STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES
BEFORE COMMISSIONER MARY-ANNA HOLDEN

I/M/O OF THE PETITION OF PUBLIC SERVICE ELECTRIC & GAS COMPANY TO CONTINUE ITS EFFICIENY ECONOMIC EXTENSION PROGRAM ON A REGULATED BASIS ("EEE Extension II")	) BPU Docket No. EO14080897)))

INITIAL BRIEF ON BEHALF OF THE NEW JERSEY DIVISION OF RATE COUNSEL

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TABLE OF CONTENTS

Page No.

I. PRELIMINARY STATEMENT 1

II. STATEMENT OF THE FACTS AND PROCEDURAL HISTORY 3

III. THE ACCOUNTING AND COST-RECOVERY TREATMENT PROPOSED BY PSE&G FOR THE EEE EXTENSION II PROGRAM SHOULD BE REJECTED BY THE BOARD AS EXCESSIVE AND UNREASONABLE. 9

A. RATE OF RETURN 12

B. AMORTIZATION PERIOD 15

C. PARTICIPATION FEE 18

D. INFORMATION TECHNOLOGY COSTS 19

E. ADMINISTRATIVE COSTS 22

IV. THE COST BENEFIT ANALYSIS PROFFERED BY THE COMPANY CARRIES NO EVIDENTIARY WEIGHT AND THEREFORE CANNOT BE USED BY THE BOARD TO SUPPORT AN ORDER GRANTING THE RELIEF SOUGHT BY THE COMPANY'S PETITION 24

V. PROGRAM DESIGN AND EVALUATION ISSUES 29

A. There is Insufficient Competent, Reliable Evidence in the Record to Support Continuation of the Company's EEE Sub-Programs at This Time. 29

1. The Record Does Not Support a Finding That PSE&G's Proposed Incentive Structures Will Result in Just and Reasonable Rates. 29

2. PSE&G Has Failed to Conduct, On a Timely Basis, the Program Evaluations That are Needed to Assure That the Proposed Programs Will Achieve Energy Efficiency in a Cost-Effective Manner. 35

B. If PSE&G is Allowed to Implement the Proposed EEE Extension II Program at This Time, Such Approval Should Require Reduced Incentive Levels and Other Program Modifications, as Well as Program Evaluation and Data Collection Requirements. 42

1. PSE&G's Proposed Incentives are Too High and Should Be Lowered. 42

2. As Agreed by PSE&G, the Direct Install Program for Small Businesses Should be Limited to Urban Enterprise Zones, and No Waivers of the Peak Load Limit for the Direct Install Program Should be Allowed, With a Limited Exception for Public Schools 48

3. The Company Should Be Required to Plan and Budget for More Frequent and Timely Evaluation, Measurement and Verification Activities, Supported by Adequate Data Collection. 49

VI. CONCLUSION 51

I. PRELIMINARY STATEMENT

This matter involves a petition by Public Service Electric & Gas Company ("PSE&G", "Public Service" or the Company) to approve the renewal of three energy efficiency ("EE") sub-programs that were originally initiated in 2008-2009: The Hospital and Multi-Family programs, both of which involve the installation of EE measures following an investment-grade audit, and the government/non-profit Direct Install program through which the Company installs EE measures identified after a walk-through energy audit performed by the Company. While these programs have many good features, they suffer from one major flaw—they are too expensive. This is because PSE&G is proposing to earn an excessive return on the programs, and because they provide unnecessarily generous incentives to the program participants.

The Company is currently earning on its EE programs, and proposes to continue to earn, a 10.3% return on equity ("ROE"). This rate of return was set 4 years ago as part of the settlement of a base rate case, and is not supported by any new analysis in the record, despite substantial changes in capital markets since that time. While it is questionable whether the Company should be earning an equity-based ROE on a risk-free investment at all, Rate Counsel recommends a return on equity of no more than 9.75%, which is more in line with that awarded in recent cases. The petition also proposes to make the program even more lucrative for PSE&G by increasing the amortization period during which the Company earns a return from 5 years to 15 years and charging a 1.5 percent "participation fee" for the sole benefit of Company shareholders. The Company also is seeking approval for excessive administrative costs, including expensive Information Technology ("IT") upgrades for a total program cost of about $110 million. Of that $110 million investment, only 56% would go to pay for actual energy efficiency costs. The rest would go to the Company.

The Company is also proposing to maintain incentives at levels overly generous to program participants, at the expense of ratepayers. PSE&G has not provided any competent or reliable evidence to support the incentive levels it proposes. The cost-benefit study and other materials offered to support the Company's programs are entirely hearsay, and have been shown to contain substantial errors. These materials have been presented for the record through the testimony of a Company witness who is not an expert in EE program design or program evaluation, and who candidly acknowledges his lack of familiarity with the details of the analyses he presents. There is thus no competent evidence in the record to support a finding that the Company's program is cost beneficial.

The only expert in program design and evaluation who appeared at the hearings was a Rate Counsel witness. Rate Counsel's analysis was hampered due to substantial flaws in the information provided by the Company, and the Company's failure to timely provide the results of two important evaluations of its existing programs. Nevertheless, the record is clear that PSE&G's incentives are too high. The Company's programs offer higher incentives than similar programs in other states and the Company's cost-benefit information is based on projected costs of achieving a given level of energy savings that are lower than actual, historical costs. If actual costs were used, the results would show an even more disproportionate allocation of costs and benefits.

PSE&G's proposed continuation of its EEE program should not be permitted until it has performed the proper analyses and reflected the results in a modified proposal that includes lower, more reasonable incentive levels. The new analyses should be presented to the Board through the competent testimony of a qualified expert, and should be subject to review, discovery, and an opportunity to present responsive testimony in further contested proceedings.

If the Board decides to allow PSE&G's programs to proceed, it should do so subject to the condition that incentive levels be lowered. It should not permit recovery of the "particiption fee" and it should allow a return on equity no higher than 9.75%. It should also disallow the excessive administrative costs sought by PSE&G. Finally, if the energy efficiency programs are allowed to proceed, the Board should open a separate proceeding for the purpose of conducting a proper evaluation of the programs. Such an evaluation is necessary to ensure that PSE&G's programs are incentivizing energy efficiency, rather than providing ratepayer-funded subsidies for replacements that would have occurred without incentives, or a windfall for shareholders who bear little or no risk.

II. STATEMENT OF THE FACTS AND PROCEDURAL HISTORY

On August 8, 2014, PSE&G filed its Petition with the Board requesting approval of the proposed EEE Extension II and associated rate recovery mechanism pursuant to *N.J.S.A.* 48:3-98.1 *et seq.* Specifically, PSE&G seeks Board approval to extend the Multi-Family, Government/Non-Profit Direct Install and Hospital segments of its EEE Extension Program. PSE&G proposed, through this regulated service, to continue to target energy efficiency initiatives for these customers, as well as small businesses. The EEE Extension II filing requested expenditures of approximately $109.8 million. The Company also seeks a return on equity of 10.3%, a 1.5% "participation fee" to be collected from participants and administrative costs totaling $13.7 million. PSE&G is also seeking $1.17 million in IT costs. In support of the petition, the Company attached the testimonies and schedules of Jess E. Melanson and Stephen Swetz. *P-2* and *P-3*, respectfully.

In the current filing, PSE&G is seeking the Board's authorization to extend three energy efficiency sub-programs that have been in effect, in varying form, starting in 2009. Two of the three sub-programs, the Hospital and Small Business Direct Install sub-programs, originated in the Carbon Abatement pilot program, which was filed on June 23, 2008 and approved by the Board in Docket No. EO08060426 on December 16, 2008.[1] The Multi-Family sub-program and Municipal/Local/State Government Direct Install sub-program were originally proposed to the Board as part of the Company's proposed Energy Efficiency Economic Stimulus ("Original EEE") program in a Petition filed January 21, 2009, and a Stipulation including these three sub-programs was approved by the Board in Docket Nos. EO09010056 and EO09010058 on July 16, 2009.[2] On January 25, 2011, the Company requested an extension of the three sub-programs for three years (from 2012 to 2014), and requested an expansion of the Direct Install program to non-profit participants in Docket No. EO11010030 ("EEE Extension"). The Company's EEE Extension proposal was approved on July 14, 2011. The budgeted incentives and administrative costs for the EEE Extension sub-programs was approximately $100 million.[3]

PSE&G is petitioning the Board for authorization to extend the Multi-Family, Direct Install, and Hospital sub-programs, with some modifications, for four more years, from 2015 to 2018 with authorized expenditures of nearly $110 million for incentives and administrative costs, broken down as follows:

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[1] I/M/O The Petition of Public Service Electric and Gas Company Offering a Carbon Abatement Program in it Service Territory on a Regulated Basis and Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. EO08060426 (Dec. 16, 2008).

[2] I/M/O the Petition of Public Service Electric and Gas Company Offering and Energy Efficiency Economic Stimulus Program in its Service Territory on a Regulated Basis and Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket Nos. EO09010056 and EO09010058 (July 16, 2009).

[3] I/M/O the Petition of Public Service Electric and Gas Company for an Extension of Three Sub-components of its Energy Efficiency Economic Stimulus Program in its Service Territory on a Regulated Basis and Associated Cost Recovery and for Changes in the Tariff for Electric Service, B.P.U.N.J. No. 15 Electric and the Tariff for Gas Service B.P.U.N.J No. 15 Gas, Pursuant to N.J.S.A. 48:2-21, 48:2-21.1 and N.J.S.A. 48:3-98.1, BPU Docket No. EO11010030 (July 14, 2011).

Sub-program Component	Budget ($ million)	Allocation (%)
Program Budget		
Multi-Family Housing	$30.0	27%
Hospital Efficiency	$40.0	36%
Direct Install	$25.0	23%
Sub-total	$95.0	87%
Administrative Budget		
Administration, Program Management, Quality Assurance/Quality Control and Evaluation	$13.7	12%
IT System Enhancement Costs	$1.1	1%
Sub-total	$14.8	13%
Total EEE Extension II Budget	$109.8	100%

RC-3, p. 9 & Table 1; *P-2*, p. 14 & Schedule JEM-EEEXII-6.

All three sub-programs provide substantial technical support at no cost to the participant, up-front incentives for a generous share of project costs, and no-interest on-bill financing of the participant's share of costs.

The Hospital and Multi-Family sub-programs promote various measures, including efficient heating, ventilation, air conditioning ("HVAC") hot water heaters, appliances, motors, lighting and other energy-consuming equipment, as well as building envelope and air sealing measures. *RC-3*, p. 10. Participants in these two sub-programs receive a no cost walk-through or investment-grade energy audit as well as an engineering analysis, if needed, and payback and project screening analyses. *RC-3*, p. 9-10. Participants also receive, at no cost, a project Scope of Work in order to solicit bids from contractors. *RC-3*, p. 10. After a bid is accepted, participants receive 100 percent of the up-front costs of construction, a portion of which is repaid, at the participant's option, as a lump sum or through a no-interest loan that is paid through charges on the participants' utility bills. *RC-3*, p. 10. The repayment amount is determined based on a

formula that reduces pay back period by as much as seven years, down to a minimum of two years. *RC-3,* p. 11. According to information provided by PSE&G the value of the repayment amount (excluding the value of the no-interest financing) averages around 30 percent of the total costs of the installed measures. *RC-3,* p. 13.

