

EMEEES

Evaluation and Monitoring for the EU Directive on Energy End-Use Efficiency and Energy Services

European Expert Workshop Minutes

- Venue:** VVF VACANCES “La Bergerie”, Chemin de Montmeuille, 06480 La Colle-sur-Loup, France
- Date:** June 4, 2007
- Minutes:** Kristina Kebeck, Wuppertal Institute (Opening, Terminology for working on monitoring methods & Closing Plenary), Stefan Thomas, Wuppertal Institute (Bottom-up evaluation), Nathalie Desbrosses, Enerdata (Top-down evaluation), Nicola Labanca (EuroWhiteCert)

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1 Opening

<p>Input by Eoin Lees (moderator)</p>	<p>Welcome of all participants to the workshop held at same venue as eceee</p>
<p>Input by Stefan Thomas</p>	<p>Overview of the EMEEES Project and the workshop agenda Presentation of the first results of the project after 6 months of implementation and asking the question "Are we on the right track?" This was the first public event outside the EMEEES project consortium Today's EMEEES workshop to join forces with EuroWhiteCert</p>
<p>Discussion</p>	<p>None</p>

2 Terminology for working on monitoring methods

Presentation by Stefan Thomas

<p>Input</p>	<p>(Please see power point presentation provided)</p>
<p>Questions / Discussion</p>	<p>Uncertainties regarding the definition of energy efficiency improvement measures and end-use actions. Examples for each type were provided.</p> <p>Critical remarks by some participants that terms used were confusing and not in-line with the definitions used in the EU Directive on energy end-use efficiency and energy services (ESD). Statement that the regulating committee for the ESD should only accept those terms and definitions as laid out in the Directive.</p> <p>Some participants said that free-rider and rebound effect have to be identified when monitoring energy savings, but are also among the most difficult issues to measure. There can be direct and economic rebound effects, but there are a number of studies to prove that the economic rebound effect (understood as income effect) is not that high (only few % of the energy savings achieved).</p>
<p>Process/ Next steps</p>	<p><i>-> Let us try to be as comprehensive as possible in the analysis, but at the end of the day we have to be as pragmatic as possible in the methods proposed.</i></p>

3 Methods for monitoring energy savings (1) Bottom-up evaluation methods

Presentation by Harry Vreuls and Jean-Sébastien Broc

<p>Input</p>	<p>(Please see power point presentations provided)</p> <p>Four steps of a bottom-up method: (1) unitary annual energy savings; (2) number of units; (3) gross-to-net correction factors; (4) lifetime of savings</p> <p>Three levels of analysis/accuracy: (1) EU average level; (2) national average; (3) measure-specific</p>
<p>Questions / Discussion</p>	<p>Some participants stressed the need to include methods for “soft measures”, such as information campaigns. The ongoing IEE project BEHAVE was mentioned as a potential source of input, as were activities in Upper Austria.</p> <p>One participant suggested to speak of “monitoring”, if such effects are not accounted for but only numbers of end-use actions taken are counted, and of “evaluation” only if gross-to-net correction factors such as free-rider and multiplier effects are evaluated in an ex-post analysis.</p> <p>One participant expressed doubts, whether standardised methods are possible, since according to his experience, always some improvisation was needed in bottom-up evaluations.</p> <p>A question was raised, whether primary energy savings from micro-CHP or CHP from biomass use were eligible under the ESD, or only measures saving final energy.</p>
<p>Process/ Next steps</p>	<p>Further discussion in the afternoon session</p> <p>Clarification by the European Commission and the ESD Committee needed on eligible measures</p>

4 Methods for monitoring energy savings (2)

Top-down evaluation methods

Presentation by Didier Bosseboeuf

Input	<p>(Please see power point presentations provided)</p> <p>In top down methods, total energy savings are calculated from statistical energy efficiency indicators (national statistics ; eg ODYSSEE indicators), by removing the energy savings linked to other factors than eligible policy measures (autonomous trend, international price, direct rebound effect, other policies).</p> <p>An econometric analysis is used to “clean” the effect of these factors.</p> <p>Development of methods for 15 end–uses.</p> <p>Harmonisation of the methodology but adjusted according to availability of data and impact of the different disturbing factors.</p>
Questions/ Discussion	<p>Some participants again stressed importance to take rebound effects into account</p> <p>CHP is an important topic and is only taken into account in industry</p> <p>Necessity to remove only the price effect not linked to policies. But some participants even questioned that necessity: Does the impact of world market prices have to be removed or not? Arguments: Disallowing price effect might exclude some savings that are due to increased ESCO business triggered by a price increase. Allowing price effect might lead to lower energy savings calculated in times of decreasing prices.</p>
Process/ Next steps	<p>Further discussion in the afternoon session.</p>

5 The special case of White Certificates

Presentation by Nicola Labanca

Input	(Please see power point presentation provided)
Process/ Next steps	The EuroWhiteCert project consortium produced, among others, guidelines for the issuing of white certificates common to various EU countries and an analysis report related to a comparative assessment of existing methodologies for Measurement and Verification (M&V) of energy savings and their applicability to TWCs. Such documents will be available at www.eurowhitecert.org after the revision of the project final report by the European Commission.

