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January 21, 2009

In the Matter of the Petition of
Public Service Electric and Gas Company
Offering an 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 No. _____

VIA ELECTRONIC, HAND-DELIVERY & REGULAR MAIL

Kristi Izzo, Secretary
Office of the Secretary
Board of Public Utilities
Two Gateway Center
Newark, New Jersey 07102

Dear Secretary Izzo:

Enclosed for filing are the original and ten copies of the Petition and accompanying Attachments of Public Service Electric and Gas Company (PSE&G, the Company, Petitioner) in the above-entitled matter. The Company is also providing BPU Staff with an electronic copy of the filing.

PSE&G respectfully requests that the Board expeditiously convene a Procedural Schedule Conference the week of February 2, 2009 to be conducted by a Deputy Attorney General and that a schedule be established that will enable the Board to render and issue a Final Order on this matter in the shortest practical timeframe but, in any event, no later than April 1, 2009. PSE&G has also requested waiver of certain RGGI Minimum Filing Requirements. PSE&G believes waivers are warranted to allow Public Service to expeditiously submit this filing to achieve the 2009 targeted timeframe for utilities to make these types of investments as suggested by Governor Corzine in his New Jersey Economic Assistance and Recovery Plan.

Public Service also respectfully requests that the Board retain jurisdiction of this matter and not transfer the filing to the Office of Administrative Law. PSE&G believes evidentiary hearings are not necessary for the Board to approve this Energy Efficiency Economic Stimulus Program. Public Service would like to note that evidentiary hearings were not held in its recently approved Carbon Abatement Program. Likewise, the Company will work diligently with all parties in this proceeding in as timely and equitable a manner as is possible to achieve a mutually agreeable resolution.

Copies of the Petition (electronic and hard) will be served upon the Department of Law and Public Safety and upon the Public Advocate, Division of Rate Counsel.

Respectfully submitted,

*Original Signed by
Frances I. Sundheim, Esq.*

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STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF PUBLIC)
SERVICE ELECTRIC AND GAS COMPANY)
OFFERING AN ECONOMIC ENERGY)
EFFICIENCY STIMULUS PROGRAM IN ITS) **P E T I T I O N**
SERVICE TERRITORY ON A REGULATED)
BASIS AND ASSOCIATED COST RECOVERY) BPU Docket No. _____
MECHANISM PURSUANT TO N.J.S.A. 48:3-98.1)

Public Service Electric and Gas Company (Public Service, PSE&G, the Company, Petitioner), a corporation of the State of New Jersey, having its principal offices at 80 Park Plaza, Newark, New Jersey, respectfully petitions the New Jersey Board of Public Utilities (Board or BPU) pursuant to *N.J.S.A. 48:3:98.1, et seq.*, as follows:

INTRODUCTION

1. Petitioner is a public utility engaged in the distribution of electricity and the provision of electric Basic Generation Service (BGS), and distribution of gas and the provision of Basic Gas Supply Service (BGSS), for residential, commercial and industrial purposes within the State of New Jersey. PSE&G provides service to approximately 2.1 million electric and 1.7 million gas customers in an area having a population in excess of 5.5 million persons and which extends from the Hudson River opposite New York City, southwest to the Delaware River at Trenton and south to Camden, New Jersey.

2. Petitioner is subject to regulation by the Board for the purposes of setting its retail distribution rates and to assure safe, adequate and reliable electric distribution and natural gas distribution service pursuant to *N.J.S.A. 48:2-21 et seq.*

3. In an effort to stimulate the economy by lowering consumers' energy bills and stimulating job creation, Governor Corzine, during his address to a special joint session of the Legislature on October 16, 2008, stated that he will aggressively move forward to put in place a statewide \$500 million energy efficiency program that works with the State's electric and gas utilities.¹ See Attachment 1. According to Governor Corzine, this is in addition to \$462 million that the BPU's Clean Energy Program has budgeted for the remainder of 2008 and all of 2009. "In total, this means an investment of approximately \$1 billion in clean energy programs for residential and business customers throughout New Jersey and it will provide an estimated creation of 3,000 jobs over the next year."²

4. Pursuant to the October 16, 2008 Governor's charge to utilities to invest in energy efficiency programs, PSE&G submits this Petition setting forth the specific energy efficiency programs Public Service proposes to undertake to promote the Governor's New Jersey Economic Assistance and Recovery Plan.³ The Governor's

¹ New Jersey Economic Assistance and Recovery Plan, Green Economy in New Jersey.