Under the Direct Install sub-program, PSE&G identifies and then directly installs energy efficiency measures for participants. *RC-3,* p. 10. This program is currently available to government and non-profit entities, and is proposed to be made available to small businesses. *RC-3,* p. 12. The Direct Install program promotes a variety of energy efficiency measures, including refrigeration, motors, and variable speed drivers, but focuses primarily on promoting efficient lighting. *RC-3,* p. 10. Participants in the Direct Install sub-program receive a no walk-through energy audit and a report of recommended energy savings improvements. *RC-3,* p. 10. The Company then installs the recommended measures, with no up-front cost to the participants, and recovers a portion of the installation costs through no-interest loans that are repaid through charges on the participants' utility bills. *RC-3,* p. 10. Under the Direct Install program, the participant's share is a fixed percentage of installation costs, which the Company proposes to increase from the current 20 percent to 30 percent. *RC-3,* p. 11.

On September 5, 2014, Board Staff notified the Company that it had reviewed the Petition for completeness in accordance with the Board's May 12, 2008 Order in Docket No. E008030164.[4] Board Staff determined the petition administratively complete and thereby established the Board's 180-day review period with a Board Order to be issued by February 4, 2015 unless an agreement was reached to extend the date.

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[4] Decision, *I/M/O Electric Public Utilities and Gas Public Utilities Offering Energy Efficiency and Conservation Programs, Investing in Class I Renewable Energy Resources, And Offering Class I Renewable Energy Programs In Their Respective Service Territories on a Regulated Basis Pursuant to* N.J.S.A. *48:398.1*, BPU Docket No. EO08030164 (May 12, 2008) (the "May 2008 Order").

Commissioner Mary-Anna Holden was designated as the presiding officer by Board Order dated September 30, 2014. See Order Designating Commissioner, September 30, 2014, BPU Docket No. EO14080897. A procedural schedule was subsequently agreed upon by the parties and adopted by Commissioner Holden. See Order Adopting Procedural Schedule, October 16, 2014, BPU Docket No. EO14080897.

Discovery questions in this matter were propounded by Board Staff and Rate Counsel and the Company responded thereto. There were no other intervenors in this proceeding.

On October 14, 2014 and October 31, 2014 discovery/settlement conferences were conducted among PSE&G, Board Staff and Rate Counsel.

Public Notice was provided and six public hearings on the EEE Extension II Program filing were held on the following dates at three locations in the Company's service territory: two hearings on September 22, 2014, in Hackensack, New Jersey; two hearings on September 23, 2014, in New Brunswick, New Jersey; and two hearings on September 29, 2014, in Mt. Holly, New Jersey. A total of five members of the public appeared and made statements at the six public hearings. Three members of the public supported the filing, one member expressed opposition and another member expressed concern about public utility rates, generally. On November 7, 2014, Rate Counsel filed direct testimonies of Andrea C. Crane (*RC-2*) and Kenji Takahashi (*RC-3*).

On November 21, 2014, PSE&G filed the rebuttal testimonies of Jess E. Melanson (*P-4*) and Stephen Swetz (*P-5*).

Evidentiary hearings were held at the Office of Administrative Law ("OAL") Newark office on December 4, 2014 and December 5, 2014. At the hearing on December 4, 2014, Rate

Counsel made a Motion in Limine with respect to three items. The first was the CEEEP cost benefit analysis filed by the Company with the Petition and supporting documents. The second was the Cadmus Report filed by the Company in support of its cost benefit analysis and offered by the witness, Mr. Melanson, attached to his rebuttal testimony. The third were several letters filed by the Company with the Petition from third parties purporting to demonstrate support for the programs contained in the Petition. Rate Counsel objected to the introduction of these documents as hearsay, however, the Commissioner admitted them to be given the appropriate evidentiary weight. *T20-35: L19-22.*

On December 9, 2014, PSE&G submitted responses to Board Staff's discovery requests S-PSE&G-OCE-0027, S-PSE&G-OCE-0028, S-PSE&G-OCE-0029, S-PSE&G-OCE-0030, S-PSE&G-OCE-0031, S-PSE&G-OCE-0032, S-PSE&G-OCE-0033, and S-PSE&G-OCE-0035.

On December 11, 2014, Rate Counsel provided responses to transcript requests TR-RC-KT-1, TR-RC-KT-2 and TR-RC-KT-3 and relevant correspondence related to versions of the Rebuttal Testimony of Jess E. Melanson.

A briefing schedule was set forth in the procedural schedule issued on September 30, 2014. Initial briefs were due on December 22, 2014 and reply briefs on January 7, 2015. However, on December 19, 2014, PSE&G filed a request with Commissioner Holden to extend the briefing schedule to allow initial briefs to be due January 23, 2015 and reply briefs due February 6, 2015. Board Staff joined PSE&G's request to extend the briefing schedule. Rate Counsel responded in opposition to the joint request on December 19th, and, counter-proposed an initial brief deadline of January 7, 2015, with reply briefs due January 21, 2015.

On December 23, 2014, PSE&G, Board Staff and Rate Counsel executed a Stipulation of Settlement extending the 180-day deadline for Board review of this proceeding to February 23,

2015. On December 26, 2014, Commissioner Holden issued an Order modifying the procedural schedule to allow initial briefs to be filed by January 7, 2015 and reply briefs due by January 21, 2015.

III. THE ACCOUNTING AND COST-RECOVERY TREATMENT PROPOSED BY PSE&G FOR THE EEE EXTENSION II PROGRAM SHOULD BE REJECTED BY THE BOARD AS EXCESSIVE AND UNREASONABLE.

Introduction

As proposed, PSE&G plans to invest up to $95 million from 2015 through 2018 in the three electric and gas energy efficiency programs which comprise its proposed EEE Extension II program. The Company proposes to recover the associated costs from ratepayers through a regulatory asset which would be amortized over a 15-year period, earning a return on the unamortized balance equal to the Company's weighted average cost of capital ("WACC") from its most recent base rate case. Notably, the Company's most recent base rate case concluded in 2010, based on a 2009 test year, and its currently authorized WACC is based on a ROE figure of 10.3 percent, which is much higher than the ROE of 9.75 percent authorized by the Board in more recent utility base rate cases.[5] In addition to a very generous return on its investment, PSE&G also seeks a 1.5% "participation fee," rate recovery for up to $13.7 million in administrative and other support costs and $1.17 million in IT system enhancement costs.[6]

Although Rate Counsel is generally in favor of EE programs, the accounting and ratemaking treatment proposed by PSE&G for its EEE Extension II proposal is fraught with measures that unreasonably burden its ratepayers: an excessive rate of return on its investment,

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[5] *RC-2*, pp. 14-15.
[6] *P-2*, pp. 13-14.

an unreasonably long amortization period, and excessive administrative and IT costs. PSE&G also seeks through the "participation fee" to add to its already excessive return on program investments. Each of these unreasonable measures is addressed below and in the testimony of Rate Counsel witness, Ms. Andrea Crane.

In sum, these measures cause the associated revenue requirement to go far beyond the proposed program investment of $95 million.[7] When investor returns (approximately $60 million) and administrative and IT cost are added up, the cost of the Company's EEE Extension II proposal balloons to approximately $170 million, as calculated by Ms. Crane.[8] Ms. Crane also testified that under the Company's proposal only 56 percent of the claimed program costs are for direct investment in energy efficiency measures.[9]

The Company plans to recover the bulk of this amount from its ratepayers through a new component of its Green Program Recovery Charge ("GPRC") charge.[10] Program investment repayments by program participants and any revenue from the PJM Capacity Market Auction would also offset program costs, albeit by a relatively small amount compared to the projected cost recovery from PSE&G's ratepayers. In contrast to the approximately $141 million recovered from ratepayers, program investment repayments from participants would total approximately $27 million and anticipated PJM capacity market revenues would total only approximately $1 million.[11]

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[7] The revenue requirement formula is as follows:

Revenue Requirement = (Cost of Capital * Net Investment) + Amortization + Administrative Costs – Program Investment Repayments - Net Capacity Revenues + Tax Adjustments

P-3, p. 2.

[8] See *RC-6*, Tables 1 and 2.

[9] See *RC-2*, p. 6, Tables 1 and 2. ($95million/$170 million) x 100 = 56%.

[10] *P-3*, p. 9.

[11] *RC-2*, p. 6, Tables 1 and 2.

PSE&G's instant proposal is a continuation of several of the Company's earlier EE programs. PSE&G's initial EEE program encompassed an authorized investment of up to $166 million, and its first extension encompassed an authorized investment of up to $103 million. Notably, ratepayers are still funding the costs of these earlier programs through rate surcharges, which also include a return for PSE&G's shareholders.[12] Hence, if approved, the Company's proposed EEE Extension II would burden ratepayers with additional EE program costs while they are still paying for the prior programs.

As set forth below, Rate Counsel respectfully recommends that if the Board adopts the EEE Extension II programs, its approval should be subject to certain conditions. First, carrying charges should be based on a return on equity of no more than 9.75 percent, the Company's current debt costs, and an updated capital structure. This is consistent with similar programs recently approved for other utilities and recent base rate case ROE awards. Second, the Board should reject the Company's proposal to recover lost revenues through a participation fee of 1.5 percent. Instead, any additional fees imposed on program participants should be used to offset the administrative costs of the program that would otherwise be charged to ratepayers. Third, the Board should continue to utilize a 5-year amortization period for program investment, rather than the 15-year period proposed by PSE&G. Fourth, the Board should also deny the Company's proposal to charge ratepayers $1.17 million for additional IT costs associated with its proposed EEE Extension II program. Finally, administrative costs charged to ratepayers should be limited to no more than 8 percent of the total program investment and subject to review in future annual filings for reasonableness.

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[12] *RC-2*, p. 18.

A. RATE OF RETURN

The Company proposes to earn a return on its EE investment for its initial rate period based on a weighted cost of capital determined in its base rate case concluded over four years ago.[13] As set forth below and in the testimony of Ms. Crane, capital costs have declined since the conclusion of PSE&G's last base rate case and Board decisions in recent base rate proceedings and clause-type EE program cases reflect that fact. Here, PSE&G seeks a return on its investment based on an ROE of 10.3 percent, whereas authorized returns in recent base rate matters and clause-type EE program cases were based on an ROE of 9.75 percent. Furthermore, PSE&G accepted an authorized return in its recent Energy Strong infrastructure hardening case based on an ROE of 9.75 percent.[14] In sum, capital costs have declined substantially since the date of the Company's last base rate case and the return sought by PSE&G here is unreasonable in light of current capital costs. For the reasons set forth below and in the testimony of Ms. Crane, if the Board approves PSE&G's EEE Extension II program, Rate Counsel respectfully recommends that the return on the Company's investment should be reflective of current conditions, with a WACC based on a ROE of 9.75 percent and a debt cost of 4.6 percent.

An analysis of current capital costs and capital cost trends supports the use of a lower ROE than that proposed by PSE&G. As Ms. Crane testified, capital costs have declined significantly since PSE&G's last base rate case. For example, 30-year U.S. Government bonds fell from a rate of 4.23 percent in May 2009 to 3.99 percent in July 2010, and continued to decline to a rate of 3.04 percent in October 2014.[15] Ms. Crane found that a similar trend can be

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[13] PSE&G proposes to utilize a weighted average cost of capital ("WACC") of 8.21 percent, which consists of an ROE of 10.3 percent and cost of debt of 6.02 percent, for a pretax rate of return of 11.852 percent. See *RC-2*, p.8, Table 3; *P-3*, p. 3; I/M/O PSE&G, BPU Dkt. No. GR09050422.

