

**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF THE PETITION OF
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
FOR APPROVAL OF ITS CLEAN ENERGY FUTURE-
ENERGY EFFICIENCY (“CEF-EE”) PROGRAM ON A
REGULATED BASIS**

BPU Docket Nos. GO18101112 and EO18101113

**REBUTTAL TESTIMONY
OF
DANIEL HANSEN
VICE PRESIDENT, CHRISTENSEN ASSOCIATES
ENERGY CONSULTING, LLC**

April 15, 2019

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**PUBLIC SERVICE ELECTRIC AND GAS COMPANY
REBUTTAL TESTIMONY
OF
DANIEL HANSEN**

VICE PRESIDENT, CHRISTENSEN ASSOCIATES ENERGY CONSULTING, LLC

1 **I. INTRODUCTION AND PURPOSE OF THE TESTIMONY**

2 **Q. Please state your name, affiliation and business address.**

3 A. My name is Daniel Hansen and I am a Vice President at Christensen Associates
4 Energy Consulting, LLC. My principal place of business is 800 University Bay Drive, Suite
5 400, Madison, Wisconsin 53705.

6 **Q. Have you previously filed testimony in this proceeding?**

7 A. Yes, I filed direct testimony on behalf of Public Service Electric and Gas Company
8 (“PSE&G” or “the Company”) describing and supporting its Green Enabling Mechanism
9 (“GEM”) proposal as part of its Clean Energy Future – Energy Efficiency (“CEF-EE”) filing.
10 My credentials are set forth in Schedule DGH-1 attached to my direct testimony.

11 **Q. Did any parties provide direct testimony in response to the GEM proposal?**

12 A. Yes, there were two: David E. Dismukes on behalf of the Division of Rate Counsel
13 (“Rate Counsel”); and Amanda Levin on behalf of Environment New Jersey (“ENJ”), the
14 Environmental Defense Fund (“EDF”), Sierra Club (“SC”), New Jersey League of
15 Conservation Voters (“NJLCV”), and the Natural Resources Defense Council (“NRDC”),
16 represented collectively by the Eastern Environmental Law Center (“EELC”).

1 **Q. What is the purpose of your rebuttal testimony in this proceeding?**

2 A. The purpose of my testimony is to respond to arguments made by Dr. Dismukes. I
3 also comment on the testimony of Ms. Levin.

4 **Q. Please summarize Dr. Dismukes's testimony regarding the Company's GEM**
5 **proposal.**

6 A. Dr. Dismukes recommends the rejection of the Company's GEM proposal, citing
7 three general arguments (Dismukes Direct, p. 28, lines 16-22):

- 8 • The GEM is inconsistent with the Clean Energy Act ("CEA" or the "Act");
- 9 • The GEM is inconsistent with past Board revenue adjustment policies; and
- 10 • The Company has not shown that its current or proposed energy efficiency efforts
11 have resulted in a negative financial impact.

12 I will address each of these arguments in my testimony.

13 **Q. How is your rebuttal testimony organized?**

14 A. Following this introductory section, Section II describes the need for the GEM;
15 Section III responds to Dr. Dismukes's argument that the GEM is not consistent with the
16 CEA; Section IV discusses the precedent for decoupling in New Jersey; Section V discusses
17 the prevalence of revenue decoupling in the United States; Section VI discusses Ms. Levin's
18 recommendation that there be a third-party audit of the GEM; and Section VII concludes
19 with a summary of my recommendations.

20 **II. THE NEED FOR THE GEM**

21 **Q. Please summarize Dr. Dismukes's arguments that there is no need for the GEM.**

22 A. Dr. Dismukes presents two such arguments. First, he claims that the GEM is not
23 necessary to remove the Company's disincentive to promote conservation and energy

1 efficiency because “[t]he Clean Energy Act effectively eliminates this disincentive since it
2 mandates utilities to adopt energy efficiency programs and meet target usage reduction
3 levels.” Dismukes Direct, p. 29, lines 12-14. Second, he claims that the GEM is not needed
4 because “[t]he Company has not shown that its current or proposed energy efficiency efforts
5 have resulted in a negative financial impact.” *Id.*, p. 37, lines 25-26.

