

BEFORE THE  
NEW YORK STATE  
PUBLIC SERVICE COMMISSION

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Proceeding on Motion of the Commission as to the  
Rates, Charges, Rules and Regulations of  
Central Hudson Gas and Electric Corporation  
for Electric Service

Case 17-E-0459

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Proceeding on Motion of the Commission as to the  
Rates, Charges, Rules and Regulations of  
Central Hudson Gas and Electric Corporation  
for Gas Service

Case 17-G-0460

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**REBUTTAL TESTIMONY OF THE  
EARNINGS ADJUSTMENT MECHANISM (“EAM”) PANEL**

December 18, 2017

REBUTTAL TESTIMONY OF EAM PANEL

TABLE OF CONTENTS

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14

I. INTRODUCTION ..... 1

II. PURPOSE OF TESTIMONY..... 2

III. ENERGY EFFICIENCY TARGETS AND FUNDING LEVELS ..... 7

IV. ENERGY EFFICIENCY COST RECOVERY & DEFERRAL MECHANISM . 13

V. ENERGY INTENSITY METRICS ..... 16

VI. ENVIRONMENTALLY BENEFICIAL ELECTRIFICATION (“EBE”) ..... 19

VII. SYSTEM EFFICIENCY EAM ..... 26

VIII. CUSTOMER ENGAGEMENT EAM ..... 33

IX. INTERCONNECTION EAM ..... 37

X. OVERALL NUMBER AND ALLOCATION OF BASIS POINTS ..... 42

XI. RECOVERY PERIOD OF NON-WIRES ALTERNATIVES (“NWA”) ..... 47

XII. CENHUB PLATFORM SERVICE REVENUE (“PSR”) ..... 48

REBUTTAL TESTIMONY OF EAM PANEL

I. INTRODUCTION

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
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Q. Please state the names of the members of the EAM Panel ("Panel") for the record.

A. Our names are Heather M. Adams, Joseph J. Hally, and Mark S. Sclafani.

Q. Are you the same EAM Panel that sponsored direct testimony on behalf of Central Hudson Gas & Electric Corporation ("Central Hudson" or the "Company") in these proceedings?

A. Yes, with the exception that Mr. Sclafani has replaced Ms. Sucato on the Panel.

Q. Mr. Sclafani, please state your current employer and business address.

A. I am employed by Central Hudson and my business address is 284 South Avenue, Poughkeepsie, New York 12601.

Q. Mr. Sclafani, in what capacity are you employed by Central Hudson and what is your scope of responsibilities?

A. I am currently the Senior Program Coordinator of Demand Response. Beginning in September of 2017, I assumed additional responsibilities associated with the role of Director of Energy Efficiency and Demand Response, which is effective until June of 2018. My current responsibilities include oversight of the Company's Energy Efficiency & Demand Response portfolios, as well as Non-Wires Solutions. I will be acting in that capacity for the purposes of this testimony.

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Mr. Sclafani, what is your educational background and professional  
2 experience?

3 A. I graduated from SUNY Binghamton in 2008 with a bachelor's of science  
4 in Mechanical Engineering. I began working at Central Hudson in 2008 as  
5 a Junior Gas & Mechanical Engineer. From 2009 to 2012 I acted as an  
6 Assistant Energy Efficiency Engineer for the Company; developing,  
7 implementing, and evaluating energy efficiency programs. From 2012 to  
8 2015 I was an Associate District Director of Business Development, where  
9 I was responsible for new business and key account management within  
10 the Kingston and Newburgh districts. In 2015, I took on the role of Senior  
11 Program Coordinator of Demand Response. In September of 2017, I  
12 assumed additional responsibilities associated with the role of Director of  
13 Energy Efficiency and Demand Response, including but not limited to  
14 oversight of the Company's energy efficiency portfolio.

15 Q. Mr. Sclafani, have you previously testified before the New York State  
16 Public Service Commission ("PSC" or the "Commission")?

17 A. No, I have not.

18 **II. PURPOSE OF TESTIMONY**

19 Q. What is the overall purpose of your rebuttal testimony?

20 A. The purpose of our rebuttal testimony is to respond to certain  
21 recommendations and comments in the testimony of the New York State  
22 Department of Public Service ("Staff") Incentives & Customer Engagement  
23 ("ICE") Panel and the Staff Markets & Innovation and Energy Efficiency

**REBUTTAL TESTIMONY OF EAM PANEL**

1 (“M&I EE”) Panel. In addition, the Panel responds to certain  
2 recommendations and comments in the testimonies of the Utility  
3 Intervention Unit’s EAM Panel (“UIU EAM Panel”), Pace Energy and  
4 Climate Center (“Pace”) witness Karl R. Rábago, Natural Resources  
5 Defense Council (“NRDC”) witness Tim Woolf, Citizens for Local Power  
6 (“CLP”) witness Jennifer Metzger, Multiple Intervenors witness Jeffry  
7 Pollock, and the testimony of Bob Wyman. Specifically, the Panel will  
8 address the following topics:

- 9 1. The recommendations of the Staff M&I EE Panel regarding the Energy  
10 Efficiency (“EE”) MWh and Dth targets and funding;
- 11 2. The Staff M&I EE Panel’s recommendation to transition recovery of EE  
12 expenditures into base rates and the implementation of a downward  
13 only reconciliation and adjustment;
- 14 3. The recommendations and comments of the Staff ICE and M&I EE  
15 Panels, the UIU EAM Panel, Mr. Rábago, and Mr. Woolf regarding the  
16 Energy Intensity Metric;
- 17 4. The recommendations and comments of the Staff ICE and M&I EE  
18 Panels, the UIU EAM Panel, and other Parties regarding the Carbon  
19 Reduction Program, Carbon Intensity EAM, and Staff’s proposed  
20 Environmentally Beneficial Electrification EAM;
- 21 5. The recommendations and comments of the Staff ICE and M&I EE  
22 Panels, the UIU EAM Panel, and Mr. Rábago, regarding the System  
23 Efficiency EAM;

**REBUTTAL TESTIMONY OF EAM PANEL**

- 1           6. The recommendations and comments of the Staff ICE Panel regarding
- 2           the Customer Engagement EAM;
- 3           7. The recommendations and comments of the Staff ICE Panel regarding
- 4           the Interconnection EAM;
- 5           8. The recommendations and comments of the Staff ICE Panel regarding
- 6           the overall number and allocation of Basis Points;
- 7           9. The recommendations and comments of the Staff ICE Panel regarding
- 8           the recovery period of expenditures and incentives associated with
- 9           Non-Wires Alternatives; and
- 10          10. The recommendations and comments of the Staff ICE Panel regarding
- 11          the development of a CenHub Platform Service Revenue.

12 Q. Does the Panel sponsor any exhibits as part of its rebuttal testimony?

13 A. Yes. The Panel is sponsoring the following exhibits that were prepared by  
14 or under the supervision of the Panel or one of its members:

- 15           1. Exhibit \_\_ (EAMP-1R), contains relevant Information Requests;
- 16           2. Exhibit\_\_(EAMP-2R), Schedules A and B, support our discussion of
- 17           basis point allocation to the proposed electric and gas EAMs;
- 18           3. Exhibit\_\_(EAMP-3R), supports our discussion of Estimated Useful
- 19           Life (“EUL”) in the context of setting Energy Efficiency MWh targets;

**REBUTTAL TESTIMONY OF EAM PANEL**

- 1           4. Exhibit\_\_(EAMP-4R), Schedules A, B, and C support our  
2           discussion of the Energy Intensity EAM;
- 3           5. Exhibit\_\_(EAMP-5R), Schedules A and B support our discussion of  
4           the Environmentally Beneficial Electrification (“EBE”) EAM metrics  
5           and targets;
- 6           6. Exhibit\_\_(EAMP-6R), Schedules A through F support our  
7           discussion of the System Efficiency EAM metrics and targets;
- 8           7. Exhibit\_\_(EAMP-7R), Schedules A, B, and C support our  
9           discussion of the Customer Engagement EAM metrics and targets;  
10          and
- 11          8. Exhibit\_\_(EAMP-8R), contains the EAM Benefit Cost Analysis  
12          Results.

13 Q.     Prior to addressing the specific EAM testimony of the various parties  
14         described above does the Panel have any general comments about  
15         EAMs?

16 A.     Yes. As discussed by the Commission in its Order Adopting a  
17         Ratemaking and Utility Revenue Model Policy Framework at page 60,  
18         issued and effective May 19, 2016 in Case 14-M-0101, EAMs are hoped  
19         to be “a transitional component of regulatory redesign...” that will  
20         ultimately be replaced by the utility’s opportunity to earn revenues from  
21         distributed platform services that benefit end use customers. The  
22         Commission determined at page 62 that utilities need not have control  
23         over EAMs, only influence over the markets in which they functioned

**REBUTTAL TESTIMONY OF EAM PANEL**

1 because “a central function of REV is to integrate the activities of markets,  
2 including customers and third-party distributed energy resources (“DER”)  
3 developers, into an optimized distribution system.” “Limiting shareholder  
4 incentives to items under utility control would omit a wide range of desired  
5 outcomes.” At page 64 the Commission recognized that “[o]utcome-based  
6 incentives base a portion of the utility’s return on market outcomes, while  
7 maintaining a reasonable overall return as an end result.”

