

Memorandum

To: Lisa Skumatz and Bob Wirtshafter, Connecticut Energy Efficiency Board Evaluation Consultants

CC: Craig Diamond, CT EEB Executive Secretary

From: Glenn Reed, CT EEB Residential Technical Consultant

Date: July 22, 2019

Re: Residential Technical Consultant comments on the 6/28/19 Review Draft for Projects R1706 and R1616/R1708 – Residential Appliance Saturation Survey and Residential Lighting Impact Saturation Studies

Provided below are summary and highlight comments on the June 28 review draft of the combined Residential Appliance Saturation Survey (R1706) and Residential Lighting Impact Saturation R1616/R1708 Studies. These comments supplement those contained in the marked-up draft report that was also submitted. Most of the comments below are included in the marked-up draft and are provided here as a high-level summary and for emphasis.

1. In the Executive Summary, for each end use provide a condensed table for that includes overall and efficient saturations (and penetrations?) for key equipment types. Alternatively, provide an overall summary table with these values.
2. The report refers to program participants and program participation rates, but there is no definition of participation provided. At a minimum, the reported values appear to exclude participation in the upstream retail lighting program. Are other upstream efforts, i.e., HVAC, included in assessing participation? CT's increased movement to upstream efforts should also be noted when reporting on customer familiarity attitudes with the C&LM programs, rebates and financing.
3. The discussion on appliances notes the low saturation of ENERGY STAR qualified models. However, these data seem inconsistent with ENERGY STAR shipment data which, for most years post-2013, shows much higher shipments of ENERGY STAR appliances than found onsite in CT.
4. Lighting:

- a. Combined LED and CFL saturations are almost identical in CT, MA and RI and CT LED saturation only slightly lags those of MA and RI. But CT ENERGY STAR LED saturation is much lower than either state and is only slightly above NY, a non-program state. The CT retail and direct install efforts, which only support ENERGY STAR lamps, have moved large quantities of LEDs into homes, but why is the ENERGY STAR saturation so much lower than in the two neighboring program states?
- b. The NTG calculation is only retrospective. How does it compare to previous values used in CT? Note that this value is calculated from estimates of program market gain that appear to be based on total program activity. However, how is the low saturation of ENERGY STAR bulbs in CT homes accounted for?
- c. Please provide lighting saturation data by income, at least for LI vs. non-LI. Also, address whether there are statistically significant differences in SF vs. MF LED and efficient bulb saturations.
- d. Provide a more granular breakout of specialty bulbs by technology and lamp type/shape, e.g., reflector, globe, etc.