6 **Q. Do you agree that the mandates within the Act effectively remove the**
7 **Company’s disincentive to promote conservation and energy efficiency?**

8 A. No, I do not. While the requirements of the Act are enforceable through incentives
9 and penalties, those do not eliminate the Company’s disincentive to promote conservation.
10 In the absence of the GEM, the Company must weigh these incentives / penalties against the
11 expected revenue losses from reduced sales. An example is one directly cited in the CEA,
12 namely an incentive or penalty that increases or reduces the return on equity (“ROE”) for
13 PSE&G’s CEF-EE programs if it does or does not meet the CEA energy savings goals
14 (N.J.S.A. 48:3-87.9(e)(4)). If PSE&G determines that meeting the CEA savings goals and
15 receiving an incentive ROE for its CEF-EE program will result in a lower ROE for the entire
16 Company, PSE&G has a disincentive to achieve the energy savings goal. In contrast, the
17 GEM eliminates that disincentive as PSE&G would recover the impact of the lost sales
18 revenue separately from the incentives / penalties envisioned in the CEA. Indeed, the GEM
19 is an effective way to eliminate the disincentive to promote energy efficiency and allows the
20 incentives envisioned in the CEA to work effectively.

1 **Q. What types of actions would the Company have an incentive to take in the**
2 **absence of the GEM?**

3 A. There are a number of ways a utility could respond to a requirement/penalty
4 framework when the throughput disincentive remains. First, the utility could seek out
5 programs it believes underperform relative to their measurement and valuation, which would
6 be a way of meeting requirements on paper without incurring the full loss of sales. Second,
7 the utility could look for ways to grow load to offset the losses from successfully
8 implemented conservation programs. Third, the utility could resist programs that may reduce
9 sales but do not have readily verifiable energy savings, such as providing general advice on
10 energy savings or supporting improvements in building codes or appliance standards. The
11 GEM would eliminate the utility's incentive to do any of these things, while the absence of
12 the GEM potentially puts PSE&G in an adversarial position regarding achievement of the
13 Act's goals. Note that I am not aware of any such plans – I am simply describing the
14 incentives that result from emphasizing a requirement/penalty approach versus directly
15 addressing the Company's disincentive to reduce customer sales.

16 **Q. Do you agree that the Company's efficiency activities have not resulted in a**
17 **negative financial impact?**

18 A. While it is true that the Company's past energy efficiency activities have not had a
19 large effect on the Company's earnings, the scale of these efforts will improve significantly
20 in response to the Act. Therefore, the historical experience is not indicative of what the
21 Company expects to occur in the future. The Company provided the distribution revenue
22 impact of lost sales from existing energy efficiency programs in the response to RCR-POL-
23 0011, and from CEF-EE in RCR-POL-0012. As shown in the table below, by 2024, the

1 revenue impact compared to current levels is seven times greater when CEF-EE is added.

2 The rebuttal testimony of Company witness Steven Swetz discusses this topic further.

\$ in millions	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
PSE&G Current EE Program Distribution Lost Revenue Impact (RCR-POL-11)																
Electric	0	2	3	4	5	5	6	6	6	7	7	7	7	7	7	7
Gas	0	0	1	1	1	2	2	2	2	3	3	3	3	3	3	3
Total	0	2	4	5	6	7	7	8	8	10	10	10	10	10	10	10
PSE&G CEF-EE Program Distribution Lost Revenue Impact (RCR-POL-12)																
Electric	0	0	0	0	0	0	0	0	0	0	1	6	15	25	35	46
Gas	0	0	0	0	0	0	0	0	0	0	1	3	5	7	10	13
Total	0	0	0	0	0	0	0	0	0	0	2	9	20	32	44	59
Times Increase due to CEF-EE	1X	2X	3X	4X	5X	7X										

