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

PUBLIC SERVICE ELECTRIC AND GAS COMPANY REBUTTAL TESTIMONY OF KAREN REIF VICE PRESIDENT RENEWABLES & ENERGY SOLUTIONS

April 15, 2019

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1 I. INTRODUCTION

- 2 **Q.** Please state your name and professional title.
- 3 A. My name is Karen Reif. I am the Vice President of Renewables & Energy Solutions
- 4 at Public Service Electric and Gas Company ("PSE&G" or "Company"). My professional
- 5 credentials are set forth in Schedule KR-CEF-EE-1, which is attached to my direct testimony.

6 Q. What is the purpose of your rebuttal testimony?

- 7 A. I submit this rebuttal testimony on behalf of PSE&G in support of its Clean Energy
- 8 Future Energy Efficiency ("CEF-EE") Program, and for the purpose of responding to the
- 9 following testimonies submitted by the New Jersey Division of Rate Counsel ("Rate
- 10 Counsel") on March 22, 2019 in this proceeding:

11 12 13 14 15	the sections of Dr. Ezra Hausman's and Dr. David Dismukes' testimonies recommending that the New Jersey Board of Public Utilities ("BPU" or "Board") reject the CEF-EE Program because the Board has not yet completed various initiatives set forth in the Clean Energy Act of May 2018 ("CEA" or "Act");
16 • 17 18	the section of Dr. Hausman's testimony where he claims that PSE&G should not be the sole provider of regulated energy efficiency programs in the PSE&G territory;
19 • 20	the section of Dr. Hausman's testimony wherein he claims that there are "issues of equity" with PSE&G's CEF-EE Program;
21 • 22 23 24	the sections of Dante Mugrace's testimony related to the Company's proposed budget for capitalized Information Technology ("IT") costs and his proposed cap on CEF-EE administrative expenses; and

- 1 2 3
- the section of Dr. Hausman's testimony related to customer data privacy.

Company witnesses Stephen Swetz (amortization period/impact of lost revenues),
Isaac Gabel-Frank (cost-benefit analysis), and Daniel Hansen (Green Enabling
Mechanism/decoupling) will respond to other aspects of the Rate Counsel witnesses'
testimonies.

8

II. <u>THE CEF-EE FILING IS TIMELY</u>

9 **O**. briefly summarize Dr. Hausman's and Dr. **Dismukes'** Can you 10 recommendations for how the BPU should rule on the CEF-EE Program? 11 Yes. Dr. Hausman and Dr. Dismukes both recommend that the BPU reject the CEF-A. 12 EE Program because the Board has not yet completed various energy efficiency-related 13 initiatives under the CEA. Dr. Hausman refers to the CEF-EE program as "premature", and 14 Dr. Dismukes describes the filing as PSE&G putting the "cart before the horse."¹ For 15 example, Dr. Hausman notes that the Board, pursuant to the CEA, has yet to establish 16 quantitative performance indicators ("QPI") and incentives/penalties for compliance with the energy reduction targets set forth in the Act.² 17

18 Q. Do you agree that the CEF-EE Program is premature given the status of the 19 Board's implementation of the CEA?

A. I do not. I am not an attorney but I am advised by counsel that as an initial matter,
nothing in the Act prohibited PSE&G from making its CEF-EE filing, nor prevents the Board

22 from approving it. Similarly, the New Jersey "RGGI" law gives the Board authority to

¹ Direct Testimony of Ezra Hausman ("Hausman Testimony"), p. 24; Direct Testimony of David E. Dismukes ("Dismukes Testimony"), p. 41.

² Hausman Testimony, p. 24.

1 review and approve utilities' energy efficiency programs, such as CEF-EE, and nothing in the CEA supersedes that authority.³ 2 3 Moreover, the Act requires that the Board, by May 23, 2019, complete three principal 4 tasks with respect to energy efficiency. More specifically, the BPU must: 5 require each electric and gas public utility to "reduce the use of • electricity, or natural gas, as appropriate, within its territory, by its 6 7 customers, below what would have otherwise been used"; 8 • "conduct and complete a study to determine the energy savings targets 9 for full, economic, cost-effective potential" for electric and natural gas 10 usage reduction, "as well as the potential for peak demand reduction by the customers of each [electric and gas utility] and the timeframe 11 for achieving the reductions"; and 12 • "adopt quantitative performance indicators" for each electric and gas 13 14 public utility, "which shall establish reasonably achievable targets for energy usage reductions and peak demand reductions....⁴ 15 16 The CEF-EE filing is scheduled to conclude by no later than early July 2019. Thus, 17 the May 23, 2019 deadline for the Board's energy efficiency initiatives under the CEA will 18 have passed weeks before the BPU's final ruling on the CEF-EE Program. For that reason, 19 the CEF-EE filing is timely and should be approved by the Board. 20 О. Can you provide an update, from the Company's perspective, on the status of 21 the Board's energy efficiency initiatives under the CEA? 22 A. Yes. The Board has retained a consultant named Optimal Energy ("Optimal") to 23 conduct the market potential study described in the Act which is summarized above. 24 Optimal has already conducted two stakeholder meetings with, among other groups, the gas 25 and electric utilities subject to the CEA and Rate Counsel. Two more stakeholder meetings

³ See N.J.S.A. § 48:3-98.1.

⁴ See N.J.S.A. § 48:3-87.9(a)-(c).

1	are tentatively scheduled in April 2019. Optimal advised the stakeholders that its report will
2	address the utilities' energy savings targets, the QPIs, and the incentive/penalty structure
3	required by the CEA. Optimal further informed the stakeholders that: (1) a draft of its report
4	is due to the BPU in the middle of April 2019; (2) the fourth and final stakeholder meeting,
5	tentatively set for April 30, 2019, is to discuss the draft energy reduction targets, QPIs, and
6	incentive structures; and (3) a final report is due in early May 2019.

Q. Is that timetable important when assessing Rate Counsel's claim that the CEF 8 EE Program is premature?

9 A. Yes. The Optimal study, which it is conducting on behalf of the Board, will address 10 the utility savings targets, QPIs, and incentive structure for compliance with the Act. There 11 is no reason to delay the CEF-EE Program, and the important benefits it will achieve for the 12 state and its residents, if the savings targets, QPIs, and incentive structures will be disclosed 13 in the Optimal study weeks *prior* to the Board ruling on the CEF-EE Program.

14Q.Do you agree with Dr. Dismukes that the Board should not approve the Green15Enabling Mechanism ("GEM") until it completes the various energy efficiency-16related initiatives under the CEA? Dismukes Testimony, pp. 30-31.

