Client ADEME (F) – DEFRA (UK) – Enova (N) – Swedish Energy Agency (S)

Subject IEA-DSM Task XIV – MARKET MECHANISMS FOR WHITE CERTIFICATES TRADING.
Critical Synthesis Report 1: London Workshop (8/11/04)

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SUMMARY

An international workshop on Market Mechanisms for White Certificates trading was held on November 8th 2004 at DEFRA - London. The workshop was organised as the first of four similar events, planned in the frame of the activities of the Task 14 for IEA-DSM Implementing Agreement. The subject of this workshop was: "Existing experiences and national expectations". The choice of UK allowed for wide gathering of British experts coming from the Department for Environment Food and Rural Affairs (DEFRA), Office of Gas and Electricity Markets (Ofgem), Warwick University and UK Business Council for Sustainable Energy (UKBCSE); it gave the participants a chance for updated knowledge of the present state of application of the UK regulations in the sector of energy efficiency (EEC) and related policy instruments. The presence of the Task 14 experts - coming from France, Italy, Norway and Sweden - also improved awareness and visibility within UK of their national policies.

The workshop was based mainly on expectations possibly expressed by the participating Countries and on experiences gained in the operation of Energy Efficiency Trading Schemes. Mainly UK energy efficiency drivers, policies and measures were considered. In-depth review was outlined of present results of UK Energy Efficiency Commitment, from both business and regulators perspectives. The UK Energy Efficiency Commitment (EEC), which began in April 2002, required gas and electricity suppliers with at least 15,000 domestic customers to meet a combined energy saving target of 62 TWh by 2005. Suppliers have met more than three quarters of the savings needed to comply with these targets. A firm commitment to the EEC mechanism until 2011 is planned, with a roughly doubled level of the targets – about 130 TWh in the period 2005-2008

Experiences of UK and Italy on Energy Efficiency Trading schemes were considered and commented. In particular, the UK scheme was compared with the Italian scheme.

Among the outcomes of the workshop:

- Operation of Energy Services Companies (ESCO) is seen as the solution to effectively attain the targets. ESCO are encouraged in participating through a more "generous" award of the achieved energy savings. Up till now, the ESCO operation in this field has not been developed on large scale yet. Legal and market barriers hamper their participation.
- The trading of Energy Efficiency (EE) obligations was performed by means of bi-lateral contracts in terms of saved TWh. Actually, trading has been very limited to the final stages of each target period, when suppliers reconcile their achieved performance against their targets. A more standardised platform of trade (e.g. by means of White Certificates in a suitable marketplace) has not been practised yet.
- The already gained experience in the field of Emission Trading (ET) schemes (either at UK or EU level) showed the relevance of a suitable International Emissions Trading Registry with on-line, real-time access. To this purpose, the need is felt for some kind of shared protocol to allow for a EU-wide common evaluations of emission reduction.

This document represents the Critical Synthesis Report of the London workshop, devoted to expectations and gained experiences in the field of White Certificates Trading. It is mainly devoted to:
- comments, remarks and unsolved questions raised during the workshop
- contributions of the UK and of the other Task experts in finding answers and reading-keys, as well as in re-ordering all this material.

The relevant presentations are annexed.

1 GENERAL INFORMATION

1.1 Forewords

The IEA-DSM Task XIV has been established in June 2004 with the aims of evaluating:

- 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. CO_2 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.

The Task involves the participation of the experts appointed by five Countries: France, Italy, Norway, Sweden and UK. These Countries are being developing White Certificates schemes or are interested in any case in market-based instruments to implement energy efficiency policies. In the case of Sweden, a national reference group was established and is operating on this subject. More parties are interested and eligible to participate to the Task, which is still open for attendance.
More information about task goals and organisation is given in the relevant website:

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

The Task fundamentally is carried on through four workshops, open to all the interested local and international stakeholders, to be held during the development of the Task and to be hosted by the participating Countries. The outcome of each workshop is to be documented in a Critical Synthesis Report, which makes up an official Task deliverable.

The present Report belongs to this class of documents and is relevant to the first workshop planned for Task XIV. The workshop was held in London on November 8th 2004 at DEFRA premises. The workshop was based mainly on expectations possibly expressed by the participating Countries and on experiences gained in the operation of Energy Efficiency Trading Schemes.