[14] *RC-2*, p. 15; See I/M/O PSE&G, BPU Dkt. Nos. EO13020155 and GO13020156.

[15] *RC-2*, pp.11-12 and Table 4.

found with corporate bonds. The rate for AAA-rated corporate bonds fell from 4.72 percent in July 2010 to an average of 3.92 percent for October 2014.[16] Similarly, the rate for Baa-rated corporate bonds declined from 6.01 percent in July 2010 to 4.69 percent by October 2014.[17] Recent ROE determinations in both base rate cases and clause-type EE program cases reflect lower capital costs.

The ROE authorized by the Board in recent electric and gas base rate cases is significantly lower than that sought by PSE&G here. The Board authorized a return on equity of 9.75 percent for Atlantic City Electric Company ("ACE"), Rockland Electric Company ("RECO") and South Jersey Gas Company ("SJG") in the last year.[18] These base rate cases, resolved by stipulations, are more reflective of contemporary economic conditions than the ROE figure proposed by PSE&G.

PSE&G's proposed ROE is also much higher than that authorized by the Board for other recent utility-run EE programs utilizing clause-type cost recovery mechanisms. In 2013, the Board authorized a ROE of 9.75 percent for the EE programs of New Jersey Natural Gas Company ("NJNG"), Elizabethtown Gas Company ("ETG"), and SJG, each of which was resolved by a stipulation.[19] Similar to the EE programs run by NJNG, ETG and SJG, PSE&G's proposed program is also funded through a clause-type mechanism. Notably, the clause-type rate recovery mechanism reduces the risk of rate recovery, as Ms. Crane testified, with a

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[16] *RC-2*, p. 12 and Table 5.
[17] *RC-2*, p. 13 and Table 6.
[18] *RC-2*, pp. 14-15; See I/M/O Rockland Electric Company, BPU Dkt. No. ER13111135; I/M/O Atlantic City Electric Company, BPU Dkt. No. ER14030245; and I/M/O South Jersey Gas Company, BPU Dkt. No. GR13111137.
[19] See I/M/O Elizabeth Gas Company, BPU Dkt. No. GO12100946; I/M/O New Jersey Natural Gas Company, BPU Dkt. Nos. GO12070640 and GR12070641; and I/M/O South Jersey Gas Company, BPU Dkt. No. GR12050363.

commensurate lower risk for investors.[20] These recent cases support a lower ROE for PSE&G's program investments.

PSE&G's proposed ROE here is also higher than that authorized by the Board in the Company's recent Energy Strong infrastructure storm hardening case.[21] In that case, resolved by stipulation, the Board authorized a ROE of 9.75 percent.[22]

Finally, another component of the WACC – debt cost – has declined since PSE&G's last base rate case, as Ms. Crane testified.[23] PSE&G proposes to use the debt cost authorized in its last base rate case as a basis for its WACC in the instant case. Ms. Crane found that the Company's embedded cost of debt has fallen from 6.02 percent, which was the embedded cost of debt authorized in PSE&G's last base rate case filing, to 4.60 percent.[24] The debt cost authorized in the Company's last base rate case is also much higher than 4.6 percent debt cost authorized by the Board in PSE&G's recent Energy Strong infrastructure case. Moreover, as Ms. Crane testified, the current embedded cost of debt is "a weighted average that includes some debt incurred at rates that are higher than current market rates."[25] Ms. Crane continued, "[t]hus, the substantial fall in the Company's embedded cost of long-term debt is indicative of an even greater decline in the marginal costs of more recently-incurred debt."[26] Therefore, Ms. Crane found that the 4.6 percent cost of debt is more reflective of current conditions and should be used in this case.[27]

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[20] *T8:L3-13* (12/5/14).
[21] I/M/O PSE&G, BPU Dkt. Nos. EO13020155 and GO13020156.
[22] *Id.*
[23] *RC-2*, p. 14.
[24] *RC-2*, p. 14.
[25] *RC-2*, p. 14, ln. 4-5.
[26] *RC-2*, p. 14, ln. 5-7.
[27] *RC-2*, p. 15.

As set forth above and in the testimony of Ms. Crane, if the Board approves PSE&G's proposed EEE Extension II program, Rate Counsel respectfully recommends that the return on the Company's investment should be reflective of current conditions, with a WACC based on a ROE of 9.75 percent and a debt cost of 4.6 percent. Ms. Crane found that even 9.75 percent is a "generous offer" with "much lower risk than you would find in a base rate case."[28]

B. AMORTIZATION PERIOD

PSE&G's proposed use of a 15-year amortization period for program investments would significantly increase the amount collected from its ratepayers over time. Simply stated, PSE&G's ratepayers would contribute approximately $40 million more if the amortization period were set at 15 years instead of the 5-year period the Company proposes for its associated IT equipment.[29] As set forth below, a shorter amortization period would lower the total cost to ratepayers and would also mitigate the risk of rate "pancaking" if additional PSE&G EE programs were approved for rate recovery in the future. Furthermore, a shorter amortization period for program investments is consistent with the rate treatment accorded similar investments in recent Board Orders, including the 5-year amortization periods utilized for PSE&G's original EEE and EEE Extension programs.[30] Therefore, Rate Counsel respectfully recommends that, if approved, the Board should limit the amortization period for program investment to 5 years for the reasons set forth below and in the testimony of Ms. Crane.

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[28] See *T8:L3-13* (12/5/14).

[29] *RC-2*, p. 16; As shown in the response to RCR-A-13 (*P-6*), the 15-year amortization period will increase the electric revenue requirement paid by ratepayers from $68.77 million to $95.78 million, an increase of $27.01 million; and would similarly increase the gas revenue requirement charged to ratepayers from $32.68 million to $45.66 million, an increase of $12.98 million.

[30] *RC-2*, pp. 18-19; See *P-6* (RCR-A-5).

First, the longer amortization period proposed by PSE&G would greatly benefit its shareholders to the detriment of its ratepayers. Ms. Crane found that much of the increase in the total cost attributable to a longer amortization period will flow directly to shareholders through increased profits.[31] More specifically, compared to a 5-year amortization period, after taxes the Company's ratepayers will pay approximately $30 million more for shareholder return and related taxes if the 15-year amortization period is utilized, which translates into a $17.75 million direct benefit to shareholders, after taxes.[32] Furthermore, with a shorter amortization period, the total dollar return to shareholders is reduced but the WACC used in the revenue requirement calculation does not change. In other words, contrary to Mr. Swetz's assertions, while a shorter amortization period reduces the total dollar amount provided to the Company's shareholders, it does not reduce the shareholder's percentage return on the Company's investment.

The Company proffered that a longer amortization period would result in a smaller maximum rate impact.[33] However, under the Company's proposal, ratepayers would pay carrying charges at a pre-tax rate of 11.852 percent.[34] Since most ratepayers are unable to earn anything near this rate on their investments, they would be much better off paying for the EEE Extension II program over a shorter period of time. Therefore, the time value of money works against ratepayers in this case, since they are paying carrying charges that significantly exceed the rates of return available for alternative investments.

Second, a 5-year amortization period would mitigate the risk of rate "pancaking," where ratepayers are paying for multiple programs at the same time. Currently, PSE&G's ratepayers are paying for the costs of the Company's Carbon Abatement program, EEE Program, and the

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[31] *RC-2*, p.17.
[32] *RC-2*, p.17.
[33] *P-5*, p. 9.
[34] *T16:L1-25* (12/5/14).

first extension of its EEE program. If new programs are implemented in the future, the risk of further overlaps could be mitigated by a shorter amortization period. With a 15-year amortization period, ratepayers would continue to pay for costs associated with the EEE Extension II program through 2033 despite the fact that all of the program investment will have been invested by 2018.[35]

Finally, the use of a 5-year amortization period is consistent with the amortization periods used for previous PSE&G EE programs. Understandably, all else equal, a shorter amortization period would increase the tariff rate for recovery of program costs. However, as demonstrated by Ms. Crane the rate impact of truncating the amortization period is slight, particularly when the adjustments proposed by Rate Counsel are applied. Ms. Crane found that at the Company's proposed WACC the reduction from a 15-year amortization period to a 5-year amortization period will increase the maximum annual rate impact for the Company's residential electric ratepayers from an average increase of $1.52 to an average increase of approximately $2.36.[36] For the Company's average residential gas customer, the reduction from a 15-year amortization period to a 5-year amortization period will result in a maximum annual impact of approximately $2.28, instead of the $1.42 proposed by PSE&G.[37] Therefore, the maximum annual impact is $0.84 higher for electric customers and $0.86 higher for gas customers under Rate Counsel's proposal. However, ratepayers would avoid $40 million in carrying costs and ten years of rates related to the EEE Extension II program. Ms. Crane testified that these impacts would be even less if the Board utilizes a 9.75 percent cost of equity and updates the debt costs and capital

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[35] *T148:L13-22* (12/4/14).
[36] *T10:L21-25* (12/5/14).
[37] *T10:L25-T11:L2* (12/5/14).

structure, as recommended by Ms. Crane.[38] However, as noted above, a fifteen-year amortization period would result in ratepayers contributing $40 million more in rates than if a five-year amortization period were utilized.[39]

For all these reasons, Rate Counsel respectfully recommends that the Board continue to utilize a 5-year amortization period for program investment if the Company's proposed EEE Extension II program is approved.

C. PARTICIPATION FEE

The Company proposes to charge a "participation fee" of 1.5 percent of the cost of each participant's overall project cost. Notably, the revenue from the Company's proposed participation fee will not be used to offset program costs. By design, PSE&G's proposed participation fee is nothing more than a way for the Company to recover from program participants a portion of its projection of lower fixed margin revenues caused by its proposed EE programs.

In substance, the Company's participation fee is a novel way of decoupling revenue from energy usage and recover its so-called lost revenues. In fact, PSE&G admits that it is not aware of any other utility that has utilized such an approach to recover lost margins.[40] Ms. Crane testified that the "BPU traditionally has utilized the base rate case process as the appropriate mechanism for determining pro forma sales levels."[41] While N.J.S.A. 48:3-98.1 recognizes that utilities may be eligible for decoupling mechanisms, Ms. Crane testified that the Company has

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[38] *RC-2*, pp. 17-18.
[39] *RC-2*, p. 16.
[40] *P-6* (S-PSEG-ENE-14)
[41] *RC-2*, p. 20, ln. 17-19.

"not demonstrated that it is necessary or appropriate to deviate from this practice in this case by permitting the Company to recover lost margins."[42]

The Company's projections of lost revenues is ultimately based on its speculative calculation of energy savings attributable to its proposed EE programs.[43] However, its projections of energy savings are unsupported in the record by other than hearsay evidence, as discussed herein.

Finally, PSE&G's foregone revenue argument fails to consider the numerous factors which affect earnings. Expenses as well as revenue are factors in earnings calculations, yet PSE&G ignores potential reductions in its costs while focusing on revenue. Moreover, as Ms. Crane testified, PSEG's 2014 earnings and revenues are expected to exceed their 2013 levels notwithstanding the fact that the Company already has EE programs in operation.