A. No, for many of the same reasons I state above. Moreover, Dr. Dismukes states that there are a "large number of unknowns" with respect to the CEA, including "how lost sales and revenues as a result of these [CEF-EE] programs will be tracked and verified. . . ."⁵ However, there is no obligation under the CEA for the BPU to issue any regulations or other guidance on how lost revenues associated with energy efficiency programs "will be tracked and verified." As PSE&G witness Daniel Hansen has explained, the GEM would not

⁵ Dismukes Testimony, p. 31.

1	require PSE&G to track and verify lost revenues associated with its energy efficiency					
2	programs. Lastly, Dr. Dismukes recommended in the Company's 2018 base rate case that					
3	the GEM, first introduced in that proceeding, should be rejected at that time because: "[f]irst					
4	and most importantly, the Company has not tied its GEM request to a specific set of energy					
5	efficiency programs and savings targets." ⁶ Here, the Company has satisfied Dr. Dismukes'					
6	concern by re-proposing the GEM alongside a suite of 22 specific energy efficiency					
7	programs. Thus, the Board may adequately review and rule on the GEM at this time.					
8 9	Q. Is denying the CEF-EE Program at this time consistent with New Jersey's clean energy goals and its residents' best interest?					
10	A. No. As set forth in my direct testimony, the CEF-EE Program will result in the					
11	following, important benefits for the State:					
12 13 14 15 16	• Lower bills – participating customers will reduce their energy consumption by approximately 40.6 billion kWh and 675 million therms, and lower their energy bills by approximately \$5.7 billion over the life of the energy efficiency measures;					
17 18 19 20 21	• Environmental improvements – the CEF-EE Program will result in the reduction of carbon dioxide emissions by 24 million tons, sulfur dioxide emissions by 43,000 tons, and nitrogen oxide emissions by 18,000 tons; and					
22 23 24	• Job creation – the CEF-EE Program is expected to increase employment through the creation of approximately 30,000 job-years and facilitate associated economic activity. ⁷					
25	To delay the realization of these benefits, as Rate Counsel recommends the Board do,					
26	would frustrate the State's goals of reducing energy consumption, cutting harmful emissions,					

⁶ BPU Docket Nos. ER18010029 and GR18010030, Direct Testimony of David E. Dismukes, PhD., p. 42 (accessible at <u>https://www.nj.gov/rpa/docs/ER18010029-and-GR18010030-PSE&G-BRC-2018-RC-Initial-Testimony-of-David-Dismukes-and-Schedules%20.pdf</u>).

⁷ See Direct Testimony of Karen Reif, pp. 4-5.

1 and growing the green economy. These goals are reflected in the CEA's mandate that 2 utilities reduce their customers' energy usage, and the New Jersey Global Warming 3 Response Act's requirement that the State reduce greenhouse gas emissions (with the initial emissions reduction target arriving next year, 2020).⁸ The CEF-EE Program benefits 4 5 outlined above are also consistent with the Administration's upcoming Energy Master Plan 6 ("EMP") due in June 2019, two goals of which are "growing New Jersey's clean energy economy" and "reducing the state's carbon footprint".⁹ Moreover, one of the working 7 groups for the new EMP is focused on "Reducing Energy Consumption."¹⁰ 8

9 In sum, the CEA requires the State to significantly expand its energy efficiency 10 efforts to satisfy the targets set forth in the Act. The State's current efforts to reduce energy 11 consumption do not come close to meeting the 2% electric and 0.75% gas reduction targets 12 set forth in the CEA. Further delay will harm the State and its residents. The Board should 13 approve the CEF-EE Program so that the State can realize its clean energy, environmental, 14 and green economy goals.

Q. Is there any other way that the CEF-EE Program can assist the State if approved in accordance with the procedural schedule in this case?
A. Yes. As the Board continues with its energy efficiency initiatives under the CEA, including the rulemaking the Act requires, the CEF-EE Program can provide the BPU with the benefit of actual program experience in New Jersey from a suite of programs that: (1) the Company designed to meet the energy reduction targets set forth in the Act; and (2) are based

⁸ N.J.S.A. § 26:2c-37 *et seq.*

⁹ <u>https://www.nj.gov/emp/energy/</u>

¹⁰ *Id*.

on best practices gleaned from leading energy efficiency programs around the country. Dr. Dismukes agrees that the CEF-EE programs "appear to be cost-effective. . . ."¹¹ Approval and implementation of the CEF-EE Program can provide the Board with the information and data it needs to set practical, cost-effective policy directives, as opposed to the BPU making those decisions in a vacuum. This filing is timely, and should be approved.

6III.PSE&G AS THE EXCLUSIVE PROVIDER OF REGULATED ENERGY7EFFICIENCY PROGRAMS IN ITS SERVICE TERRITORY

8 9 10 Q.

Did Dr. Hausman accurately describe the Company's rationale for why PSE&G believes it should be the exclusive provider of regulated energy efficiency programs in its service territory?

No. Dr. Hausman describes the Company's "first argument" for why it should be the 11 A. 12 exclusive provider of regulated energy efficiency programs in its service territory as 13 reflecting PSE&G's concern that it might not be able to "take 'credit' [under the CEA] for all 14 of the savings in its service territory" if a third-party, as opposed to the Company, achieves those savings."¹² That is not PSE&G's position. The Company acknowledges that it would 15 16 receive credit towards the CEA's energy reduction targets for savings generated by nonutility programs, such as the Office of Clean Energy's ("OCE") programs. As Dr. Hausman 17 18 notes, the CEA states that the QPIs "shall establish reasonably achievable targets for energy 19 savings that take into account the public utility's energy efficiency measures and other nonutility energy efficiency measures. . . . "¹³ 20

¹¹ Dismukes Testimony, pp. 24-25.

¹² Hausman Testimony, pp. 22-23.

¹³ N.J.S.A. § 48:3-87.9(c).

1	The Company's actual position is that because the CEA puts the responsibility to
2	achieve savings on the utilities, not the Board or any other entity, the utilities must also have
3	the responsibility to deliver those savings. ¹⁴ The CEA allows the Board to assess penalties
4	against the utilities if they fail to achieve those targets. ¹⁵ Neither the Board nor any other
5	entity has the same incentive to meet the savings targets as the utilities, nor will the Board or
6	any other entity incur any penalty for underperformance. Simply put, the utilities are the
7	only entities that have the responsibility (and incentive) to meet the savings targets under the
8	Act. With that <i>responsibility</i> must come full <i>control</i> over PSE&G's ability to meet those
9	targets, free from any competition from other regulated programs. The Company's success,
10	and the achievement of the State's policy goals, cannot be dependent upon entities that do not
11	bear responsibility for achieving those goals. This is one reason, among others, why PSE&G
12	should be the exclusive provider of regulated energy efficiency programs in its service
13	territory. ¹⁶

14Q.Is there any other way in which the Company being the exclusive provider of15regulated energy efficiency programs in its service territory is consistent with16the CEA?