Some information follow about participants and contents

1.2 Participants

About 25 participants (see the below Tab. 1) attended the workshop, coming mainly form the hosting Country and from the Countries funding the IEA-DSM task XIV.

SURNAME	NAME	ORGANIZATION	COUNTRY
Adsten	Monika	ELFORSK	Sweden
Branche	Emmanuel	EDF	France
Capozza	Antonio	CESI (speaker)	Italy
Chambers	Paul	Defra (speaker)	UK
Clifford	Alan	Defra	UK
Comodi	Gabriele	University of Ancona	Italy
Crozier-Cole	Tim	ESD Ltd	UK
De Renzio	Mario	FIRE	Italy
Devine	Martin	Defra (Chair)	UK
Dodwell	Chris	Defra (speaker)	UK
Enge	Andreas Kruger	Enova	Norway
Grattieri	Walter	CESI (speaker)	Italy
Hargreaves	Charles	Ofgem (speaker)	UK

SURNAME	NAME	ORGANIZATION	COUNTRY
Karlsson	Thérese	STEM	Sweden
Leseur	Alexia	ADEME	France
Levick	Kate	BP	
Marsh	Russell	UKBCSE (speaker)	UK
Mundaca	Luis	Lund University	Sweden
Nicholson	Nancy	ELYO	France
Oikonomou	Vlasis	Utrecht University	Netherlands
Owen	Gill	Warwick University (speaker)	UK
Rooney	Iris	Defra (speaker)	UK
Weis	Lise	Danish Energy Authority	Denmark
Wilde	James	Carbon Trust	UK

Tab. 1 – Participants to the workshop

1.3 Content

The workshop hosted seven presentations (see the below Tab. 1).

TITLE	AUTHOR	CONTENT
UK energy efficiency – drivers, policies and measures	Paul Chambers- Defra (UK)	UK general policies for Energy Efficiency
The Energy Efficiency Commitment	Iris Rooney - Defra (UK)	Energy Efficiency Commitment – I period 2002-2005: structure and rules
UK energy efficiency policy & EEC – a business perspective	Russell Marsh - UKBCSE (UK)	• Energy Efficiency Commitment – I period 2002-2005: outcome • Energy Efficiency Commitment – II period 2005-2011: outline and targets
The EEC – a regulators perspective	Charles Hargreaves - Ofgem (UK)	Regulatory and market issues in Energy Efficiency Commitment – I period 2002-2005
Lessons learned from UK ETS and EU ETS	Chris Dodwell - Defra (UK)	UK gained experiences in Emission Trading and plans in view of a wider EU scheme
THE MARKET OF ENERGY EFFICIENCY - Nature and measurement of the commodity	Walter Grattieri - CESI (I)	Italian policies for Energy Efficiency
Market mechanisms for WHITE CERTIFICATES: issues and challenges in developing new policy measures	Antonio Capozza - CESI (I)	Overview on White Certificates and structure of IEA-DSM task XIV

Tab. 2 – Summary of the presentations

The complete texts are reported as annexes of the present report. The choice was made herein to fully refer to these presentations for any detail, while focusing this report on:

- comments, remarks and unsolved questions raised during the workshop
- contributions of the UK and of the other Task experts in finding answers and reading-keys, as well as in re-ordering all this material.

The following par. 2 documents this process.

2 MAIN REMARKS ON PRESENTATIONS AND COMMENTS

Energy Efficiency Commitment is the UK main policy that at present rules energy efficiency targets and measures. EEC scheme has already been implemented in a first phase 2002-2005. Currently, the second phase 2005-2008 is approved, while the 2008-2011 phase is designed.

2.1 UK Energy Efficiency Commitment (EEC) 2002-2005

2.1.1 Forewords

- Energy efficiency is at the heart of UK's climate change programme
- An ambitious package of measures is being taken forward through the Energy Efficiency Action Plan
- UK Climate Change Programme is under review - consultation planned on November 2004
- Energy efficiency was identified as the most cost effective way to meet energy policy goals
- Figures of Energy Efficiency Action Plan:

Energy Efficiency Action Plan	Carbon savings (MtC pa) for 2010
Business and Public Sector	7.9
Households	4.2
Total	**12.1**

Tab. 3 – Carbon savings planned within Energy Efficiency Action Plan

2.1.2 Rules of EEC

The Energy Efficiency Commitment (EEC), which began in April 2002, is set by Defra and requires gas and electricity suppliers, with at least 15,000 domestic customers, to meet a combined energy saving target of 62 TWh by March 2005; this is the equivalent to a 1% per annum reduction in carbon emissions from households. This target of 62 TWh should be undertaken as cumulated over the life of the energy savings actions with a 6% discount rate.

