



Richard Oswald
Principal Engineer

May 17, 2019

Lisa A. Skumatz, Ph.D.
Skumatz Economic Research Associates (SERA)
762 Eldorado Drive, Superior CO 80027

Dear Ms. Skumatz,

RE: R1617 Ductless Heat Pump Market Characterization Study – Draft Final
Dear Ms. Skumatz.

The United Illuminating Holdings Companies (United Illuminating, Connecticut Natural Gas and Southern Connecticut Natural Gas) (Hereafter Referred to as UI) are pleased to provide the following comments on the draft Evaluation Report: CT Residential Ductless Heat Pumps (DHP) Market Characterization Study Draft Final Report dated April 9, 2019. Per the Energy Efficiency Board Evaluation Road Map Process, these comments are for consideration for inclusion in the Final Report. UI hopes these comments will receive consideration in the development of the final report for this study.

UI General Comments

UI agrees with many of the Recommendations in the Draft report and the need to better define the baseline conditions of the installation of DHPs in existing homes. These include:

-Fuel switching

UI plans to work with Eversource and the CT DEEP on its upcoming decision on revisions to the Benefit Cost testing used in CT. This decision should provide further guidance on the issue of fuel switching.

-Baseline conditions

UI agrees with the need to be better understand and define the baseline condition for DHP installations.

As a growing majority of DHP installations are going through the Upstream HVAC Program it is difficult to determine exactly what heating fuel is being replaced. UI agrees with Eversource's acknowledgement of that fact. The Upstream program has greatly increased the number of high efficiency DHPs. Eliminating the Upstream option for DHPs would greatly diminish the number of High Efficiency DHPs being installed in CT.

UI is planning to work with Eversource) to assess the performance of the heat pumps (ducted and ductless) deployed under the 100-unit heat pump pilot conditionally approved as part of the 2019-2021 C&LM plan. The plans for the pilot include collecting data on pre-existing systems, types and configurations of new heat pumps, and electric and fossil fuel usage to explore the impacts of heat pumps in a fuel switching scenario. These data may also be brought to bear in defining the appropriate baseline for heat pumps in certain circumstances.

-DHP Planning Tool

UI agrees with the Draft Report s recommendation to utilize use the DHP Planning Tool to fully understand the impact of changing incentive levels and alternative fuel prices, and the help guide program design and implementation, going forward (2020 Plan update).

-Monitoring of a sample of DHP installations

As noted above UI is currently y planning a 100-unit heat pump pilot which we hope will provide results to update the PSD's Equivalent full load hours (EFLH) Factor.

Leverage HVAC Contractors-

UI agrees with this the recommendation to continue leveraging the customer –contractor relationship in order to achieve DHP adoption in the various customer segments.

UI appreciates the opportunity to provide these comments on this draft report.

Sincerely Yours,

Richard Oswald
Principal Engineer
UIL Holding Company.