LOW-INCOME PROGRAMS: USING EM&V TO INFORM PROGRAM DESIGN, DELIVERY, AND FUTURE POTENTIAL

Moderator: Laura Schauer, Illume Advising

PAPERS:

There is No Such Thing as a Free Lunch: Insights on Low Income Customers' Willingness to Participate in a "No Cost" Direct Install Program

Carol Edwards, Southern California Edison
Tami Rasmussen, Evergreen Economics
Ingo Bensch, Evergreen Economics

Barriers and Solutions to Achieving Potential Savings in Whole-House Low-Income Weatherization Programs

Jacqueline Berger, APPRISE

Goodbye Warm Front: Evaluating the Delivery of Energy Efficiency Retrofits in Low-Income Homes in England from 2005 to 2012

Ian Hamilton, UCL Energy Institute, University College London
Paolo Agnolucci, UCL Institute for Sustainable Resources, University College London
Tadj Oreszczyn, UCL Energy Institute, University College London

Getting Our Ducts in a Row: Using Evaluation Results to Create a Statewide Weatherization Program

Katherine Johnson, Johnson Consulting Group
Matt Klucher, Arkansas Public Service Commission

SESSION SUMMARY:

This session provides four diverse papers that focus on one common theme: targeting, reaching, and serving low-income and weatherization customers. The papers also highlight how program data analysis and evaluation results informed important program and policy decisions.

Edwards et al. discuss results from a large scale research initiative that illustrates why no financial cost is not synonymous with no cost for low income customers being offered direct install energy efficiency measures. The study encompassed numerous research objectives to provide insight on willingness (and barriers) to participate in California's Energy Savings Assistance Program. The research capitalized on multiple sources of data to better understand the question of willingness and underscores the need to consider the complexity of this issue, not only in terms of delivering savings or increasing awareness of the programs and improving our marketing efforts, but understanding what "else" contributes to eligible customers' decision making when it comes to participating in the Energy Savings Assistance Program. This critical information informs program planning, targeting activities, and customer treatment goals for the utilities, as well as for policy makers and stakeholders.

Berger amasses results from a decade of research on weatherization and ratepayer-funded low-income programs to highlight opportunities to maximize energy savings and program cost-effectiveness. Research demonstrates that programs that target high usage households, install more major measures, and deliver services in accordance with demonstrated best practices in the building science field achieve the greatest savings. However, there are considerable barriers to meeting these program design objectives. This paper shares the data analytics and results to support the energy saving opportunities in these program

delivery elements, as well as provides recommendations for optimizing savings (and related cost-effectiveness) in low-income weatherization programs.

Hamilton et al. present the results of an evaluation of the Warm Front scheme (WFS), delivered by the UK Department of Energy and Climate Change (DECC). The scheme assisted more than 2.4 million households (~10% of English households) with a range of interventions to help reduce low-income customers' energy burden. The evaluation of the WFS sought to understand the effectiveness in delivery with a focus on: management, cost-effectiveness, targeting and outreach, and the customer journey mapping. This research presented focuses on the targeting of the WFS and factors that might have affected the rate of uptake of the retrofits. Using a database collected on all applications (successful and unsuccessful), the authors examine the targeting and delivery of energy efficiency measures in vulnerable households in England. Secondary data was also analysed to examine the rate of uptake among the English housing population. Last, the author presents analysis on measures installed within areas of highest presence of vulnerability as well as rate of measure adoption.

Johnson et al. describe of how Evaluation, Measurement and Verification (EM&V) results were used to shape Arkansas' statewide residential weatherization program design. Weatherization programs ranage from traditional low-income program delivered by Community Action Partnership (CAP) agencies to full whole-house renovations that combine deep retrofits with energy efficiency financing. The Arkansas Public Service Commission (Commission) directed the IOUs to implement a more unified approach to residential weatherization in Arkansas. This process was to be completed hrough a collaborative working group process, known as the Parties Working Collaboratively (PWC). The Commision ordered the PWC to submit a plan describing how the seven gas and electric utilities would develop a consistent weatherization approach available to all residential customers in less than seven months. Using the EM&V results of utility weatherization programs and the Arkansas Weatherization Program, the PWC compared the advantages and disadvantages of the different delivery models currently targeting the hard-to-reach customer. This review was supplemented by program summary, a gap analysis, and literature review of weatherization best practices. Relying on these EM&V results shortened the time needed to design a new statewide approach.