More details on this subject can be found on the document "A review of the Energy Efficiency Commitment to the end of the second year - A report for the Secretary of State for Environment, Food and Rural Affairs", available on the Ofgem website at:

http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/8018_17804.pdf

Companies have to target at least half of their energy savings at households receiving income related benefits or tax credits – known as the **'priority group'** - that spend more than 10% of their income on all household fuel use, in order to maintain a satisfactory domestic heating regime (7.7 million households comprising pensioners, aged 60 or over, occupants of social housing or eligible for a qualifying income, receptors of disability benefits, or finally, households receiving benefit with children under the age of 16). The **second group** includes another category of consumers, mainly 'near-benefit' consumers or low-income consumers, still under fuel poverty, which can contribute to some measures in the context of the EEC.

A group of Energy Efficiency projects was set up at the launch of the EEC and the ex-ante evaluation of the relevant saving per physical reference unit was defined. These information are shown in **Tab. 7** in par 2.3.

The current EEC is expected to curb household carbon emissions by 0.4 MtC per annum, or by 1% pa. The Energy White Paper '*Our energy future – creating a low carbon economy'*, see:

http://www.dti.gov.uk/energy/whitepaper/index.shtml#wp

stated that the Government intends to consult on expanding the EEC at possibly twice its current level of activity after 2005. Overall the Government aims to reduce carbon emissions from the domestic sector by 4.2 million tonnes per annum by 2010.

Points to be noted

- **Criteria for choosing EEC as the right measure to go with**
  A great deal of analysis was undertaken during development of the Energy White Paper (published Feb 2003) and the Energy Efficiency Action Plan (April 2004). EEC was one of many measures and policies chosen. EEC, although key, is currently just one part of the wider policy instrument.

- **Concept of "fuel poverty"**
  Fuel poverty: people who spend more than 10% of their income on all household fuel use in order to maintain a satisfactory heating regime.

- **Sectors covered by EEC**
  EEC only covers households as the business and public sectors are covered by other policies that are more appropriate for them, such as the Climate Change Levy / Agreements.

- **Eligible suppliers**
  Only suppliers with over 15,000 customers are eligible to operate EEC programmes.

- **Ways of suppliers of approaching customers**
  Much of the marketing consists of leaflets with bills, posters and advertisement in magazines. The Energy Saving Trust also provide information about the scheme wherever possible. Interested customers would then contact an EEC supplier. Suppliers also do a lot of work with landlords, particularly in the social sector, as the expensive job of identifying properties is mostly achieved by the landlord.
  An additional route taken by suppliers is through retailers of electronic goods. Suppliers receive points for sales of energy efficient products, such as light bulbs and white goods, that they subsidise.

- **Number of suppliers operating within EEC**
  There are currently nine EEC suppliers in the UK.

- **Shifting the obligation from suppliers to distributors.**
  It has not been considered in UK, because suppliers have a direct relationship with the consumer, whereas the distributors do not.

- **Compensation/penalisation for suppliers**
  The Utilities Act sets the maximum penalty Ofgem can give at 10% of the supplier's turnover. It should be remarked that this is a maximum, possible, not "universal" value for the penalty, i.e. this value is expected to affect only very serious faults.
  No compensation is given, but there is no constraint on how much suppliers charge customers.

- **Consumption decrease in EEC first phase**
  The first phase of EEC will be likely to achieve a 1.5% reduction in overall household consumption. This result was reached through the implementation of about only 150 projects of relatively large unit size, notwithstanding there is no requirement for a minimum size.

- **Splitting the overall EEC target of 62 TWh between electricity and gas**
  Different fuels have different energy scores, so savings made in different fuels are awarded different amounts of points.

- **Undertaken analysis of savings potential**
  DEFRA had consulted widely with the industry throughout the policy development process and had considered the full range of potential measures. An assumption made is that suppliers would do all the most cost effective measures first.