8 In order to meet the Commission’s stated policy objectives that  
9 EAMs produce innovative solutions to benefit customers at market prices  
10 and, ultimately allow EAM compensated platform services to transition to  
11 market revenues with market risks and rewards, it is imperative that EAM  
12 design take place within functioning or developing markets and provide  
13 realistic opportunities for utilities to achieve designated targets or  
14 incentives. Absent functioning markets there can be no transition from  
15 EAMs to market risks and rewards. Absent achievable incentives there is  
16 no reason for utilities, or any other participant, to pursue desired policy  
17 outcomes. Generally, the proposed EAMs that the Panel discusses have  
18 targets that are set at unachievable levels as they are not part of  
19 functioning or developing markets and do not offer reasonable  
20 opportunities to achieve incentives.



REBUTTAL TESTIMONY OF EAM PANEL

1           **III.    ENERGY EFFICIENCY TARGETS AND FUNDING LEVELS**

2           Q.    Please describe the Staff M&I EE and the Staff ICE Panels'  
3                recommendations regarding Energy Efficiency ("EE") targets and funding  
4                levels.

5           A.    The Staff M&I EE and ICE Panels recommend a 40% increase to both the  
6                Company's electric and gas EE targets and a 15% and 41% increase in  
7                the respective electric and gas EE budgets. The Staff M&I EE Panel  
8                corrected their recommendation regarding the gas EE budget within their  
9                response to the Company's interrogatory CH-024 (see Exhibit \_\_ (EAMP-  
10              1R)).

11          Q.    Does the Panel agree with the Staff ICE and M&I EE Panels'  
12                recommendations to increase the MWh and Dth EE targets by 40%?

13          A.    No, as described in greater detail within the rebuttal testimony of the  
14                Applied Energy Group ("AEG") Panel, the Realistic Achievable Potential  
15                ("RAP") within the Potential Study is the best available estimate of the  
16                actual amount of savings that Central Hudson can reasonably be  
17                expected to achieve through energy efficiency programs. Therefore, the  
18                Panel strongly believes that the RAP should be utilized as the minimum  
19                target for MWh savings within the Energy Efficiency EAM.

20          Q.    Did Staff provide any basis for their proposed increases in Electric and  
21                Gas EE MWh and Dth targets?

22          A.    Yes, within the direct testimony of the Staff M&I EE Panel and in their  
23                response to the Company's interrogatory, CH-024, Staff indicated that

**REBUTTAL TESTIMONY OF EAM PANEL**

1 their target increase was based on the past performance of the Company  
2 and consistency with Staff's direct testimony filed in the ongoing Niagara  
3 Mohawk Power Corporation rate case (17-E-0238 and 17-G-0239).

4 Q. Is Central Hudson's past performance an appropriate basis to develop  
5 future achievable MWh and Dth savings goals?

6 A. No, as discussed in the direct testimony of the EAM Panel, savings from  
7 both the behavioral and residential lighting initiatives are expected to  
8 become negligible in the future. These initiatives resulted in 68% of  
9 Central Hudson's MWh savings and 77% of Dth savings during 2016.  
10 Because these opportunities for savings may no longer exist, Central  
11 Hudson's past performance is not a good predictor of its future ability to  
12 achieve MWh and Dth savings.

13 Q. Are Staff's proposed EE MWh and Dth target increases within the Niagara  
14 Mohawk rate case a valid basis for developing Central Hudson's MWh and  
15 Dth target increases?

16 A. No, it is likely that Niagara Mohawk will be able to use behavioral savings  
17 that were not included in their past results to meet their increased targets.  
18 Additionally, the average estimated useful life ("EUL") of the EE measures  
19 included within Niagara Mohawk's electric EE portfolio is 6.7 years, which  
20 is significantly lower than Central Hudson's current EUL of 10 years.  
21 Finally, Niagara Mohawk's rate case is not yet resolved and there is no  
22 way of knowing if the targets proposed by Staff will be adopted in the final  
23 Commission Order in that case.

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Please discuss the relevance of a lower EUL when attempting to compare  
2 targets between two utilities.

3 A. A lower EUL provides greater flexibility when determining which measures  
4 to include within an EE portfolio in order to achieve targets. A utility with a  
5 lower EUL, such as Niagara Mohawk, will have opportunities to leverage  
6 shorter lived savings opportunities that are not available to Central  
7 Hudson.

8 Q. Does the Panel agree with the Staff ICE Panel's recommendation to use  
9 EUL as a precondition to earning incentives for achieving MWh and Dth  
10 savings targets?

11 A. No, although the Panel generally agrees with the Staff ICE Panel's goal of  
12 incentivizing long-lived and sustainable MWh and Dth reductions, setting a  
13 binary EUL threshold for earning the EE EAMs is not appropriate. Neither  
14 lifecycle savings nor EUL's are currently used as primary or secondary EE  
15 targets. The Company should continue to have reasonable flexibility to  
16 utilize measures of various EUL's in pursuit of increasingly difficult energy  
17 efficiency savings targets without forfeiting the EE EAM. Finally, The  
18 Panel does not believe that Central Hudson's current EUL is the  
19 appropriate metric to associate with the EE EAMs. Central Hudson's  
20 electric portfolio EUL is 10 years, which is higher than the weighted  
21 average 8.79 year EUL for the other investor-owned New York utilities as  
22 shown in Exhibit\_\_ (EAMP-3R). As previously discussed, Central  
23 Hudson's higher EUL would result in a competitive disadvantage by

**REBUTTAL TESTIMONY OF EAM PANEL**

1 providing less flexibility relative to other utilities when determining which  
2 measures to include within the electric portfolio to achieve targets.

3 Q. Does the Panel have any recommendations if an EUL is utilized to  
4 determine EE EAMs?

5 A. Yes. If an EUL is utilized to determine EE EAMs, the EUL should be  
6 based on the weighted average EUL of each investor-owned utility.  
7 Basing the EUL on a state-wide average would avoid penalizing any  
8 individual utility for delivering superior lifecycle savings before the EUL  
9 metric was put in place. Furthermore, the Panel would propose a pro-  
10 rated reduction to the EE MWh or Dth EAM incentives tied to the EUL  
11 level instead of a binary precondition.

12 Q. Does the Panel have a response to the Staff M&I EE Panel's expectation  
13 that additional funding would not be used by the Company to fund another  
14 behavioral program?

15 A. Yes, the Staff M&I EE Panel's expectation is inconsistent with other  
16 elements of their testimony and would place Central Hudson at a  
17 disadvantage to other utilities that may utilize behavioral programs to  
18 achieve increasing EE targets.

19 Q. Please describe how the Staff M&I EE Panel's expectation regarding  
20 behavioral programs are inconsistent with other elements of their  
21 testimony.

22 A. Page 19 of the Staff M&I EE Panel's testimony states:

**REBUTTAL TESTIMONY OF EAM PANEL**

1           The flexibility currently allow[sic] in the ETIP also allows the  
2           Company to consider other measures or programs that may have a  
3           higher cost per kilowatt-hour (kWh) saved but that could still  
4           support a cost effective portfolio.

5           Although the Staff M&I EE Panel's statement is correct, it is inconsistent  
6           with the Staff M&I EE Panel's recommendation to increase the Company's  
7           MWh savings target by 40% while only increasing the budget by 15%.  
8           Furthermore, Staff's expectation regarding the behavioral program is  
9           inconsistent with basing the Company's future MWh and Dth savings  
10          targets on past performance. This inconsistency is clear when  
11          recognizing that 49% of 2016 MWh and 77% of 2016 Dth savings were  
12          derived from the Company's behavioral program.

13 Q.      Should Central Hudson be able to utilize a behavioral program to meet  
14          future MWh and Dth savings targets?

15 A.      Yes. Central Hudson should be able to utilize its current behavioral  
16          program or a revised behavioral program to meet future Energy Efficiency  
17          Targets. This is especially true if the Company's savings targets are set  
18          based on past performance or if other utilities retain the flexibility to utilize  
19          the savings from Behavioral Programs to meet their EE savings targets.

20 Q.      What MWh and Dth targets does the Panel recommend?

21 A.      The Panel continues to support using the RAP as the basis for the  
22          minimum EE targets as proposed within its direct testimony, and  
23          supported by the rebuttal testimony of the AEG Panel.

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Does the Panel agree with the Staff ICE Panel recommendation regarding  
2 the minimum, mid-point, and maximum MWh savings levels?

3 A. No, the Staff ICE Panel is essentially establishing the mid-point and  
4 maximum MWh and Dth savings targets based on the minimum \$/MWh  
5 achieved within the period beginning January 1, 2012 and ending  
6 December 31, 2015. This methodology places too much emphasis on  
7 Central Hudson's past performance and does not exclude low cost  
8 measures such as the behavioral program. Furthermore, this  
9 methodology does not take into account the multi-year nature of the  
10 Energy Efficiency Portfolio Standards programs. Finally, this methodology  
11 does not include future changes that impact the amount of economically  
12 efficient MWh savings available.

