

SESSION 8A

INTERNATIONAL ENERGY EFFICIENCY POLICIES AND PROGRAM EVALUATION

Moderator: Rafael Friedmann, Pacific Gas and Electric Company

PAPERS:

Mission Impossible? A Pilot International Meta-Analysis of Appliance Energy Efficiency Programme Evaluations

Nigel Jollands, International Energy Agency
Mark Ellis, Mark Ellis and Associates

An Analytical Framework to Examine Whether Energy Efficiency Policies and Programs Address Factors that are Known to Influence Energy Consumption

Suchismita Bhattacharjee, Virginia Tech
Georg Reichard, Virginia Tech

A Study of International Appliance Standards Enforcement Strategies

Cynthia M Austin, Heschong Mahone Group, Inc.
Abhijeet Pande, Heschong Mahone Group, Inc.
Douglas Mahone, Heschong Mahone Group, Inc.

SESSION SUMMARY:

This session will present innovative efforts at comparing and drawing conclusions on the most effective international energy efficiency policies and interventions. It should be of interest to evaluators interested in conducting similar efforts across various jurisdictions and/or nations. It also highlights some policies and programmatic interventions being carried out in the world that may be of interest to practitioners and policymakers.

Jollands and Ellis' paper presents the difficulties faced and lessons learned from an International Energy Agency effort to conduct a meta-analysis across countries to identify best practices and the most cost-effective programmatic energy efficiency interventions. The effort has been described as Mission Impossible. It is difficult enough to evaluate a single programme, let alone compare multiple evaluations across different contexts that use different methods. The paper describes a pilot international meta-analysis on 8 relatively comparable case studies from six countries covering a range of different measures relating to appliances. The authors find that despite the difficulties, international meta-analyses are possible. With improvements in the extent of evaluation activity, harmonisation of methods and greater experience with conducting international meta-analyses, international comparisons could be increasingly useful.

The paper by Bhattacharjee and Reichard presents an innovative new framework to contrast policies and interventions to promote energy conservation and energy efficiency across different jurisdictions. The paper begins by identifying four socio-economic influencing factors affecting energy consumption from a human behavior perspective (culture, economy, environment and technology). These influencing factors represent the directions (axes) of a graphical analysis diagram. Factors known to affect the energy consumption in the residential sector are then positioned in this diagram based on the above mentioned influences. This mapping suggests that energy consumption is significantly influenced by economic conditions. The second part of this paper undertakes an exploratory analysis of residential energy efficiency policies and programs currently implemented in the United States and the

United Kingdom. These policies and programs are mapped according to their impact on the four human behavior influence directions. The results show that a majority of federal U.S.A. policies and programs lean towards technological advances and environmental awareness, whereas in the UK these are more balanced and address all four directions. The method can be used by U.S.A. states and local governments to identify and effectively complement gaps in federal incentives and programs.

The paper by Austin, Pande and Mahone examines the use of appliance standards and labeling across the world. It seeks to understand how various entities increase the stringency of regulations on energy performance and labeling of appliances to improve the effectiveness of such standards. Various U.S.A. state, national (Australia, Japan, Canada, China and U.S.A.), and international (European Union) entities requirements for appliance testing, certification, and compliance with specific efficiency standards are contrasted. The paper discusses for each entity how manufacturers, distributors, and other sellers are notified of the requirement for appliance testing and certification, proper labeling and marketing of the certified efficiency, and proper withholding of non-complying models from the entity's area of jurisdiction. It also provides a summary of each entity's success or failure of manufacturer and/or distributor cooperation.