

SESSION 11

MULTIPLE-BENEFITS OF ENERGY EFFICIENCY: WHAT MORE IS THERE TO GAIN?

Moderator: Mirjam Harmelink, Harmelink consulting

PAPERS:

Spreading the Nett: Evaluating the Full Range of Multiple Benefits Delivered by Energy Efficiency Policy

Nina Campbell, Charlotte Forbes and Lisa Ryan all from the International Energy Agency, Paris, France

Energy Efficiency Co-Benefits Evaluation: Energy Providers

Grayson C. Heffner, International Energy Agency, Paris, France

Nina Campbell, International Energy Agency, Paris, France

Driving Back to the Future: Understanding the Impact of Transport Programmes over Time

Kate Jenkins, Energy Saving Trust, Cardiff, United Kingdom

David Kenington, Databuild Research and Solutions, London, United Kingdom

SESSION SUMMARY:

The success of energy efficiency programmes is traditionally measured in kWh or PJ saved, but energy savings are just one of a broad range of benefits which energy efficiency measures deliver. The nature of these multiple benefits is not yet well understood and as a result, a range of benefits are generally neglected in current energy efficiency policy evaluation. Inclusion of these benefits in energy efficiency evaluation could change the way energy efficiency is viewed.

The first paper summarizes the results of an inventory carried out by the IEA on the multiple benefits emerging in various energy efficiency discussions, including a preliminary assessment of their scope and impact on the basis of existing academic and evaluation work. The paper presents twelve largely excluded benefits at individual, sectoral, economy-wide and international level including health and social improvements; job creation; energy provider and infrastructure benefits; macroeconomic effects; and sustainable development.

The second paper focusses on the array of benefits accrue to energy providers and their customers as a result of end-use efficiency improvements. The benefits range from: reducing customer operations costs, accommodating peak demands without adding new generation or network capacity, reducing price volatility in wholesale markets, reducing resource portfolio cost and risk, and improving reliability. The paper reviews these benefit categories and discusses the progress made in quantifying them.

The third paper presents the results of a programme managed by the Energy Saving Trust (EST), which is aimed at improving the fuel consumption of fleet vehicles in the UK. The results presented in the paper focus on analysing the extent to which measures stay in place. Measures included are: company car policy change, adoption of alternative fuels/low CO₂ vehicles, managing business travel, modified technologies and driver training. Data were collected on three main factors influencing the lifetime and impact of a measure: 1) continuation rate, 2) roll out rate and 3) endurance factor.