13 Q. How does the Panel recommend setting the mid-point and maximum MWh  
14 savings targets?

15 A. The Panel continues to recommend that the maximum target should be  
16 set at the Maximum Achievable Potential ("MAP") from the Company's  
17 Potential Study, while the mid-point should be set at the average of the  
18 MAP and RAP for each calendar year. This methodology is also  
19 consistent with the methodology utilized by the Staff ICE Panel to set the  
20 Peak Load Reduction targets associated with the Company's Dynamic  
21 Load Management metric.

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Does the Panel agree with the Staff ICE and M&I EE Panels'  
2 recommendations to increase the electric and gas EE budgets by 15%  
3 and 40%, respectively?

4 A. The Panel recommends that EE funding be based on the MWh and Dth  
5 targets and that any Commission approved increases in MWh or Dth  
6 targets should be paired with proportional increases in funding based on  
7 the ETIP targets and funding levels approved in the Track One Order.

8 **IV. ENERGY EFFICIENCY COST RECOVERY & DEFERRAL MECHANISM**

9 Q. Please describe the Staff M&I EE Panel recommendation regarding cost  
10 recovery of energy efficiency funding.

11 A. The Staff M&I EE Panel recommended shifting the recovery of the  
12 Company's electric and gas Energy Efficiency Transition Implementation  
13 Plan ("ETIP") expenses from the EE Tracker surcharge of the Systems  
14 Benefit Charge ("SBC") into base rates.

15 Q. Does the Panel agree with this recommendation?

16 A. The Panel objects to this recommendation for two reasons. First, shifting  
17 recovery in this manner will eliminate the transparency that the current  
18 funding mechanism provides to mass market customers that rely on  
19 information relayed through the bill. Second, Staff failed to provide robust  
20 recommendations concerning continuing transparency for mass market  
21 customers, any potential program modifications, administration of the Self-  
22 Direct program, or billing system changes. The resolution of many of  
23 these transition issues will require collaboration with Staff and other

**REBUTTAL TESTIMONY OF EAM PANEL**

1 parties and will likely take significant time to resolve. Therefore, the Staff  
2 M&I EE Panel's recommendation is not appropriate in the context of a fully  
3 litigated one year rate case.

4 Q. Did Staff propose any reconciliation of ETIP budgets and EE funding in  
5 base rates?

6 A. Yes, the Staff M&I EE Panel recommended a downward only  
7 reconciliation of actual expenditures versus the budget included in base  
8 rates for the ETIP be performed on a cumulative basis every three years.

9 Q. Does the Panel agree with this recommendation?

10 A. If, despite the Panel's prior objection, recovery of Energy Efficiency  
11 expenses are shifted into base rates, the Panel supports a reconciliation  
12 of actual expenses versus budget being performed on a cumulative basis  
13 every three years. However, the Panel objects to the downward only  
14 reconciliation proposed by Staff.

15 Q. Why does the Panel object to the downward only reconciliation proposed  
16 by Staff?

17 A. The Panel objects for the following reasons: (1) as stated previously, Staff  
18 made no recommendations concerning continuing transparency for mass  
19 market customers, any potential program modifications, administration of  
20 the Self-Direct program, or billing system changes; (2) In the context of a  
21 downward only reconciliation, Staff did not provide any mechanism for  
22 recovering the implementation costs associated with the transition of  
23 Energy Efficiency expenses into base rates; (3) any reconciliation should



**REBUTTAL TESTIMONY OF EAM PANEL**

1 be two ways, with the Company authorized to defer actual costs above the  
2 rate allowance; and (4) the ability to defer costs in excess of the rate  
3 allowance should not be tied to achievement of an Incremental MWh EAM  
4 target, as the Company is entitled to recover its prudently incurred costs.

5 Q. Does the Panel have other concerns with Staff's recommendation to  
6 transition Energy Efficiency expenses into base rates?

7 A. Yes. On page 24 of the Staff Accounting Policy and Revenue  
8 Requirements Panel testimony, Staff proposed that the Advertising Policy  
9 Statement be applied to costs associated with customer education and  
10 outreach. If Staff's position regarding the application of the Advertising  
11 Policy Statement to determine the rate allowance for outreach and  
12 education is upheld, it will provide insufficient rate recovery of the  
13 Company's energy efficiency related customer outreach and education to  
14 facilitate NY State's energy efficiency policy goals or achieve EAM targets  
15 set in this proceeding. Furthermore, it will jeopardize the Company's  
16 ability to continue this essential outreach aimed at informing and  
17 educating customers. The Company's Revenue Requirements Panel  
18 rebuttal testimony addresses Staff's proposed adjustment to customer  
19 outreach and education and explains why the adjustment should be  
20 rejected since it fails to provide full rate recovery of the level of outreach  
21 required to effectively communicate, inform and educate customers on  
22 how to use electric and gas efficiently and safely and raise awareness of  
23 public policy objectives and the costs of meeting those objectives.

REBUTTAL TESTIMONY OF EAM PANEL

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V. ENERGY INTENSITY METRICS

Q. Please describe the Energy Intensity Metric proposed by the Staff ICE Panel.

A. The Staff ICE Panel proposed both a Residential and Commercial outcome-based metric calculated as the 12-month rolling average MWh sales, normalized for weather-related impacts, divided by the average number of residential and commercial customers in order to produce the average MWh use per residential or commercial customer on an annual basis.

Q. Do other parties propose outcome based energy efficiency metrics and EAMs?

A. Yes, the UIU EAM Panel, Mr. Rábago, and Mr. Woolf all propose that Central Hudson include significantly higher outcome based energy efficiency metrics. Additionally, Mr. Rábago, specifically states that, “The EE EAM should use decreased energy use per customer as a metric, not total energy use reduction.”

Q. Does the Panel agree with the Energy Intensity Metric Proposed by the Staff ICE Panel?

A. Yes. However, the Energy Intensity Metric proposed by the Staff ICE Panel requires normalizations for environmentally beneficial electrification, addition or loss of new large customers with unique end uses, weather, economic conditions and other factors. Not all of these normalizations have been fully defined or tested to reveal codependences among these

**REBUTTAL TESTIMONY OF EAM PANEL**

1 factors or expected impacts on the Energy Intensity Metric proposed by  
2 the Staff ICE Panel. As such, until these normalization factors are fully  
3 defined the Panel recommends that this metric not be considered as an  
4 EAM.

5 Q. Please describe how the Staff ICE Panel proposes to set the Residential  
6 Energy Intensity metric targets.

7 A. The Staff ICE Panel recommends developing a weather-normalized trend  
8 line based on data from the period beginning January of 2010 through  
9 June of 2017. The Staff ICE Panel then recommends that the residential  
10 trend line be shifted to continue from the most recent actual data point and  
11 extended to December 2020. Finally, Staff recommends that the  
12 minimum, mid-point, and maximum targets be set at 0.25, 1.0, and 1.75  
13 standard errors below the shifted trend line respectively.

14 Q. Does the Panel recommend modifying the Staff ICE Panel's methodology  
15 for setting the Energy Intensity Targets?

16 A. Yes. The Panel would utilize a weather normalized trend line, but would  
17 not shift the trend line to continue off of the most recent data point, as  
18 proposed by the Staff ICE Panel. Shifting the trend line in this manner is  
19 inappropriate because the calculation of the slope of the original trend line  
20 already takes into account the most recent data. The Panel recommends  
21 revised targets based on the Staff ICE Panel's methodology excluding the  
22 trend line shift. These revised targets and supporting calculations are  
23 shown in Schedule A of Exhibit\_\_ (EAMP-4R).

REBUTTAL TESTIMONY OF EAM PANEL

1 Q. Please describe how the Staff ICE Panel proposes to set the Commercial  
2 Energy Intensity metric targets.

3 A. The Staff ICE Panel utilizes a methodology very similar to the  
4 development of the Residential Energy Intensity metric with two  
5 exceptions. First, the trend line is not shifted to continue off of the most  
6 recent data. Second, the Commercial Energy Intensity metric utilizes a  
7 “kinked” trend line.

8 Q. Would the Panel recommend modifying the Staff ICE Panel’s methodology  
9 for setting the Energy Intensity Targets?

10 A. Yes. Although the Panel agrees with the Staff ICE Panel that the trend  
11 line should not be shifted, the use of a “kinked” trend line results in targets  
12 that are unachievable and should not be utilized. In fact, utilizing the  
13 same trend line methodology that was used for the residential energy  
14 intensity target produces a higher R-square, which is the traditional  
15 measure of how well the trend line fits the data being analyzed.

16 Therefore, the Panel objects to the use of the less accurate “kinked” trend  
17 line. Revised targets based off of the Panel’s recommendation are  
18 reflected in Schedule B of Exhibit\_\_ (EAMP-4R).