- **Meaning of "Overall target lifetime discounted"**
  Different measures have different lifespans (e.g. a CFL might last 10 years, whereas wall cavity insulation would effectively last for the lifetime of the building). Account of this is taken when the level of carbon savings are attributed to a type of measure.

- **Minimum size for EEC measures**
  There is not a minimum size for the Energy Efficiency measures; the actual size ranged from 0.3 GWh on

- **Administrative figures on EEC**
  According to Ofgem, a rough breakdown of the costs involved gives a total ~£ 300000 per year. The biggest costs were connected to the external auditor and to management of the database. The team at Ofgem consisted of five people. The cost of operating the EEC was a very small portion of Ofgem's total budget of £ 400 million.

- **The 28 day rule**
  The 28 day rule allows a household consumer for transferring to another supplier, giving the present supplier just 28 days notice. This is a barrier to energy services, as a supplier cannot have the guarantee to recoup his investments before a customer of his moves to a competitor. On average, the costs for a supplier to sign-up a new customer is ~£ 200 simply.

- **Dead-weight**
  Dead-weight is removed from supplier targets.

2.2 Outcome and learned lesson

2.2.1 Administrative

Overall suppliers recognise the importance of the EEC scheme and role they play. It enables them to brand themselves as green and socially conscientious companies. Suppliers considered EEC very challenging; no "lobby" occurred in UK against its full application.

Following the publication of the second annual report on the Energy Efficiency Commitment (EEC), Ofgem announced that Gas and electricity suppliers are firmly on track to meet Government energy efficiency targets.

To date, Ofgem has approved 120 such schemes which have achieved savings of 47 Terawatt hours. This figure is equivalent to powering **2 million homes per year** (roughly, all the homes in the West Midland). This represents more than three quarters of the savings needed to reach the 62 Terawatt hour target set for the first phase of EEC between 2002 and 2005.

The most popular measures so far have been the installation of cavity wall insulation and the provision of energy saving light bulbs.

The annual cost of the EEC is around £3.60 per household, per fuel, per annum, for the years 2002-2005.

Points to be noted

- **Proof for a supplier of complying with his target**
  Ofgem maintains a spreadsheet of measures carried out by each supplier, recording the points they have earned. These are added up and counted against their target. If trading is carried out, this can be of measures undertaken or of part of their obligation.

- **Calculation of the discount rate in the UK**
  HM Treasury dictates the discount rate. It used to be 6%, but is now 3%.

- **Evaluation of level of additionality for each measure**
  Different techniques are used for the eligible technologies. For example, for CFLs, the priority group is getting 100% additionality due to the high cost of the bulb and the low income of the consumer (i.e. poorer households are unlikely to purchase CFLs outside the EEC scheme). For social sector measures, the supplier needs to receive a letter from the landlord who self-certifies not to be free-rider, i.e. that he would not have carried out the EE measures outside EEC. Additionality was matter for different views and strong and interesting debate among the Countries participating to the Task (see minutes of the day after experts meeting [1]).

- **Cost of EEC cost for the consumer**
  EEC 2002-2005 adds ~£4 per year *per fuel* to energy bills.

- **Conversion factors for UK fuels into carbon**
  The overall target for the promotion of improvements in energy efficiency in relation to domestic consumers is expressed *in fuel-standardised* terawatt hours. This means the number of kilowatt hours multiplied for a suitable adjusting factor; e.g. for the second phase of EEC (see par. 2.3):
  - as regards coal, by 0.56
  - as regards electricity, by 0.8
  - as regards gas, by 0.35
  - as regards liquid petroleum gas, by 0.43
  - as regards oil, by 0.46

  The emerging standard for Carbon Trading was to use C rather than CO_2, so C was used to give potential for comparison and integration in the future. Figures can be easily converted.

- **Distinction between energy sale/distribution and energy services**
  Some energy companies have both energy sale/distribution and energy services. They must comply with Energy Efficiency Commitment requirements only if their state of suppliers and number of clients oblige them. They have to meet targets by means of energy savings measures relevant to domestic end users. To this purpose, they can operate as ESCO and take advantage of an increased award for the performed measures.

