

EEU-2013-01 VEIC Supplemental Filing: Attachment A
Independent Evaluations and Results of Home Energy Report Programs

Approximately 32 gas behavioral energy efficiency pilots are currently operational in 22 states across the country. The following is an annotated list of ten independent evaluations in chronological order of completion. Two of these evaluations explore the effectiveness of local gas programs at National Grid Massachusetts and NSTAR Gas in Massachusetts.

1. Ayres, Ian, et al., September 2009. “Evidence From Two Large Field Experiments That Peer Comparison Feedback Can Reduce Residential Energy Usage.” *NBER Working Paper*.
 - *Utility, State, Fuel:* Sacramento Municipal Utility Department & Puget Sound Energy; California and Washington; Electricity and Natural Gas
 - *Results:* There is evidence of a reduction of 1.2% (natural gas participants) and 2.1% (electricity participants) in the program’s early years
 - *Contact:* 203-415-5587, ian.ayres@yale.edu
2. October 2010. “Puget Sound Energy’s Home Energy Reports Program.” *KEMA*.
 - *Utility, State, Fuel:* Puget Sound Energy; Washington; Electricity and Natural Gas
 - *Results:* The savings rate in the most recent 12 months was significantly higher than for the first 12 months, with average electric savings improving from 1.87% to 2.28%
 - *Contact:* Bobbi Wilhelm, 425-462-3432, bobette.wilhelm@pse.com
3. Todd, Annika, Steven Schiller, and Charles Goldman, October 2011. “Analysis of PSE’s Pilot Energy Conservation Project: “Home Energy Reports.” *Lawrence Berkeley National Laboratory*.
 - *Utility, State, Fuel:* Puget Sound Energy; Washington; Electricity and Natural Gas
 - *Results:* “The evaluation study design for the HER pilot program utilized a randomized controlled experiment with an opt-out design, which is the best feasible method of inferring that a program caused energy savings.” Averaged 2.03% savings in the last 12 months for electricity, 1.40% for natural gas.
 - *Contact:* Annika Todd, 510-486-6544, atodd@lbl.gov

4. April 2012. “Puget Sound Energy’s Home Energy Reports Program: Three Year Impact, Behavioral, and Process Evaluation.” *KEMA Energy & Sustainability*.
 - *Utility, State, Fuel:* Puget Sound Energy; Washington, Electricity and Natural Gas
 - *Results:* In its third year, this program generated savings of 2.6% for electric customers and 1.3% for natural gas. Electric impact leaped from 169.7 kWh per household in Year 1 to 274.2 kWh in Year 3, an increase of 62%. Gas impact increased 11%, from 10.7 to 11.9 therms. In the third year, reports were suspended for a subset of the treatment group. In this group, the electric savings rate dropped to 1.6% compared to a savings rate of 2.6% for the group that continued to receive the reports.
 - *Contact:* N/A

5. Dougherty, Anne, July 2012. “Massachusetts Three Year Cross-Cutting Behavioral Program Evaluation Integrated Report.” *Opinion Dynamics Corporation, with Navigant Consulting*.
 - *Utility, State, Fuel:* NSTAR and National Grid; Massachusetts, Electricity and Natural Gas
 - *Results:* Electric savings range from 1.25 to 2.06% and gas savings range from 0.81 to 1.50%, depending on the number of years the program has been running. From the first to the second program year, electric savings increased 1.61 – 2.06% in one program and 1.25 – 1.63% in another—increases of 28% and 30%, respectively. Gas savings increased from 0.81 to 1.25, an increase of over 54%.
 - *Contact:* Anne Dougherty, 617-492-1400

6. Sutter, Mary, October 2012. “Impact and Process Evaluation of 2011 (PY4) Ameren Illinois Company Behavioral Modification Program.” *Opinion Dynamics Corporation, with the Cadmus Group, Navigant, and Michaels Engineering*.
 - *Utility, State, Fuel:* Ameren Illinois Company (AIC); Illinois; Electricity and Natural Gas
 - *Results:* Overall, the program achieved electric net savings of 1.14% per household and gas net savings at 0.70% per household.
 - *Contact:* Mary Sutter, 510-444-5050



7. March 2013. "Puget Sound Energy's Home Energy Reports: 2012 Impact Evaluation." *KEMA*
 - *Utility, State, Fuel:* Puget Sound Energy; Washington; Electricity and Natural Gas
 - *Results:* "The overall credited savings for electric and gas were 300 kWh and 11 therms per household, respectively. These savings constitute 2.8% and 1.3% of the household's average electric and gas consumption, respectively."
 - *Contact:* Bobbi Wilhelm, bobette.wilhelm@pse.com
8. April 2013. "Evaluation of Pacific Gas and Electric Company's Home Energy Report Initiative for the 2010-2012 Program." *Freeman, Sullivan & Company*
 - *Utility, State, Fuel:* Pacific Gas and Electric Company; California; Electricity and Natural Gas
 - *Results:* Program waves have been running between 11 to 17 months. Total electric and gas savings for the program were 49.9 GWh and 1,469 thousand Therms, respectively, through December 2012. Percent impact ranges from 0.9% to 1.5% for electric and 0.4% to 0.9% for gas depending on number of program months.
 - *Contact:* Michael Perry
9. June 2013. "Massachusetts Cross-Cutting Behavioral Program Evaluation Integrated Report." *Opinion Dynamics Corporation*
 - *Utility, State, Fuel:* National Grid Massachusetts; NSTAR; Electricity and Natural Gas
 - *Results:* Programs achieved 63 GWh and 344,681 MMBTu in 2012 for Massachusetts. Electric savings rate ranges from 0.89 to 2.47% and gas savings range from 0.50 to 1.80% depending on the number of years the program has been running. That is, all electric programs running for at least two years show increased savings from program Year 1 to Year 2 and program Year 2 to Year 3, where applicable. Gas savings rates are steady or increasing.
 - *Contact:* Anne Dougherty, 617-492-1400
10. August 2013. "Review of PG&E Home Energy Reports Initiative Evaluation." *DNV KEMA*
 - *Utility, State, Fuel:* Pacific Gas and Electric; California; Electricity and Natural Gas
 - *Results:* An independent evaluation by FSC estimates savings from the PG&E Home Energy Report initiative. DNV KEMA confirms the FSC evaluation and



“recommends accepting the findings regarding energy savings for HERs presented in the FSC report.”

- *Contact:* Ken Agnew, DNV KEMA

Home Energy Reports programs for natural gas pass cost-effectiveness tests on the West Coast, the Midwest, and the Northeast. Filed tests of Total Resource Costs range from 1 to 3.5. The following table presents a selection of filed programs and their planned / actual cost test scores.

Filed TRC's for Gas Behavioral Efficiency Programs				
State	Utility	Period	Planned or Actual	TRC
Colorado	Xcel	2012-2013	Planned	1.00
Illinois	Peoples/North Shore Gas	2012-2013	Planned	1.07
Illinois	Ameren	2011-2013	Planned	1.71
Illinois	Nicor	2012-2013	Planned	3.10
Ohio	Columbia Gas of OH	2012-2016	Planned	1.11
Oklahoma	Centerpoint	2012-2014	Planned	1.19
Arkansas	Source Gas	2011-2013	Planned	1.01
New York	Central Hudson	2012-2015	Planned	3.50
Massachusetts	National Grid	2010	Actual	1.44
Massachusetts	National Grid	2011	Actual	1.30
Massachusetts	National Grid	2012	Actual	1.00
Massachusetts	NSTAR	2010	Actual	1.05
Massachusetts	NSTAR	2011	Actual	1.00