For the reasons set forth above and in the testimony of its witnesses, Rate Counsel respectfully submits that the Board should reject the Company's proposal for a participation fee. If a participation fee is adopted, revenue from such fees should be used to offset program costs. Furthermore, as Ms. Crane testified, "[l]ost margins should not be awarded on a piecemeal basis as PSE&G is proposing in this case."[44]

D. INFORMATION TECHNOLOGY COSTS

PSE&G also seeks to recover the cost of information technology upgrades associated with its proposed EEE Extension II program. More specifically, the Company seeks to recover capitalized IT costs of up to $1.17 million from its ratepayers. Furthermore, under PSE&G's

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[42] *RC-2*, p. 20, ln. 19-21.
[43] See *P-6* (RCR-A-7)
[44] *RC-2*, pp. 20-21.

proposal, its shareholders will earn a return on the unamortized balance of its capitalized IT costs.[45] As set forth below and in the testimony of Ms. Crane, PSE&G's IT cost claims are unsupported in the record and excessive, particularly in light of the total cumulative authorized amounts for the Company's IT costs for prior EE programs.[46]

Significantly, the Company has not justified its request for additional expenditures of $1.17 million in this case. Ms. Crane found that the Company did not supply a Request for Proposals for its claimed IT work and did not otherwise present a detailed plan for its claimed IT expenditures.[47] Ms. Crane summarized the status of the Company's support for its IT claim as follows: "[e]xcept for a brief description of this claim in Mr. Melanson's testimony, PSE&G did not include testimony explaining how the budgeted IT costs were developed or why the Company had not undertaken the on-bill payment upgrades previously."[48] A two-paragraph explanation of the claimed IT work which was provided in discovery states that IT work is needed to integrate the EE system with PSE&G's billing system and upgrade its "iEnergy" (a/k/a "Traksmart") system from version 3.0 to version 5.0.[49]

Moreover, Ms. Crane found that the Company provided no convincing explanation as to why any of the claimed IT system changes could not be handled by internal IT personnel whose labor costs are already being recovered through the Company's base rates.[50] If approved as filed and if existing PSE&G personnel could perform the IT work, the Company's ratepayers would essentially pay twice for the same work.

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[45] PSE&G plans to amortize its capitalized IT costs over a 5-year period. *P-3*, p. 7.
[46] *RC-2*, pp. 22-23.
[47] *T28:L23-T29:L14* (12/5/14).
[48] *RC-2*, pp. 22, ln. 19-22.
[49] *P-6* (S-PSEG-ENE-3).
[50] *RC-2*, pp. 22-23.

In addition, the Company is currently providing on-bill financing through a manual process.[51] If this process is automated, there are likely to be cost savings that would offset the costs of the upgrade.[52] However, the Company made no adjustment to reflect any such anticipated cost savings in its filing.

The magnitude of PSE&G's claimed IT cost is also a concern. PSE&G has already received authorization for over $2 million of capitalized IT costs: $1 million for its Carbon Abatement program and $1 million for its initial EEE filing.[53] PSE&G states that additional amounts have also been charged to other GPRC-funded programs as "administrative costs"[54] combined with the $1.17 million sought here, these costs are excessive. Finally, the claimed IT costs raise questions about the allocation of IT costs among the Company's various EE programs. The Company stated that any system upgrades would be used not only by EEE Extension II participants, but also by the Carbon Abatement, EEE, and EEE Extension participants that have repayments remaining at the time the billing system enhancements are complete.[55] However, the Company does not propose to allocate the IT costs at issue here among its various EE programs.[56] The recoverable IT upgrade costs for the Company's proposed EE programs should not include the portion of the IT upgrade costs properly allocated to PSE&G's existing EE programs.

For the reasons set forth above and in Ms. Crane's testimony, RC respectfully recommends that the Board reject the Company's claim for recovery of additional capitalized IT costs at this time.

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[51] *T29:L15-17* (12/5/14).
[52] *T29:L17-24* (12/5/14).
[53] *P-6* (RCR-A-22).
[54] *P-6* (RCR-A-22).
[55] *P-6* (RCR-A-21).
[56] *RC-2*, p. 23.

E. ADMINISTRATIVE COSTS

PSE&G has claimed administrative costs of $13.7 million in its filing, amounting to approximately 14.4 percent of its $95 million program investment budget.[57] This item includes the cost of administration and program development, sales and marketing activities, evaluation, training, as well as process and quality control functions.[58] Under the Company's proposal, ratepayers would pay 100 percent of these costs.

Ms. Crane found that administrative costs are largely comprised of labor expense.[59] Ms. Crane testified that this aspect of administrative costs is a cause of concern because it is difficult to track labor costs already recovered through base rates versus those recovered through clauses.[60] Furthermore, Ms. Crane found that the labor portion of administrative costs goes beyond direct labor costs and - through allocations - includes benefits, pensions and other overheads on already relatively high salaries.[61]

Based on her review, which included material provided by the Company and administrative costs actually incurred by PSE&G for similar programs, Ms. Crane found that the Company's request for approval of administrative costs comprising 14.4 percent of its program investment is excessive.[62] In contrast, Ms. Crane found that the actual administrative costs incurred by the Company's Carbon Abatement, EEE, and EEE Extension programs averaged approximately 7-9 percent of program investment.[63] Therefore, Ms. Crane recommends that

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[57] *RC-2*, p. 24.
[58] *P-6* (S-PSE&G-ENE-2, RCR-A-19).
[59] *RC-2*, p. 24.
[60] *T23:L15-T25:L19* (12/5/14).r
[61] According to the response to RCR-A-34 (*P-6*), overheads will be limited to direct labor overheads consisting of fringe benefits at 26.01 percent and payroll taxes at 7.69 percent. Therefore, the Company does not plan to include indirect overheads in its future claims for administrative costs. This was confirmed by Mr. Swetz during his cross-examination. *T171:L3-12* (12/4/14).
[62] *RC-2*, p. 4.
[63] *RC-2*, p. 25.

administrative costs should be limited to 8 percent of total program investment for the EEE Extension II program.[64]

Finally, Ms. Crane recommends that all administrative costs should be subject to review in each annual filing. In addition, Ms. Crane recommends that the Company be required to provide - with its annual filings – as support for its administrative cost claims the following material: "(a) individual employees charging costs to the program, (b) the salary and wage rates for each employee allocating costs to the program, and (c) the total costs per employee including fringe benefits and overhead levels."[65]

In order to reduce the burden placed on the Company's other ratepayers, Ms. Crane also recommends that the Board consider requiring program participants to contribute to the Company's administrative costs.[66] Payments by program participants in the Company's solar programs already offset the administrative costs for those programs.[67]

> As set forth above and in the testimony of Rate Counsel witness, Ms. Crane, the proposed EEE Extension II program is far too costly for ratepayers and would result in excessive returns for PSE&G shareholders. Ms. Crane found that under the Company's proposal only 56 percent of the claimed program costs are for direct investment in energy efficiency measures.[68] Therefore, Rate Counsel respectfully recommends that if the Board adopts the EEE Extension II programs, its approval should be conditioned upon the measures set forth above to protect ratepayers from unreasonably high costs.

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[64] *RC-2*, p. 25; As an alternative to a percentage cap, Ms. Crane proposed that the level of actual administrative costs could be reviewed and evaluated for reasonableness in the annual filings for the program without authorizing a specific level in the instant proceeding. *T28:L7-15* (12/5/14).

[65] *RC-2*, p. 25.
[66] *RC-2*, p. 26.
[67] *RC-2*, p. 26.
[68] See *RC-2*, p. 6, Tables 1 and 2. ($95million/$170 million) x 100 = 56%.

IV. THE COST BENEFIT ANALYSIS PROFFERED BY THE COMPANY CARRIES NO EVIDENTIARY WEIGHT AND THEREFORE CANNOT BE USED BY THE BOARD TO SUPPORT AN ORDER GRANTING THE RELIEF SOUGHT BY THE COMPANY'S PETITION.

Rate Counsel, at the outset of the hearing, objected to the introduction of two reports by the Company in support of its Petition. Rate Counsel argued that a report prepared by the Center for Energy, Economics & Environmental Policy (the "CEEEP" report); and, the second, a report prepared for the Company by Cadmus,[69] (the "Cadmus Impact Evaluation" or "Cadmus Report") *T20-31:L-18-5* (Dec 4, 2014) should be excluded as hearsay. The CEEEP report was referenced in the exhibits accompanying the Petition and offered as evidence to meet the minimum filing requirement ("MFRs") for a cost-benefit analysis as required by the Board in its May 2008 Order.[70] The Cadmus Impact Evaluation was provided with Mr. Jess E. Melanson's prefiled rebuttal testimony and referred to at the hearing as providing additional cost-benefit analysis.[71] *P-4,* p. 4 & Schedule JEM-EEEXII-1R; *T67:L11-18* (Dec 4, 2014). Commissioner Mary-Anna Holden, as the Hearing Officer, allowed the reports to be admitted and ordered that they each be given their appropriate evidentiary weight based upon the record established at the conclusion of the hearing. The testimony of the reports' sponsoring witness, Mr. Melanson, at the hearing was that he had no direct knowledge of the reports, could not explain how they were calculated or prepared and as a result he could not provide the "residuum" of evidence necessary to

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[69] "PSE&G Impact Evaluation Study: Carbon Abatement & Energy Efficiency Economic Stimulus Programs."

[70] I/M/O Electric Public Utilities and Gas Public Utilities Offering Energy Efficiency and Conservation Programs, Investing in Class I Renewable Energy Resources, and Offering Class I Renewable Energy Programs in their respective Service Territories on a Regulated Basis Pursuant to N.J.S.A.48:3-98.1, BPU Docket No. EO08030164, Order, May 12, 2008. (May 2008 Order)

[71] The Company also produced exhibit Schedule JEM-EEEXII-13 as an exhibit in an effort to comply with the MFRs with respect to cost-benefit analysis. The sponsoring witness, Mr. Melanson, admitted that Schedule JEM-EEEXII-13 was not a cost-benefit analysis but an EPRI power point presentation on the potential for energy efficiency. *T64-66:L18-7.*

demonstrate their veracity and reliability as evidence. ("I did not prepare [the CEEEP report] nor do I think I'm qualified to." *T70:L2-4*. "Q: [Y]ou're not one of the authors…[of the Cadmus report]… A: Correct" *T88:L7-17*) As such the reports should be given no evidentiary weight and cannot provide an evidentiary basis for the Board to find the program to be cost-effective or to approve the Company's Petition. Given that there is no other evidence in the record to support the Company's claim that its program is cost-effective, the record does not support approval of the petition.