3
4 **Q. In the absence of the GEM, what options would the Company have to mitigate**
5 **the significant negative financial effects of the proposed CEF-EE program?**

6 **A.** The absence of the GEM would require PSE&G to recover its costs in a different
7 manner. Some potential options include agreeing to a lost revenue adjustment mechanism
8 (“LRAM”) that would recover the lost revenue from the CEF-EE program only; PSE&G
9 filing base rate cases more regularly, possibly on an annual basis; and the Company seeking
10 to significantly increase its fixed service charges.

11 **III. THE GEM IS CONSISTENT WITH THE CLEAN ENERGY ACT**

12 **Q. Please summarize Dr. Dismukes’s argument that the GEM is inconsistent with**
13 **the Act.**

14 **A.** Dr. Dismukes argues that “the legislation’s ratemaking treatment of lost revenues... is
15 much more specific than the Company’s GEM proposal” because the CEA “specifically
16 provides that utilities can request recovery of costs including revenues associated with the
17 ‘sales losses resulting from implementation of energy efficiency and peak demand
18 reductions’ that are mandated under the legislation.” Dismukes Direct, p. 30, lines 7-11.

1 **Q. Do you agree that the GEM is inconsistent with the Act?**

2 A. No, the GEM is a means of obtaining recovery for “sales losses resulting from
3 implementation of energy efficiency and peak demand reductions”, as the Act contemplates.
4 Dr. Dismukes appears to equate the Act’s language with a LRAM, in which the sales
5 reductions from conservation programs are multiplied by their associated customer bill rate
6 to obtain the amount of lost revenue, which is recovered in the following year via a rate
7 surcharge. While it is not uncommon for stakeholders to prefer this “narrow” approach to
8 removing the utility’s disincentive to promote conservation over revenue decoupling, it has
9 clear disadvantages.

10 **Q. Why do you prefer the GEM to an LRAM-based approach?**

11 A. In my direct testimony, I listed six reasons that LRAMs are inferior to revenue
12 decoupling mechanisms such as the GEM (Hansen Direct, p. 26, line 12 through p. 27 line
13 10), and those six reasons are incorporated by reference herein. The summary in my direct
14 testimony presents the cumulative effect of those differences, which is that the GEM
15 “establishes PSE&G as a partner rather than an adversary to achieve the goals of the Clean
16 Energy Act.” Hansen Direct, p. 27, lines 16-17.

17 **Q. But still, Rate Counsel insists that the GEM is somehow inconsistent with the**
18 **terms of the Act (Dismukes Direct, p. 30, lines 15-17.); can you respond?**

19 A. I am not an attorney (neither is Dr. Dismukes) and I cannot provide an expert legal
20 opinion. However, I have been advised by counsel that there is nothing in the Act that
21 precludes the Board’s approval of the GEM, and in my view the incentives provided under
22 the mechanism proposed by PSE&G are entirely consistent with the policies articulated in

1 the CEA. I am further advised by counsel that the GEM is also authorized under pre-existing
2 New Jersey statutory law (N.J.S.A. 48:3-98.1), and that there is nothing in the CEA stating,
3 or even suggesting, that that prior provision has been repealed or modified in any way by the
4 CEA.

5 **IV. THE GEM IS CONSISTENT WITH PAST BOARD POLICIES**

6 **Q. Please summarize Dr. Dismukes’s argument that the GEM is inconsistent with**
7 **past Board revenue adjustment policies.**

8 A. Dr. Dismukes states that while the Conservation Incentive Program (“CIP”) that is in
9 place for New Jersey Natural Gas (“NJNG”) and South Jersey Gas (“SJG”) is commonly
10 referred to as a revenue decoupling mechanism, he believes “this mechanism is **not** a true
11 form of revenue decoupling and has characteristics that are much more performance-based
12 and symmetric than traditional revenue decoupling mechanisms as they have been adopted
13 throughout the U.S.” Dismukes Direct, p. 33, lines 3-5 (emphasis in original).

