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VIA ELECTRONIC MAIL:
Ms. Luly Massaro
Rhode Island Public Utilities Commission
98 Jefferson Boulevard
Warwick, RI 02888
Luly.massaro@puc.ri.gov;

**RE: Docket No. 23-21-EE**
**EERMC's Three-Year Savings Target Filing**

Dear Ms. Massaro,

Enclosed herewith for filing please find the Energy Efficiency and Resource Management Council's responses to the PUC's First Set of Data Requests in the above-referenced docket.

Thank you for your attention to this filing and do not hesitate to reach out if you have questions.

Sincerely,

Marisa A. Desautel, Esq.
Enclosures

ec: Service List for docket 23-21-EE

**STATE OF RHODE ISLAND**
**PUBLIC UTILITIES COMMISSION**

| | | |
|---|---|---|
| **IN RE: ENERGY EFFICIENCY & RESOURCE MANAGEMENT COUNCIL'S RECOMMENDED TARGETS FOR ENERGY EFFICIENCY AND ACTIVE PEAK DEMAND REDUCTION SAVINGS FOR 2024-2026** | **:** | **DOCKET 23-21-EE** |

# COMMISSION'S FIRST SET OF DATA REQUESTS DIRECTED TO THE EERMC

**Issued July 3, 2023**
**Response Due August 1, 2023**

1. On page 8 of Appendix A, Dunsky writes "for energy efficiency, the achievable scenario sets incentives at the midpoint between the Mid and Max scenarios of the original study for most modeled programs." Regarding the incentive levels Dunsky modeled in its Study Refresh, please provide a table comparing them to Rhode Island Energy's budgeted incentive levels from the 2023 Plan for both the gas and electric programs.

**Response:**
Incentive values for each measure ($ per unit/ $ per sf/ $ per ton, as applicable) are provided in the excel workbook; sheet 'Q1 Incentives'.

In responding to this question, we identified a minor data-flow issue in the results. The model failed to apply the incremental measure cost for two DMSHP measures, which led to the adoption engine considering this measure to have a 100% incentive in each case. In response, we have provided the overall incentive costs that would be added to the annual portfolio costs. These details are provided separately in the 'Additional Incentive Costs' tab in the excel file for information on the incentive of measure 'Residential_HVAC_Electric Resistance to DMSHP'.

2. On page 10 of Appendix A, Dunsky writes "greater proportional reduction in economic potential [of the Gas Energy Efficiency Program] due to additional measures failed cost-effectiveness criteria." Please provide a list of the gas measures (or groups of measures) that Dunsky identified as not cost-effective.

**Response:**
We included the measures that are not cost-effective in a separate excel file; sheet 'Q2&4 measures not cost effective'. These identified measures have a TRC ratio of less than 0.75. Additionally, the gas to electric heat pump rooftop units were screened from the results due to having negative PCT values despite passing the TRC screen of 0.75.

3. On page 11 of Appendix A, Dunsky writes "updated net-to-gross assumptions generally reduced claimable gas savings. Original Study: 7% reduction in gross savings. Study Refresh: 19% reduction in gross savings." Regarding this statement, please explain the following:

a. What is the 19% reduction in gross savings relative to (i.e. 19% less than what)?
b. Is the 19% reduction in gross savings an average across the entire gas portfolio? If yes, please provide a list of the specific measures for which gross savings have decreased since the Original Study and the measure-specific decreases

**Response:**

a. 19% reduction refers to the difference between the Net and Gross Savings (i.e. Net Savings are 19% less than Gross Savings) based on the Net to Gross (NTG) ratio.
b. Updated NTG values in the refresh study reduced the net savings from gross savings by 19%. A measure-wise list of NTG values is provided in the excel file; sheet 'Q3 NTGs'

4. On page 17 of Appendix A, Dunsky writes "slightly less [electric] technical savings pass the TRC screening threshold with updated AESC values." Please provide a list of the electric measures (or groups of measures) that Dunsky identified as not cost-effective.

**Response**

We included the measures that are not cost-effective in a separate excel file; sheet 'Q2&4 measures not cost effective'. These identified measures have a TRC ratio of less than 0.75.

5. On page 21 of Appendix A, Dunsky writes "nearly 50% of the [electric] HVAC opportunity is from displacing electric resistance heating with ductless heat pumps." For the low, mid, and max scenarios for 2024, 2025, and 2026, please provide the number of heat pump replacements of electric resistance heating systems that Dunsky's referenced savings correspond to.

**Response:**

On page 21, the first bar in the graphic represents residential incremental lifetime electric savings from the Study Refresh.

In the study refresh, only one scenario was modeled (unlike three scenarios- low, mid, max in the original study). The number of heat pump replacements of electric resistance heating systems from the study refresh scenario is provided below:

| Year | No. of units |
|---|---|
| **2024** | 1072 |
| **2025** | 1079 |
| **2026** | 1086 |

The detailed measure level information is provided in a separate excel file; sheet 'Q5 Elec Res to HP'.

6. On page 23 of Appendix A, Dunsky writes "relative to the original study, the Study Refresh scenario savings [for delivered fuels savings] fall below the Mid scenario despite higher incentive levels. Reduction almost entirely driven by updated net-to-gross assumptions. Original Study: 5% reduction in gross savings. Study Refresh: 22% reduction in gross

savings. Technical and economic potential largely unchanged." Regarding this statement about delivered fuel savings, please explain the following:

a. What is the 22% reduction in gross savings relative to (i.e. 22% less than what)?
b. How did the technical and economic potential of delivered fuel savings remain "largely unchanged" from the original study if gross savings declined by more than 22%?

**Response:**

a. 22% reduction refers to the difference between the Net and Gross Savings (i.e. Net Savings are 22% less than Gross Savings) based on the Net to Gross (NTG) ratio.
b. We assessed three levels of savings potential- Technical, Economic, and Achievable potential. Technical and Economic saving potential scenarios are based on 'Gross Savings', while the Achievable Scenario savings are expressed as 'Net Savings'. Thus, Technical and Economic potential remains largely unchanged.

7. On page 29 of Appendix A, Dunsky writes the "reduction in incremental telemetry costs with the rollout of AMI improve the cost-effectiveness [of active demand response."

a. Please explain how AMI improves the cost-effectiveness of active demand response.
b. In your response, specifically address how Dunsky's cost-benefit analysis treated the cost of metering and telemetry; and
c. whether that treatment is consistent with how Rhode Island Energy currently treats those costs in the ConnectedSolutions program.

**Response:**

(a) For demand response measures, incremental costs were adjusted to reflect the assumption that advanced metering infrastructure will be rolled out to the entire RI Energy customer base during the study period in alignment with RI Energy's AMI business case plan. The adjustments assume AMI will allow communication capabilities with DR equipment, thereby reducing the initial costs associated with telemetry for applicable measures.
(b) Measures for which the DR program incremental costs are reduced as a result of AMI are specified in the excel file; sheet 'Q7 AMI'. For example- the incremental cost of DR control of central AC is lower in the refresh study as it considers the availability of AMI-based telemetry which was not included in the original study.
(c) Based on the BCR and program information, we understand that the ConnectedSolutions program does not account for telemetry cost.