Integrating project continuing from the 2013 Evaluation Plan, carrying over as 2014 Project 97 & 24 Project Description – R4: HES / HES-IE Process Evaluation and Effective Useful Life "Plus" Study

December 18, 2013 – version 1

Objective:

HES & HES-IE are major residential programs, and critical to achieving the 80% Weatherization goal. A process evaluation has been underway to identify program strengths and weaknesses, and identify issues that can be used to help the program perform more effectively and cost-effectively. In addition, the Evaluation Team has committed to exploring methods to coordinate projects to maximize the value from evaluation expenditures. To that end, we are refining the scope of this project, and integrating it with follow-on work planned in the 2014-2016 Evaluation Plan (project 97). Its original scope included a process evaluation plus on-site work at a sample of HES-IE homes to check the retention of faucet aerators, CFLs and a few other small-dollar portable items. More long-term program value is provided through reallocating dollars. The refined approach leverages the process evaluation telephone survey work to also gather information on net savings (net-to-gross, NTG, 2014's project 24), measure lifetimes (EULs for one or two measures), and non-energy impacts (NEIs). To make sure questionnaires do not become too long, we are sub-setting the sample to ask randomly-selected halves the questions about NTG and EUL vs. NEI. We are augmenting the sample with a small additional "older" sample of participants, which supports better lifetime analysis (greater time for "failures"), and spillover, which does not fully develop immediately after participation.\(^1\) This maximizes the value of the phone interviews, and achieves the EUL, NTG, and EUL objectives of the 2014 plan most cost-effectively.

The project's outcomes include:

- Traditional process evaluation for the project, including strengths, weaknesses, satisfaction, performance, and
 information useful in improving efficiency, effectiveness, and cost-effectiveness of program delivery. The project
 has committed to incorporating questions targeted at financing and finance instrument information, which is one
 particular area of interest for 2013/2014 work.²
- NTG, or net savings factors, examining free ridership and program spillover effects, so we can more fully examine
 the attributable effects of the programs.
- NEIs, or non-energy effects, to more fully identify attractive features of the program and quantify barriers to
 participation (to understand the participation decision associated with the programs). In addition, we identify
 marketing opportunities, and quantify the non-energy effects from the program.
- EULS, or retention of measures from the program. We are still reviewing the program measure data to allow selection of the appropriate measure(s), and will inform and discuss with the committee the recommended measure(s) at an upcoming Evaluation Committee Meeting. Statistically-derived, defensible EULs are a weak area in the industry, in Connecticut and nationally. These factors are critical elements of the computation of program benefit-cost estimates.

Project Type:

The process evaluation has been underway. It has completed the stakeholder interviews and described high-level results and implications for the process evaluation design and next stages of the project in a memo to the EEB evaluation technical consultant. Work has also been conducted toward the planning / integration of the EUL, NTG, and NEI work. The stakeholder interview work identified additional program issues to explore in the interviews, and preliminary participant/non-participant customer interview guides have been developed. The project work includes: telephone surveys, EUL analysis (using traditional protocols with hazard functions); net-to-gross using question batteries and analysis methods to latest industry standard (with corroborating questions, etc.), and the NEI work is to latest industry standards, including survey and analytical work. The data to be used include: Project / program data (including measures), and Customer surveys.

Budget Approved in 2014 Evaluation Plan: Project 97 Follow-on \$150K; Project 24 NTG \$60K; (previously allocated 2013 \$293.4K).

¹ We will skip the "process" questions for these respondents.

² We are coordinating with / requesting input from others to assure we are covering important financing issues.