

Introduction to Panel 1: The foundations of a future energy policy. Longer term strategies

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Introduction

Much of the work to improve energy efficiency and to reduce the use of energy is based on incrementalism (one little step every day takes us closer to a good solution). One reason for this is that many of the powerful actors have since long determined their agenda and have concluded that they have a lot to lose and only little to gain from radical rethinking. In the world of energy research and policy our usual response has been to identify barriers to energy efficiency and attack many of them successfully, but still the amount of energy we use continues to grow. In other words, we are making good strides but they are still too short. We are indeed improving efficiency but we are still far from reducing both energy use and climate gas emissions.

The purpose of this panel is to seek ideas on new mechanisms of change, both within current market-centred paradigms but also beyond their scope. This panel takes up issues around social change, innovation (both social and technological) and how both could contribute to a reduction of energy use. The panel papers address the questions; what kind of changes are we trying to promote, what do we need to do more of, whom should be addressed to make the changes and where do we need new thinking? We hope that the contributions to the panel will make a contribution to a new dialogue on deep and longer term changes.

A. Turning markets and minds

Jörgen S. Norgard (1,345) et al. has the story about how a market can change its preferences fairly quickly and demand the excellent instead of the ordinary, and that this preference remains with the customers. In technical terms one could say that the findings are consistent with theories on market behaviour

and that the tools developed lowered the search- and transaction costs for the customers.

Harold Wilhite (1,043) argues that efficient technology alone will not be enough to save the world and that neither a focus on technology or on behaviour in isolation will lead to a robust understanding of change. He argues that the consumption of energy happens in the interaction between socio-cultural contexts of behaviour and new technologies, something he defines in the paper as 'distributed agency'. This conceptualisation of 'agency' offers new perspectives on policies for encouraging changes in consumption.

B. Abilities and needs

Jacky Pett (1,003) addresses the social acceptability of climate change policies, arguing that not everyone 'wins' from these policies. The positions and perspectives of the various energy actors must be accounted for in adaptation and mitigation strategies. The paper lays out a methodology for mapping the various perspectives and involving stakeholders in decision-making.

Catherine Cooremans (1,177) raises the question of why businesses do not engage in energy-efficient investments, even in those cases when they can be achieved in a cost-effective way. She goes beyond conventional economic analysis and examines the influence of individual, organisational and contextual factors. She argues that the company's perception of the strategic benefits of energy investments play an important role in company decision-making.

Sarah Darby (1,255) takes us into the difficult terrain of sufficiency and the question of how much energy is too much. She argues that we need to change paradigms from efficiency to suf-

iciency, which defines limits and sets policies accordingly. She develops what she calls a 'social scenario' in which sufficient energy use is associated with better lives.

C. What tech. where?

Chris Marnay (1,074) and Ryan Firestone reflect on the old centralised energy-system and how it can be changed into smaller units, micro-grids, with a wider variation of supply and demand involvement and with greater flexibility - especially how Security, Quality, Reliability, and Availability (SQRA) will be affected. If we consider how communications technology has changed it would be rather strange if energy distribution was not in line (pun not intended) for a shift!

Lukas Kranzl et al. (1,159) have investigated and compared policies for renewable energy and energy efficiency in three very different places in Europe, Germany, Luxembourg and Northern Ireland. Interaction between the two policy areas is obvious and needs to be further developed. The comparison shows that there are solutions to at least minimise the problems that occur with e.g. free-riding and rebound especially if countries could learn from each other.

Victoria Willis (1,199) explores the opportunities for micro-generation in U.K. and shows that they are huge and growing in the cases where the theories of market learning, captured in learning curves, are applied. The barriers for the process are identified and so is the dissemination time, which should not be under-estimated.

D. Governance

Lotta Bångens (1,264) examines the experience from inside a high-level investigation, led by the prime-minister, to make Sweden "independent" on oil in a 15 year time-frame. The process delivered a consistent and comprehensive strategy that could tell quite a bit about how governments should approach climate issues.

Mithra Moezzi and Françoise Bartiaux (1,337) discuss the ties that bind our thinking to conventionalized frameworks and hinder innovation. Some of these are the demands of quantification, the need to please funders, the pressures to confirm hypotheses and so on. They argue that by acknowledging these constraints and bringing them up for discussion, the energy-efficiency community will have a better change of liberating its thinking about change.

E. Money Talks – they say

Paolo Bertoldi and Silvia Rezessy (1,227) explore whether feed-in tariffs, a policy instrument that has been successful for renewable energy (RES), could also be applied for energy efficiency. They further discuss whether the instrument could be applied both to supply and demand side in an integrated approach. They argue that such a scheme could also off-set the rebound effect that is the source of constant headaches for policy-makers.

In paper 1,297, Slivia Rezessy, Paolo Bertoldi and Monique Voogt examine the European Emissions Trading Scheme and argue that the role of energy efficiency ought to be expanded. The paper explores how energy efficiency and small renewables

might be included in EU energy efficiency trading and explores practical solutions for good carbon accounting.

Eva Benz and Karl-Martin Ehrhart (1,281) have investigated the pricing in the markets for emission trading and conclude that the prices on the rights (when grandfathered) are systematically wrong. Their remedy is a "double auction system", a system in which participants must signal at every price level their willingness to stay in the auction and to pay (receive) the current price for their demanded (offered) quantity.

F. Breaking new roads

Stefan Lechtenböhmer et al. (1,113) have dealt with the way most countries set up the policies based on Business as usual (BAU) and the risks that occur when alternative scenarios are used. Policy-makers shun energy efficiency and new technologies since the risk of a failure is not known well enough. They show that the BAU-scenario offers a false security for the policies.

Cees Egmond et al. (1,033) discuss the dissemination to market of new technologies based on a practical example of natural-gas driven cars. They especially investigate how different market segments (niches) can be identified and addressed.

Posters

Agneta Persson (1,134) has studied how different energy efficiency measures can be valued in different perspectives such as cost, amount of bought energy, primary energy use and GHG-emissions. A system for valuing and evaluation is developed which shows that the decision depends to quite some extent on what is most important for the decision-maker in the specific case. But the analysis also shows measures which lead to both lower LCC costs, decreased primary energy consumption and decreased environmental impact simultaneously.

Ture Hammar (1,154) studies how small-scale projects can be more effectively designed, clustered and assisted to deliver energy efficiency improvements. A project based on the idea that a clearing-house could perform such a supporting function is developed and now also realised in a EU-context.

Jane Palmer (1,347) takes us from theory to practices for stimulating cooperation and debate. She describes the UK Energy Research Centre's 'Meeting Place', where interdisciplinary groups get together to debate the issues and form alliances. According to Palmer, the groups often tackle complex and controversial problems at the forefront of the energy debate. The Meeting place could serve as a model for networking that other countries might replicate.