The Board, in its May 2008 Order, noted that the Legislature has found that "New Jersey should implement cost-effective measures to reduce emissions of greenhouse gases…" (May 2008 Order at p. 1 & N.J.S.A.26:2C-45). In implementing the provisions of N.J.S.A.26:2C-45, the Board directed that filings for EE Programs contain "minimum filing requirements" (May 2008 Order at p. 3). Included in those requirements is a mandate that the Company provide a "Cost/Benefit Analysis." (Appendix A, p. 5, of the May 2008 Order). The Order requires that: a) "The utility shall provide a detailed analysis with supporting documentation of the net benefits associated with the proposed program…"; b) "The utility shall calculate a cost/benefit analysis utilizing the Total Resource Cost ("TRC") test that assesses all program costs and benefits…"; c) "The utility shall quantify all direct and indirect benefits as well as provide projected costs…"; e) "The utility must demonstrate for the proposed program that it results in a positive benefit/cost ratio…"; g) "The utility shall also quantify and deduct from the energy and capacity savings any free rider effects…"

At the hearing, the Company produced no competent evidence to meet these requirements. N.J.R.E. 801(c) defines hearsay as "a statement, other than one made by the declarant while testifying at the trial or hearing, offered in evidence to prove the truth of the

5matter asserted." With respect to both the CEEEP report and the Cadmus report, the respective authors were not present to testify as to the analysis contents or conclusions contained in the reports and relied upon by the Company in support of its Petition. *T88:L7-12*; *T70:L-2-4*. The Company witness was, likewise, unable to provide any explanation how the reports were prepared, going as far as to admit he was not even qualified as to the CEEEP report and relying upon other employees who reported to him to interpret the Cadmus report. *T70:L2-4: T73-74:L21-3: T81:L17-20: T82:L23-24.*

Hearsay is admissible in administrative proceedings subject to the Hearing Officer's discretion. N.J.A.C. 1:1-15.5(a). However, N.J.A.C. 1:1-15.1(c) provides that a judge may exclude any evidence if its probative value is substantially outweighed by the risk its admission will create substantial danger of undue prejudice or confusion. Rate Counsel, in discovery, found errors in the CEEEP report that were noted in Mr. Takahashi's direct testimony. (*RC-3*, p. 30).[72] Mr. Melanson, who sponsored the CEEEP report, admitted that he did not know how it was calculated, only that the data used by CEEEP for its report was provided by PSE&G. (T68:L17-22). Having discovered errors and without the authors of the report to question, the credibility and probative value of the entire report is open to question.

With respect to the Cadmus report, two versions[73] were provided to Rate Counsel as attachments to Mr. Melanson's rebuttal testimony. (*T78:L7-10: T80-81:L22-4.*) Rate Counsel was deprived of sufficient time to explore why two versions of the Cadmus Report were

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[72] As explained in further detail in the brief under "Program Design and Evaluation Issues" Mr. Takahashi listed three critical errors found in the CEEEP report: failure to account for all costs incurred by ratepayers; the costs for achieving energy savings is higher than historical data; and, the use of total installed costs vs. incremental costs for energy efficiency measures.

[73] At hearing, three versions of this report were presented. A "final" version, P-4-A, dated November 17, 2014 was provided to Rate Counsel on November 21, 2014. A "draft" report, P-4-B, dated November 11, 2014 was provided to Rate Counsel on November 24, 2014. Rate Counsel provided a comparison version, RC-1, that illustrated the changes between the draft and the original.

produced in Rebuttal testimony. (*T78-84:L7-4.*) Under cross-examination, Mr. Melanson, admitted that Company representatives discussed the contents, analysis and conclusions with the authors of the Cadmus report, but stated that he did not participate in those discussion and therefore could not describe or explain what changes had been made or the reason for those changes. (*T81-83:L9-19.*) Indeed, other than stating he had read the final report, Mr. Melanson could offer no information about the report or its underlying analysis.

Commissioner Holden admitted the reports at issue and indicated they would be given the "appropriate evidentiary weight" (*T28:L2- 6; T31-32:L22-5*). However, the reports remain subject to the Residuum Rule. N.J.A.C. 1:2-25.5(b) provides, "Notwithstanding the admissibility of hearsay evidence, some legally competent evidence must exist to support each ultimate finding of fact to an extent sufficient to provide assurances of reliability and to avoid the fact or appearance or arbitrariness." The New Jersey Supreme Court has long recognized the principle of the residuum rule; "[I]n the final analysis for a court to sustain an administrative decision, which affects the substantial rights of a party, there must be a residuum of legal and competent evidence in the record to support it." Weston v. State, 60 N.J. 36, 51 (1972). As the Company relies upon two hearsay documents to support its assertion that its program are cost effective, and due to the lack of any other legally competent evidence to support such a finding, the Board cannot on this record make a finding that the programs are cost-effective. As this is a minimum requirement for approving these programs, the Petition should be denied.

Moreover, as noted above, the reports should not be relied upon as they are limited probative value "substantially outweighed" by the risk of undue prejudice or confusion. The Company failed to produce the authors of the CEEEP report for examination, and therefore, the Board does not have the ability to determine if the CEEEP report contained errors in addition to

those already identified by Rate Counsel's witness. With respect to the Cadmus reports, the Company also failed to produce the authors or explain the changes made between the "Draft" and "Final" reports and who made those changes. These reports were produced on November 21, 2014, with Mr. Melanson's rebuttal testimony and Rate Counsel and Staff had limited ability to serve discovery or otherwise explore the reports. Relying on these reports thus create substantial danger of undue prejudice and confusion. Given the Company's failure to provide the necessary supporting testimony explaining the calculations and results of these studies, they should be afforded no evidentiary weight.

As the Company has failed to provide a residuum of competent evidence to support its assertion that these programs have a positive cost benefit, the programs should not be approved as proposed.

V. PROGRAM DESIGN AND EVALUATION ISSUES

A. There is Insufficient Competent, Reliable Evidence in the Record to Support Continuation of the Company's EEE Sub-Programs at This Time.

1. The Record Does Not Support a Finding That PSE&G's Proposed Incentive Structures Will Result in Just and Reasonable Rates.

In addition to the ratemaking issues discussed above, there are substantial issues with the design of the three EEE sub-programs sought to be extended that have not been adequately addressed by PSE&G. As Rate Counsel's expert program design and evaluation witness, Mr. Kenji Takahashi, explained in his pre-filed testimony and at the evidentiary hearing in this matter, and as will be discussed in detail below, there is substantial evidence based on PSE&G own data that the incentive structures being proposed by the Company are too generous to participants, and therefore unnecessarily costly to ratepayers. *RC-3,* p. 5, 7, 12-23, *T181:L24 to T186:L5* (Dec. 4, 2014). PSE&G has not presented any substantial competent evidence that the design of the proposed EEE Extension III sub-programs, and, in particular, their incentive structures, adequately consider the interests of the ratepayers who must foot the bill.

It is fundamental that New Jersey public utilities must provide safe, adequate and proper service to their customers at rates that are just and reasonable. N.J.S.A. 48:2-21, N.J.S.A. 48:2-23. The requirement to provide service at "just and reasonable" rates presupposes diligent management. A utility is entitled only to those rates which will allow it to conduct its business "under efficient and economical operation ...." Public Service Coordinated Transport v. State, 5 N.J. 197, 225 (1950). "Good company management is required; honest stewardship is demanded; diligence is expected; careful, even hard, bargaining in the marketplace and at the negotiation table is prerequisite." In re Board's Investigation of Telephone Companies, 66 N.J. 476, 495 (1975). In New Jersey, ratepayers are statutorily and constitutionally entitled to receive service at

rates that are not unreasonably high. As the New Jersey Supreme Court has explained, "if the rate for the service supplied be unreasonably low it is confiscatory of the utility's right of property, and if unjustly and unreasonably high ... it cannot be permitted to inflict extortionate and arbitrary charges upon the public." In re Industrial Sand Rates, 66 N.J. 12, 23-24 (1974).

While Section 13 of the RGGI Law, expands the scope of activities traditionally performed by electric and gas public utilities, it does not change the utilities' fundamental character. The statue makes it clear that energy efficiency and renewable energy related activities are to be conducted in the utilities' capacities as "electric public utility[ies] or gas public utility[ies]." N.J.S.A. 48:3-98.1 (a) (1) & (2). The RGGI Law does not repeal any of the provisions of N.J.S.A. Title 48 that define the utilities' fundamental character as regulated entities with obligations to their customers, including the obligation to maintain just and reasonable rates. N.J.S.A. 48:2-12; N.J.S.A. 48:3-1.

Energy efficiency programs, like electric and gas distribution property and equipment, must be cost-effective. They must perform their intended functions but must not be "gold plated." The record in this matter does not contain sufficient competent evidence to support a finding by the Board that the proposed EEE Extension II program would operate in an efficient and economical manner. Public Service Coordinated Transport v. State, supra, 5 N.J. at 225 (1950).

Only two witnesses testified in support of PSE&G's EEE Extension II program, Mr. Swetz, and Mr. Melanson. Neither provided any substantive analysis bearing on the economy and efficiency of the proposed EEE Extension II program. Mr. Swetz's testimony was limited to ratemaking issues. *P-3,* p. 1. *P-5*, p. 1 Mr. Melanson provided an "overview" of the proposed EEE Extension II program and descriptions of each program, but did not present substantial

analysis bearing on the issue of whether the design of the three EEE Extension II sub-programs will be cost-effective for ratepayers. *P-2,* p. 1-2; *P-4,* p. 1 (Dec. 4, 2014).

Mr. Melanson is not expert in energy efficiency program design and evaluation. His educational background is in government and public affairs, and in financial management. *P-2,* Schedule JEM-EEEXII-1, p.1. Following eight years in State government, he was Manager of Public Policy and then Director of Corporate Strategy for PSE&G's parent corporation, PSEG. He has held his current position, Director or Energy Services, only since October 2012. *Id.* He claims expertise in energy and energy policy, but not the details of energy efficiency program design and evaluation. *Id.*, p. 1-2; *P-4,* p. 2-3.

Mr. Melanson's testimony did not include any critical analysis of incentive levels or other elements of program design. Instead, Mr. Melanson argues, essentially, that the current EEE sub-programs should be extended because they are attractive to participants, and consequently have resulted in the installation of substantial energy efficiency measures. *P-2,* p. 2-3, 4-5, 7. *P-4,* p. 1-2. The Company also relies on several letters of support, from program participants and from environmental and other organization participants, and awards and recognitions received from industry organizations. *T37:L11 to T38:L4* (Dec. 4, 2014); *T50:L1 to T51:L11* (Dec. 4, 2014). In addition to being hearsay documents, as discussed above, these materials merely confirm what is undisputed—the effectiveness of PSE&G's programs in attracting participants and installing energy efficiency measures. None of them contain any serious analysis of whether the costs of these programs are reasonable.

In the absence of any critical analysis performed by PSE&G, Mr. Melanson has presented a variety of materials that are relied upon to meet the Board's MFRs requiring the submission of cost-benefit analyses. As mentioned above, two documents were submitted with the Petition: the

results of a cost-benefit analysis ("CBA") performed by CEEEP, and a PowerPoint presentation prepared by the Electric Power Research Institute ("EPRI") dated September 19, 2012 and entitled "Public Service Electric and Gas Company (PSE&G) Energy Efficiency Potential Study—Final Report." *P-1,* Appendix A, p. 8 of 9; *P-2,* Schedule JEM-EEEXII-2, p. 2-3 of 38, Schedule JEM-EEEXII-12 & Schedule JEM-EEEXII-13. The Cadmus Impact Evaluation submitted with Mr. Melanson's prefiled rebuttal testimony and the addendum provided in discovery on December 2, 2014 are also claimed by Mr. Melanson to contain cost-benefit analysis. *T66:L11-14* (Dec. 4, 2014); *P-4,* Schedule JEM-EEEXII-1R. As explained above, these materials are all hearsay, and, absent a residuum of competent evidence, may not form the basis for a determination by the Board that the benefits of the proposed EEE Extension II exceed its cost.

There are also indications that these materials are not reliable, and they have limited probative value on the issues of whether the programs are cost-effective and whether the proposed incentives are reasonable. The CEEEP analysis has been characterized by PSE&G as an independent analysis requested and paid for by the Board. *RCR-EE-0022; T24:L4-19* (Dec. 4, 2014). However, data used by CEEEP was not independently developed. It was provided entirely by PSE&G, in communications that did not appear to involve the Board or its Staff. *T68:L17-20* (Dec. 4, 2014)*; RCR-EE-0014,* p. 1-2 . The CEEEP analysis went through no less than six versions, including one involving a change in CEEEP's model. *RCE-EE-001;, T72:L4-20* (Dec. 4, 2014).