- **Responsibilities of the technical outcome of energy saving measures**
  The installer should be liable usually, even if it is conditioned to the contractual arrangement between the supplier and the installer. The Swedish position was that obligated parties might take safety actions before hand with their contractors in order to ensure that the measure will achieve its agreed performance.

- **Reasons why the achievement in the priority group was lower than that in the non-priority group**
  Very often an energy saving measure (e.g. cavity wall insulation) gives the chance of an increased comfort (e.g. turning up the heating) without additional fuel costs for the residential user. This practice is more likely to be attractive for users in the priority group and can offset the efficiency gain as a typical "rebound effect".

- **Relations between White Certificates and energy performance of Buildings Directive**
  General feeling exists on the fact that these Directives and Standards are very far from being procedures for energy savings assessment. Conversely, Building Standards can at least provide terms of reference against which savings can be evaluated.

2.2.2 Role of ESCO

Operation of Energy Services Companies (ESCO) is seen as being the solution to effectively attain the targets.

The only potential incentive in the EEC for energy services would be to award suppliers with more points for measures undertaken as part of energy services contracts. In general, EEC encourages ESCO in participating through a more "generous" award of the achieved energy savings.

Up till now, the ESCO operation in this field has not been developed on large scale yet. In fact, the take-up of energy services had been disappointing. A lack of consumer demand had made suppliers reluctant to invest in marketing. The principal reasons for the lack of interest were considered to be twofold: consumers were reluctant to become tied into a long-term contract and lose the flexibility of the 28 day rule (i.e. the option of change supplier within 28 days); moreover, the energy services packages did not contain measures sufficiently compelling to make a long-term contract attractive (in other words, the clients still prefer products – *bare-kWh* - rather than services - *dressed-kWh*).

2.2.3 UK Emissions Trading issues

- UK National Emissions Trading Scheme

The UK Emissions Trading scheme began in April 2002. Suppliers are expected to trade carbon savings onto this scheme. Mechanisms to convert energy savings to carbon are still to be finalised.

- EU Emissions Trading Scheme (EU ETS)

Concerning possible interactions within White Certificates and EU ETS, it would not be desirable to begin with linking to White Certificates, as the existing price of carbon is too low (6-6.55 €/tCO_2). The EEC measures would be more expensive, so not it could not be worthwhile using EEC to earn credits. However, if/when the price of carbon increases, this position might be reconsidered.

The already gained experience in the field of Emission Trading (ET) schemes (either at UK or EU level) showed the relevance of a suitable International Emissions Trading Registry with on-line, real-time access. To this purpose, the need is felt for some kind of shared protocol to allow for a EU-wide common evaluations of emission reduction.

2.2.4 Experiences in Energy Efficiency trading - White certificates

Trading in the EEC can be developed through 2 possible routes:

- **Trading of Energy Savings**
  Suppliers can trade energy savings from the energy efficiency measures already completed
  Energy efficiency measures will be transferred from one supplier to another

- **Trading of Obligations**
  Suppliers can trade their obligations
  One supplier can pay another supplier to meet all or part of their target
  One supplier's target will increase while another's will decrease

All these trades need to be approved by Ofgem

Little formal trading of energy efficiency measures occurred through the legislation. Trading of EE did not involve in UK a formal certification of the attained savings. In other words, the White Certificates issue was not considered for trading.

The trading of Energy Efficiency (EE) obligations was performed by means of bi-lateral contracts in terms of saved TWh. Actually, trading has been limited to the final stages of each target period, when suppliers reconcile their achieved performance against their targets. As pointed out above, a more standardised platform of trade (e.g. by means of White Certificates in a suitable marketplace) has not been practised yet.

At present, there is very little incentive for suppliers to trade within the EEC scheme. In fact, with only six major EEC suppliers, the market for trading is not sufficiently liquid. Also, most of the suppliers use the same contractors to undertake the work, so it is unlikely any one supplier could run their scheme more cheaply than another.

The gained experiences showed that there are some issues of EEC scheme to be further discussed:

- Possible use of different target metrics: e.g. absolute or percentage energy demand reduction, carbon reduction
- Set up of different targets to be met within Priority Group
- Measurement and Verification practices
- Application in the commercial building sector
- Impact of the European proposal for a Directive of the European Parliament and of the Council on energy end-use of efficiency and energy services.