A. Yes. The Act is clear that utilities are now the epicenter of regulated energy
efficiency programs in New Jersey, requiring utilities (not the Board) to establish and run
energy efficiency programs. For example, the Act requires utilities to:

¹⁴ See generally N.J.S.A. § 48:3-87.9.

¹⁵ N.J.S.A. § 48:3-87.9(e)(3)-(4).

¹⁶ See Reif Direct Testimony, pp. 18-19, for other reasons why PSE&G should be the exclusive provider of regulated energy efficiency programs in its service territory.

1 2 3	• "reduce the use of electricity, or natural gas, as appropriate, within its territory, by its customers, below what would have otherwise been used";
4 5	 "establish energy efficiency programs and peak demand reduction programs";
6 7 8 9	 "file with the board implementation and reporting plansto determine the energy usage reductions and peak demand reductions achieved by the energy efficiency programs and peak demand reduction programs "; and
10 11 12 13	• "file an annual petition with the board to demonstrate compliance with the energy efficiency and peak demand reduction programs, compliance with the targets established pursuant to the quantitative performance indicators, and for cost recovery of the programs." ¹⁷
14	In total, the words "utility" or "utilities" appear 49 times in the CEA's energy
15	efficiency provision, while the OCE receives a single reference in the law (<i>i.e.</i> , the reference
16	to utilities receiving "credit" toward the energy reduction targets for savings the OCE
17	achieves). Perhaps most notably, the CEA directs the Board to "establish an independent
18	advisory group to study the evaluation, measurement, and verification process for energy
19	efficiency and peak demand reduction programs, which shall include representatives from the
20	public utilities, the Division of Rate Counsel, and environmental and consumer
21	organizations, to provide recommendations to the board for improvements to the
22	programs." ¹⁸ The OCE is noticeably absent from the CEA's list of key stakeholders that are
23	to drive the future of energy efficiency program implementation in New Jersey.
24	That is not to say that the OCE has no role to play in energy efficiency going forward.
25	The OCE's knowledge of energy efficiency programs and regulatory activities can be best

¹⁷ See generally N.J.S.A. § 48:3-87.9.
¹⁸ N.J.S.A. § 48:3-87.9(f)(1).

1 utilized by placing the OCE at the head of energy efficiency policy across the state, and

- 2 performing roles related to standard setting and oversight.
- Q. Has Rate Counsel previously acknowledged the expanding role that utilities will
 have in energy efficiency under the CEA?
- 5 A. Yes. In its February 2019 comments submitted in connection with the BPU's
- 6 stakeholder process to implement the CEA's energy efficiency provisions, Rate Counsel
- 7 asserted the following:

8 The Clean Energy Act establishes standards for utility energy 9 efficiency program achievement. Those standards. . .*expand the* 10 *roles of the utilities in relation to the state-managed CEP* in 11 delivering energy efficiency".¹⁹ (emphasis added)

Q. If PSE&G gets "credit" for savings the OCE achieves, why does it need to
 significantly expand its current energy efficiency program offerings in the
 manner contemplated by the CEF-EE Program?

15 A. As Dr. Hausman notes, it is appropriate to increase spending on energy efficiency

16 given both the CEA and "the availability of unexploited, cost-effective potential."²⁰ This is

17 why the CEF-EE Program represents a significant expansion of PSE&G's current energy

18 efficiency offerings.

19 If PSE&G were limited to its current EE2017 subprograms, several of which are 20 targeted to niche market segments and products, as Dr. Hausman recommends, its 21 contributions to energy savings targets would be approximately 0.05%, due to the limited 22 scope of the subprograms. This would leave the vast majority of the savings required under

¹⁹ BPU Docket No. QO19010040, Rate Counsel's February 15, 2019 comments, at p. 9 (accessible at <u>https://www.nj.gov/rpa/docs/In the Matter of The Implementation of P.L. 2018 c.%2017 Energy Efficiency and Peak Demand Comments BPU Docket No. QO19010040.pdf</u>).

²⁰ Dr. Hausman believes this increase in spending should occur after the BPU completes its energy efficiency initiatives under the CEA. Hausman Testimony, pp. 20-21.

the CEA to come from other sources such as OCE, but with PSE&G being the only entity assessed penalties for under-performance. This would require the OCE to achieve a significant amount of energy savings to meet the aggressive targets in the CEA, likely resulting in the State not meeting its consumption goals and a penalty being assessed against PSE&G for failing to comply with those targets.

6 7

Q.

Could the OCE increase its spending to help PSE&G reach the CEA reduction targets?

8 Yes, theoretically. However, any shortfall will result in the Company and the State A. 9 not achieving the statutory goal to reduce electric consumption annually by 2% and gas 10 consumption by 0.75%. For example, assume the OCE funding is increased significantly, 11 thereby increasing its electric savings to 1%, or approximately triple its current level of 0.36%.²¹ While that would be a significant increase for the OCE from its 2018 performance, 12 13 PSE&G would not be able to achieve the additional 1% savings needed to satisfy the CEA's 14 target by running the energy efficiency programs it currently implements. Again, this would 15 result in the State not meeting its targeted savings and penalties assessed to PSE&G for 16 missing savings targets it had no real chance to achieve.

Moreover, for the reasons set forth in my direct testimony, PSE&G is uniquely situated to achieve the savings set forth in the CEF-EE filing.²² The Company's name brand recognition, customer relationships, ability to provide on-bill payment options to customers, and access to customer usage data are all inherent advantages it enjoys over State-

²¹ New Jersey's Clean Energy Program FY19-FY22 Strategic Plan, p. 10 (accessible at http://njcleanenergy.com/files/file/Library/Compliance%20Filings/NJCEP%20FY19-FY22%20Strategic%20Plan.pdf).

²² Direct Testimony of Karen Reif, pp. 18-19.

administered programs. Given the Company's unique characteristics, it is in a much better
 position than the OCE to achieve the reductions required by the Act even if the OCE were to
 increase spending.

4 5

Q. Are there any practical problems with the OCE, as opposed to the utilities, increasing its spending to achieve the required reductions?