14 **Q. What does Dr. Dismukes argue are the primary differences between the**
15 **Company’s proposed GEM and the CIP?**

16 A. Dr. Dismukes describes three categories of differences between the GEM and the CIP
17 that, he argues, make the two mechanisms qualitatively different. They are:

- 18 • The CIP has the BGSS savings test, which Dr. Dismukes believes implies that the
19 CIP “only allows for the recovery of revenue losses when a verifiable loss of capacity
20 requirements has occurred, as reflected in the reduction of a utility’s need for pipeline
21 transportation and storage capacity.” Dismukes Direct, p. 34, lines 16-18.
- 22 • “The use of shareholder, as opposed to ratepayer money, to finance and administer
23 the program.” Dismukes Direct, p. 35, lines 16-17.

- 1 • A strict earnings cap for each utility [NJNG and SJG] that restricts revenue recoveries
2 in the event a utility is already earning its allowed ROE.” Dismukes Direct, p. 35,
3 lines 18-19.

4 **Q. Does Dr. Dismukes accurately describe the CIP?**

5 A. No, he does not. Specifically, Dr. Dismukes says that the CIP “only allows for the
6 recovery of revenue losses when a verifiable loss of capacity requirements has occurred.”
7 Dismukes Direct, p. 34, lines 16-17. However, he ignores two key features of the CIP:

- 8 • The BGSS savings test does not apply to the recovery of weather-related deferrals;
9 and
10 • The BGSS savings test only applies to 75 percent of non-weather-related deferrals.

11 As I described in my direct testimony, these two aspects of the CIP mean that the vast
12 majority of CIP deferrals are not subject to the BGSS savings test. Specifically, over the
13 previous three years (2016 to 2018), the BGSS savings test only applied to 18.7 percent of
14 NJNG’s total deferral, and 15.7 percent of SJG’s total deferral. Hansen Direct, p. 24, line 12
15 through p. 25 line 13. When Dr. Dismukes claims that the BGSS savings test makes the CIP
16 fundamentally different from the GEM, he ignores the fact that it does not apply to all of (or
17 even a large fraction of) the CIP deferral, and that over the last three years (for which CIP
18 annual reports were readily available), the vast majority of the deferral is due to weather.

19 **Q. Does Dr. Dismukes overstate the importance of the BGSS savings test in**
20 **differentiating the CIP and GEM?**

21 A. Yes. The limited impact of the BGSS savings test on the total deferral described
22 above is just one reason the test is not a fundamental difference between CIP and GEM.

1 Additionally, the CIP, as a full revenue decoupling mechanism like the GEM, does not
2 differentiate as to the cause of the non-weather-related deferral and simply allows the
3 companies to recover an amount of revenue per customer that is approved by the Board in a
4 rate case. Finally, the rebuttal testimony of Mr. Swetz explains that the BGSS savings test
5 cannot be applied to PSE&G. Therefore, it is highly misleading to argue that the BGSS
6 savings test feature of CIP makes it more customer friendly than the proposed GEM.

7 **Q. Is Dr. Dismukes correct about the other two differences between the GEM and**
8 **the CIP that he lists?**

9 A. Dr. Dismukes is correct that the CIP includes a shareholder contribution of program
10 funds that is not included in the Company's GEM proposal. However, Dr. Dismukes is not
11 correct in claiming that only the CIP includes a "strict earnings cap". As I noted in my direct
12 testimony, the GEM earnings test "will match the test set forth in the Board's recently
13 adopted Infrastructure Investment Program mechanism." Hansen Direct, p. 22, lines 5-6. I
14 believe Dr. Dismukes differentiates the two based on my direct testimony that stated any
15 deferrals above the earnings test would be recovered in future periods. The Company has
16 clarified its proposal for the earnings test as provided in the response to discovery question
17 RCR-POL-7, which states "[i]f the Company's GEM deferral exceeds the maximum amount
18 it's allowed per the test, the Company will be limited to the maximum allowable increase per
19 the test." It does not propose to defer amounts above the amount allowed by the earnings test
20 to future periods. This means that both the CIP and GEM have a "strict earnings cap."