19 Q. Are there any additional modifications to Staff’s Energy Intensity Metric  
20 proposal that the Panel proposes?

21 A. Yes, the Staff ICE Panel did not propose any additional funding  
22 associated with consumer outreach or education associated with this  
23 metric. The Energy Intensity EAM is an outcome based metric that

**REBUTTAL TESTIMONY OF EAM PANEL**

1 requires the Company to engage with many different organizations as well  
2 as residential and commercial customers in order to facilitate the reduction  
3 of average kWh usage among residential and commercial customers.  
4 Advocating for changes in laws at the State and local levels, working with  
5 equipment manufacturers, local governments, and home developers to  
6 change codes and standards, and working with local organizations to  
7 influence customer's to make behavioral changes or equipment upgrades  
8 are just a few activities that will be required to meet any Energy Intensity  
9 targets and they all focus on outreach and education.

10 Q. Does the Panel recommend a funding level for outreach and education  
11 associated with the Energy Intensity EAM?

12 A. Yes, in order to reach the minimum target, funding for outreach and  
13 education should be set at \$390,000 per year. This funding level is based  
14 on the actual 2016 energy efficiency outreach and education costs per  
15 MWh achieved. The supporting calculations for this funding level can be  
16 found in Schedule C of Exhibit\_\_ (EAMP-4R).

17 **VI. ENVIRONMENTALLY BENEFICIAL ELECTRIFICATION ("EBE")**

18 Q. Please describe the Staff ICE Panel's recommended EBE metric.

19 A. The Staff ICE Panel's EBE metric is developed based on the CO<sub>2</sub> savings  
20 associated with the incremental number of electric vehicles ("EVs") and  
21 heat pumps installed in the Company's service territory during a given  
22 calendar year. However, the Staff ICE Panel recommends that targets

**REBUTTAL TESTIMONY OF EAM PANEL**

1 related to the EBE metric would be expressed as the sum of the total  
2 lifetime tons of carbon dioxide savings.

3 Q. Does the Panel agree with Staff's recommendation to express the metric  
4 and targets as the sum of the total lifetime tons of carbon dioxide savings?

5 A. Yes, this is a reasonable change.

6 Q. Did the Staff ICE Panel develop EAM targets for the EBE metric?

7 A. The Staff ICE Panel did not recommend EAM targets, but they did develop  
8 illustrative targets based on the Carbon Reduction program proposed by  
9 the Company's EAM Panel.

10 Q. Please describe the Staff M&I EE Panel's recommendation regarding the  
11 Carbon Reduction program.

12 A. The Staff M&I EE Panel recommended that the Company not move  
13 forward with its Carbon Reduction program due to elements of the  
14 program that are duplicative of NYSERDA's efforts.

15 Q. Please elaborate.

16 A. The Staff M&I EE Panel noted that two of the components of the Carbon  
17 Reduction program are also the focus of NYSERDA's programs that are  
18 designed to reduce the initial cost of EVs and geothermal heat pumps.

19 Q. Does the Panel agree with the Staff M&I EE Panel's recommendation  
20 regarding the EV and geothermal heat pump components of the proposed  
21 Carbon Reduction Program?

22 A. Partly. The Staff M&I EE Panel and UIU EAM Panel are correct in noting  
23 that these elements of the proposed Carbon Reduction program are to an

**REBUTTAL TESTIMONY OF EAM PANEL**

1 extent duplicative of current NYSERDA programs. However, the Carbon  
2 Reduction program would also provide Central Hudson with the  
3 opportunity to develop synergies between DER forecasting, rate design,  
4 Non-Wire alternative development, and customer engagement.

5 Q. Please elaborate on these additional benefits.

6 A. Design elements of the EV component of the proposed Carbon Reduction  
7 Program would provide benefits in addition to carbon reductions. For  
8 example, the customer data captured would allow the Company to  
9 understand where EVs are located on the system, develop better  
10 forecasts regarding the locational impact of EV's, and develop more  
11 informed locational price signals. Additionally, the EV program would  
12 allow the Company to segment EV buyers and owners in order to offer  
13 Voluntary Time of Use ("VTOU") rate designs at the time of purchase or  
14 any time thereafter.

15 Q. Are these opportunities also available through NYSERDA administered  
16 programs?

17 A. Potentially, if NYSERDA designs their programs to capture relevant  
18 customer data, provides that data to utilities, and dynamically incorporates  
19 utility messaging on TOU rates and other relevant initiatives such as  
20 energy efficiency.

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Did the Staff MI & EE Panel identify components of the Carbon Reduction  
2 program that are complementary to NYSERDA's efforts?

3 A. Yes, the Staff MI & EE Panel stated that the Air Source Heat Pump  
4 component of the proposed Carbon Reduction Program would be  
5 complimentary with NYSERDA's efforts in this area.

6 Q. Does the Panel agree with the Staff MI & EE Panel's recommendation to  
7 recover any potential future costs associated with the Carbon Reduction  
8 program within base rates?

9 A. The Panel has similar objections to recovering the Carbon Reduction  
10 program as recovering EE program costs within base rates. These  
11 concerns were discussed in detail earlier within our testimony.

12 Q. Does the Panel agree with the Staff ICE Panel's recommendation that the  
13 Commission institute an EAM metric based on the tons of carbon reduced  
14 by incremental penetration of environmentally advantageous electrification  
15 technologies?

16 A. Yes, however, the Panel would recommend that targets be based only on  
17 the Carbon Reduction program components that are approved. For  
18 example, if Air Source Heat Pumps is the only element of the Carbon  
19 Reduction program that is approved, only targets corresponding to that  
20 portion of the carbon reduction program should be approved.



**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Do other Parties object to the Company's proposed Carbon Intensity  
2 EAM?

3 A. Yes, the UIU EAM Panel, Mr. Pollock, Mr. Page and Mr. Yates all propose  
4 that the Commission not approve funding of either individual components  
5 or the entirety of the Carbon Reduction Program. More specifically, the  
6 UIU EAM Panel and Mr. Pollock propose that the entirety of the Carbon  
7 Reduction Program should not be funded. Mr. Page and Mr. Yates  
8 propose that the EV portion of the program should not be funded by  
9 ratepayers.

10 Q. Does the Panel agree with the recommendations of the UIU EAM Panel,  
11 Mr. Pollock, Mr. Page or Mr. Yates?

12 A. No, although the Panel appreciates the parties' concerns regarding  
13 incremental bill impacts associated with the Carbon Reduction Program,  
14 the benefits of this program outweigh the costs as shown in the direct  
15 testimony and exhibits of the EAM Panel. However, for the purposes of  
16 Rebuttal Testimony only, the Panel did remove the costs and benefits  
17 associated with the EV and Geothermal portions of the Carbon Reduction  
18 Program from the BCA analysis. Additionally the Panel did not include  
19 metrics or targets associated with EV's or geothermal within the EBE  
20 EAM.

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Do other Parties support or propose changes to the Company's Carbon  
2 Reduction Program or Carbon Intensity EAM?

3 A. Yes, Mr. Rábago, Ms. Metzger, and Mr. Wyman, all support the concept of  
4 the Carbon Reduction Program and associated EAM. Additionally, Mr.  
5 Rábago and Ms. Metzger propose changes to the Carbon Reduction  
6 Program or Carbon Intensity EAM.

7 Q. Please discuss Mr. Rábago's proposed changes to the Carbon Reduction  
8 Program or the Carbon Intensity EAM.

9 A. Mr. Rábago recommends that the Carbon Intensity EAM not provide an  
10 incentive for natural gas expansion. He also recommends that the Carbon  
11 Intensity EAM should proportionately allocate basis points to residential  
12 and non-residential sectors based on carbon reductions, and that the  
13 Carbon Reduction Program should include a provision for EV charging  
14 infrastructure to compliment EV rebates.

15 Q. Does the Panel agree with Mr. Rábago's three recommendations?

16 A. In part. First, the Panel has agreed to the Staff ICE Panel's methodology  
17 for developing the EBE metrics and targets, which eliminates  
18 measurement of carbon reduction associated with natural gas  
19 conversions. However, the Panel believes that natural gas conversions  
20 can be environmentally beneficial when compared to other heating fuels.  
21 Second, Mr. Rábago's recommendation regarding basis point allocation is  
22 logical and the Panel agrees that basis points associated with the EBE  
23 EAM should be proportionately allocated by sector based on carbon

**REBUTTAL TESTIMONY OF EAM PANEL**

1 reductions. Third, Mr. Rábago's recommendation to include EV charging  
2 infrastructure in a future EV program has merit. However, the Panel does  
3 not believe that this recommendation is appropriate in the context of a fully  
4 litigated one year rate case.

5 Q. Please discuss Ms. Metzger's proposed changes to the Carbon Reduction  
6 Program or the Carbon Intensity EAM.

7 A. Ms. Metzger recommends that the targets for the Carbon Intensity EAM  
8 should be higher and suggests specific design components for the Carbon  
9 Reduction Program. Specifically, Ms. Metzger recommends that building  
10 efficiency improvements be included within the beneficial electrification  
11 programs that VTOU rates be designed specifically for EVs and included  
12 within an EV program, and that the Company offer an incentive to  
13 encourage installation of free charging stations at workplaces.

