PANEL 2 - Residential Buildings: Program Design, Implementation, and EvaluationPANEL LEADERS: **Valerie Richardson**, *DNV GL* and **Tory Weber**, *Southern California Edison Company*

SESSION TOPICS: Fresh ideas or applications in the design, implementation, and measurement of energy efficiency, renewables, and load management programs. Program Design: ideas that emphasize cost-effective solutions; move to systems approaches; short- & long-term savings; integrate EE and demand response; mix proven technologies with new ideas for success; residential programs in the age of smart meter data. Evaluation: impacts of online programs/tools; cost-effectiveness of different behavior programs; innovative cost-effectiveness evaluation; using data mining for better predictive value; innovative approaches to evaluating program impacts; understanding customer response to program outreach. Implementation: using innovative delivery channels; delivering cost-effective comprehensive retrofit programs; the role of financing in residential programs; next-generation residential lighting strategies; new ideas in low- and middle-income programs; maximizing demand response impacts while minimizing customer fatigue; balancing codes with program design; trends in residential building modeling software; incorporating advances in automation and building science; innovations in program design for new and emerging measures; incorporating behavior strategies targeting individuals and community-scale.