SESSION 5A

METHODS ONE

Moderator: Iris M. Sulyma, Power Smart, BC Hydro

PAPERS:

Just Map it! Using GIS to Show Diffusion, Leakage and Market Potential
Timea I. Zentai, Summit Blue Consulting, Walnut Creek, CA
Elizabeth Baker, Summit Blue Consulting, Boulder, CO
Tom Hines, Arizona Public Service, Phoenix, AZ
Putting the CART Before the Horse: Using Classification Analysis to Determine Sample Design
Mary Sutter, Opinion Dynamics Corporation, Oakland, CA
Katherine Randzaao, KVD Research Consulting, San Diego, CA
Pamela Wellner, California Public Utilities Corporation, San Francisco, CA
Apples to Apples: Leveraging Building Space-Type Breakdowns to Design a More Efficient Study
Clark Bernier, KEMA, Inc.,San Francisco, CA

SESSION SUMMARY:

The three papers in the Methods One session use existing analytic strategies/software such as Classification and Regression Analysis, stratified sampling or Geographical Information Systems to address the ongoing issues of estimating spillover outside the sponsoring utility territory, determining market penetration and future market opportunities, and the development of sampling strategies to improve the precision of the population projections of studies of commercial buildings.

The first paper by Timea Zentai discusses four applications of the use of Geographic Information Systems (GIS) software to assist in the development of market strategies and evaluation of energy efficiency programs. The first example provides a more precise spillover rate for the area outside the Arizona Public Service territory, for an Arizona retail buy-down program. The second demonstrates a gap analysis for a NYSERDA new building construction program, which identifies areas of high and low penetration in comparison to LEED projects. The third example includes precise pinpointing of potential markets for a California Self-Generation Incentive Program. While the fourth example identifies outreach opportunities for the California Flex Your Power Rural campaign.

The second paper by Mary Sutter discusses the use of Classification and Regression Tree (CART), a non-parametric decision tree analysis, to determine the most efficient sampling strategy for an evaluation of California investor owned utility education and training programs. Information from a first survey wave is used to show that a random sample is the most efficient sample design for the second wave of the remarkably heterogeneous population.

The third paper by Clark Bernier discusses stratified sampling by space usage types within commercial buildings to provide a significant efficiency in the precision of the population projections of studies of commercial buildings. Where the coefficient of variation of building strata may be no better than a random sample this approach .