

Introduction to Panel 2:

Strategies and general policies

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Introduction

Mitigate climate change? Reduce energy imports? Increase economic competitiveness? What is the common answer for all these questions: Energy Efficiency. How to integrate this answer into the policy making process? Policy makers develop strategies and policies for climate change, for improving energy security and for increasing industrial competitiveness. Should Energy Efficiency be part of them, should Energy Efficiency Strategies be developed and relate to all these aspects or how it is best to proceed?

There is no single answer. But experience shows that specific Energy Efficiency strategies and Action Plans can help moving into the right direction. And better coordination of such strategies with those developed to address climate change and security of supply helps as well. Measures developed to improve energy efficiency appear to be key instruments for other broader environmental and economic policies. Consequently it is essential to improve our understanding of the past and current energy efficiency policies and measures, to be able to develop new instruments in order to improve these policies and to adapt them to new context (liberalised energy markets, climate change policies, oil price increase, etc.). At the same time, issues like climate change are of a global nature. European efforts can contribute but not solve all world challenges ahead. It is why we propose in this panel:

- some papers presenting energy efficiency policies and strategies in European countries but also in fast growing economies like China and India,
- some papers analysing the European strategy and Action plan but also some papers discussing the efficiency of different instruments and DSM policies implemented,

- some papers discussing new technical instruments which can be used to improve energy efficiency but also new market based instruments (such as white certificates) developed in the framework of the current energy efficiency policies.

Energy efficiency: the European Strategy and energy efficiency European wide initiatives

Papers: 2,042; 2,205; 2,245; 2,115; 2,225; 2,299

In the paper 2,042, Sergio Ferreira from the European Copper Institute is presenting the EU Action Plan on Energy Efficiency and opens a debate about its value added to European energy policies. Aiming to reduce European energy consumption by 2020 with 20 % and therefore saving 100 million euros/year and 780 mil tCO₂, the Action Plan represents a milestone in European energy efficiency policies. But what are the conditions to be properly implemented?

In 2,115 P.G.M. Boonekamp and W.A. Eichhammer have for aim to analyse in-depth the demand side management (DSM) policies in member states of European Union. They use the MURE-database on policy measures for energy efficiency which provides an up-to-date overview of deployed measures in European countries. They propose a detailed analysis (targets, effectiveness, relationship with European legislation,...) of the measures in the household sector.

In the paper 2,205 Anja Scholten et al analyse how measures stipulated in the EU "Action Plan for Energy Efficiency: Realising the Potential" can help achieving the policy objective of reducing the energy consumption with 20 % by 2020. The paper tries to see this by analysing in depth a number of the

priority actions, notably in relation to the appliances, buildings and the transport sector.

In the paper 2,245 Vincent Berrutto and Waltraud Schmid from the Intelligent Energy Executive Agency (IEEA) of the European Commission, presents the new “Intelligent Energy Europe” programme, main directions and priorities. The new IEE programme is presented against the results of the previous programme, that financed about 400 projects across Europe. With a budget of 730 millions for 2006-2013 and more favourable terms for granting support the new programme should help making a difference in implementing energy efficiency policies.

In the paper 2,225 Benigna Kiss from the Central European University et al provide a country-by-country overview of the ESCO market in Europe. Latest developments are analysed. Based on the findings of the survey, which looks amongst others to barriers, market share of ESCOs and type of clients, recommendations are proposed on how to further promote ESCO markets in Europe.

In the paper 2,299 Emmanuel Bergasse opens a debate on the way the energy efficiency community could be best represented in relation to the EU institutions, and not only. Starting from the observation that the supply industry is well organised in strong lobby groups the paper tries to see if there would be scope for a similar exercise for the energy efficiency related industry, given that many companies are already grouped in various associations, even if not focused on energy efficiency.

Energy efficiency policies and instruments: national developments

Papers: 2,028; 2,093; 2,030; 2,006; 2,168

Poster: 2,150; 2,224; 2,331

In 2,028 Rob Kool and Renée Bruel from SenterNovem present the key elements for the Dutch Action Plan on Energy Efficiency to be developed under the EU End-Use Efficiency and Energy Services Directive (ESD). Building up on the experience accumulated in The Netherlands over the year, the new plan will likely look more into the opportunities offered by the public sector, by the regulation of the energy industry and by the development of the ESCO market. Monitoring and evaluation should accompany all new proposed measures.

In 2,030, Anna Forsberg et al from the Swedish Energy Agency look into the development of the market for ESCOs (performance contracting) in Sweden. While for many years Sweden has not seen any significant developments in the ESCO market, in the last period, following a new strategy developed by the Swedish energy Agency, the market started to develop very fast, covering already 5 % of the public building stock. What are the success factors and how can they be used by other countries as well?

In 2,006, Jiang Lin et al from the Lawrence Berkeley National Laboratory present how energy efficiency is integrated into China's 11th Five Year Plan. The objective is ambitious: energy intensity should be reduced by 20 % from 2005 to 2010. But how difficult is to achieve this objective given the recent trends in improving energy efficiency and what new type of measures should eventually be envisaged?

