



Educating Homeowners About Saving Energy

Research Objective

Ithaca College in Ithaca, NY, teamed with Snug Planet and the New York Energy Research and Development Authority (NYSERDA) to investigate whether a visit by an Energy Educator from Snug Planet to inform homeowners about low- and no-cost energy efficiency improvements in advance of a Home Performance with Energy Star® (HPwES) energy assessment would lead to greater conversion rates. Snug Planet is a HPwES contractor operating in the Finger Lakes Region of New York State.

Background

Financial incentives such as low-interest loans, grants, and rebates are ways to increase homeowner investments in energy retrofit work recommended under HPwES energy assessments by helping to lower financial barriers, but costs are just one of many barriers that prevent homeowners from investing in energy efficiency home improvements. Other barriers include lack of customized information, high transaction costs (i.e. time), uncertainty that the improvements will be a worthwhile investment, and lack of trust in the home energy assessment and the ability of the contractor to do quality work.



Pilot Description

The participants included in the pilot are owners of one- to four-family residential buildings within a 30-mile radius of Ithaca, NY, who contacted Snug Planet requesting a HPwES energy assessment.

The pilot randomly assigned 150 participants to one of two conditions: 1) HPwES energy assessment conducted during one visit; or 2) the Energy Educator plus HPwES energy assessment conducted over two separate visits. Both conditions included traditional information and incentives provided by the HPwES program. The Energy Educator visit used social marketing tools intended to motivate behavior change and greater conversion rates, including cultivating a relationship with the homeowner, activating social norms, encouraging commitment, and the foot-in-the-door technique.

Homes were compared to average and efficient comparable homes in New York State and homeowners were provided customized recommendations for no- and low-cost measures to reduce energy use in four key areas: lighting, appliances, electronics, and hot water. The recommendations were provided in the form of an Energy Action Plan checklist. Homeowners were asked to sign a commitment to accomplish the recommended actions.

The pilot was evaluated using conversion rates based on average job size (average dollars spent on recommended home energy retrofit work) and the number of low- and no-cost energy conserving behavior changes undertaken (self-reported in follow-up email surveys). The data collection period covered two calendar years.

The average conversion rate was 28%, 10% lower than the rate Snug Planet recorded in the past. The lower conversion rate was true for both conditions. A requirement of the experimental design removed friends, employees, and families of Snug Planet staff requesting HPwES energy assessments from the pilot, and this may have been a factor behind the lower conversion rates.

Visit **NYSERDA's Behavior Research** page nyserdera.ny.gov/behavior-research for more information.

Findings

The evaluation showed households that received the Energy Educator visit were no more likely to invest in home energy efficiency retrofits recommended by the assessment than households who were not visited by an Energy Educator. Households visited by the Energy Educator were also not more likely to change daily habits such as turning off lights when leaving the room or unplugging appliances when not in use. However, these households were more likely to implement one-time energy conservation changes, such as adjusting refrigerator and freezer temperatures, professionally cleaning dryer ducts, lowering hot water temperatures, and cleaning refrigerator coils. Homeowner characteristics that predisposed them



to invest in significant energy-efficient improvements include concern about high energy bills, having a specific energy-related problem with the home, and willingness to collaborate and ask good questions.

Conclusion

The Energy Educator visit is not an effective addition to the standard HPwES program. Although the Energy Educator visit encouraged homeowners to complete one-time, low-cost investments and no cost actions, the energy savings from these actions are relatively low compared to significant investments in weatherization measures and heating system upgrades.

Next Steps

The results are being shared with HPwES contractors and program designers and administrators working in New York State to help inform future program efforts.