6 Parallel working groups

EMEEES – bottom-up methods	<p>Presentation by Jean-Sébastien Broc: “Bottom-up evaluation methods: the example of condensing boilers”</p> <p>Presentation by Paula Fonseca: “Setting up a bottom-up method: variable speed drives” (Please see power point presentations provided)</p> <p>Critical Topics of discussion : <i>Condensing boilers case study</i></p> <ul style="list-style-type: none">- Should only condensing boilers be promoted by policies and energy services?- Should the baseline be the average consumption of new, inefficient boilers or the average consumption of the existing stock of boilers?- What is the boiler’s use? Space heating, space and water heating, or water heating only?- The three levels of analysis were agreed, but concern whether level 1 will be feasible at all, and whether it will be fair if used.- Question whether stock modelling could be used as a second evaluation method <p><i>Variable speed drives for electric motors</i></p> <ul style="list-style-type: none">- Concerns that level 3 analysis would need monitoring individual installations and would be too expensive – criteria (individual monitoring only for large motors) and coupling with energy audit results could be a solution- the annual hours of use influence the lifetime
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<p>EMEEES – top-down methods</p>	<p>Presentation By Didier Bosseboeuf:</p> <p>“Case studies on top-down methods : case of solar water heaters and new cars” (Please see power point presentations provided)</p> <p>Presentation of the first conclusions of econometric regressions for 2 case studies: solar water heaters diffusion and specific consumption of new cars.</p> <p>Critical Topics of discussion :</p> <p><i>Solar water heaters diffusion case study</i></p> <ul style="list-style-type: none"> - Need of country specific coefficient of energy saving to account for the difference in solar flows - Definition of trends or baseline difficult for countries with mature markets - Price impact different between the countries : negligible for France and high for Germany. Country specific or EU-wide price elasticities? - Use of absolute values (installed stock) or variations (annual sales)? Use of absolute prices (as it is done for the moment : price of alternative technologies) or relative prices (solar technology price/alternative technologies price), eventually with a lag? <p><i>Specific consumption of new cars</i></p> <ul style="list-style-type: none"> - Strong data limitations, especially for new member countries - Autonomous trend difficult to define. Are EU measures part of baseline or not? Maybe take into account a same technological progress for all countries - In the case of USA price effect is important. It is not the case for the case studies which are already done for EU (France and Germany) - Taking into account the weight and the power of cars when data available? - Simple econometric modelling for practical reasons or more sophisticated but also more complicated models?
<p>EuroWhiteCert – Criteria for the evaluation and design of Tradable White Certificate (TWC) schemes</p>	<p>The most relevant points of discussion related to the criteria for the evaluation and design of TWC schemes adopted in the framework of the EuroWhiteCert project and recommended to policy makers. Explanations provided reflect what is reported in 1) the handbook for the design and evaluation of tradable white certificate schemes and 2) the package of policy recommendations for the assessment, implementation and operation of TWC schemes already available at www.eurowhitecert.org.</p>

7 Closing Plenary

Presentation by all working groups

Input	(Please see attached documents for bottom-up and top-down methods) EuroWhiteCert: WC systems must be ambitious in their energy-saving targets, otherwise there will be a low price of WC and large shares of free riders A regular and frequent update of baselines for calculating the energy savings is also needed.
Discussion/ Question	Bottom-up methods: What kind of data is used for baseline calculation (manufacturers / companies data)? Most discussion on baseline and additional effects rather than on free riders. Top-down methods: Discussion on the need for having more indicators for energy efficiency, particularly diffusion indicators (monitoring the market diffusion of energy-efficient technologies). Are lifetimes relevant for integration with bottom-up methods? A participant suggested that country-specific price elasticities should be used. EuroWhiteCert: No further questions
Process/ Next steps	EMEEES: Development of ca. 10 further bottom-up and ca. 4 further top-down methods by September 2007. National workshops in 13 EU Member States and Norway in October/November 2007 EuroWhiteCert: Finalisation and publication of final report