

## SESSION 2C

### INTERNATIONAL EXPERIENCE AND LESSONS LEARNED FOR U.S. EVALUATORS

*Moderator: Nikolaas Dietsch, U.S. Environmental Protection Agency*

#### PAPERS:

##### **The Strategic Value of Evaluation for Brazil and Neighboring Countries: The Experience of Procel**

Karla Kwiatkowski Lepetitgaland, Eletrobras, Rio de Janeiro, RJ, Brazil

Luiz Eduardo Menandro de Vasconcellos, Eletrobras, Rio de Janeiro, RJ, Brazil

Leonardo Pinho Magalhães, Eletrobras, Rio de Janeiro, RJ, Brazil

Ana Lúcia dos Prazeres Costa, Eletrobras, Rio de Janeiro, RJ, Brazil

Leonardo Fellipe de Toledo Costa, Eletrobras, Rio de Janeiro, RJ, Brazil

Rafael Friedmann, Pacific Gas and Energy, San Francisco, SF, United States of America

##### **French White Certificates**

K. H. Tiedemann, BC Hydro, Burnaby, BC, Canada

##### **Quantification of Energy Savings from Ireland's Home Energy Saving Scheme: an Ex-Post Billing Analysis**

Jim Scheer and Matthew Clancy, Sustainable Energy Authority of Ireland

#### SESSION SUMMARY:

This session will summarize recent evaluation experience in three countries – Brazil, Ireland, and France – focusing on three distinct evaluation questions. While the evaluation approach used in each case has parallels to methods commonly adopted in the U.S., they all reflect policy objectives, local constraints, and the level of evaluation experience in that country. All three authors have identified several relevant and timely take-away lessons to share with their American counterparts. The breadth of issues and methods covered here range from the adoption of an evaluation framework in one country, to an assessment of a national policy in another, to an evaluation application for a specific program type.

The first paper shows how in Brazil and Latin America countries – in which energy efficiency efforts are growing – evaluation does not yet receive the attention and resources required. Rather, it is mostly used to audit results of a program and its implementers and/or designers. The authors describe how this leads to a less than ideal relationship between the evaluators and the evaluated, resulting in competition and mutual distrust within the energy efficiency community instead of cooperation and complementation. Several lessons are drawn from the 25-year-old experience of PROCEL (Brazil's Federal Electricity Conservation Program) to highlight the difficulties faced to carry on energy efficiency program evaluations in Brazil. Preliminary evaluation results provide lessons for efficiency program development, as well as for how ongoing evaluations are conducted.

The second paper highlights how white certificates policy in France has been driven by three main factors: (1) need to increase energy efficiency in the hard to reach residential and commercial sectors; (2) limited success in increasing energy efficiency with traditional policy instruments; and (3) limited public funds to implement demand side management (DSM) activities. The paper describes how an impact analysis of the first stage of the French white

certificate program, was conducted for the years 2007 through 2009. Although there is a substantial literature on white certificates, this paper is one of very few studies using econometric and cost effectiveness methods to quantify the impacts of a white certificate program.

The third paper provides an analysis of energy savings realised by a sample of participants in the Sustainable Energy Authority of Ireland's (SEAI) Home Energy Saving (HES) residential retrofit scheme, using an ex-post analysis of energy use. The paper describes how an ex-post billing analysis was compared to engineering-type ex-ante savings estimates, and how an assessment of rebound effects was made in the context of the sample dwellings. Results show that, in the context of total gas and electricity reduction, a rebound effect of approximately 25% was present. Results from this paper have the potential to inform a broad-scale energy efficiency retrofit programme being undertaken in Ireland from 2011, with the aim of retrofitting as many as one million residential dwellings by 2020.