6 Yes. According to the Board's accounting, more than \$1.5 billion has been diverted A. from the State's Clean Energy Fund.²³ Those funds were reallocated for purposes other than 7 8 the OCE implementing energy efficiency programs. Given ongoing budget gaps in the state, 9 it is reasonable to believe that even more money would be diverted from the Clean Energy 10 Fund if the OCE is permitted to increase its spending. In a June 2018 Board Order on the OCE budget, Board Staff comments on this issue, stating: "Board Staff notes that the amount 11 12 of funding appropriated to [purposes other than OCE programs] and to NJCEP is set by appropriations legislation, which legislation the Board is legally bound to follow".²⁴ 13

Multiple stakeholders have commented on the disruptive state funding process that the OCE faces. For example, the Board in its June 2018 Order collectively summarized the positions of Environment NJ, the New Jersey Business and Industry Association, the Sierra Club, and Rate Counsel on the issue of diverting Clean Energy Fund dollars for other uses as follows: "no, or substantially less, SBC funds should be allocated" to initiatives other than energy efficiency.²⁵

²³ NJ Board of Public Utilities Response to FY 2017-2018 State Budget, p.14 (accessible at <u>https://www.njleg.state.nj.us/legislativepub/budget_2018/BPU_response.pdf</u>).

 ²⁴ In the Matter of the Comprehensive Energy Efficiency and Renewable Energy Resource Analysis for the Fiscal Years 2019-2022, BPU Docket No. QO18040392, June 22, 2018 Order, p. 11.
 ²⁵ Id.

1 This funding uncertainty and constraint has hampered, and will continue to hamper, 2 the OCE's ability to scale its energy savings. Conversely, CEF-EE Program dollars will 3 either be spent on the Company's energy efficiency programs or returned to customers as 4 part of its annual cost recovery filings. All utility spending will be subject to an annual 5 prudency review as well.

6 Moreover, the OCE currently operates on one year budgets. If this current practice 7 continues, it will prevent the growth in energy savings that the CEA requires and will also 8 cause anxiety among energy efficiency vendors operating in New Jersey that are looking for 9 steadfast projects to keep their members employed. Conversely, if approved, the CEF-EE 10 Program will run for six years, creating the kind of consistency and certainty that will give 11 the energy efficiency marketplace confidence to invest in New Jersey, thereby growing the 12 green economy in the state and encouraging year-over-year improvements in energy savings 13 that will satisfy the CEA's savings targets.

14 IV. <u>THE OCE'S PERFORMANCE</u>

Dr. Hausman states in his testimony that the OCE programs are "cost-effective." 15 **O**. 16 Hausman Testimony, p. 16. Do you agree? 17 No, I do not agree. Dr. Hausman's testimony provides no evidence, metrics, A. 18 explanation or supporting documentation validating the OCE's cost-effectiveness. In his 19 discovery responses, Dr. Hausman provided a link to the OCE's annual compliance filings to 20 support this conclusion, but that filing contains only the cost-benefit test scores for the OCE programs as filed (not actual results).²⁶ The Company is not aware of any documentation 21

²⁶ Hausman Discovery Response, PS-RC-EH-5(b).

that shows *actual* cost-benefit results for completed OCE programs, nor has Dr. Hausman
 provided or reviewed any such results.

3 4 **O**.

Is Dr. Hausman's conclusion that the OCE programs are "cost-effective" consistent with prior Rate Counsel statements on this topic?

5 No, it is not. Rate Counsel has questioned the cost-effectiveness of the OCE A. programs on several recent occasions. For example, in May 2018 comments on the Clean 6 7 Energy Program Budget and Strategic Plan, Rate Counsel notes: "The OCE has not 8 adequately addressed. . .its plans to assure that the funds collected are spent. . .costeffectively."²⁷ In the same comments, Rate Counsel objected to the cost-effectiveness of 9 individual OCE programs, noting: (1) "the cost-effectiveness of the proposed Multi-Family 10 11 program is low"; and (2) the benefit-cost ratio of the Home Performance with Energy Star 12 component of the OCE's Residential Existing Homes Program is "only" 0.2 under the Total Resource Cost Test.²⁸ 13

Furthermore, in its March 20, 2019 comments about the proposed New Jersey Clean Energy Program ("NJCEP") fiscal year 2019 true-up budget, Rate Counsel expressed concern that the proposed budget changes might "reduce the overall cost-effectiveness of the entire CEP program because the OCE is now projecting substantially less energy savings" while increasing spending.²⁹

²⁷ NJ Division of Rate Counsel Comments on NJCEP FY2019 Budget and Strategic Plan, p. 105 (accessible at <u>https://s3.amazonaws.com/CandI/Binder1Final.pdf)</u>.

²⁸ *Id.* at page 130-32.

²⁹ NJ Division of Rate Counsel Comments on NJCEP FY19 True-Up Budget, p. 2 (accessible at <u>http://njcleanenergy.com/files/file/public_comments/FY19/TrueUpComments.pdf).</u>

1 Q. How do the OCE programs compare to the programs of peer entities with 2 respect to cost effectiveness?

A. The most recent independent evaluation report performed by Energy & Resource Solutions ("ERS") in 2016 for the OCE programs found that "NJCEP is generally less costeffective than peer programs" and that "compared to other EE portfolios, New Jersey has a typical-sized budget but achieves fewer energy savings than most, resulting in a higher cost per energy unit saved than many other programs with very similar portfolios."³⁰ The report also noted that "cost efficiency is not a focus within the organization."³¹

9 Similarly, a cost benchmarking study of the OCE programs that ERS performed in 10 2015 concluded: "The first portfolio-wide trend of note in the data is an overall high cost per 11 kWh relative to other programs", and the "program-by-program \$/kWh results fall short of 12 the level of excellence desired by the NJCEP administrators, with few exceptions."³² The 13 2015 ERS benchmarking study found that NJCEP programs were on average in the 39th 14 percentile of peer programs for their cost efficiency, far away from the top quartile of 15 programs that would be considered the most cost-effective.³³

16Q.Are having State-implemented energy efficiency programs, such as the OCE's17programs, consistent with best practices in other jurisdictions?

18 A. No. New Jersey's program administrative structure is not appropriate from a

19 governance standpoint; it is not aligned with best practices; and it prevents the OCE from

http://www.njcleanenergy.com/files/file/Library/NJCEP%20Process%20Evaluation%20Final%20Report%20and%20Memo %2002152017.pdf).

³⁰ See Process Evaluation Study prepared for the New Jersey Clean Energy Program, January 2016, at pp. 42 and 95 (accessible at

³¹ *Id*. at p. 94.

³² Review and Benchmarking of the New Jersey Clean Energy Program prepared for the New Jersey Board of Public Utilities, February 24, 2015, p. 6 (accessible at http://www.njcleanenergy.com/files/file/Library/ERS%20Benchmark%20and%20Program%20Review v3.pdf).