In 2,093 Dipankar Dey presents and analyses the different initiatives that have been implemented in India in order to

save energy and to improve energy efficiency since 1976. He discusses the reasons which could explain why these initiatives have had little success and proposes a few recommendations in order to improve the public action concerning DSM in India.

In 2,168 Barbara Schlomann et al discuss various aspects relating to the implementation of the EU End-Use Efficiency and Energy Services Directive (ESD) in Germany. The discussion addresses aspects highly relevant for all EU countries such as: Target definition under the ESD, Top-down and/or bottom-up methods to calculate energy savings achieved under the ESD, Statistical data demands resulting from the ESD and Special requirements by the ESD for the public sector.

In 2,150 Y.H.A. Boerakker and B.W. Daniëls look at the challenges and opportunities for improving energy efficiency in the household and service sector in the Netherlands. An analysis of both barriers and policy measures appropriate to overcome those barriers is presented, bearing in mind certain cost limitations in order to have measures considered cost-effective.

In 2,331 Karen Marie Pagh Nielsen looks into how to tap the potential for improving energy efficiency in public institutions in Denmark. Despite the fact that Denmark is a leading country in this area since many years, it looks that there is still a 30 % potential for reducing electricity use in such buildings. Certifications of buildings appear to be a first step in taking the necessary measures to achieve the potential improvements.

In 2,224 Mark Brown presents the Energy Efficiency Partnership for Homes implemented in the UK in order to favour the collaboration between governments and supply chain stakeholders on the design and implementation of energy efficiency policy initiatives in the household sector. The Partnership is a voluntary organisation of supply chain players involved in the delivery of energy efficiency products and services throughout the UK to the household sector. The model enables supply chain stakeholders to be better informed of policy developments and able to respond to opportunities more cost effectively.

Improving our knowledge of energy efficiency policies

Papers: 2,349; 2,167

In 2,349 Sonja Koepfel et al present the results of a research project conducted under the framework of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change which has reviewed more than 60 ex-post policy evaluation reports for the 20 most commonly used policy instruments from app. 30 countries worldwide. The paper presents the results of this exercise regarding the environmental effectiveness and cost-effectiveness of these instruments, as well as identifies special conditions for their success.

In 2,167 Luis Mundaca identifies the nature and scale of transaction costs under different policy instruments aimed to increase energy efficiency. It analyses three cases: a) GHG-driven initiatives, b) tradable “White Certificate” (TWC) schemes –taking the Energy Efficiency Commitment in Great Britain as a case study-, and c) energy efficiency audits given by grid companies in Denmark. The analysis focuses on TCs borne by project developers or obliged parties under these initiatives.

New tools for energy efficiency policies

Papers: 2,023; 2,084; 2,007; 2,073; 2,192

Poster: 2,344

In 2,023 Andrei Z. Morch et al analyse the energy savings potential due to installing metering and billing systems which allow consumers to regulate and steer their consumption. Implementation of Smart Metering systems provides a technological basis, which makes it possible to implement new market-based products and services encouraging the final customers to save energy. They present the public policies and implementation paths of Smart Metering today across Europe and discuss the role that the electricity suppliers and Distribution System Operators can play in the diffusion of this new technology.

In 2,007 V. Oikonomou et al analyse interactions of a White Certificates scheme and existing energy taxation and the effect of these policy instruments in the electricity sector, in particular on the electricity price. In the framework of a microeconomic model, they examine the case of electricity producers with carbon tax and electricity suppliers with sales tax and white certificates obligations.

In 2,073 Giuseppe Tiravanti et al present the market and regulatory conditions existing in Italy and UK and identify the key factors affecting business choices for an ESCO aiming to operate in the energy efficiency sector. Then they compare the economic incentives to invest which the ESCOs have due to different energy efficiency measures, and in particular white certificates schemes recently implemented in the two countries.

In 2,084 Thomas Faber et al present aspects related to the link between policies promoting renewable energy and those promoting end-use energy efficiency. The paper mainly underlines the efficiency gains brought by various support measures for RES. The analyses are conducted by using the model GREEN-X funded by the EC, which allows analyses the EU as a whole as well as for individual member states.

In 2,192 Bruno Duplessis et al analyse the following question: should tradable white certificates remain national management tools or may it become a real European market? The authors test the concept of a European tradable white certificate system: a pilot test explores the practical implementation of a white certificate scheme by developing a uniform measurement and verification methodology, certifying existing projects, identifying a set of alternative market participants and analysing what could be the design of a EU-wide tradable white certificates scheme.

In 2,344 Louis-Jacques Urvoas et al present the evolution of the strategy of an energy supplier following to the changes in energy markets and of the energy policy. When the energy supplier was in monopoly its action was mainly based on DSM through electricity tariffs and energy saving of electricity end uses. Now it is integrated in the core business and closely linked to the requirement of reducing CO₂ emissions and of implementing energy savings programmes in the framework of the French tradable white certificates scheme.