Rate Counsel witness Mr. Takahashi found three errors in the CEEEP analysis as originally submitted. One of the errors, the failure to account for all costs (including the costs of ratepayer-funded incentives) in CEEEP's Total Resource Cost ("TRC") test calculations, has

been acknowledged and corrected. *RC-3,* p. 30-32; *P-4,* p. 21. However, two errors remain, both resulting from flaws in the data provided by PSE&G to CEEEP. One flaw is that the savings and costs used in the CBA do not reflect the Company's historical experience with the program. For both the Company's gas and electric EEE programs, the historical cost of achieving a given level of energy savings is higher than the projected costs assumed in the CBA. *RC-3,* p. 32-33. *RC-3,* p. 33; *RCR-EE-0031.* The other flaw is that the CBA uses total installed costs for energy efficient measures, rather than the incremental costs compared to standard equipment. *RC-3,* p. 34-35. This distorts the CBA results, because incremental costs are typically much lower than total installed costs. *Id.* In rebuttal testimony, PSE&G appears to have acknowledged that incremental costs should be used. *P-4,* p. 21. In addition, data from the Cadmus program evaluations, such as realized energy savings and market transformation effects that can affect the level of energy savings properly attributable to the program should be reflected in the CBA. *RC-3,* p. 25-26, *T195:l11to T196:L4* (Dec. 4, 2014). These flaws further demonstrate that the Board should not rely on the CEEEP CBA to find these programs cost-effective.

More fundamentally, CBAs such as the one performed by CEEEP do not demonstrate that incentives are no higher than necessary to attract participants to a program. They compare the costs and benefits of a program from varying perspectives. The CEEEP analysis, for example, includes the results of a Participant Cost Test, which compares the costs paid by program participant with the benefits they receive, the Program Administrator Cost Test, which compares the costs of the program (incentives plus administrative costs) with the value of resulting benefits from the perspective of the program administrator (in this case PSE&G), and the TRC Test, which compares the costs incurred by all customers (both participants and non-participants) with the total energy and non-energy benefits for all customers. *RC-3,* p. 15-16, 30-

31. This type of analysis can provide guidance on whether a program's benefits exceed its cost from various perspectives, but does not address the ultimate issue of whether such benefits could be achieved at a lower cost. See *Id.*[74]

The EPRI document submitted with the Petition in response to the Board's MFRs also does not support a finding that the programs are cost-effective or that the incentives are appropriate. It is not even a report – it is only a PowerPoint slideshow. *P-2,* Schedule JEM-EEEXII-13. The PowerPoint presentation did not analyze the costs and benefits of PSE&G's programs—it was an "Energy Efficiency Potential Study" that only assessed the potential to implement cost-effective energy efficiency measures within PSE&G's service territory. *Id.*, slides 1 & 4. It is of little or no use in determining whether PSE&G has set incentives at the correct level.

The Cadmus Impact Evaluation submitted with Mr. Melanson's prefiled rebuttal is subject to substantial questions about its reliability because it was provided too late for the parties to fully review. Preliminary impact evaluation results were requested in a Rate Counsel discovery request in October, 2014, but no results were provided to Rate Counsel until the submission of Cadmus's report with Mr. Melanson's rebuttal testimony after the close of business on November 21, 2014. *RCR-EE-0009(d); P-4,* Schedule JEM-EEEXII-IR. An addendum that changed the results for the Hospital sub-program was not provided until December 2, 2014, two days before the hearings. *RCR-EE-0046.* The 380 pages of supporting Appendices to the report ("Cadmus Appendices"), containing many of the factual details upon

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[74] The CEEEP CBA also included two other tests, the Ratepayer Impact Measure Test and the Societal Cost Test. *P-2,* Schedule JEM-EEEXII-12. The Board's 2010-2011 Evaluation and Research Plan for the NJCEP programs notes that these "[f]ive key benefit-cost tests have, with minor updates, been used for over 20 years as the principal approaches for energy efficiency program evaluation." 2010-2011 Evaluation and Research Plan: New Jersey's Clean Energy Program Energy Efficiency and Renewable Energy Programs: Final Report, p. 33 (Jan. 27, 2010). . http://www.njcleanenergy.com/files/file/Library/2010%20evaluation%20plan%20final%201-26-10.pdf

which the report was based, was provided on a single copy of a CD-ROM that was received in Rate Counsel's office the day before the hearing, December 3, 2014. *RCR-EE-0045.* As discussed in more detail below, these last-minute additions to the record raise substantial issues that could not be addressed in time for the hearings in this matter.

As discussed below, the Cadmus Impact Evaluation includes results that should be incorporated in the CBAs for PSE&G's programs and reflected in its program designs. However, it is not itself a CBA. It only "documents the energy and demand savings achieved" by the evaluated programs. *P-4,* Schedule JEM-EEEXII-1R, p. 3; see *RC-3,* p. 25. It does not compare costs and benefits, nor does it determine the reasonableness of incentive levels.

In summary, the record does not support a finding that the design of the three proposed EEE Extension II sub-programs, and particularly their proposed incentive structures, will result in costs that are fair to ratepayers. PSE&G as not presented any substantial critical analysis of this fundamental issue, and the hearsay materials introduced through Mr. Melanson can not fill this deficiency in the record. Based on the present record, PSE&G's proposal has not been shown by sufficient competent evidence to be consistent with the Company's obligation to conduct its EEE programs, like its other utility operations, with efficiency and economy.

2. PSE&G Has Failed to Conduct, On a Timely Basis, the Program Evaluations That are Needed to Assure That the Proposed Programs Will Achieve Energy Efficiency in a Cost-Effective Manner.

As explained by Rate Counsel witness Mr. Takahashi, an important element of any energy efficiency program is evaluation. *RC-3,* p. 24-25. The importance of evaluation was recognized by the Board's Office of Clean Energy ("OCE") in its 2010-2011 Evaluation and Research Plan,[75] which, cited several important reasons to conduct evaluation of OCE's own

[75] 2010-2011 Evaluation and Research Plan: New Jersey's Clean Energy Program Energy Efficiency and

programs. These include: (1) assuring regulatory accountability for the use of program funds, (2) tracking progress toward the State's policy and program goals including deferring the need for energy infrastructure upgrades and meeting greenhouse gas goals, (3) potentially bidding energy efficiency saving and distributed renewables into the PJM Reliability Pricing Market, and (4) assuring that programs are designed to achieve their goals in a cost-effective manner. *RC-3,* p. 24-25.[76]

As Mr. Takahashi explained in his prefiled direct testimony, two types of evaluations are of particular importance in order to assure that energy efficiency programs will achieve their energy efficiency objectives both effectively and cost effectively, and to identify areas for improvement: impact evaluation and process evaluation. *RC-3,* p. 25-26. Impact evaluation assesses the energy and demand savings that are attributable to the program, and can be claimed by the program administrator. Such evaluation can include identifying the incremental impacts of a program when it overlaps with customers targeted by other programs. It can also determine the persistence of the energy savings that result from the program, and evaluate free ridership (i.e., savings that would have occurred without the program), spillover (i.e., savings resulting indirectly from the influences of the program), and market transformation effects (i.e., the extent to which markets become able to operate without incentives). *RC-3,* p. 25. Process evaluation involves a systematic assessment of a program's operation, with the objective of identifying strengths and weaknesses and recommending improvements. Process evaluations also assess whether or not markets have been transformed. *RC-3,* p. 26.

Renewable Energy Programs: Final Report (Jan.27, 2010). http://www.njcleanenergy.com/files/file/Library/2010%20evaluation%20plan%20final%201-26-10.pdf.

[76] 2010-2011 Evaluation and Research Plan, p. 5-6.

The importance of these two types of evaluations was affirmed in the Board Orders approving the earlier versions of the three sub-programs sought to be extended in the current Petition. The Orders approving the Carbon Abatement and Original EEE programs, which included the original version of the three sub-programs, required both impact and process evaluations, and the Order approving the EEE Extension required a process evaluation.[77]

In order for evaluations to achieve their purposes, they should not await the completion of the programs being evaluated. Evaluations can be done as soon as several projects are completed. *RC-3,* p. 26. For PSE&G's Direct Install program, a reasonable time frame would have been two years after the initiation of the program. *Id.* For the Hospital and Multi-Family programs, which promote more complex custom measures, evaluations should have been done approximately three years after implementation of these programs began. *Id.* PSE&G's impact and process evaluations of the three sub-programs at issue here took considerably longer than these reasonable time frames, and too late for the results to be fully reviewed and incorporated in PSE&G's program design within the statutory 180-day time frame provided for review of the Company's current proposal. Until full evaluations are conducted and assessed, extensions of these programs should not be approved.

As noted above, the Direct Install program was initially implemented as part of the Company's Carbon Abatement program in early 2009, and the other two sub-programs followed

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[77] I/M/O The Petition of Public Service Electric and Gas Company Offering a Carbon Abatement Program in it Service Territory on a Regulated Basis and Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket No. EO08060426, Decision and Order Approving Joint Position at 6 (Dec. 17, 2008); I/M/O the Petition of Public Service Electric and Gas Company Offering Energy Efficiency Economic Stimulus Program in its Service Territory on a Regulated Basis and Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98.1, BPU Docket Nos. EO09010056 and EO09010058, Decision and Order Approving Stipulation at 7-8 (July 16, 2009); I/M/O the Petition of Public Service Electric and Gas Company for an Extension of Three Sub-components of its Energy Efficiency Economic Stimulus Program in its Service Territory on a Regulated Basis and Associated Cost Recovery and for Changes in the Tariff for Electric Service, B.P.U.N.J. No. 15 Electric and the Tariff for Gas Service B.P.U.N.J No. 15 Gas, Pursuant to N.J.S.A. 48:2-21, 48:2-21.1 and N.J.S.A. 48:3-98.1, BPU Docket No. EO11010030, Decision and Order at 8 (July 14, 2011).

with the approval of the Original EEE program in July 2009. According to a PSE&G discovery response, impact evaluations of these three programs began in the first quarter of 2013. *RCR-EE-0009(c).* Another discovery response states that members of Mr. Melanson's staff had received and reviewed "the Cadmus evaluation data" as of early July, 2014. *RCR-EE-0014,* attachment entitled "FW PSEG CB Analysis.msg." However, as noted above, the results of this evaluation were not provided to Rate Counsel and Staff until shortly before the hearings in this matter, more than five years after these programs were first implemented. Process evaluations for the original three sub-programs were not initiated until May 2014, and no results were provided to Rate Counsel until December 2, 2014, two days before the hearings. Impact evaluations of the EEE Extension sub-programs, which were implemented starting in the middle of 2011, are not expected to be completed until approximately early in the second quarter of 2015. *P-4,* p. 19.

As Mr. Takahashi concluded, the evaluations provided shortly before the hearings for the original versions of the three EEE Extension II sub-programs should be part of the review process for the current proposal. *RC-3,* p. 7, 29, *T194:L24 to T196:L7* (Dec. 4, 2014). Both the Cadmus Impact Evaluation, and the Cadmus Process Evaluation suggest some specific issues that should be addressed before the EEE Extension II program is implemented.

