

# Memorandum

## HEA NEI Planning

**To:** NH Benefit/Cost Working Group

**From:** HEA '16-'17 Opinion Dynamics Evaluation Team

**Date:** July 9, 2018

**Re:** Non-Energy Impact Planning

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### Project Overview

Opinion Dynamics Corporation is working with the four New Hampshire Utilities—Unitil, Eversource, Liberty Utilities, and New Hampshire Electric Co-op (NHEC)—to complete the program evaluation for the NHSaves Home Energy Assistance (HEA) Program for 2016 and 2017. The evaluation is an impact and process evaluation. The evaluation also intends to: "identify and empirically quantify participant and utility NEIs associated with the HEA program including impacts on health and safety, property values, utility arrearages and debt write-offs, and terminations/reconnections".

The scope of the evaluation includes the following ten tasks.

Evaluation Task
Task 1: Project Initiation Meeting & Work Plan
Task 2: Data Request & Review of Program Materials
Task 3: In-Depth Interviews with Program Staff
Task 4: Literature Review
Task 5: Participant Survey
Task 6: Energy Impact Evaluation (engineering analysis, modeling, site visits)
Task 7: Non-Participant Survey
Task 8: Consumption Analysis (Pre-Post Energy Usage)
Task 9: Non-Energy Impact Approach
Task 10: Reporting and Presentation of Results

### Timing

We initiated this project in late June 2018 and expect to complete by March 2019. As shown in the project timeline below (see Task 9), we plan to solidify what NEI's we will capture through this evaluation and how by September 2018.

Task	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
1: Project Initiation Meeting & Work Plan										
2: Data Request & Review of Program Materials										
3: In-Depth Interviews with Program Staff										
4: Literature Review										
5: Participant Survey										
6a: Deemed Savings Review										
6b: Engineering Desk Reviews										
6c: Site Visits										
6d: Engineering Modeling										
7: Non-Participant Survey										
8: Consumption Analysis										
9: Non-Energy Impact Approach										
10: Reporting and Presentation of Results										

## Proposal for NEI's

We will approach this task by first reviewing any input or guidance set forth via the EM&V and NH Benefit/Cost Working Groups. We will then conduct a focused review of the rich body of research on NEIs in neighboring states and nationally in addition to our own NEI research for other low-income programs. Based on the outcome of this review, we will recommend an approach to quantifying NEIs that leverages the existing data collection tasks (See tasks 1-10) for the impact and process evaluation. For example, we are conducting a participant survey and can include NEI-related questions and analysis. We are also conducting an analysis of participant's energy usage before and after treatment and can include other utility data in that analysis such as payment history, arrearage history and other utility data related to debt write-offs and terminations.

The table below provides specific steps and deliverables for the NEI analysis. The approach we outline below is designed so that we start by fully understanding the context for capturing NEIs for NH's low-income programs at this time, the common approaches to quantifying participant and utility NEIs, before making an informed recommendation on what can be identified and quantified in this HEA evaluation.

Steps	Expected Approach	Deliverables
1	Review input/guidance from EM&V and NH Benefit/Cost Working Group	Memo summarizing key points that should guide our approach to NEI
2	Review existing research and methods on NEIs in neighboring states and nationally	Memo summarize key approaches and results that others are using, noting the most common and applicable to the HEA program
3	Recommend an NEI approach for NH approval	Memo with recommended NEIs to capture for HEA, the methods and timing
4	Collect, analyze and report on NEIs	Results included in Draft and Final Reports

We are currently in the Step 1 of this task, where we are collecting input from the NH utilities EM&V staff and the Benefit/Cost Working Group. We began this step by collecting initial input from the NH utility EM&V staff and plan to collect further information from them throughout July. Below is the input we received from the kick-off meeting.

### Input from Project Kick-Off Meeting

During the project kick-off meeting last June with the NH Utilities, we discussed the overall goals of the NEI research including the intended use of this information and the preferred NEIs to capture. During that kick-off meeting, we learned the following:

- The utilities are interested in focusing on utility and participant NEIs.
- In 2018, the utilities will start to use a 10% adder to account for NEIs in all programs. The utilities are interested in using this research to determine if that is accurate or if there is more they can claim for low-income programs.
- The utilities are looking for “evidence-based” NEIs from the HEA evaluation. The NEIs we capture in the HEA evaluation will be considered for future cost-effectiveness testing but may not be formally used in cost-effectiveness tests for the 2016-2017 program.
- There is a larger, national, study of NEIs in the multifamily and low-income sectors<sup>1</sup>. This study is just underway and will not have results in time for our HEA evaluation but may be a good source of information in the future for the cost/benefit working group.
- DNV-GL is doing an NEI study statewide in NH for the entire portfolio of programs. There are two phases to that work. The first phase will cover low-income primarily through literature reviews, secondary data, and prior research conducted by DNV GL. There may be some overlap in what they capture for low-income programs and our anticipated NEI literature review. The utilities suggested that we wait for DNV-GL's phase 1 results and then focus our NEI research on filling gaps for low-income programs. However, DNV-GL's timeline for Phase 1 results is not until October and would be too late to consider for our evaluation. As such, we will attempt to contact DNV-GL in July/August and see if we can obtain any early results or findings related to low-income programs.

The utilities also suggested the following material as part of our literature review:

- 2018-2020 NH Statewide EE Plan, Order Approving Settlement Agreement, Order# 26.095, January 2, 2018
- 2018-2020 NH Statewide EE Plan, Order Approving Settlement Agreement, Docket #17-136
- NEEP NEI Final Report for NH, June 2017
- NH Saves 2018-2020 NH Statewide EE Plan, Testimony from Michael Goldman, Docket #17-136

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<sup>1</sup> <http://www.threecubed.org/>

## Questions for Benefit/Cost Working Group

As we plan for what NEIs the HEA evaluation will capture and how, we'd like to gain the working group's input through July. A few questions for the group that we have now are as follows:

1. How can our work benefit the efforts that this working group is doing? What added-value can we provide beyond what DNV-GL and the working group is already doing?
2. What additional resources should we include in our literature review? Are there any studies that the working group feels are best-in-class examples of quantifying the following NEIs:
  - a. Participant Benefits:
    - i. Health
    - ii. Safety
    - iii. Property values
  - b. Utility:
    - i. Utility arrearages
    - ii. Debt write-offs
    - iii. Terminations/reconnections
3. Are there any further participant or utility NEIs that this working group would like to see from our study, beyond those listed above?
4. How can we best gain the working group's input as part of our planning process throughout July? Specific resources we should consult? Specific people we should speak with?
5. Does the working group have any questions for us at this time?