1 **Q. Does Dr. Dismukes omit any differences between the Company's proposed GEM**
2 **and the CIP?**

3 A. Yes, Dr. Dismukes omits two differences between the mechanisms that make the
4 recovery of GEM deferrals **more** restrictive than the recovery of CIP deferrals. As I noted in
5 my direct testimony (Hansen Direct, p. 23, lines 12-16):

- 6 • The CIP includes an Incremental Large Customer Count Adjustment, which allows
7 total revenue to increase by more when especially large commercial customers are
8 added to the system. The GEM does not contain this provision.
- 9 • The CIP applies its rate increase cap to only the non-weather component of the
10 deferral, while the GEM applies it to that year's entire deferral.

11 **Q. Does Dr. Dismukes discuss the ways that the Company's proposed GEM and the**
12 **CIP are similar?**

13 A. No, Dr. Dismukes does not discuss the many similarities between the GEM and the
14 CIP. I explained how the two mechanisms are fundamentally similar in my direct testimony,
15 citing the following overlapping characteristics (Hansen Direct, p. 22, line 20 through p. 23,
16 line 8):

- 17 • Both are general decoupling mechanisms, as opposed to a LRAM that includes only
18 surcharges resulting from energy and demand savings (and the resulting reduction in
19 utility fixed cost recovery) in energy efficiency and conservation programs;
- 20 • Both use a per-customer deferral calculation in which the utility's total allowed
21 revenue changes with the number of customers served;
- 22 • The effect of weather is included in the deferrals of both mechanisms;
- 23 • The CIP/GEM deferral is calculated for each month and adjusts the rate annually;

- 1 • There are separate rate adjustments by customer class; and
2 • An earnings test is applied to the entire deferral.

3 **Q. How do you define a revenue decoupling mechanism in general terms?**

4 A. Fundamentally, a revenue decoupling mechanism compares a utility's allowed
5 revenue to its actual revenue during a billing month, places the difference in a deferral
6 account, and recovers/refunds the balance periodically through a rate adjustment. Any two
7 decoupling mechanisms may differ in how they define allowed revenue, which customer/rate
8 classes are decoupled, and the restrictions (if any) on the magnitude of a decoupling-related
9 rate increase. However, as long as the two mechanisms both entail refunds/surcharges based
10 on the difference between allowed and actual revenue, they are both fundamentally revenue
11 decoupling mechanisms.

12 **Q. Do you agree with Dr. Dismukes that the GEM and the CIP are fundamentally**
13 **different, and that the CIP is not a true revenue decoupling mechanism?**

14 A. No, both the GEM and the CIP are clearly revenue decoupling mechanisms. The
15 differences he cites (*i.e.*, shareholder contribution of program funds and the BGSS savings
16 test that has applied to less than 20 percent of the total deferral from 2016-18) are minor
17 compared to the similarities.

18 **Q. Do you conclude that a precedent exists for the Board approving revenue**
19 **decoupling?**

20 A. Yes, the Board, which initially approved the CIP in 2006 and subsequently approved
21 its continuation in 2014, has approved a revenue decoupling mechanism. Dr. Dismukes's

1 own Schedule DED-5 agrees with this conclusion, as it classifies New Jersey as a decoupled
2 state, implying that the CIP is a revenue decoupling mechanism.

