

## SESSION 9A

### UNDERSTANDING YOUR CUSTOMERS – THE FIRST STEP TO SUCCESS!

*Moderator: Sharyn Barata, Opinion Dynamics*

#### PAPERS:

##### **Do Homeowners Know How Efficient Their Homes Are?**

Thomas Mauldin, Nexus Market Research  
Dorothy Conant, Independent Consultant  
Marty Kushler, ACEEE

##### **Environmental Behavior Index Survey**

Pamela M. M. Jull, Applied Research Northwest

##### **May I Have a DHP Please? Understanding Consumer Decision-making through Market Research**

Anu Teja, Northwest Energy Efficiency Alliance  
Karen Horkitz, Northwest Energy Efficiency Alliance

#### SESSION SUMMARY:

This session will focus on the value of understanding your targeted customers. The three presentations will showcase how market research results provide knowledge into customer behaviors and ultimately end-use measure adoption. These studies provide insights into customer acceptance and perception of performing energy efficiency actions. Attendees will take away, not only an understanding of how market research can increase the likelihood of program success, but also specific strategies for designing and marketing energy efficiency programs at their organization.

The first presentation will explore the results of a telephone survey including homeowner ratings of the efficiency level of various home features as well as the entire house. The results of these surveys are compared to the results of energy audits that assessed the efficiency of these features at the same homes. Information obtained from customers about the energy characteristics of their home can provide useful data for program design and targeting, as well as for program evaluation; however, a key concern about this “self-reported” data, is the technical accuracy of that information. Our presenter will report on the presence and extent of statistically significant differences between the actual efficiency of home features for homeowners who report that a feature is energy efficient compared to homeowners who report that it is not efficient. In addition, estimates will be provided on the proportion of owners who accurately report that their home is or is not energy efficient. Finally the presentation will provide insight into the accuracy of homeowners’ perception of the efficiency of key features of their homes.

Our second presentation shows King County’s Environmental Behavior Index (EBI) which informs a wide range of programs and helps consolidate survey research evaluation efforts that are being undertaken at the Department of Natural Resources and Parks in Washington State. The EBI tracks residential behavior across a number of environmental categories and is intended for assessment of program effectiveness, to inform planning, and to develop information for education and outreach. The EBI included 24 measures to assess the behavior of selected segments of the residential population including less educated residents, those in apartments and those in rural areas. It also piloted a geospatial approach to allow program managers to target specific areas where behaviors are either far above or below the norm. This will inform program delivery as well as evaluation strategies. The EBI

has attracted the attention of the Environmental Protection Agency as a potential model for standardizing environmental behavior measurement across geographic areas. Standardized measurement may help inform best practices, consolidate and maximize resources used for such research and more effectively inform national and regional agendas on programmatic behavior change issues.

Our final presentation will look at how market research data can be used to promote the adoption of a specific technology – in this case the Ductless Heat Pump (DHP). While the market share of electric heat is declining due to the popularity and increased availability of natural gas, the demand for electricity for space heating remains high in the Northwest and is expected to grow. This is due to the substantial stock of electrically heated existing homes in the region and the continued specification of electric heat in new construction. There are approximately 500,000 zonal electric heated single-family households in the Northwest region. Additionally residential air conditioning saturation is approaching 40%. Recent technology advancements, namely the use of inverter-driven variable speed compressors and fans, have greatly improved the efficiency of ductless heat pumps. The Ductless Heat Pump Pilot Project (Pilot Project) believes that if a strategy to increase the market adoption of Ductless Heat Pumps (DHPs) can be developed and implemented, they could become the key measure to reduce electricity used for heating in the Northwest. In October 2008, the Northwest Energy Efficiency Alliance (NEEA) launched a region wide pilot implementation project to define the future of DHPs and build an infrastructure to sustain and accelerate growth in the market. In order to better understand the market potential for this technology and support implementation efforts, NEEA sought to develop a detailed characterization of homeowners living in electrically heated homes with high likelihood of adoption. In order to make marketing efforts as effective as possible, it also sought to better understand awareness and perceptions of DHPs, including the most important barriers to adoption of these units, the most compelling benefits of adoption, and the most compelling price point for these units among potential consumers. The presentation discusses the key conclusions from the study and how they can be used for program implementation.