14 Q. Does the Panel agree with Ms. Metzger's proposed changes?

15 A. No. Although Ms. Metzger's proposed changes are well intentioned they  
16 are not supported by a benefit cost analysis. Furthermore, the EE and  
17 Energy Intensity metrics will provide sufficient motivation to the Company  
18 to pursue building efficiency improvements if they are cost effective.  
19 Finally, the Company's recently approved VTOU rate is based on the  
20 principle of cost causation and is designed to be technology agnostic in  
21 order to provide real and accurate price signals to consumers and  
22 prosumers alike.

REBUTTAL TESTIMONY OF EAM PANEL

VII. SYSTEM EFFICIENCY EAM

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Q. Please describe the System Efficiency EAM proposed by the Staff ICE Panel.

A. The Staff ICE Panel proposed to include both a peak load reduction metric and a DER utilization metric within the System Efficiency EAM.

Q. Is the Staff ICE Panel's proposal different from the peak load reduction and DER utilization metrics and targets proposed by the Company?

A. Yes. The Staff ICE Panel proposed significant changes to both proposed metrics and targets.

Q. Please describe the Staff ICE Panel's proposed changes to the peak load reduction metric and targets.

A. Staff proposed three significant changes to the Company's peak load reduction metric. First, the Staff ICE Panel proposed basing the Peak Load Reduction metric on Central Hudson's weather-normalized system peak load coincident with the New York Control Area ("NYCA") peak hour. Second, the Staff ICE Panel recommended removing the baseline comparison and simply measuring the weather-normalized coincident peak load in each year. Third, Staff recommended that the minimum, mid-point, and maximum MW reduction targets be based on specific DER impacts, including VTOU rate participation, incremental EE impacts, participation in the Dynamic Load Management program, and peak reduction associated with the DER utilization metric proposed by Staff.

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Does the Panel agree with the Staff ICE Panel recommendation to base  
2 the Peak Load Reduction Metric on Central Hudson's weather-normalized  
3 system peak load coincident with the NYCA peak hour?

4 A. Not entirely. Although the Panel agrees that the Staff ICE Panel's  
5 recommendation would produce greater customer value than the  
6 Company's original proposal, a much greater impact and more value  
7 would be realized by basing the Peak Load Reduction metric on the  
8 NYISO capacity Zone G-J locality peak. The Zone G-J locality peak has a  
9 much greater impact on Central Hudson's capacity requirement than does  
10 the NYCA peak. For example, 1MW of load relief coincident with the 2015  
11 Zone G-J locality peak would have resulted in a \$68,233 reduction to the  
12 Company's subsequent capacity bills, as compared to a \$31,239 reduction  
13 for the same load relief occurring coincident with the NYCA peak of that  
14 year. Therefore, the Panel recommends that the Peak Load Reduction  
15 metric be based on load reductions coincident with the Zone G-J locality  
16 peak to maximize the wholesale capacity benefits realized by Central  
17 Hudson's customers.

18 Q. Does the Panel agree with the Staff ICE Panel's recommendation to  
19 weather-normalize the coincident peak load in each year?

20 A. The Panel does not object to Staff's recommendation; however, the Panel  
21 recommends that in addition to normalizing the coincident peak load for  
22 weather, the impact of any peak load growth associated with customer  
23 additions should be normalized as well. This normalization will assist in

**REBUTTAL TESTIMONY OF EAM PANEL**

1           avoiding potential conflicts with economic development goals within a  
2           service territory where such activity is vitally important.

3 Q.       How does the Panel propose to normalize coincident peak load for the  
4           impact of customer additions?

5 A.       The Panel proposes to use a historical average for peak demand for  
6           residential and small commercial customers, and potentially larger, non-  
7           Hourly Pricing Provision (“HPP”) customers. Additionally, the Panel would  
8           propose utilizing actual data for customers subject to HPP, where  
9           individual customer peak demand impacts are likely to be more diverse  
10          and interval data is available.

11 Q.       Does the Panel agree with Staff’s recommendation to eliminate the  
12          baseline comparison?

13 A.       Yes, this change appears to simplify the reporting process for this metric.

14 Q.       Does the Panel agree with the Staff ICE Panel recommendation regarding  
15          the minimum, mid-point, and maximum targets based on the DER impacts  
16          from photovoltaic (“PV”) penetration, VTOU rate participation, energy  
17          efficiency savings, and impacts from the Company’s Dynamic Load  
18          Management Program?

19 A.       The Panel agrees with Staff’s approach in constructing the targets.  
20          However, the Panel recommends modifications to the impacts associated  
21          with PV penetration, VTOU rate participation, and energy efficiency  
22          savings. The Panel’s recommendations regarding VTOU rate participation  
23          and energy efficiency savings are discussed in greater detail in other

**REBUTTAL TESTIMONY OF EAM PANEL**

1 sections of our testimony. Additionally, the Panel accepts changing the  
2 MWh to Peak factor associated with energy efficiency savings in  
3 accordance with Staff's response to the Company's interrogatory CH-084  
4 (see Exhibit \_\_ (EAMP-1R)). Finally, the Panel also agrees with Staff's  
5 recommendation to use the realistically achievable potential for demand  
6 response as the basis for Dynamic Load Management Program impacts.

7 Q. Please explain why the Panel disagrees with the PV peak reduction  
8 forecast developed by the Staff ICE Panel?

9 A. The Staff ICE Panel's trend model produces results that are inconsistent  
10 and considerably higher than the forecast developed by the Staff Electric  
11 Forecasting Panel, which was utilized within Staff's projection of electric  
12 delivery forecasts. The difference between the Staff Electric Forecasting  
13 Panel and the Staff ICE Panel is shown in Schedule B of Exhibit\_\_  
14 (EAMP-6R).

15 Q. Does the Panel propose to utilize the Staff Electric Forecasting Panel PV  
16 forecast as the basis for the PV penetration impacts included within the  
17 Peak Load Reduction Metric?

18 A. Yes. The Staff ICE Panel's "business as usual" trend line is based on an  
19 extrapolation from historical PV deployment and ignores factors such as  
20 changes in compensation for distributed solar PV projects under the  
21 Commission's Value of DER ("VDER") proceeding (Case 15-E-0751).

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Does the Panel recommend other changes regarding the impact of future  
2 PV deployment on the Peak Load Reduction metric?

3 A. Yes, the Panel recommends that only the portion of the incremental PV  
4 MW that are coincident with and therefore can reduce the Zone G & J  
5 Locality Peak should be included within the development of the Peak Load  
6 Reduction metric.

7 Q. Please describe how the Staff ICE Panel recommendation associated with  
8 the impact of the Dynamic Load Management Program differs from the  
9 Panel's original proposal.

10 A. The Panel's original proposal applied a significant increase of  
11 approximately 50% to the past performance of the Company's Dynamic  
12 Load Management program in order to develop a stretch goal associated  
13 with future performance. This approach is similar to the Staff M&I EE and  
14 ICE Panel's proposal associated with energy efficiency. However, for the  
15 Dynamic Load Management program impact the Staff ICE Panel proposes  
16 that the Company utilize the realistic achievable potential and the  
17 maximum achievable potential for Demand Response from Central  
18 Hudson's Potential Study as the basis for setting future targets.

19 Q. Does the Panel agree with Staff's approach?

20 A. Yes, however, the Panel would point out that this approach is identical to  
21 the Company's proposal to set targets associated with the MWh savings  
22 component of the Energy Efficiency EAM. The Panel believes that the  
23 Potential Study should be utilized as the basis for demand response and



**REBUTTAL TESTIMONY OF EAM PANEL**

1 energy efficiency targets. All of the recommended changes associated  
2 with the peak load reduction metric are shown in Schedule A of Exhibit\_\_  
3 (EAMP-6R).

4 Q. Did the Panel update the minimum, mid-point, and maximum Peak Load  
5 Reduction target levels to include the impacts of using actual metered  
6 data instead of reconstituted data?

7 A. No, the Panel recommends that these updates occur during the pendency  
8 of this proceeding and has used placeholders for the interim period.

9 Q. Please describe the Staff ICE Panel's proposed changes to the DER  
10 utilization metric.

11 A. The Staff ICE Panel removed the impact of residential PV, EE, Demand  
12 Response, Electric Vehicle, and heat pump MWh from the DER Utilization  
13 metric targets.

14 Q. Does the Panel agree with the Staff ICE Panel proposed changes to the  
15 DER Utilization metric?

16 A. Yes, the Panel agrees with removal of MWh impacts from residential PV,  
17 EE, Demand Response, Electric Vehicle, and heat pump MWh from the  
18 DER Utilization metric targets.