3 **V. PREVALENCE OF REVENUE DECOUPLING**

4 **Q. What does Dr. Dismukes claim regarding the pervasiveness of revenue**
5 **decoupling in the United States?**

6 A. In Schedule DED-5, Dr. Dismukes presents a map of states that have approved
7 revenue decoupling. In commenting on this schedule, he claims “[t]his map, however, can
8 tend to distort the pervasiveness of the use of this regulatory mechanism.” He goes on to say
9 that 41 out of 152 investor-owned electric utilities (27 percent) and 60 out of 256 investor-
10 owned natural gas utilities (23 percent) have revenue decoupling or a lost revenue
11 mechanism. Dismukes Direct, p. 27, lines 9-14.

12 **Q. What is your view on the pervasiveness of revenue decoupling in the United**
13 **States?**

14 A. Dr. Dismukes’s statistics on the prevalence of electric revenue decoupling lack the
15 following, important context: (1) a greater percentage of customers are served by utilities
16 with decoupling than the 27% (electric) and 23% (gas) figures cited by Dr. Dismukes; (2)
17 most states with an energy efficiency resource standard have decoupling; and (3) the states
18 with the highest energy efficiency savings almost always have approved revenue decoupling.

19 First, Dr. Dismukes supplied data in response to discovery question PS-RC-DED-2
20 that includes the number of customers served by every utility in the country. Based on this
21 data, 40 percent of electric customers within investor-owned utility territories are served by

1 utilities that have decoupling, and 47 percent of gas customers are served by utilities that
2 have decoupling.

3 Second, based on Dr. Dismukes’s response to PS-RC-DED-4, the vast majority of
4 states with an energy efficiency resource standard have decoupling for at least one utility.
5 Specifically, out of the 26 states with an energy efficiency resource standard, 21 have
6 decoupling for at least one utility. This means that 81 percent of states with an energy
7 efficiency resource standard have general decoupling for at least one utility, indicating this is
8 the standard throughout the country.

9 Third, states with the highest levels of savings from energy efficiency tend to have
10 general decoupling mechanisms. Schedule DGH-1 (electric) and DGH-2 (gas) rank states in
11 descending order of their 2017 energy efficiency savings (expressed as a percentage of sales),
12 along with an indication of whether the state has approved revenue decoupling (electric also
13 indicates if an LRAM is approved, or neither mechanism). The conservation percentages are
14 taken from the ACEEE “2018 Energy Efficiency Scorecard”.¹ The decoupling statuses for
15 electric (inclusive of an approved LRAM) are taken from The Edison Foundation Institute
16 for Electric Innovation’s “Energy Efficiency Trends in the Electric Power Industry (2008-
17 2017).”² The decoupling statuses for gas are taken from the NRDC’s “Electric and Gas
18 Decoupling” fact sheet.³ The important point to note is that, for electric, the top nine states
19 (and 17 of the top 20 states) by energy efficiency savings have approved revenue decoupling.

¹ Available at: <https://aceee.org/research-report/u1808>.

² Available at:
http://www.edisonfoundation.net/iei/publications/Documents/IEI_Energy%20Efficiency%20Report_Mar2019.pdf.

³ Available at: <https://www.nrdc.org/resources/gas-and-electric-decoupling>.

1 The table further shows a low prevalence of revenue decoupling around New Jersey's
2 current savings level of 0.55 percent (though there are a number of states that have approved
3 an LRAM). However, **all of the states with a comparable savings percentage to the 2%**
4 **electric goal in the CEA have approved electric revenue decoupling.** For gas, eight of the
5 top 10 states by energy efficiency savings have approved revenue decoupling.

6 This summary is more relevant than a summary of the overall prevalence of revenue
7 decoupling, as it takes into account the significant level of energy efficiency activity
8 expected in New Jersey in the coming years. It also suggests that a general decoupling
9 mechanism like the GEM is a key component of achieving significant levels of energy
10 savings from energy efficiency initiatives.

