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Poster Title: Home Energy Reports: Understanding the Sources of Energy Savings

Abstract: Home energy reports (HERs) in residential behavioral energy efficiency programs regularly show a 1-5% effect on energy savings. However, behavior and purchase data gathered from surveys in evaluations of these HER programs often fall short in explaining the source of the savings. The current research addresses this shortcoming in the context of reviewing survey instruments used to evaluate a program wherein HER attributable savings are regularly found to be 1-2%. The analysis assessed methodological theory and practice, findings, and survey instruments present in government and industry reports, academic literature, and previous evaluations in the interest of discovering the most productive and reliable ways to capture the savings from HER programs in survey instrument design, deployment, and analysis.

Preliminary findings suggest, among other things, that evaluators may obtain more robust explanations for HER savings by administering surveys via mail and web-based platforms, by thoughtfully assessing customer barriers to energy efficient behaviors and purchase decisions, and by utilizing multi-scale analyses of behavior and efficiency upgrade data. The results and conclusions from this research have implications relevant not only to HER program evaluation research and instrument design, but to HER program and report design as well.