2.2.5 Comparisons with other EE schemes

Some comparisons can be done between the UK and the Italian model, which is described with details in:

http://dsm.iea.org/NewDSM/Prog/Library/Upload/62/EEPoliciesItaly-ACEEEpaper.pdf

A key difference between the UK and Italian approaches was that the UK scheme allows for trading of individual obligation whereas the Italian scheme considers only trading of attained savings translated into certificates.

The Italian model did not take account of comfort taking, as they did not have any evidence that consumers increased temperature levels after installing insulation and more efficient heating systems.

DEFRA pointed out that their evidence was that comfort taking did occur (i.e. Rebound effect) and also was not restricted to the priority group.

UK savings are calculated for 2010 (i.e. what annual savings will be by 2010), whereas Italy uses a five-year timescale. The Italian model calculates savings of a measure assuming a constant amount of annual saved toe over 5 years, whereas UK model calculates savings as they will be in the future, when savings are projected to be lower (measures are projected to make different levels of saving in different years).

A possible shift of energy efficiency obligation from Distributors to Suppliers is beginning to be considered in Italy, even if its possible application is unlikely to occur before full liberalisation of the Electricity Market (2007)

The following three tables **Tab. 4**, **Tab. 5** and **Tab. 6** (source: Italian Authority for Electricity and Gas) outline synthetically the main differences between the two schemes.

	UK EEC 2002-2005	ITALY WhC
SUPPLY SIDE		
Driver	Quota system:	Quota system:
Metric	TWh fuel weighted energy benefits	toe
Compliance period	2002-2005	Annual (2006-2010)
Type of obligation	50% from "priority group"	50% from electricity/gas consumption reduction
Obligation bound entities	Electricity suppliers and (after 8 years) gas transporters and suppliers	Electricity and gas distributors
Apportionment criteria		
Threshold	≥15 000 domestic customers served	≥100 000 customers served
Reference parameter	Number of domestic customers served	Electricity/Gas distributed (market share)
Criteria	Progressively tighter for companies of increasing capacity	Linear

Tab. 4

	UK EEC 2002-2005	ITALY WhC
DEMAND SIDE		
Eligible technologies	• Domestic uses • Open-ended (after 8 years) • Pre-approval	• All end-use sectors • Open-ended (from the start) • No pre-approval (but possible)
Eligible implementers	• electricity and gas suppliers responsible, but flexible to work with social housing providers, retail businesses, consumers and other partners • ESCO schemes encouraged	• all electricity and gas suppliers and ESCOs
Eligible projects	• open (pre-approval of schemes)	• carried out directly by distributors • carried out via controlled companies • carried out via ESCOs
Impact evaluation		
Approach	• Based on information collected from recognised sources	a) Deemed-savings approach b) Engineering savings approach c) Direct measurement approach
Additionality	• to be demonstrated by suppliers (deadweight removed from targets)	• Default factors under a) and b); proved under c)
Time persistence of savings	• Account of this is taken when the levels of savings are attributed to a type of measure.	• Default factors under a) and b); proved under c)

Tab. 5

	UK EEC 2002-2005	ITALY WhC
OTHER ISSUES		
Market design		
Certificates features	• Trading of Savings • Trading of Obligations	• 3 types • 5 years lifetime (banking with quota) • Metrics: 1 Certificate = 1 toe
Trading parties	• Responsible electricity and gas suppliers	• Entities to whom the certificates will be awarded: all electricity and gas distributors and ESCO's • Others: financial intermediates, voluntary buyers
Trading rules	All trades will have to be approved by Ofgem	• Under discussion: - Frequency of trade - Safety deposit - others
Penalty for non-compliance	• Calculated as 10% of the supplier's turnover as a maximum	• Proportional and greater than the investment required to compensate the non-compliance. • Related to acknowledged costs (see below)
Scheme financing	• Cost-recovery via domestic electricity and gas tariffs	• Cost-recovery via electricity and gas tariffs (unique or differentiated, updatable) • Acknowledged costs for eligible projects: 100 Euro/ saved toe
Interaction with other policy tools		
Fiscal and other incentives		Under discussion (regional energy plans)
Link with other schemes	• ETS: only surplus	• Not decided yet

Tab. 6

2.3 EEC second phase 2005-2008

A second phase of EEC will be run between 2005 and 2008 and Ofgem has set out his intentions for administering the new programme. However, Ofgem pointed out that as the costs of the EEC rise, it is important to achieve the right balance between future costs and benefits to customers.