19 Q. Does the Panel agree with the Staff ICE Panel's proposed non-mass  
20 market PV penetration forecast?

21 A. No, as discussed previously, the Staff ICE Panel's trend model produces  
22 results that are inconsistent and considerably higher than the forecast  
23 developed by the Staff Electric Forecasting Panel. The Panel proposes

**REBUTTAL TESTIMONY OF EAM PANEL**

1           that the Staff Electric Forecasting Panel forecast be utilized as the basis  
2           for this target. This recommended change is shown in Schedule C of  
3           Exhibit\_\_ (EAMP-6R).

4   Q.    Do other Parties propose system efficiency metrics or EAMs?

5   A.    Yes, Mr. Rábago proposes that the Company incorporate a load factor  
6           metric in its SE EAM and the UIU EAM Panel recommends a Localized  
7           Peak Reduction metric.

8   Q.    Does the Panel agree with Mr. Rábago's recommendation?

9   A.    No. The Panel and the Staff ICE Panel are in agreement that load factor,  
10           is a problematic metric that can provide a disincentive for beneficial  
11           actions a utility may take to meet state policy goals, while providing a  
12           perverse incentive for outcomes against state policy goals.

13   Q.    Please describe the UIU EAM Panel's Localized Peak Reduction metric.

14   A.    The UIU EAM Panel recommends separately measuring and rewarding  
15           load reduction performance at individual substations. The EAM would  
16           target substations serving local areas where peak reductions are likely to  
17           be particularly beneficial.

18   Q.    Does the Panel agree with the UIU EAM Panel's recommendation?

19   A.    Not at this time. The Panel appreciates the creativity behind the  
20           development of the Localized Peak Reduction metric and believes the  
21           metric would have greater value within a high peak load growth  
22           environment. However, based on the results of Central Hudson's  
23           marginal Avoided T&D Cost Study, this metric would not provide as much

**REBUTTAL TESTIMONY OF EAM PANEL**

1 value as a system efficiency metric aimed at reducing usage coincident  
2 with the Zone G-J locality peak.

3 **VIII. CUSTOMER ENGAGEMENT EAM**

4 Q. Please describe the Customer Engagement EAM proposed by the Staff  
5 ICE Panel.

6 A. The Staff ICE Panel proposed that the VTOU and Smart Home Rate  
7 participation be considered a single metric, with very aggressive target  
8 levels for participation. The Staff ICE Panel also recommends removing  
9 the Company's proposed metric regarding CenHub enrollment.

10 Q. Does the Panel agree with the Staff ICE Panel recommendation to  
11 combine the VTOU and Smart Home Rate participation into a single  
12 metric?

13 A. Yes, this is a logical recommendation since both the VTOU rate and the  
14 Smart Home Rate utilize the same underlying rate design.

15 Q. Please describe the targets proposed by the Staff ICE Panel regarding  
16 VTOU participation.

17 A. The Staff ICE Panel proposed minimum, target, and maximum  
18 participation rates of 3%, 5%, and 7%, respectively for calendar year  
19 2018. Staff proposed that these rates increase by 1.5%, 2%, and 2.5%  
20 per year thereafter.

21 Q. How did the Staff ICE Panel develop these targets?

22 A. Based on their testimony and responses to Company interrogatories CH-  
23 013, CH-023, and CH-084 (see Exhibit \_\_ (EAMP-1R)), the Staff ICE

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Panel utilized judgment and comparison to select utilities to develop their  
2 proposed targets.

3 Q. Please list the utilities that the Staff ICE Panel analyzed and their  
4 respective VTOU participation rates.

5 A. The Staff ICE Panel analyzed Arizona Public Service (“APS”) (50%),  
6 Oklahoma Gas & Electric (“OG&E”) (20%), Sacramento Municipal Utility  
7 District (“SMUD”) (15%), Con Edison (0.1%), New York State Electric and  
8 Gas (“NYSEG”) (17.7%), Niagara Mohawk (0.4%), Orange and Rockland  
9 Utilities (1.9%), and Rochester Gas & Electric (1.5%).

10 Q. Are there significant differences in the characteristics of these utilities from  
11 Central Hudson’s that should prevent them from being used in an analysis  
12 designed to set the VTOU participation targets of Central Hudson.

13 A. Yes, as shown in Schedule B of Exhibit\_\_ (EAMP-7R) and in Staff’s  
14 responses to CH-023 and CH-024, there are very significant differences  
15 that would eliminate APS, OG&E, SMUD, and NYSEG from comparison  
16 with Central Hudson.

17 Q. Please describe these differences.

18 A. APS, OG&E, and SMUD all have 100% smart meter penetration,  
19 significantly higher percentages of homes with central air conditioning,  
20 significantly higher percentages of homes with electric heating systems,  
21 and are located in significantly different climates resulting in much higher  
22 Cooling Degree Days than Central Hudson. Additionally, based on the  
23 Staff ICE Panel’s response to CH-084, NYSEG has a penetration of

**REBUTTAL TESTIMONY OF EAM PANEL**

1 homes with electric heat in the range of 20-25% compared to Central  
2 Hudson's electric heat penetration of approximately 10%.

3 Q. Should these differences result in the exclusion of these utilities from  
4 comparison to Central Hudson?

5 A. Yes. These utilities should not be included in any comparison of Central  
6 Hudson's VTOU participation rate. Customer's within the service  
7 territories of these utilities have different needs and are utilizing different  
8 technologies to meet those needs. It should also be noted that most  
9 forms of electric heat are not environmentally beneficial and that electric  
10 heat and central air conditioning appear to be the primary drivers of high  
11 VTOU participation rates in these service territories. The Panel would  
12 also note that NYSEG's current on/off peak delivery price ratio is 1 to 1,  
13 which means the NYSEG rate does not utilize time based pricing to  
14 motivate customer behavior.

15 Q. What is the average VTOU participation rate after exclusion of the  
16 aforementioned utilities?

17 A. The average VTOU participation rate after the exclusion of the  
18 aforementioned utilities is 0.9%.

19 Q. Is the original target of 4% that the Panel proposed a reasonable stretch  
20 goal above the average participation rate of 0.9%?

21 A. Yes, the Panel's original stretch goal of 4% VTOU participation is  
22 approximately 444% higher than the 0.9% average participation rate of the  
23 indicated NY utilities and results in a compound average growth rate of

**REBUTTAL TESTIMONY OF EAM PANEL**

1           72%. Therefore, the minimum target for VTOU participation should be set  
2           based on the linear growth required to achieve 4% VTOU participation by  
3           2021.

4   Q.     Does the Panel propose a mid-point and maximum target?

5   A.     Yes. Staff's proposed VTOU participation rate mid-point and maximum  
6           targets were set at approximately 50% and 100% higher than the  
7           minimum target respectively. Without any competing methodology, the  
8           Panel believes this approach is reasonable and would recommend setting  
9           the mid-point and maximum targets in this manner. The Panel's  
10          recommended changes to the VTOU participation targets are shown in  
11          Schedule A of Exhibit\_\_ (EAMP-7R).

12   Q.     Does the Panel agree with Staff's removal of the CenHub enrollment rate  
13          from the Customer Engagement EAM?

14   A.     Not entirely.

15   Q.     Please elaborate further.

16   A.     The Panel agrees with the Staff ICE Panel's recommendation that  
17          customer participation in the CenHub Store is more appropriately  
18          incentivized through platform service revenue than an EAM. However, it  
19          appears that the Staff ICE Panel incorrectly associated the entirety of  
20          CenHub with the CenHub Store. The CenHub enrollment metric was  
21          proposed by the Panel to capture the engagement of Central Hudson's  
22          customers with the myriad other features of CenHub such as energy  
23          usage displays, energy efficiency information, and other beneficial

**REBUTTAL TESTIMONY OF EAM PANEL**

1 features. In short, the CenHub platform is where customers can go to  
2 receive personalized energy information that will enable them to make  
3 decisions regarding their energy use in support of the State's policy goals.  
4 Therefore, the Panel continues to recommend a CenHub enrollment  
5 metric be included in the Customer Engagement EAM.

6 Q. Does the Panel recommend a mid-point and maximum target associated  
7 with the CenHub enrollment EAM?

8 A. Yes, similar to the logic used to set the VTOU participation rate mid-point  
9 and maximum targets, the Panel proposes setting the mid-point and  
10 maximum targets 50% and 100% higher than the minimum target  
11 respectively. The Panel's recommended CenHub enrollment targets are  
12 shown in Schedule C of Exhibit\_\_ (EAMP-7R).

13 **IX. INTERCONNECTION EAM**

14 Q. Please summarize Staff's position on the Interconnection EAM.

15 A. The Panel's proposed EAM included two components: (1) developer  
16 satisfaction survey results as a threshold condition, with four basis points  
17 allocated on a sliding scale based upon timeliness metrics, and (2) one  
18 basis point earned by improving interconnection timeliness beyond what is  
19 prescribed in the New York State Standardized Interconnection  
20 Requirements ("SIR timeliness improvement metric"). At this time, Staff  
21 does not support either component of the proposed EAM citing two  
22 reasons: (1) minimal participation in the Developer Satisfaction survey,  
23 which may compromise the anonymity and confidentiality of the survey

**REBUTTAL TESTIMONY OF EAM PANEL**

1 pool; and (2) the lack of customer benefits for improving the timeliness of  
2 the interconnection process beyond what is established in the New York  
3 State Standardized Interconnection Requirements (“SIR”).