1 achieving cost-effective and meaningful energy reductions despite the best efforts of OCE 2 Staff. The 2016 ERS report cites New Jersey as "the only state where the organization 3 promoting clean energy is part of the regulatory body, as opposed to an independent authority."³⁴ Emphasis added. A report by the Regulatory Assistance Project ("RAP") and 4 referenced by Dr. Hausman in discovery³⁵ confirms that it is not a best practice for the State 5 to implement energy efficiency programs. The RAP report states that "government 6 7 administration of consumer-funded energy efficiency programs has not gone as well as 8 administration by other means" and "[w]hen the state is the administrator of energy 9 efficiency programs, the role of the regulator can diminish".³⁶ This structure creates a 10 fundamental conflict of interest, where sound governance and oversight is unlikely, or even 11 impossible. On the one hand, the Board must provide regulatory oversight over the use of 12 utility customers' funds to support regulated energy efficiency programs, yet on the other 13 hand it itself implements energy efficiency programs through the OCE without a separate, 14 independent governance or oversight body for that function.

Most states avoid this conflict of interest by directing utilities, which already have a sound oversight structure in place, to serve as program administrators for energy efficiency programs. This leaves the state's public utility commission to what it does best -- regulate the utilities. The ACEEE reports that in the overwhelming majority of states (*i.e.*, over 80%), utilities are the sole program administrators for energy efficiency programs.³⁷ Even so, there

³⁴ See January 2016 ERS report, *supra*, at p. 21.

³⁵ Hausman Discovery Response PS-RC-EH-1.

³⁶ *RAP Report, Who Should Deliver Ratepayer-Funded Energy Efficiency*, November 2011, at pp. 23-24 (accessible at <u>https://www4.eere.energy.gov/seeaction/system/files/documents/rap_sedano_whoshoulddeliverratepayerfundedee_2011_1_1_15.pdf).</u>

³⁷ ACEEE state policy database (accessible at <u>https://aceee.org/sector/state-policy</u>).

1 are a handful of successful models that fully or partially feature a statewide program 2 One noteworthy example, referenced by Dr. Hausman in discovery, is administrator. Vermont,³⁸ which achieved 3.3% electric savings in 2017, the highest of any state.³⁹ 3 4 Contrary to Dr. Hausman's discovery response, however, the Vermont model is materially 5 different than New Jersey's model, and is actually more akin to a utility-run model (so much 6 so that the Vermont implementer, known as Efficiency Vermont, is called an "Energy Efficiency Utility").⁴⁰ More specifically: (1) by law, "the funds collected for Efficiency 7 Vermont may not be used to meet the general obligations of the state";⁴¹ and (2) Efficiency 8 9 Vermont is administered by the Vermont Energy Investment Corporation, an "independent nonprofit energy services organization" that is subject to oversight by regulators through a 10 "rigorous management process".⁴² The full independence of Efficiency Vermont stands in 11 12 stark contrast to the OCE, which resides within the regulatory body itself. Efficiency 13 Vermont is also subject to performance incentives, like the New Jersey utilities will be under the CEA.⁴³ 14

Rate Counsel, in its public comments from February 2019, noted two states as 15 exemplary energy efficiency models for New Jersey to consider: New York and 16

³⁸ Hausman Discovery Response PS-RC-EH-1.

³⁹ ACEEE 2018 State Energy Efficiency Scorecard, at p. 28 (accessible at https://aceee.org/research-report/u1808).

⁴⁰ https://www.energy.gov/savings/efficiency-vermont

 $^{^{41}}$ *Id*.

⁴² https://www.efficiencyvermont.com/about/what-we-do

⁴³ https://puc.vermont.gov/energy-efficiency-utility-program/eeu-verification-and-evaluation

Massachusetts.⁴⁴ With respect to New York, Rate Counsel noted that "the lion's share of 1 conventional energy efficiency programs" is assigned to that state's utilities.⁴⁵ Regarding 2 3 Massachusetts, where the utilities serve as program administrators, Rate Counsel noted that it 4 is "possible to have the investor-owned utilities offer their own programs without a single statewide administrator", so long as there is "careful coordination."⁴⁶ PSE&G agrees with 5 6 this framework.

7 There is wide stakeholder alignment that moving towards a utility program 8 administrator model is the right move for New Jersey. In comments from February 2019, the 9 Natural Resources Defense Council, the Environmental Defense Fund, and the New Jersey 10 League of Conservation Voters assert that "utilities should be responsible for program design, and implementation,"⁴⁷ while the Energy Efficiency Alliance of NJ states that 11 "utilities should be empowered to propose and administer programs[.]"⁴⁸ Lime Energy 12 concurs that "[u]tilities are best suited to administer energy efficiency programs".⁴⁹ 13

14 О. Is the "State as program implementer" model, such as here in New Jersey, 15 efficient?

No, it is not. This is simply and inherently due to the OCE being part of the State 16 A. 17 government. In its 2016 independent evaluation report, ERS describes policies and procedures that the OCE is required to follow as a state entity but that place "constraints on

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⁴⁴ BPU Docket No. QO19010040, Rate Counsel's February 15, 2019 comments, at pp. 9-11 (accessible at https://www.nj.gov/rpa/docs/In the Matter of The Implementation of P.L. 2018 c.%2017 Energy Efficiency and Pea k Demand Comments BPU Docket No. QO19010040.pdf).

⁴⁵ *Id* at p. 9.

⁴⁶ *Id* at p. 11.

⁴⁷ BPU Docket No. QO19010040, Comments of NRDC, EDF and the New Jersey League of Conservation Voters February 15, 2019, at p. 50 (accessible at https://s3.amazonaws.com/njcepfiles/Binder1.pdf).

⁴⁸ *Id.* at p. 103.

⁴⁹ *Id.* at p. 215.

its work".⁵⁰ For example, all contract changes and details "must go through the Department 1 2 of Treasury for approval," a slow, inefficient process that can take "weeks, months, or, in some cases, years."⁵¹ Additionally, "[i]ncentive checks must also be issued by the Treasury, 3 which increases the amount of time it takes to pay customers."⁵² RAP shares the view that 4 5 state government procurement rules are a barrier to efficient program administration. In its report entitled "Who Should Deliver Ratepayer-Funded Energy Efficiency," RAP states that 6 7 "State government is likely to be attuned to statutory goals, but without care may not be nimble enough to manage changing markets....⁵³ Rate Counsel has also commented in the 8 9 past about the importance of efficiency for program administrators, stating in February 2019 that an administrative structure "should further program goals by supporting efficiency in 10 operation".⁵⁴ Due to the constraints and governmental procedures it inherently faces, the 11 OCE does not demonstrate "efficiency in operation." 12

13 14

Q. Besides being inefficient and not cost effective, are there any other issues with the "State as the implementer" approach Dr. Hausman supports?

