

Human behavior and energy use in buildings



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EIA recognizes the importance of behavior in estimating and projecting energy use in buildings

- 2015 Residential Energy Consumption Survey includes questions on appliance use
 - Today in Energy: *Dishwashers are among the least used appliances in American homes*
- 2012 EIA Commercial Buildings Energy Consumption Survey includes information on efficiency purchases and control strategies
 - Today in Energy: *Large commercial buildings are more likely to use lighting control strategies*
- *Annual Energy Outlook* includes behavioral assumptions when developing buildings energy use projections
 - equipment and appliance purchase decisions; inclusion of energy efficiency programs
 - use of equipment and appliances

Exploring the role of behavior in shaping energy use in buildings

- 3 speaker panel
 - 20 minutes for each speaker; time for questions and discussion at the end of the session
- Karen Ehrhardt-Martinez, Navigant
 - people, technology, and culture; behavior-based energy savings potential
- Marina Sofos, Buildings Technologies Office, DOE
 - system approach to sensor and controls; including the occupant in analysis rather than just making widgets more efficient
- Kurt Roth, Fraunhofer Center for Sustainable Energy systems
 - impact of behavior on residential energy use; new data sources provide new opportunities to understand behavior