As for duration of EEC post 2005, DEFRA intends to extend the EEC mechanism until 2011, with targets set in two three-year phases: 2005-2008 and 2008-2011

The level of the target in the period 2005-2008 is about 130 TWh (double the current level), with the aim of delivering carbon in the range 0.6- 0.7MtC

EEC 2002-2005 added ~£4 per year *per fuel* to energy bills. EEC 2005-2008 will add ~£5 on top of this. Therefore, between 2005-2008 the total cost for a customer who uses electricity and gas would be ~£18 per year.

A group of Energy Efficiency projects was set up also for this second phase of EEC and the ex-ante evaluation of the relevant saving per physical reference unit was defined. These information are shown in the **Tab. 7** in comparison with those of the previous period 2002-2005.

Projects	Lifetime in years	Energy Savings/year (MWh/Unit/yr)		Discounted Aggregate Energy Savings for lifespan: Electricity (GWh)		Discounted Aggregate Energy Savings for lifespan: Gas (GWh)	
		2002-2005	2005-2008	2002-2005	2005-2008	2002-2005	2005-2008
Cavity wall insulation Private Social	40	5.24	 5.15 5.00	3,058	 7139 4862	37,263	 93641 63770
Glazing E to C rated	20		0.03		112		1474
Boiler end-of-life replacement with condensing boiler (Bto A)	15	2.56	1.15	0	0	13,139	13293
Loft Insulation- top up Private Social DIY	30	1.84	 2.71 1.87 3.34	488	 2280 938 1834	5,951	 29901 12300 24058
Fridge saver- Type schemes	10 12	0.11	0.14	209	327	0	-176
Appliance replacement-higher efficiency models	10	0.11		418		0	
Compact fluorescent light bulbs (extra bulbs) –retail -direct	14 16	0.03	0.01 0.01	3,528	3758 12583	0	-2448 -8196
Compact fluorescent light bulbs (new bulbs)	8	0.07		4,300		0	
Hot water tank insulation-new	20	2.31		230		2,806	
Tank Insulation- top up	20 10	0.45	0.74	93	210	1,129	2750
Fuel Switching	15		0.68		3239		-6128
Heating Controls	15		1.88		129		1698
Appliances –Cold Wet Set Top Boxes	12 12 8		0.06 0.02 0.01		1251 268 138		-674 -7 -83
Draughtproofing	20		0.74		210		2750

Tab. 7 - Energy improvement in the UK EEC scheme 2002-2008 - (numbers for period 2005-2008 subjected to change)

New measures of microCHP are planned. They will be encouraged by means of a properly devised evaluation of awarded energy savings

Copies of the document 'Energy Efficiency Commitment form April 2005 – Consultation proposal " can be found on:

http://www.defra.gov.uk/corporate/consult/eec/consultation.pdf

3 CONCLUSIONS

A next workshop is planned in the task 14. It will deal with policy issues in White Certificates trading (obligation-bound and eligible agents, eligible Energy Efficiency measures, competition, cost recovery, interaction with other schemes). It will be organised by ADEME and it will take place in Paris on April 14th 2005.

4 REFERENCES

[1] A. Capozza: IEA-DSM TASK XIV MARKET MECHANISMS FOR WHITE CERTIFICATES TRADING - MINUTES OF EXPERTS MEETING 9 NOVEMBER 2004, LONDON, UK

ANNEXES

Power point presentations:

- UK energy efficiency – drivers, policies and measures - Paul Chambers Defra (UK)
- The Energy Efficiency Commitment - Iris Rooney Defra (UK)
- UK energy efficiency policy & EEC – a business perspective - Russell Marsh UKBCSE (UK)
- The EEC – a regulators perspective - Charles Hargreaves Ofgem (UK)
- Lessons learned from UK ETS and EU ETS - Chris Dodwell, Defra (UK)
- The Market of Energy Efficiency - Nature and measurement of the commodity – Walter Grattieri CESI (I)
- Market Mechanisms for White Certificates: Issues and Challenges in Developing New Policy Measures - Antonio Capozza CESI (I)