

Using less. Doing more.

Recognizing Behavior Change as a Resource

Scott Thach Alliance to Save Energy



If behavior can lower energy use, why can it counted as a resource?





Who did it?















We need to develop targeted, measurable behavior interventions that yield predictable results.





EMV demonstrates the value of energy efficiency programs by providing accurate, transparent and consistent assessments of their methods and performance.

--ACEEE





Paving the Way for a Richer Mix of Residential Behavior Programs



Social Science Strategies

- Commitment (asking to do an EE action; setting savings goals)
- Feedback (giving periodic relevant information)
- Follow-through (provide reminders; help develop a plan)
- In-person interactions (especially through a trusted messenger)
- Rewards & Gifts (prizes based on performance)
- Social Norms (provide comparison to group)
- Multi-pronged Strategies (combine intervention techniques for greater impact)









Best Practices

- Student engagement
- Data & feedback
- Progress Reports
- Awards & Honors



Theory & Logic





PowerSave's Energy Tracker (UMS)

- 12-month benchmarking
- Normalized for weather & square footage
- Single variable regression
- Adjustments for changes in load









RED





IPMVP's Option C

T F V VZCE DLTZC VNOPT ZCEFN DPVTZ CDFVT ZCLDV TNELF YDNOT



Option C – Whole Building Data Analysis

- Specifying all independent variables (including weather, building occupancy, set points, etc.)
 - Preferable to use multi-variant regression: use an energy tracking system that can take into account multiple variables
- Establishing the statistical validity of the regression models.
- Delineating a plan for data collection, including sources and frequency.
- Using whole-year data sets to avoid overstating seasonal variations.
- Track site changes unrelated to the Energy Conservation Measures in order to perform savings adjustments.



Interval Data









Three reasons

- Give utilities credit for the energy savings that their programs create.
- Provide more support for behavior programs, by unleashing more dollars.
- Allow students to be actively involved in achieving efficiency goals.





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