4 Q. Does the Panel agree with Staff’s position regarding the Developer  
5 Satisfaction survey?

6 A. No. While the Panel acknowledges that there have been a minimal  
7 number of surveys completed, the Commission established that there  
8 were benefits to improving the interconnection process for projects with  
9 nameplate ratings greater than 50kW within the REV Track Two Order.  
10 While an interconnection survey was one of the recommended metrics,  
11 the REV Track Two Order did not preclude consideration of alternative  
12 metrics when sufficient surveys were not available.

13 Q. How many surveys does Staff recommend completing prior to earning an  
14 Interconnection EAM?

15 A. As shown in Rebuttal Exhibit\_ (EAM-1R) in CH-003 (DPS) Question 1,  
16 (see Exhibit \_\_ (EAMP-1R)) Staff indicated that 100 surveys would be  
17 required to earn an Interconnection EAM.

18 Q. Is this consistent with what is required of other New York State utilities?

19 A. No, as of November 30, 2017, only 74 surveys have been completed for  
20 projects across all of the investor-owned New York State electric utilities  
21 (“Joint Utilities”), yet Consolidated Edison has an opportunity to earn an  
22 Interconnection EAM as approved in Case 16-E-0060, as shown in  
23 Rebuttal Exhibit\_\_ (EAM-1R).



REBUTTAL TESTIMONY OF EAM PANEL

1 Q. In order to maintain confidentiality, at what point are survey results shared  
2 with individual utilities?

3 A. Results are shared with individual utilities upon completion of ten surveys.

4 Q. Are there factors regarding survey completion that are outside of utility  
5 control?

6 A. Yes, there are at least three factors that render survey completion  
7 primarily outside of utility control including: (1) number of available  
8 projects that meet the criteria for survey completion; (2) survey completion  
9 rates; and (3) the pending ruling before the Commission on the  
10 Supplemental IEAM Proposal filed on August 28, 2017 (“Supplemental  
11 IEAM Proposal”).

12 Q. How many projects have been eligible for survey completion and what has  
13 been the rate of completion in Central Hudson’s service territory since the  
14 process commenced?

15 A. Through November 30, 2017, only four projects have met the criteria for  
16 survey completion, and only one project has completed a survey.

17 Q. Is the completion rate consistent across the Joint Utilities?

18 A. No, of the 85 projects eligible for survey completion across the state, 74  
19 have been completed, for a completion rate of 87%.

20 Q. Is there anything different about Central Hudson’s survey administration  
21 process that might drive these differences?

22 A. No, the survey administration process is completed centrally for the Joint  
23 Utilities. Ten attempts are made to reach the developer of each project

**REBUTTAL TESTIMONY OF EAM PANEL**

1 eligible for survey participation. It is possible that interconnection project  
2 developers who experienced a smooth interconnection process are less  
3 likely to take the survey.

4 Q. Does the Panel expect the survey completion rate to improve?

5 A. Yes, one potential contributor to the limited number of projects eligible for  
6 survey participation during 2017 was the queue backlog that has since  
7 been rectified. Additionally, the Company currently has 38 projects in  
8 construction that will be eligible for survey completion. To increase survey  
9 completion the Joint Utilities have proposed a Mid-Point (when the  
10 applicants receive preliminary review results from the utility) survey and a  
11 web-based process, which are pending Commission approval.

12 Q. Does the Panel agree with Staff's rejection of the SIR timeliness  
13 improvement metric?

14 A. No, the panel does not agree with Staff's rejection of the proposal. Staff's  
15 reasoning that there are no specific benefits to customers for improving  
16 the interconnection process is unfounded. As shown in Rebuttal  
17 Exhibit\_\_ (EAM-1R), in their response to CH-003, Question 2b, Staff  
18 asserts that there are also no benefits to customers for meeting the  
19 minimum timeliness requirements established in the SIR. However, the  
20 Interconnection EAM should not be evaluated solely on direct customer  
21 benefits.

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. What does the Panel believe is the purpose of the Interconnection survey?

2 A. The Interconnection survey process was established to measure  
3 improvements to the interconnection process, which will ultimately result in  
4 an increase in interconnections to meet New York State's policy  
5 objectives. To the extent that the metric is unavailable or does not capture  
6 all interconnection improvement opportunities, the Company is seeking to  
7 measure continuous improvement.

8 Q. Have interconnection project developers expressed interest in improving  
9 interconnection timeliness?

10 A. Yes, at the Interconnection Technical Working Group meeting on  
11 November 29, 2017, the interconnection project developers requested that  
12 the targets for number of days for CESIR completion be decreased over  
13 time.

14 Q. Do the mid-point or completion surveys as described in the Supplemental  
15 IEAM Proposal drive improvement in SIR timeliness?

16 A. No, the survey questions do not focus on SIR timeliness.

17 Q. Based upon Staff's concerns regarding the number of interconnection  
18 surveys completed, what does the Panel propose?

19 A. In order to focus the Interconnection EAM on the greatest near term  
20 benefits, the Panel proposes to modify its initial proposal to earn five basis  
21 points based upon the SIR timeliness improvement metric rather than the  
22 proposed one basis point in the Panel's initial testimony in this case. In  
23 the year following completion of ten mid-point or ten completion surveys,

**REBUTTAL TESTIMONY OF EAM PANEL**

1 the Company will transition to its proposal as described in the Panel's  
2 initial testimony in this case.

3 **X. OVERALL NUMBER AND ALLOCATION OF BASIS POINTS**

4 Q. Please describe the Staff ICE Panel's recommendation regarding the total  
5 number of basis points associated with EAMs?

6 A. Staff made five proposals regarding the timing, number, and allocation of  
7 basis points. First, Staff proposed that EAMs are earned on a calendar  
8 year basis, which is consistent with the Panel's recommendation. Second,  
9 Staff recommended that EAM metrics and associated basis points are  
10 considered relative to the portion of the calendar year for which they are  
11 approved. Third, Staff recommended that the Commission adopt targets  
12 and basis points related to achievement of minimum, mid-point, and  
13 maximum levels. Fourth, Staff recommended a maximum of 45 basis  
14 points for 2019 and 2020 and a maximum of 22.5 basis points for 2018  
15 and 2021 associated with electric EAM achievement. Fifth, Staff  
16 recommended basis points be allocated to a gas EE metric and that a  
17 maximum of 10 basis points for 2019, 2020, and 2021 and a maximum of  
18 10 basis points for 2018 associated with gas EAM achievement.

19 Q. Does the Panel agree with the Staff proposed that EAMs are earned on a  
20 calendar year basis?

21 A. Yes, this is consistent with the Panel's recommendation.

REBUTTAL TESTIMONY OF EAM PANEL

1 Q. Does the Panel agree with the Staff recommendation that EAM metrics  
2 and associated basis points are considered relative to the portion of the  
3 calendar year for which they are approved?

4 A. Yes; however, the Panel would recommend that targets and metrics for  
5 calendar years 2018 and 2021 match the incentive levels for that year.  
6 Therefore targets in 2018 and 2021 should also be set at half of the full  
7 year values. For example the EE MWh attainment should be set at 50%  
8 of the Panel's originally proposed target for calendar year 2018.

9 Q. Does the Panel agree with Staff's recommendation that the Commission  
10 adopt targets and basis points related to achievement of minimum, mid-  
11 point, and maximum levels?

12 A. Yes, this increases the ability of the Commission to set effective targets  
13 based on different levels of performance.

14 Q. Does the Panel agree with Staff's recommended maximum of 45 basis  
15 points for 2019 and 2020 and a maximum of 22.5 basis points for 2018  
16 and 2021 associated with electric EAM achievement?

17 A. No, the reduction of the maximum basis points from 100 to 45 combined  
18 with extremely aggressive targets significantly reduces the  
19 meaningfulness of the incentive opportunity that EAM's were intended to  
20 create. As stated on page 68 of the Track Two Order "...where incentives  
21 are directly tied to customer savings and system value creation, the scope  
22 of estimated savings should be the most important reference point in  
23 establishing an upper limit on the earning opportunity." The Company's

**REBUTTAL TESTIMONY OF EAM PANEL**

1 updated BCA indicates that the overall EAM proposal will result in  
2 customer benefits that outweigh the costs. The Staff ICE Panel's  
3 proposal, at less than half of the Commission's authorized 100 basis  
4 points, does not follow the Track Two Order guidance, as it does not  
5 properly incent the Company to stretch to achieve the aggressive targets  
6 and deliver maximum value to customers.

7 Q. Does the Panel agree with Staff's recommendation that basis points be  
8 allocated to a gas EE metric and that a maximum of 10 basis points for  
9 2019, 2020, and 2021 and a maximum of 10 basis points for 2018  
10 associated with gas EAM achievement?