15 A. Yes. One of the most important indicators of success in energy efficiency is the 16 amount of energy savings achieved. In Fiscal Year 2018, the OCE achieved 0.36% energy 17 savings as a percentage of retail sales.⁵⁵ This value is well below the New Jersey average 18 energy savings of 0.55%, which is itself low, as the State ranks only 29th in the country.⁵⁶

⁵⁰ 2016 ERS Report, *supra*, at p. 44.

⁵¹ *Id.* at p. 45.

⁵² Id.

⁵³ *RAP Report, supra,* at p. 24.

⁵⁴ Rate Counsel's February 15, 2019 comments, *supra*, at p. 1.

⁵⁵ NJCEP FY2019-FY2022 Strategic Plan, *supra*, at p. 10.

⁵⁶ ACEEE 2018 State Energy Efficiency Scorecard, *supra*.

These low savings levels are not indicative of successful energy efficiency programs, and
 they will not help New Jersey satisfy the reduction targets set forth the CEA.

3 In May 2018 comments on the BPU's Comprehensive Energy Efficiency and 4 Renewable Energy Resource Analysis Straw Proposal and the Draft Strategic Plan for Fiscal 5 Year 2019, Rate Counsel expressed its concern that the OCE's savings targets "are lower than those actually achieved by the OCE in the past, and lower than those achieved in other 6 states."⁵⁷ Rate Counsel further criticized the OCE's strategic plan, stating it was "lacking 7 8 ... a clear explanation of how the money that the OCE is proposing to collect from 9 ratepayers will translate into achieving the State's Clean Energy goals in an effective and cost-effective manner."⁵⁸ 10

11 New Jersey's current model also lacks meaningful measurement and verification ("M&V") data for OCE programs. In its May 2018 comments, Rate Counsel expressed 12 concern about the "lack of specificity for planning and budgeting levels for evaluation",⁵⁹ 13 14 and cites the 2016 ERS finding that the NJCEP programs have "very little evaluation or 15 measurement and verification (M&V) data to improve program performance" and that "NJCEP also does not perform any M&V of projects to measure savings."⁶⁰ To address this 16 17 deficiency, the ERS evaluation recommended that the OCE "[g]ather more evaluation/M&V data to improve program performance."61 18

⁵⁷ NJ Division of Rate Counsel Comments on NJCEP FY2019 Budget and Strategic Plan, p. 16 (accessible at https://www.nj.gov/rpa/docs/NJRC Comments to NJCEP FY19-22 CRA & Strategic Plan May 31 2018.PDF).

⁵⁸ *Id*. at p. 3.

 ⁵⁹ *Id.* at p. 8.
 ⁶⁰ 2016 ERS report, *supra*, at pp. 2 and 5.

⁶¹ *Id.* at p. 3.

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In sum, more robust energy savings and M&V efforts would be required before the OCE programs could be characterized as "successful," as Dr. Hausman described them.⁶²

3 4

Q. As compared to the OCE, can the Company more efficiently and effectively deliver energy services as the exclusive regulated provider in its territory?

5 Yes, contrary to Dr. Hausman's testimony. PSE&G has a long track-record of A. 6 successfully delivering energy efficiency programs, and has won multiple energy efficiency 7 awards.⁶³ The inherent inefficiencies that have plagued the OCE as described above are not 8 applicable to PSE&G, as an investor-owned utility, and thus the Company can be more 9 nimble and responsive to the marketplace than the State can be. The CEF-EE proposal aims 10 to put in place a more efficient model that: (1) clearly separates oversight from operational 11 performance; (2) eliminates the inefficiencies inherent in government processes; (3) ensures 12 all funds collected from customers are used only for energy efficiency purposes; and (4) 13 creates an environment where energy efficiency can thrive. As noted above, the OCE can be 14 best utilized by it being at the head of energy efficiency policy, and performing roles related 15 to standard setting and oversight.

16 V. ISSUES OF EQUITY

17 Q. Please comment on the issues of equity described by Dr. Hausman.

18 A. Dr. Hausman comments that "CEF-EE program costs would be borne by all 19 ratepayers, whether they are eligible (or choose) to participate in various programs or not,

⁶² Hausman Testimony, p. 5.

⁶³ PSE&G also has a successful history of running large scale infrastructure programs, including Energy Strong I (\$1.22 billion). The Company is no stranger to larger scale programs like CEF-EE.

while the benefits disproportionately accrue to the participants in the various programs."⁶⁴ 1 2 However, the CEF-EE proposal is broad, far-reaching, and designed to provide opportunities 3 for every customer class to participate. In fact, Dr. Hausman has not been able to articulate, either in his testimony or in a targeted discovery question, a single customer class that would 4 not be able to participate in at least one CEF-EE subprogram.⁶⁵ That is because the CEF-EE 5 subprograms will promote equity, and will provide opportunities for low and moderate 6 7 income customers to participate through the Residential Income-Eligible and Residential 8 Multi-Family programs. Moreover, as Dr. Hausman acknowledges in discovery, certain 9 program benefits will accrue to non-program participants, such as the substantial environmental and economic benefits described in my direct testimony.⁶⁶ Lastly, it should 10 11 be noted that all customer classes pay the clean energy portion of the SBC, so the issues Dr. 12 Hausman notes with respect to equity apply (at least) equally to the OCE programs.

13 That said, PSE&G agrees with Dr. Hausman that the Board should "ensure that as 14 many customers as possible have a full opportunity to participate in [the CEF-EE Program] 15 and that costs are reasonably allocated among rate classes commensurate with the benefits 16 available to each."⁶⁷

⁶⁴ Hausman Testimony, p. 35.

⁶⁵ Hausman Discovery Response, PS-RC-EH-17.

⁶⁶ Hausman Discovery Response, PS-RC-EH-18.

⁶⁷ Hausman Testimony, p. 36.

1 VI. <u>PROPOSED IT CAPITAL COSTS</u>

2 3

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Q. Please summarize Rate Counsel's position with respect to the Company's proposed IT costs. A. Rate Counsel witness Mugrace believes that, "[w]ithout more detailed explanation",

the Company seemingly should not recover any IT costs in connection with the significant expansion of its CEF-EE Programs, because it "has spent and recovered millions of dollars in IT investments in prior energy efficiency programs."⁶⁸

8 Q. Do you agree with Mr. Mugrace's position?

9 A. No. The Company has provided sufficient detail regarding its proposed IT expenses, including in discovery.⁶⁹ More importantly, technology is a main enabler of the modern 10 11 platform required to provide exceptional energy efficiency services to customers. As such, 12 spending on technology is not only desired, but necessary to build top-tier efficiency 13 solutions. In today's digital world, the interaction between utility companies and customers 14 is increasingly influenced by companies in other sectors, not simply other utilities. 15 Companies that currently provide an effortless customer experience -- such as Amazon and 16 Netflix -- have become integral to many customers' daily lives and the benchmark for 17 convenience and service. This means that customers expect higher levels of engagement 18 with their utility's energy efficiency programs through capabilities that the CEF-EE proposed 19 IT spend will enable. This includes all twelve technology categories described in the CEF-20 EE proposal, and attached to this testimony as Exhibit 1.