11 **Q. What does Dr. Dismukes's data show regarding utility experience with revenue**
12 **decoupling in the United States?**

13 **A.**While Dr. Dismukes attempts to minimize the use of decoupling in the United States
14 using language such as "only approximately 41 electric utilities..." and "only approximately
15 60 natural gas utilities..." (Dismukes Direct, p. 27, lines 11 and 13), data underlying his
16 Schedule DED-6 (provided in response to discovery question PS-RC-DED-5) reflects
17 extensive utility experience with decoupling. Natural gas utilities have over 500 combined
18 years of experience with revenue decoupling, while electric utilities have nearly 300
19 combined years. Revenue decoupling has a long track record in the United States.

1 **VI. THIRD-PARTY AUDIT OF THE GEM**

2 **Q. Does EELC witness Amanda Levin recommend any modifications to the**
3 **Company’s proposed GEM?**

4 A. While Ms. Levin supports the approval of the GEM as proposed by the Company
5 (Levin Direct, p. 6, line 4), she recommends that the Board “[r]equire PSE&G, in
6 consultation with Board Staff and interested stakeholders, to undertake and fund a third-party
7 audit after GEM has been in place for 3 or 4 years.” Levin Direct, p. 12, lines 1-2. Ms. Levin
8 believes the audit “would help inform the Board, stakeholders, and the utility on the impacts
9 of and possible improvements to the GEM in the future.” Levin Direct, p. 12, lines 5-6.

10 **Q. Do you agree with Ms. Levin’s recommendation?**

11 A. Yes. While I am confident that the conclusions of a GEM evaluation would
12 recommend its continuation, the process could uncover potential improvements in the
13 mechanism and/or increase stakeholder comfort with the mechanism. The cost incurred by
14 PSE&G to conduct this audit should be recovered along with other costs of the program.

15 **VII. SUMMARY OF RECOMMENDATIONS**

16 **Q. Please summarize your recommendations.**

17 A. I recommend that the New Jersey Board of Public Utilities approve the GEM as
18 described in my direct testimony, adding the third-party audit recommended by EELC
19 witness Amanda Levin (Levin Direct, p. 12, lines 1-2) inclusive of cost recovery. The GEM
20 is consistent with, and is not precluded by, the CEA, as it provides a means of recovering the
21 revenue impact of sales losses resulting from implementation of the energy efficiency
22 programs. As I explained in my direct testimony (pp. 26-27), the GEM is not the only means

1 of accomplishing this goal, but it is the best method to ensure a partnership between PSE&G,
2 its customers, and other stakeholders in meeting the goals of the CEA. Furthermore, the
3 Board has a precedent for approving a mechanism such as the GEM, as it approved the CIP
4 in 2006 and 2014. Finally, arguments that the Company has not previously experienced
5 significant harm from the promotion of energy efficiency ignore the change in the scope of
6 the effort proposed in this proceeding and required by the Act. I have shown that all states
7 with a comparable level of energy efficiency to that required by the CEA have approved
8 revenue decoupling.

9 **Q. Does this conclude your rebuttal testimony at this time?**

10 A. Yes, it does.

SCHEDULE INDEX

Schedule DGH-1 Electric Sales Savings from Energy Efficiency by State 2017

Schedule DGH-2 Gas Sales Savings from Energy Efficiency by State 2017

Electric Sales Savings from Energy Efficiency by State 2017

State	2017 Savings Ranking*	2017 Electric Savings*	Lost Revenue Mechanism**
Vermont	1	3.33%	General
Rhode Island	2	3.08%	General
Massachusetts	3	2.57%	General
NJ Clean Energy Act Goal		2.00%	
California	4	1.97%	General
Connecticut	5	1.62%	General
Michigan	6	1.48%	General
Hawaii	7	1.45%	General
Washington	8	1.35%	General
Illinois	9	1.34%	General
Arizona	10	1.33%	LRAM
Minnesota	11	1.31%	General
Oregon	12	1.21%	General
New York	13	1.17%	General
Maryland	14	0.97%	General
Idaho	15	0.96%	General
Ohio	16	0.96%	General
Colorado	17	0.88%	General
Iowa	18	0.87%	None
Maine	19	0.85%	General
Utah	20	0.84%	None
Missouri	21	0.78%	LRAM
District of Columbia	22	0.75%	General
New Hampshire	23	0.71%	LRAM
Arkansas	24	0.69%	LRAM
North Carolina	25	0.69%	LRAM
Wisconsin	26	0.66%	None
Nevada	27	0.60%	LRAM
Pennsylvania	28	0.55%	None
New Jersey	29	0.55%	None
New Mexico	30	0.52%	None
Montana	31	0.51%	None

