest expressed by the reference group in relation to the policy goal that a WhC schemes entails. Based on this, different scenarios will be developed in which the role and potential implications of this scheme can be more specifically discussed. By looking at the different policy goals, around 4 main scenarios (not mutually exclusive) will be developed.

4. Conclusions

Based on the first national workshop concerning the expectations at national level, some preliminary conclusions can be drawn.

As such, WhC oriented schemes attracted the attention of the reference group. Certainly, there is an interest to get an in-depth understanding about the instrument and the experience of the on going schemes. This interest is not solely restricted to WhC. By looking at the policy goal that these schemes involve, it is critical to compare and evaluate WhC with other policy instruments in order to determine whether or not this approach is the right policy choice for Sweden. Nevertheless, it was discussed that even if WhC are the right policy instrument, this one is just part of the mix of policy instruments addressing energy efficiency.

As the design of the WhC schemes is concerned, the European Commission should take the experiences and developments of some EU Member States into account. This should be done in order to give guidance to those MS that might decide to implement this instrument in the

future. At the same time, this would avoid the development of different schemes that may hamper the harmonization of them in the long run. Therefore, the provision of a common framework should serve as a ground for a potential EU-wide market of WhC.

Finally, and going back to the policy grassroots of WhC schemes in Italy, the UK and France, it is important for the working group as a whole to have a in-depth understanding about why and how this policy instrument was finally selected, and also why the specific design was chosen. At the national level, the inputs from these countries are highly desired.

5. References

European Commission (2003). Saving at least 1% more energy each year. European Commission. Directorate General for Energy and Transport. Memo. Available http://europa.eu.int/comm/energy/en/2003_memo_energy_efficiency_en.pdf [Accessed January 2004]

UNDP, UNDESA & WEC (2000). World Energy Assessment: Energy and the Challenge of Sustainability. New York: UNDP

6. Appendix 1: Working group

Organization	Name
Elforsk	Monika Adsten
Elforsk	Stefan Montin
Energimyndigheten	Anna Forsberg
Energimyndigheten	Therése Karlsson
Energimyndigheten	Thomas Levander
Energimyndigheten	Urban Kärrmarck
Fortum Värme samägt med Stockholms stad	Johan Tjernström
Göteborg Energi	Eva Gillander
Härnösand Energi & Miljö	Håkan Larsson
Jämtkraft	Ulf Lindqvist
Lunds Energi	Mattias Johansson
Lunds Universitet	Lena Neij
Lunds Universitet	Luis Mundaca
Nova Naturgas	Martin Valleskog
Näringsdepartementet	Jörgen Sjödin
Näringsdepartementet	Sven-Olov Ericson
Plusenergi AB	Göran Sjödin
Profu	Håkan Sköldberg
Skellefteå Kraft	Jan Strömbergsson
Svensk Energi	Inge Pierre
Svensk Energi	Magnus Thorstensson
Svensk Fjärrvärme	Erik Larsson
Sydkraft	Lars Sjunnesson
Vattenfall	Claes Hedenström
Öresundskraft	Christer Lithell
Energimyndigheten	Mathias Normand
Energimyndigheten	Egil Öfverholm
Fortum Värme samägt med Stockholms stad	Eva-Katrin Lindman

7. Appendix 2: Next meetings

January 20th, 2005

Preliminary agenda: Results of the “White & Green” project; Up-to-date overview of the EU WhC schemes, Scenario analysis

April 28th, 2005

Preliminary agenda: Discussion about “Policy and Principle” issues, Up-to-date overview of the EU WhC schemes, Results from scenario analysis, Preparation for the next IEA-DSM workshop

June 16th, 2005

Topic: Discussion about “Organizational and Practical” issues.