SESSION 2D

EVALUATING MAJOR CUSTOMER APPLIANCES CAN BE TRICKY – LEARN HOW IT'S DONE

Moderator: Lisa Shea, Manager of Policy & Evaluation, NSTAR

PAPERS:

Primary Refrigerators: An Examination of Appliance Recycling Program Design
Kate Bushman, The Cadmus Group, Portland, OR
Karen Kansfield, Ameren Illinois, Peoria, IL
Joshua Keeling, The Cadmus Group, Portland, OR

A Meta-Analysis of Drivers of Freeridership in Appliance Recycling Programs
Josh Keeling, The Cadmus Group, Portland, OR
Kate Bushman, The Cadmus Group, Portland, OR

Energy Savings from LED Refrigeration Display Case Lighting
D. Diebel, ADM Associates, Inc., Sacramento, CA
D. Mort, ADM Associates, Inc., Sacramento, CA
A. Thomas, ADM Associates, Inc., Sacramento, CA
S. Park, ADM Associates, Inc., Sacramento, CA

Igniting the Pilot Light: Impact Evaluation Methods for Time of Replacement Gas Heating and Water Heating Programs
Matei Perussi, The Cadmus Group, Inc., Portland, OR
David Jacobson, National Grid, Waltham, MA
M. Sami Khawaja The Cadmus Group, Inc., Portland, OR
Wendy Todd, National Grid, Waltham, MA
Kimberly Crossman, National Grid, Waltham, MA
Rohit Vaidya, Nexus Market Research Group, Inc., Boston, MA

SESSION SUMMARY:

This session will focus on various methods of evaluating appliances, including residential refrigerators through a recycling program, LED lighting in refrigeration display cases, as well as gas heating and water heating equipment.

We will first examine residential refrigerator recycling programs, which are widely recognized as a cost-effective and customer-friendly DSM resource. Impact evaluations of appliance recycling programs have uncovered the nuances involved in the estimation of savings and net-to-gross ratios, including freeridership rates. This session will delve into both gross and net aspects of program evaluation, analyzing both primary as well as secondary units, to help inform utility program design and marketing efforts, cost-effectiveness, as well as helping program administrators make strategic decisions to achieve optimal results.

In addition to residential refrigeration, this session will also explore several field monitoring studies which have been used to determine the energy savings that result from using LEDs for refrigeration display case lighting.

Lastly, we will examine gas heating and water heating rebate programs, and results from a recent MA evaluation which calculated savings for efficient gas heating and water heating measures using a variety of regression models and using billing data for participants and comparable non-participants.

This study determined more accurate and reliable estimates of savings for gas efficiency programs which target the time of replacement market. The improved measure level savings estimates for heating and water heating measures are currently being used for program cost effectiveness analysis and to help guide program design decisions.