Kentucky	32	0.42%	LRAM
Oklahoma	33	0.41%	LRAM
Indiana	34	0.41%	LRAM
South Carolina	35	0.38%	LRAM
Wyoming	36	0.28%	LRAM
Nebraska	37	0.25%	None
South Dakota	38	0.25%	LRAM
Georgia	39	0.24%	None
West Virginia	40	0.22%	None
Mississippi	41	0.20%	LRAM
Texas	42	0.20%	None
Tennessee	43	0.19%	None
Delaware	44	0.11%	None
Virginia	45	0.09%	None
Florida	46	0.09%	None
Alabama	47	0.06%	LRAM
Louisiana	48	0.05%	LRAM
North Dakota	49	0.01%	None
Alaska	50	0.01%	None
Kansas	51	0.00%	LRAM
US total		0.72%	
Median		0.66%	

* From ACEEE "The 2018 State Energy Efficiency Scorecard" <https://aceee.org/research-report/u1808>

** From IEI "Energy Efficiency Trends in the Electric Power Industry (2008-2017)" http://www.edisonfoundation.net/iei/publications/Documents/IEI_Energy%20Efficiency%20Report_Mar2019.pdf

Gas Sales Savings from Energy Efficiency by State 2017

State	Savings Ranking*	% of commercial and residential retail sales*	General Decoupling**
Minnesota	1	1.35%	Yes
Massachusetts	2	1.08%	Yes
Rhode Island	3	1.02%	Yes
Michigan	4	1.01%	Yes
Utah	5	0.78%	Yes
California	6	0.78%	Yes
NJ Clean Energy Act Goal		0.75%	
Oregon	7	0.73%	Yes
District of Columbia	8	0.73%	No
Vermont	9	0.68%	Yes
Hawaii	10	0.00%	No
Iowa	11	0.64%	No
Arkansas	12	0.56%	Yes
Maine	13	0.53%	Yes
Connecticut	14	0.52%	Yes
Wisconsin	15	0.49%	Yes
Arizona	16	0.44%	Yes
Oklahoma	17	0.43%	No
New York	18	0.42%	Yes
Indiana	19	0.42%	Yes
Kentucky	20	0.39%	No
New Hampshire	21	0.35%	Yes
Colorado	22	0.33%	No
Illinois	23	0.32%	No
Washington	24	0.29%	Yes
New Jersey	25	0.21%	Yes
Mississippi	26	0.15%	No
Montana	27	0.15%	No
Ohio	28	0.15%	No
Delaware	29	0.13%	No
South Dakota	30	0.12%	No

New Mexico	31	0.11%	No
Maryland	32	0.08%	Yes
North Carolina	33	0.07%	Yes
Idaho	34	0.05%	Yes
North Dakota	35	0.03%	No
Pennsylvania	36	0.02%	No
Nevada	37	0.00%	Yes
Alabama	38	0.00%	No
Alaska	39	0.00%	No
Florida	40	0.00%	No
Georgia	41	0.00%	Yes
Kansas	42	0.00%	No
Louisiana	43	0.00%	No
Missouri	44	0.00%	No
Nebraska	45	0.00%	No
South Carolina	46	0.00%	No
Tennessee	47	0.00%	Yes
Texas	48	0.00%	No
Virginia	49	0.00%	Yes
West Virginia	50	0.00%	No
Wyoming	51	0.00%	Yes
US total		0.39%	
Median		0.15%	