⁶⁸ Mugrace Testimony, p. 10.

⁶⁹ See, e.g., S-PSEG-EE-ENE-0019 and S-PSEG-EE-ENE-0020.

1 2	Q. But isn't Mr. Mugrace correct that the Company has "spent and recovered millions of dollars in IT investment in prior energy efficiency programs?"
3	A. Yes, but that is not a rational reason to deny the proposed IT costs in the CEF-EE
4	Program. For starters, given that technology is constantly changing, IT investments in 2008
5	when the Company's Carbon Abatement Program was approved are meaningless in
6	2019 (and beyond). To illustrate this point: the iPhone debuted in 2007. Today, 12 years
7	later, Apple has released many different versions of the iPhone, and most consumers are on
8	their 3 rd or 4 th version of the smartphone. Amazon's Echo (or "Alexa") had yet to debut at
9	the time the Company filed its Energy Efficiency Extension II filing in August 2014. Today
10	it is ubiquitous. Current technology needed to support energy efficiency programs is no
11	different; anything less is tantamount to a flip phone in an iPhone world.
12	Mr. Mugrace himself recognizes this in the following section of his testimony related
13	to the amortization of IT capital costs:
14 15 16 17 18	Given the rapidly changing technology environment, changes in capabilities, behavior, new developing apps for mobile devices and computers, as well as, the fact that new technologies are being developed at a much quicker pace, a five-year amortization for software costs is reasonable. ⁷⁰
19	It is difficult to reconcile Mr. Mugrace's position that technologies "are being
20	developed at a much quicker pace" with his conclusion that the Company's IT spend from
21	prior programs dating back 11 years precludes the recovery of any additional IT costs in this
22	filing. More importantly, Mr. Mugrace is correct – technology is rapidly developing. The
23	proposed IT spend to support a filing that represents a significant expansion of PSE&G's
24	existing energy efficiency programs is necessary to keep pace with these developments.

⁷⁰ Mugrace Testimony, p. 13.

1	Lastly, in prior PSE&G energy efficiency cases, the Board was only willing to
2	approve the IT spend necessary to implement <i>those</i> energy efficiency programs. While that
3	approach was sensible, it means that the technology used to implement those prior energy
4	efficiency programs is of little assistance with respect to implementing the new CEF-EE
5	subprograms. Case in point: the on-bill repayment solution that supports the Company's
6	current energy efficiency programs includes some manual components, and is not designed
7	to scale to the level needed to handle the volume of repayments proposed under CEF-EE.

8 9 Q.

Has any third party commented on the need for sufficient investment in IT to support energy efficiency programs?

10 Yes. ERS has commented on this topic heavily with respect to the OCE programs, A. citing the State's failure to spend in the area of technology as causing inefficiencies, lower 11 participation, and poorer customer experiences. For example, some key recommendations 12 from the 2016 report were improvements to the NJCEP website, which "is not seen to be 13 user-friendly."⁷¹ Another recommendation was to "[d]esign an online portal for customers 14 15 and contractors to submit applications electronically" to improve processing time and participation.⁷² The report also discussed at length the "deficiencies" that currently exist due 16 17 to an inadequate tracking and reporting system, which ERS believes to be "important for evaluating program cost-effectiveness, program reach, and other metrics."⁷³ As a remedy, 18 the report makes a recommendation that the OCE "[b]uild a more flexible IMS [information 19

⁷¹ 2016 ERS report, *supra*, at p. 74.

⁷² *Id.* at p. 6.

⁷³ *Id.* at p. 51-52.

management system] with future capabilities in mind".⁷⁴ The IT spend that PSE&G outlined
in the CEF-EE proposal is designed to avoid these issues.

3

VII. <u>CAP ON CEF-EE ADMINISTRATIVE EXPENSES</u>

4 0. In the direct testimony of Dante Mugrace, he argued that CEF-EE 5 administrative costs should be capped. Do you agree with this recommendation? No. The administrative costs estimated for the CEF-EE proposal represent the 6 A. 7 Company's projections of the internal labor and supporting program costs that are needed to 8 administer successful energy efficiency programs and meet the energy savings targets in the 9 CEF-EE proposal and the CEA. Capping the administrative costs could prohibit the utility 10 from pursuing opportunities for cost-effective energy efficiency and from meeting the 11 requirements of the CEA. Furthermore, the Societal Cost Test, which the Company proposes 12 to use to evaluate program cost-effectiveness, is a comprehensive test that takes into account 13 all program benefits and costs, and is the most appropriate mechanism to use to screen for 14 cost efficiency. Arbitrarily capping administrative costs would interfere with proper cost-15 benefit screening without consideration of the full breadth of program costs and benefits, and 16 is therefore not a reasonable approach.

17 VIII. DATA COLLECTION AND PRIVACY

18 Q. Please comment on the data collection and privacy issues raised by Dr. 19 Hausman.

20 A. PSE&G takes the security and confidentiality of its customers' data very seriously.

21 For that reason, PSE&G agrees with Dr. Hausman's recommendation that the Board require

⁷⁴ *Id.* at p. 54.

PSE&G to implement a "clear and readily accessible policy regarding the collection and use
 of customer data."⁷⁵ Indeed, the Company already maintains data privacy policies, which
 would apply to all CEF-EE programs.

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

5 A. Yes.

⁷⁵ Hausman Testimony, p. 37.