The Cadmus Process Evaluation identified several potential program changes, which should be reviewed and, if appropriate, reflected in PSE&G's proposal. *T198:L7 to T199:L1* (Dec. 4, 2014); *Cadmus Process Evaluation,* p. 1-2, 21-22. At least one of these changes, a suggestion to incorporate a Direct Install option in the Multi-Family program, might necessitate further reduced incentive levels because the program's focus would be changed to lower-cost measures with shorter payback periods. *Cadmus Process Evaluation,* p. 1; *T199:L2-20* (Dec. 4, 2014). Additionally, as part of the interviews conducted for the process evaluation, Cadmus

received input suggesting that incentives could be lower. Specifically, Cadmus received one vendor comment that the high incentives made the program "hard for most of them [customers] to resist"; another vendor comment that incentives were "higher than necessary" to attract customers; and, a comment from a PSE&G staff member that incentives for multi-family customers could be lower than for other customers, because on-bill financing was the most helpful program feature for multi-family customers. *Cadmus Process Evaluation,* p. 9, 14, 19.

The Cadmus Impact Evaluation also raises issues that should be included in the Board's review of PSE&G's proposal. First, Cadmus' findings about the savings actually achieved in PSE&G's programs compared to the savings projected, known as "realization rates," should be reflected in the Company's CBAs. *T195:L13 to T196:L4* (Dec. 4, 2014). The Hospital sub-program in particular achieved lower-than-projected savings for electric demand, electric energy, and natural gas. *P-4,* Schedule JEM-EEEXII-IR, p. 25-26; *RCR-EE-0046*, p.1-2; *T52:L21 to T53:L18* (Dec. 4, 2014). This means that actual costs per kilowatt, kilowatt-hour or therm of savings were higher than projected. As Mr. Takahashi explained, these actual results should be reflected in the forecasted energy savings that are used for purposes of the CBA. *T195:L13 to T196:L4* (Dec. 4, 2014).

Additionally, the Cadmus Impact Evaluation, included other findings suggesting a need for program design changes. While a thorough review was not possible give the late disclosure of this evaluation and supporting documentation, a preliminary review identified some areas of concern, particularly with regard to the Hospital sub-program.

Initially, there should be an opportunity to thoroughly review the addendum to the Cadmus Impact Evaluation that was provided to Rate Counsel and Staff for the first time with PSE&G's December 2, 3014 discovery responses. *RCR-E-0046*. The original Cadmus Impact

Evaluation provided with Mr. Melanson's rebuttal testimony reported an overall natural gas savings realization rate of only 19 percent for the Hospital program. *P-4,* Schedule JEM-EEEXII-IR, p. 25-26. The addendum modified this number to 76 percent. *RCR-E-0046.* Cadmus obtained this result simply by excluding two hospitals from its calculation of the average natural gas realization rates for the Hospital sub-program. *RCR-EE-0046*, p.2; *T52:L21 to T54:L18* (Dec. 4, 2014). The exclusion of the same two hospitals also resulted in changes, albeit less drastic, to the overall realization rates for electric demand and electric energy. *RCR-EE-0046*, p. 1-2.

According to Mr. Melanson, the two hospitals that were excluded had switched from electric to natural gas-fueled cooling units in response to low natural gas prices. *T53:L8-12* (Dec. 4, 2014). One of these projects included the installation of a gas-fueled chiller that was specifically "designed to promote a fuel switch to natural gas." *T53:L15-17* (Dec. 4, 2014). The other achieved lower than expected savings from electric chiller plant upgrades because the customer switched to an existing natural gas fueled chiller. *P-4,* p. 17; *T53:L17*-21 (Dec. 4, 2014); *RC-EE-0046,* p. 2. It is unclear why the results of these two projects should be excluded in evaluating PSE&G's realization of gas savings through the Hospital program. At a minimum, these two projects raise questions about the use of ratepayer funds for projects that were primarily designed to "promote a switch to natural gas" for economic purposes, and to fund upgrades that may not be fully utilized due to the potential for fuel switching.

Other hospitals evaluated by Cadmus realized savings significantly lower than projected for a variety of reasons. One project, involving new construction, achieved realization rates of 21 percent and 51 percent, respectively, for electric peak demand and electric energy, due to an "error in the IGA modeling method." *P-4,* Schedule JEM-EEEXII-IR, p. 25-26; *Cadmus Appendices,* p.159 of 380. Another project achieved only 22 percent of projected electric energy

savings for reasons including an incorrect estimate of lighting savings, the use of incentive money to replace a redundant electric motor, and a non-operational chiller used as part of a baseline analysis. *Cadmus Appendices,* p. 153 of 380. A third project realized only 30 percent of projected gas savings because the installed gas chiller plant used less than expected. *Cadmus Appendices,* p. 167 of 380.

The above findings show a need to evaluate possible program design changes to assure that the use of ratepayer-funded incentives is both cost-effective and focused primarily on energy savings. Mr. Melanson's prefiled rebuttal testimony asserts that changes have been made to the Hospital sub-program to "enhance the accuracy of modeled savings" including direct retention by PSE&G of the engineers performing the investment grade audits and designing the efficiency projects, and a "more robust internal review process" for reviewing the engineers' work. *P-4,* p. 18. A more thorough review is needed to assess whether these changes have been effective, and whether additional changes would be appropriate. While the Multi-Family and Direct Install programs achieved higher realization rates, full review of the Cadmus Evaluation Report and the supporting documents may also identify program design changes that would enhance the effectiveness and cost-effectiveness of these sub-programs.

The EEE Extension program should not be further extended until the parties have had the opportunity to conduct discovery and fully review the evaluations of the prior programs. A thorough review is needed to assure that the results of those evaluations are considered and incorporated in the designs of PSE&G's programs.

B. If PSE&G is Allowed to Implement the Proposed EEE Extension II Program at This Time, Such Approval Should Require Reduced Incentive Levels and Other Program Modifications, as Well as Program Evaluation and Data Collection Requirements.

1. PSE&G's Proposed Incentives are Too High and Should Be Lowered.

While the information in the record is incomplete, it is nevertheless clear that the incentive structures proposed for the EEE Extension sub-programs are higher than they need to be, and should be lowered if the programs are allowed to proceed at this time. PSE&G's EEE sub-programs provide incentives which are, by any standard, extremely generous. Under all three programs, participants pay no up-front costs for the energy efficiency measures installed, and are required to repay only a portion of those costs over time. For the Direct Install program, the participant's share is 30 percent of project cost. *RC-3,* p.11; *P-2*, p. 11. Under the Hospital and Multi-Family sub-programs, the participant's share is determined by a formula. This formula, which was designed to produce participant shares averaging 30 percent, was later modified in Mr. Melanson's testimony to increase participants' shares to an average of 42 percent. *RC-3,* p. 13; *T59:L2-12* (Dec. 4, 2014); *P-4,* p. 8.

These incentives are very generous compared to other energy efficiency programs nationwide. Mr. Takahashi reviewed energy efficiency programs in several other states, and found that other programs are providing lower incentives. *RC-3,* p.18 & Schedule KT-2. Many of these other programs provide lower incentives because they are typically designed based on the incremental costs of energy efficient equipment, compared to the cost of standard equipment. *RC-3,* p. 18-19. In other words, the subsidy is designed to encourage participants to select energy efficient equipment and systems, rather than standard code-compliant systems. *Id.* Other

programs reviewed by Mr. Takahashi include lower incentive caps of 50 percent of total costs. _Id._ p. 19 & Schedule TK-2.

Contrary to Mr. Melanson's rebuttal testimony, Mr. Takahashi's analysis of other programs in other states was not limited to those targeting "lighting and similar 'low hanging fruit'...." *P-4,* p. 7. The programs reviewed by Mr. Takahashi's included several that, like PSE&G's programs, are designed to promote more comprehensive and costly energy efficiency measures. *T188:L6 to T190:L19* (Dec. 4, 2014).

PSE&G asserts in its testimony that its proposed incentives based on a high percentage of total project costs are justified because its programs are designed to accelerate the retirement of outdated but still functioning equipment. *P-4*, p. 9-10; see *RC-3,* p. 21. As Mr. Takahashi explained, this reasoning assumes that the outdated equipment would not be replaced in the absence of PSE&G's programs. *RC-3,* p. 21. Some customers with aging equipment may not install energy efficient equipment without incentives, but they will replace the equipment with standard equipment when it fails. *RC-3,* p. 21-22, *T183:L14-25* (Dec. 4, 2014). In these circumstances, an incentive based on a high percentage of total project costs risks subsidizing costs that would have been incurred without incentives.

The potential for subsidizing expenditures that would have occurred without this program was illustrated in testimony from PSE&G's own witness, Mr. Melanson. In response to questioning by Commissioner Holden, Mr. Melanson testified that heating and cooling systems replaced under the Company's Hospital sub-program may be in poor operating condition:

> Like I said, when we go in there, there is water leaking out of things, they're 20 years past their useful life.

T99:L4-6 (Dec. 4, 2014). In circumstances such as these, there is a likelihood that the customer will need to replace or substantially refurbish the system in the near future in any event. An incentive of 70 percent of <u>total installed costs</u> could therefore subsidize some costs that were going to be incurred in the near future without any incentive. <u>See</u> *RC-3,* p. 21-22.

The engineering and technical support provided to participants at no cost, and the availability of no-interest on-bill financing, adds to the value of the generous cash incentives. As Mr. Takahashi noted in his testimony, the latter is a very attractive feature for participants because it allows them to avoid paying any up-front costs. *RC-3,* p. 13-14. Since on-bill financing provides significant value to participants, cash subsidies can be lower in programs that have this feature. *RC-3,* p. 14.

There are other indications that the incentive levels provided under PSE&G's sub-programs are too high. One such indication is the lopsided allocation of the benefits and costs. Based on the data provided by PSE&G to CEEEP, program participants receive benefits worth $5.10 to $6.90 for every dollar they spend on energy efficiency measures while ratepayers receive only $1.30 to $2.60 for every dollar they spend. *RC-3,* p 15-17. Another indication is the long waiting lists for all three programs. The waiting list for the Multi-Family program (45) exceeds the number of participants to date (31). *<u>Id</u>.*, p. 17. The Direct Install program waiting list (304 potential customers) is nearly half the number participants to date (611), while the Hospital sub-program has a waiting list (21) of about 78 percent of the number of participants to date (27). *<u>Id</u>. p.* 17.

The factors discussed above strongly indicate that the incentives proposed by PSE&G are higher—and more costly to ratepayers—than necessary. *RC-3,* p. 12-19. These incentive levels

should be reduced to be more consistent with similar programs in other states. By doing so, it is likely that the same amount of efficiency can be achieved at a lower cost to ratepayers.

A proposal for reduced incentive levels, should the EEE Extension II program be allowed to proceed, is presented in the prefiled direct testimony of Rate Counsel witness Mr. Takahashi. For the Hospital and Multi-Family sub-programs, incentives should be reduced to target average incentive levels of 45 percent of total installed costs. This is close to the highest incentive levels, 50 percent of installed costs, found by Mr. Takahashi for similar programs in other states. *RC-3,* p. 19, Schedule KT-2, p. 2-4 and Tables 2 and 4. The recommended incentive level is somewhat lower than the 50 percent observed in some other programs, because PSE&G also offers on-bill financing with no up-front costs to participants. *RC-3,* p. 19. Incentives for the Direct Install program should be reduced to 50 percent. This close to the midpoint of maximum incentive levels Mr. Takahashi found for other similar programs. *RC-3,* p. 19.

