

SESSION 8B

PLANNING WITH WHAT WE KNOW AND WHAT WE DON'T KNOW - ASSESSING AND MANAGING UNCERTAINTY AND RISK IN PORTFOLIO CONSTRUCTION AND EVALUATION

Moderator: Nick Hall, TecMarket Works

PAPERS:

Energy Efficiency Portfolio Risk Management: A Systematic, Data-Driven Approach for Timely Interventions to Maximize Results

Richard Ridge, Ridge & Associates
Steve Kromer, Teton Energy Partners
Steven Meyers, Rational Energy Network
Doug Mahone, Heschong Mahone Group, Inc.
Jay Luo, Pacific Gas and Electric Company
Valerie Richardson, Pacific Gas and Electric Company
Rafael Friedmann, Pacific Gas and Electric Company
Nick Hall, TecMarket Works

Multi-Criteria Decision Analysis: Managing Uncertainties in Program Energy Savings Cost-Effectively

Hossein Haeri, Quantec, LLC
Derek Henriques and Iris Sulyma, BC Hydro

Optimizing DSM Program Portfolios

William B. Kallock, Summit Blue Consulting
Daniel Violette, Summit Blue Consulting

SESSION SUMMARY

Assessing portfolios of programs to pick programs that have the highest potential to capture savings is a challenging job. Trusting the program's projected savings is not enough, because the program's projected savings may never be captured. This session examines approaches for addressing uncertainties in portfolio planning in order to minimize risk of low savings and maximize the potential for high savings. During this session three different assessment/evaluation approaches will be presented.

The first paper describes the use of Monte Carlo simulations to identify which programs have the greatest probability of under or over performing. This approach was first used by the California PUC to determine how to allocate \$70 million worth of evaluation resources. Following this effort, PG&E used a similar approach to assess which programs offer the highest potential for meeting the company's energy savings goals.

The second paper uses the Analytic Hierarchy Process (AHP) to assess the real program performance risks from multiple perspectives. This process uses AHP "pair-wise" approaches to evaluate the relative importance of various risk factors that can be expected to affect the performance of a program or portfolio of programs.

The final paper demonstrates the use of Modern Portfolio Management Theory to design and offer programs that offer the greatest return of savings within a portfolio investment strategy. This paper

will present how portfolio management methods used in the financial community can be modified to identify portfolio of programs that have the highest performance potential.