Exhibit 1: IT Cost Detail

IT Cost Amounts

		IT Build Cost		IT Run Cost	
1	SAP Billing - On-Bill Finance (Hybris)	\$	28,322,580	\$	7,798,050
2	Customer & EE Data Analytics Platform	\$	11,859,960	\$	7,589,025
3	EE Service Integration Platform	\$	10,749,120	\$	7,050,000
4	CRM Enhancements	\$	5,666,752	\$	2,106,000
5	MyAccount Enhancements	\$	4,474,860	\$	1,755,000
6	CGI CAD Enhancements	\$	2,553,984		
7	Interfaces to/from EE Integration and PSE&G Systems	\$	2,603,430	\$	1,671,525
8	EE Program Enhancements	\$	5,000,000	\$	-
9	ETA - VVO/CVR Pilot	\$	879,900	\$	360,000
10	ETA - Other	\$	6,000,000		
11	PSE&G Asset Accounting Upgrade	\$	2,100,000	\$	540,000
12	Streetlight Control Software OMS Interface	\$	2,200,000	\$	0

Subcategory		Narrative	What is included		
		Ivallative	IT Development	IT Run	
1	SAP Billing - On-Bill Finance (Hybris)	Supports On-Bill Financing related functions which includes verification, qualification, and enrollment of customers in available energy efficiency on-bill financing incentives. Calculates and posts amounts due to PSE&G bill and tracks payments and balances. Current EE2017 on-bill repayment is for a much smaller number of customers and requires significant manual intervention. It is not scalable to support CEF- EE.	 Software Licensing Cost Procurement and installation of Hardware Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation of the Solution and Data Provisioning/Integrity Third Party Services for Integration Efforts, Configuration, Development, Testing and Deployment of Solution to Production 	• Company Labor / Third Party Labor for on-going support • Yearly Licensing Cost	
2	Customer & EE Data Analytics Platform	Consolidates, manages, and performs advanced analytics on all forms of data related to PSE&G's energy efficiency programs. Provides insight and supports decision- making on customer behavior, program performance, and future program design	 Software Licensing Cost Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation of the Solution and Data Provisioning/ Integrity Third Party Services for Integration Efforts, Platform Consulting/Development Services, Testing and Deployment of Solution to Production 	 Company Labor / Third Party Labor for on-going support Yearly Licensing Cost 	
3	EE Service Integration Platform	Enables timely, accurate, and secure application and data integration across all energy efficiency technology solutions. The integration platform is an essential element to ensure customer security, user- friendly experience, and timely and accurate data flows.	 User Licensing Cost to access and use the SaaS Solution Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation of the Solution and Data Provisioning/Integrity Third Party Services for Configuring the Platform, Integration Efforts, Testing and Deployment of Solution to Production 	 Company Labor / Third Party Labor for on-going support Yearly Licensing Cost 	

IT Cost Narratives from Discovery Response S-PSEG-EE-ENE-0020

Subcategory		Narrative	What is included		
		Ivallative	IT Development	IT Run	
4	CRM Enhancements	Allow customers to access energy efficiency program information through a customer service representative, including past participation, eligibility, recommendations or analysis on energy usage, and information on status of ongoing projects.	 User Licensing Cost to access to use the CRM SaaS Solution Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation of the Solution and Data Provisioning/Integrity Third Party Services for Configuring the Solution, Enhancements to PSEG MyAccount, Multi- System Integration, Testing and Deployment of Solution to Production 	• Company Labor / Third Party Labor for on-going support • Yearly Licensing Cost	
5	MyAccount Enhancements	Supports integration of marketplace order processing and fulfillment functionality. The solution component provides a user-friendly "point-of- entry" for customers to gain insight on current energy usage and consider and enroll in available energy efficiency offerings. This component will also assist the customer in deciding on "best fit" offerings as additional premise/usage information is provided, while also simplifying the eligibility and qualification process. In addition, the online marketplace enables customers to purchase energy savings products, including on-bill repayment options.	 Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation of the Solution and Data Provisioning/Integrity Third Party Services for Configuring and Development, Multi-System Integration Efforts, Testing and Deployment of Solution to Production 	• Company Labor / Third Party Labor for on-going support	

Subcategory		Narrative	What is included		
		Inallative	IT Development	IT Run	
6	CGI CAD Enhancements	Supports order fulfillment of EE orders. The solution component will automate the creation, sequencing, scheduling, assignment, and completion of all energy efficiency fulfillment activities for PSE&G internal as well as 3rd party installation partners. Provides fulfillment status information to PSE&G call center and customer portal.	 Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation of the Solution and Data Provisioning/Integrity Third Party Services for Configuring and Development, Multi-System Integration Effort, Testing and Deployment of enhancements to Production 	• No additional run costs	
7	Interfaces to/from EE Integration and PSE&G Systems	The integration platform is an essential element to ensure user-friendly experience, customer security, and timely and accurate data flows.	 Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation of the Solution and Data Provisioning/Integrity Third Party Services for Configuring and building the Data transfer and Integration efforts for PSEG CRM, Billing, Work Management and External Vendor / Implementation Contractor Systems, Testing and Deployment of enhancements to Production 	• Company Labor / Third Party Labor for on-going support	
8	EE Program Enhancements	Perform ongoing enhancements over the CEF filing period to support changes and/or additions to energy efficiency program offerings and/or program reporting needs. Ensure systems continue to support the CEF-EE Program as it evolves.	 Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation of the Solution and Data Provisioning/Integrity Third Party Services for Configuring and developing systems and integrations needed for potential EE Program changes and integrations, Testing and Deployment of enhancements to Production 	• No additional run costs	

Subcategory		Narrative	What is included	
			IT Development	IT Run
9	ETA - VVO/CVR Pilot	Configuration and custom software development to support operation of the VVO/CVR pilot subprogram.	• Company Labor for Project Management, Requirement Gathering, Design, development effort, Testing (System Integration and User Acceptance), Security Evaluation and Data Provisioning/Integrity	• Third Party On- going maintenance cost
10	ETA - Other	Cover costs for Non-Wires Alternative – Pilot (EE/ DR/ Storage), Efficiency as a Service – Pilot, Smart Home- Pilot (connected devices, diagnostics, EV charging), Emerging Technologies and Approaches (Research and Commercialization).	• Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), development effort, Security Evaluation and Data Provisioning/Integrity	• No additional run costs
11	PSE&G Asset Accounting Upgrade	Add functionality and features to PSE&G asset accounting systems to support complex tracking and reporting requirements of CEF programs and subprograms.	• Company Labor (PowerPlan) for Project Management, Requirement Gathering, Design, Development effort for upgrade/enhancements, Testing (System Integration and User Acceptance), Security Evaluation and Data Provisioning/Integrity	• Third Party On- going maintenance cost
12	Streetlight Control Software OMS Interface	The Streetlight Management System will provide the ability for PSE&G to monitor and control the operation of streetlights, including; operating health status, on/off schedule, and lamp brightness. The system will also integrate with PSE&G's Work Management system (CGI CAD) to automatically generate maintenance and repair work orders whenever an abnormal status condition is detected.	 Company Labor for Project Management, Requirement Gathering, Design, Testing (System Integration and User Acceptance), Security Evaluation and Data Provisioning/Integrity Third Party Services for configuring and developing systems and integrations, Testing and Deployment of enhancements to Production 	• No additional run costs