11 A. No. However, the Panel agrees that a gas EE metric should be approved;  
12 but we do not agree with the amount of annual basis points associated  
13 with the gas EAM. The Panel believes that Staff's recommendation of 10  
14 basis points is inconsistent with the Track 2 Order and the effort required  
15 to achieve the gas EE metric. In order to be consistent with the electric  
16 EE EAM, the Panel proposes a maximum of 30 basis points for 2019 and  
17 2020 and a maximum of 15 basis points for 2018 and 2021 associated  
18 with gas EAM achievement.

19 Q. Does the Panel propose any changes to the allocation of basis points  
20 recommended by the Staff ICE Panel?

21 A. Yes. The Panel would recommend the allocation of basis points shown in  
22 Table 1 and Table 2 below and Schedules A and B of Exhibit\_\_ (EAMP-  
23 2R).

**REBUTTAL TESTIMONY OF EAM PANEL**

1

**Table 1 – Electric EAM: Metrics, Targets, and Allocated Basis Points**

<b>ELECTRIC EAMs</b>									
Metric	Level	CY 2018		CY 2019		CY 2020		CY 2021	
		Target	BPs	Target	BPs	Target	BPs	Target	BPs
<b>SYSTEM EFFICIENCY</b>									
Peak Reduction (MW)	Minimum	1,114	1	1,113	2	1,102	2	1,112	1
	Mid-point	1,108	2.5	1,102	5	1,084	5	1,090	3
	Maximum	1,100	5	1,085	10	1,060	10	1,062	5
DER Utilization (MWh)	Minimum	3,298	0.5	2,954	1	2,609	1	1,247	0.5
	Mid-point	4,211	1.5	3,867	3	3,522	3	2,160	1.5
	Maximum	5,809	2.5	5,465	5	5,120	5	3,757	3
<b>ENERGY EFFICIENCY</b>									
Electric Incremental EE (MWh)	Minimum	12,679	5	22,489	10	15,122	10	7,322	5.00
	Mid-point	21,467	10	36,804	20	24,484	20	11,469	10.0
	Maximum	30,255	15	51,118	30	33,847	30	15,617	15
Residential Energy Intensity (MWh/customer)	Minimum	7.58	0.5	7.49	1	7.41	1	7.36	0.5
	Mid-point	7.49	1.5	7.41	3	7.32	3	7.28	1.5
	Maximum	7.41	2.5	7.32	5	7.24	5	7.19	2.5
Commercial Energy Intensity (MWh/customer)	Minimum	46.32	0.5	45.76	1	45.20	1	44.92	0.5
	Mid-point	45.65	1.5	45.09	3	44.52	3	44.24	1.5
	Maximum	44.97	2.5	44.41	5	43.85	5	43.57	2.5
<b>CUSTOMER ENGAGEMENT</b>									
Residential Time of Use Rate Participation (%)	Minimum	1.16%	0.5	2.12%	1	3.07%	1	4.01%	0.5
	Mid-point	1.74%	1.25	3.18%	2.5	4.60%	2.5	6.01%	1.25
	Maximum	2.33%	2.5	4.24%	5	6.14%	5	8.02%	2.5
CenHub Enrolment Participation (%)	Minimum	46.83%	0.25	49.36%	0.5	51.85%	0.5	54.35%	0.25
	Mid-point	70.24%	0.5	74.04%	1	77.77%	1	81.53%	0.5
	Maximum	93.66%	1	98.72%	2	100.00%	2	100.00%	1
<b>ENVIRONMENTALLY BENEFICIAL ELECTRIFICATION</b>									
Tons of Carbon Reduced Through Beneficial Electrification	Minimum	79,288	5	158,637	10	158,301	10	158,466	5
	Mid-point	126,861	10	253,819	20	253,282	20	253,546	10
	Maximum	178,398	15	356,933	30	356,177	30	356,549	15
<b>INTERCONNECTION</b>									
Average Days vs. SIR	Minimum	95%	2.5	95%	5	93%	5	90%	2.5
<b>Total Basis Points</b>									
	Minimum		15.8		31.5		31.5		15.75
	Mid-point		31.3		62.5		62.5		31.25
	Maximum		48.5		97		97		48.5

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**Table 2 – Gas EAM: Metrics, Targets, and Allocated Basis Points**

<b>GAS EAMs</b>									
Metric	Level	CY 2018 (half year)		CY 2019		CY 2020		CY 2021 (half year)	
		Target	BPs	Target	BPs	Target	BPs	Target	BPs
Gas Incremental EE (Dth)	Minimum	20,947	5.00	42,742	10.0	40,276	10.0	20,399	5.00
	Mid-point	40,692	10.0	81,236	20	77,146	20	38,915	10.0
	Maximum	60,437	15	119,730	30	114,016	30	57,431	15

4

**REBUTTAL TESTIMONY OF EAM PANEL**

1 Q. Does the Panel agree with the Staff ICE Panel's recommendation to  
2 express EAM incentives in terms of absolute dollars instead of as basis  
3 points?

4 A. Yes. The Panel agrees that EAM basis point values should be converted  
5 to absolute dollars for each year based on the capital structure and rate  
6 base determined in these proceedings.

7 Q. Does the Panel support the Staff ICE Panel's recommendation that the  
8 EAM metrics, targets, and financial incentive levels be set for three years?

9 A. The Panel supports establishing EAM metrics, targets, and incentives as  
10 part of a multi-year rate plan, provided the Company can propose new  
11 EAM metrics if future circumstances warrant such action. The Panel does  
12 not believe that this recommendation is appropriate in the context of a fully  
13 litigated one year rate case.

14 Q. Does the Panel believe that the EAM target levels shown in Table 1,  
15 provide the Company with a reasonable opportunity to achieve the EAM  
16 incentives?

17 A. No, as discussed in prior sections of this testimony, the Panel does not  
18 believe that all of the EAM targets are achievable or that it is reasonable to  
19 assume the Company can meet any or all of the minimum, mid-point, or  
20 maximum targets.



REBUTTAL TESTIMONY OF EAM PANEL

1 XI. RECOVERY PERIOD OF NON-WIRES ALTERNATIVES (“NWA”)

2 Q. Does the Panel agree with the Staff ICE Panel’s proposal that the  
3 Company should recover its NWA project costs over a ten-year period?

4 A. No. The Panel agrees with the Staff ICE Panel that a 10-year  
5 amortization of program costs better links recovery of costs with the useful  
6 lives of DER installed. However, the length of the amortization period  
7 combined with required accounting under generally accepted accounting  
8 principles results in a disincentive associated with how NWA expenditures  
9 will be accounted for and how the return of and on traditional capital  
10 investments are recovered. This effect is explained in more detail within  
11 the Rebuttal Testimony of the Company’s Accounting and Tax Panel.

12 Q. Does the Panel recommend any changes to the Staff ICE Panel’s  
13 proposal that the Company should recover its NWA project costs over a  
14 ten-year period?

15 A. Yes, the Panel recommends that NWA expenditures be amortized over a  
16 shorter period such as the Commission approved five-year recovery  
17 period for Central Hudson’s TDM program costs or that the NWA  
18 expenditures be included in rate base and amortized over the useful life of  
19 the program.

20 Q. Does the Panel agree with the Staff ICE Panel’s proposal regarding the  
21 period of time that NWA incentives should be collected?

22 A. The Panel commends Staff for the ingenuity required to develop the  
23 proposal. Additionally, the Panel agrees with Staff that their proposal

**REBUTTAL TESTIMONY OF EAM PANEL**

1 would link recovery of incentives related to deferring infrastructure projects  
2 with the actual duration of that deferral, which is a worthy goal. However,  
3 when viewed in the context of required accounting under generally  
4 accepted accounting principles detailed in the direct and rebuttal  
5 testimony of the Company Accounting and Tax Panel, the proposed  
6 structure significantly reduces the meaningfulness of the earnings impact  
7 of the incentives. Therefore, the Panel continues to recommend that  
8 incentives associated with NWAs be recovered within the year that they  
9 are achieved.

10 Q. Does the Panel agree with the Staff ICE Panel's recommendations  
11 regarding annual implementation plans and quarterly reporting for NWA  
12 projects?

13 A. Yes, the Panel agrees with Staff's recommendations.

14 **XII. CENHUB PLATFORM SERVICE REVENUE ("PSR")**

15 Q. Does the Panel agree with the Staff ICE Panel's proposal that the  
16 Company be allowed to retain five percent of the profits from the CenHub  
17 platform?

18 A. No. The small size of the forecast revenues that will be derived from a five  
19 percent sharing mechanism does not provide a meaningful financial  
20 incentive for the Company or justify the administrative costs of tracking the  
21 revenues. Additionally, the Staff Ice Panel's proposal of a five percent  
22 sharing mechanism does not allow for a meaningful financial incentive  
23 associated with the potential for the Company to devote resources to

**REBUTTAL TESTIMONY OF EAM PANEL**

1 increasing sales on the platform in order to share profits with Customers.

2 Therefore, the Panel continues to recommend that the Company be

3 allowed to retain fifty percent of the profits from the CenHub platform.

4 Q. Does this conclude your rebuttal testimony at this time?

5 A. Yes, it does.