Rate Counsel recognizes that the NJCEP provides incentives of 70 percent for its Direct Install program. However, since the NJCEP does not provide on-bill financing, its incentives are less valuable to participants than PSE&G's proposed incentive package. Contrary to Mr. Melanson's argument in his prefiled rebuttal testimony, a 70 percent incentive is not required to make PSE&G's program consistent with OCE's. *P-4,* p. 13-14. A cash incentive of 70 percent <u>plus</u> on-bill financing is more generous than OCE's incentives. In order to be comparable to OCE's program, PSE&G's program must include a lower level of cash subsidy. *RC-3,* p. 14.

Along with the proposed changes in incentive levels, the periods over which participants are required to pay their portion of project costs should be increased to four years from the currently proposed three years for the Direct Install sub-program, and to five years from the currently proposed three years for the Hospital program. This is necessary to assure that

participants in these two sub-programs see net reductions in their energy bills during the repayment periods. For the Multi-Family program, however, no change is recommended in the proposed payback periods (ten years for NJHMFA projects and five years for non-NJHMFA projects), as participants in this sub-program should see net bill reductions during the repayment periods even with the proposed higher participant cost shares. *RC-3,* p. 20.

Mr. Takahashi's testimony supports his proposed incentive levels with calculations of the results of the Participant Cost Test and the Program Administrator cost tests, again based on the Company's data. *RC-3,* p. 20-21. Mr. Takahashi's results show that the proposed lower incentive levels would result in a less lopsided allocation of program benefits between participants and ratepayers. With the modified incentives levels, the ratepayers would receive, for every dollar invested, $1.60 to $3.20. *RC-3,* p. 16, Table 2 and p. 21, Table 3. At the same time, participants would still be receiving significant benefits of about $3.00 to $3.70 for every dollar invested. *RC-3,* p. 20- 21, Table 3. In Mr. Takahashi's opinion, even the reduced incentives should cover more than the actual incremental costs for measures involving early retirements of existing equipment. *RC-3,* p. 23.

The Company's proposals to implement incentives that are higher than those recommended above should be rejected. For the Hospital and Multi-Family programs, Mr. Melanson has proposed to modify the formulas used to determine incentive amounts to reduce the average incentive levels for these programs from 70 percent to 58 percent rather than Rate Counsel's recommended 45 percent because the Company believes "a 25% reduction of incentive levels ... is overly aggressive and would harm program success." *P-4,* p. 8. If the proposed modified incentive levels are based on anything other than the subjective judgments of unidentified PSE&G personnel, this does not appear in the record.

Further, as part of his analysis of PSE&G's proposed modified incentive levels, Mr. Takahashi found a discrepancy suggesting that the formulas used to calculate the Hospital and Multi-Family program incentives may be more generous than intended. PSE&G's incentives for these sub-programs are based on a "payback" calculation, i.e., the incentive is designed to reduce the time that would be required for the participant to recover the costs of the installed energy efficiency measures from the resulting energy cost savings. *P-2,* p. 5-6, 8; *RC-3,* p. 11; *RC-4*. As part of his analysis of the Company's modified proposal, Mr. Takahashi found that the average incentive levels targeted by the Company appear inconsistent with the minimum payback times that are supposed to result from the incentive formulas. *T186:L13 to T187:L16* (Dec. 4, 2014). This is a further reason to reject PSE&G's modified incentive proposal for the Hospital and Multi-Family sub-programs.

For the Direct Install program, PSE&G is proposing to maintain its originally proposed 70 percent incentive level. *P-4,* p. 12. In support of this position Mr. Melanson cites four programs in other states that have incentive levels of 70 percent. *Id.* As explained by Mr. Takahashi, the programs cited by Mr. Melanson are not comparable because PSE&G's program focuses more on costly heating and cooling systems for which total project costs are likely to substantially exceed the incremental costs of energy efficiency. *T191:L1-24.* PSE&G's proposed 70 percent incentives for the Direct Install sub-program remain without substantial support in the record.

Rate Counsel presented a proposal for reduced incentives that are supported by the analysis of its witness Mr. Takahashi. If the EEE Extension II program is allowed to proceed at this time, it should be modified to reflect Rate Counsel's proposed incentive structure.

2. **As Agreed by PSE&G, the Direct Install Program for Small Businesses Should be Limited to Urban Enterprise Zones, and No Waivers of the Peak Load Limit for the Direct Install Program Should be Allowed, With a Limited Exception for Public Schools.**

If the EEE Extension II program is allowed to proceed, it should include two modifications to the proposed Direct Install program that have been agreed to by PSE&G.

The first modification involves PSE&G's proposed extension of its Direct Install program, currently available only to governmental and non-profit participants, to small businesses. With this expansion, PSE&G would be targeting the same customers that are eligible to participate in the NJCEP Direct Install program. In order to avoid potential conflicts between the two programs Mr. Takahashi recommended that PSE&G's program be limited to small businesses located in Urban Enterprise Zones ("UEZs"). *RC-3,* p. 23. Mr. Melanson's prefiled rebuttal testimony expresses disagreement that PSE&G's program would conflict with the NJCEP program, but states that the Company will nevertheless agree to limit its Direct Install program offerings for small business customers to those located in UEZs. *P-4,* p. 5.

The second modification involves proposed changes to the peak usage eligibility cap for all participants in the Direct Install program. PSE&G is proposing to increase the currently effective peak usage cap from 150 kW to 200 kW, and, in addition, allow participation by larger facilities on a case-by-case basis. *P-2,* p. 9-10. Rate Counsel does not object to the increased cap of 200 kW, but opposes PSE&G's proposal to allow waivers of the new cap. As explained in Mr. Takahashi's prefiled direct testimony, allowing PSE&G the discretionary authority to waive the peak usage cap could result in projects that consume an excessive amount of the budget for this program. Such a situation occurred in the past when a single large customer, the Port Authority of New York and New Jersey, received incentives totaling $5 million for two projects installed at

Newark Airport. *RC-3,* p. 23-24, *RCE-EE-0004,* workbook entitled "RCE-EE_4_Project Data.xlsx," *RCR-EE-0018.*

Mr. Melanson's prefiled surrebuttal states that Rate Counsel's proposed limitation is acceptable to the Company, provided there is an exception to allow projects at local elementary, middle and high schools with demands in excess of 200 kW. *P-4,* p. 6. Rate Counsel would agree to the proposed exception, provided it is carefully limited. According to a PSE&G discovery responses, the Company's intent is to allow projects at <u>public</u> elementary, middle and high schools. *RCR-EE-0036.* The proposed waiver authority should accordingly be explicitly limited to public schools. In addition, as recommended by Mr. Takahashi and agreed by the Company, the Company should not allow more than one project per customer per year, and it should be clarified that this limit is "per customer facility" rather than "per metered account." *RC-3,* p. 24; *P-4,* p. 6.

3. The Company Should Be Required to Plan and Budget for More Frequent and Timely Evaluation, Measurement and Verification Activities, Supported by Adequate Data Collection.

As discussed above, PSE&G's failure to conduct program evaluations on a timely basis contributed to an inadequate record for the Board to consider PSE&G's current proposal. PSE&G should be required to conduct future evaluations on a more timely basis. Rate Counsel has argued above that the EEE Extension II program should not be implemented until the impact and process evaluations provided shortly before the hearings have been fully reviewed and their results reflected in PSE&G's proposal. In the alternative, a separate proceeding should be opened to allow a full review of these evaluations, with an opportunity to propose modifications to PSE&G's programs as appropriate based on that review. PSE&G should also be required to complete, and make available to Rate Counsel and the Board's Staff, the pending impact

evaluation of the EEE Extension program. PSE&G should be required to complete this evaluation by early in the second quarter of 2015, consistent with Mr. Melanson's rebuttal testimony. *P-4,* p. 19.

If the EEE Extension II program is approved, impact evaluations should take place approximately two years after implementation for the Direct Install program, and approximately three years after the implementation for the Hospital and Multi-Family programs. *RC-3*, p. 26. PSE&G's Petition stated that it is working to develop an evaluation plan for the EEE Extension II program. This evaluation plan should be made available to Rate Counsel and the Board's Staff on a timely basis, early enough to allow review before the impact evaluations, and any other evaluations identified in the plan, are performed.

In addition, as discussed above, for programs such as PSE&G's that target early replacements of existing, still functioning equipment, it is important to assure that incentives are being used to promote energy efficiency goals, and not to subsidize replacements for other purposes. In order to determine the measure costs, incentive levels and actual savings associated with these types of projects, it is important for the Company to collect data on the remaining lives of the existing systems being replaced, and on the incremental costs of energy efficiency. *RC-3,* p. 27.

The data collection requirement for the California Statewide Customize Retrofit program offered by California's investor-owned utilities provides a good model for the data collection that should be required for PSE&G. This program requires the utilities to obtain from all applicants both the total cost to implement the energy efficiency measure and incremental costs compared to a similar, standard efficiency measure, as well as documentation that the projects would not have been undertaken without the program. <u>2013-14 Statewide Customized Retrofit</u>

Offering Procedures Manual for Business ("California Procedures Manual"), p. 1-13 to 1-14 & 1-20.[78]

While additional data collection could be useful for the NJCEP program, it is essential for programs such as PSE&G's where the Company is actively promoting costly replacement of expensive heating and cooling systems – including, in some cases, redundant electric and gas systems – and basing incentives on a generous share of total costs. For PSE&G's programs, it is important to have the necessary data to assure that ratepayer funds are being used to promote energy efficiency and that the incentives being provided are set at to reflect reasonable costs in relation to their achievement of energy efficiency goals.

VI. CONCLUSION

In summary, Rate Counsel recommend that the PSE&G EEE Extension II Program not be approved as filed. For the reasons explained above concerning accounting and cost-recovery issues, the Company's proposed return or equity of 10.3% is too high given current economic conditions and the lower risk of these EE programs. The accounting treatment and cost-recovery mechanism offered by the Company is overly generous to its shareholders and too expensive for ratepayers. A more reasonable return on equity should be no more than 9.75%, if the Board should approve the program. The amortization period for repayment of the program costs should be no longer than 5 years vs. 15 years requested by the Company. Administrative costs should be limited to no more than 8% of total program expenses, with no recovery for the unsubstantiated IT costs. The Board should reject the approval of PSE&G's "participation fee"

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[78] The 2013-14 Statewide Customized Retrofit Offering Procedures Manual for Business program is available at: http://www.aesc-inc.com/download/spc/2013SPCDocs/PGE/Customized%201.0%20Policy.pdf

of 1.5% as not justified and outside the scope of this proceeding, and if allowed, should be used to offset program costs.

Regarding the program's design and evaluation issues, the Company failed to submit competent, reliable evidence to substantiate extension at this time. The cost-benefit analysis supplied by the Company should be accorded no evidentiary weight, due to the fact no witness presented by PSE&G could provide a residuum of evidence to support its reliability. Further, the CEEEP report was found to contain significant errors that necessitate correction and additional analysis. The Cadmus Report and the addendum supplied by the Company also failed to show competent evidence of the cost-effectiveness of the proposed EE programs. PSE&G also failed to produce timely program evaluations which are necessary to properly assess the effectiveness of the programs. The incentive levels should be reduced as too lucrative to participants, and, the payback periods should be lengthened to reduce costs to ratepayers. If the Board should decide to approve the proposed programs, sufficient time should be allowed to properly evaluate the cost-benefit and effectiveness of the programs prior to this implementation. In this manner, the appropriate incentive levels and payback could be determined.

For all the foregoing reasons and based on the record before it, the Board should reject the PSE&G EEE Extension II proposal and associated cost-recovery mechanism as proposed by the Company.