SESSION 8C

CRITICAL PROGRAM COMPONENTS THAT WE HAVE TO LEARN HOW TO EVALUATE

Moderator: Robert M Wirtshafter, Wirtshafter Associates, Inc.

PAPERS:

Information at a Click: Assessing Efficiency Educational Websites
Marjorie McRae, Research Into Action, Inc., Portland, OR
Joe Van Clock, Research Into Action, Inc., Portland, OR
Toni Lee Hanson, Educational Consulting Services, Portland, OR

Education and Training Programs: An Evaluation of the Energy Benefits
Tami Buhr, Opinion Dynamics Corporation, Waltham, MA
Wendy Todd, Opinion Dynamics Corporation, Waltham, MA
Pamela Wellner, California Public Utilities Corporation, San Francisco, CA
Robert Wirtshafter, Wirtshafter Associates, Inc., Rydal, PA

What's the NPV of R&D? Benefit-Cost Assessment of a Comprehensive Energy Research and Development Program
Ivin Rhyne, California Energy Commission, Sacramento, CA
Sandra Fromm, California Energy Commission, Sacramento, CA
Mitchell Rosenberg, KEMA, Inc., Burlington, MA

SESSION SUMMARY:

R&D, Training and Education are secondary parts of energy efficiency plans that tend to have a pot of money allocated to them with very little concern or ability to assess how effective the money is being utilized. Up to now, most program administrators and regulators have given these activities a pass when it comes to evaluation. The thinking is that we know that these programs serve an important function, but we do not have the desire or the ability to evaluate that contribution in a meaningful manner. The absence of evaluation has left these activities with little ability to assess the effectiveness of their activities. For example, training programs and websites typically measure success of their portfolios by counting the number of attendees or hits, not whether the attendance of courses or viewing of website has led to any changes in behavior.

This strategy of not evaluating these infrastructure activities has had consequences on the funding for infrastructure activities. Because these activities do not have quantifiable savings, these programs produce no benefits in the cost-benefit formulas used to justify overall energy efficiency efforts. This means that investment in these infrastructural activities lowers the overall effectiveness of the incentive programs from the perspective of the benefit/cost analysis. In most jurisdictions, this means that these types of infrastructure activities are ignored or underfunded. The absence of evaluation also affects the activities themselves. Managers directing training programs are likely to direct their attention to increasing attendance and not worry so much about the courses' impacts on behavioral changes.

The three papers in this session are among the first studies evaluating the effectiveness of these critical infrastructure activities. Each of these assesses the difficulties that are inherent in evaluating

these types of program activities. More importantly, each paper presents a solid attempt at evaluating the value of these activities.

The first paper by Marjorie McRae explores the evaluation of websites. The paper outlines criteria for determining the effectiveness of sites including: organization, presentation, media use, technical aspects, written language mechanics, responsiveness to the needs of the audience, sensitivity to human diversity, and originality. Additional criteria for educational program websites include philosophy and academic standards, educational program information, and curriculum.

The second paper by Tami Buhr reports on the first large-scale impact evaluation of training and education activities. The study covers classes and demonstrations and consultations offered at the nine energy training centers operated by the California IOUs. The study examines the entire curriculum of energy centers and attempts to quantify the impacts on cognitive and behavioral change among participants. As the paper concludes, that there is a substantial positive impact of these centers in direct energy savings that is not being captured by the impact evaluations of the incentive programs. Forty-five percent of the commercial end-user attendees and 27% of the residential end-user attendees took energy saving actions in locations within the four IOU territories that was not already being counted in another impact evaluation.

The third paper by Ivin Rhyne provides an impact evaluation of the R&D activities funded by the California Public Interest Energy Research (PIER) program. Through 2008, the project portfolio covered 1700 projects with a broad scope encompassing not only product development, but technologies to improve energy and water utility supply operations and basic research in support of energy and environmental legislation. This paper discusses the issues involved in performing an evaluation such as this. It then goes on to present the results of the case studies selected as part of that evaluation.