² *Id.*

³ Due to the expedited nature of this filing, PSE&G was unable to prepare many of the detailed analysis required under the BPU's Minimum Filing Requirements. As a result, PSE&G intends to supplement this Petition in February 4, 2009 with more detailed financial analysis, rate recovery methodology and customer rate impacts.

economic energy efficiency stimulus program calls for utilities to make investments in energy efficiency programs over the course of 2009.

5. It is anticipated that the federal government, in response to President Obama and in recognition of the extent of the recession, will pass economic stimulus legislation in the near future. PSE&G is working with other utilities, environmental groups and others, to try to have Congress include additional stimulus grants in such legislation for states that meet certain principles generally included in the Energy Independence and security Act of 2007 which are designed to foster increased investment by utilities and energy companies in energy efficiency, smart grid and infrastructure and renewables. If any Federal Economic Stimulus Funds, which are applicable to these proposed programs, become available and are received by the Company, such amounts will, at that time, be credited against amounts expended. Revenue requirements will be recalculated at that date and deferred accounting will continue to be followed.

6. This Petition is being filed pursuant to legislation signed into law⁴ by the Governor which set forth the New Jersey Legislature's findings that energy efficiency and conservation measures must be essential elements of the State's energy future and that greater reliance on energy efficiency and conservation will provide significant benefits to the citizens of New Jersey. The Legislature also found and declared that public utility involvement and competition in the conservation and energy efficiency

⁴ The legislation is codified at *N.J.S.A. 26:2C-45*.

industries are essential to maximize efficiencies. The above-referenced legislation is herein referred to as the “Regional Greenhouse Gas Initiative” or “RGGI Legislation.”

7. Pursuant to Section 13 of the RGGI Legislation, an electric or gas public utility may, among other things, provide and invest in energy efficiency and conservation programs in its service territory on a regulated basis.⁵ See *N.J.S.A.* 48:3-98.1(a)(1). The RGGI Legislation also states that electric and gas public utility investment in energy efficiency and conservation programs may be eligible for rate treatment approved by the Board, including a return on equity, or other incentives or rate mechanisms that decouple utility revenue from sales of electricity and gas. See *N.J.S.A.* 48:3-98.1(b). Ratemaking treatment may include placing appropriate technology and program cost investments in the utility’s rate base, or recovering the utility’s technology and program costs through another ratemaking methodology approved by the Board. *Id.*

⁵ Section 13 of the RGGI Legislation has been codified at *N.J.S.A.* 48:3-98.1 *et seq.*

8. On May 12, 2008, the Board issued an Order pursuant to *N.J.S.A.* 48:3-98.1(c) that allows electric public utilities and gas public utilities to offer energy efficiency and conservation programs on a regulated basis provided that the utility files a petition and obtains Board approval for such programs and the mechanism for program cost recovery.⁶ The Board also established that certain information be filed with the Petition. This requested information is set forth in the minimum filing requirements attached to the 120-Day RGGI Order as Appendix A (RGGI Minimum Filing Requirements).

9. The RGGI Minimum Filing Requirements set forth specific information that a utility must submit along with its petition. The 120-Day RGGI Order also requires a utility, to meet with BPU Staff and the New Jersey Division of Rate Counsel (Rate Counsel) at least 30 days prior to filing its petition to discuss the nature of the program and program cost recovery mechanism to be proposed in the petition, as well as, the RGGI Minimum Filing Requirements to be submitted along with the petition. (30-Day RGGI Pre-Filing Meeting) See 120-Day RGGI Order at p. 6. If the utility believes that it is unable to comply with a particular RGGI Minimum Filing Requirement, a detailed explanation for such noncompliance should be discussed at the 30-Day RGGI Pre-Filing Meeting. *Id.* The RGGI Minimum Filing Requirements may be modified by Board Staff as determined on a case-by-case basis if public policy considerations deem specific requirements unnecessary or onerous for a particular program or class of programs. *Id.*

⁶ See BPU Order Pursuant to *N.J.S.A.* 48:3-98.1 (c) (120-Day RGGI Order), BPU Docket No. EO08030164

10. Once a petition has been filed with the Board, Board Staff shall have 30 days, commencing on the date the petition was filed, to determine whether the petition is administratively complete and advise the utility in writing that the petition is administratively complete or that the petition is not administratively complete and set forth the deficiencies and the items required to remedy the deficiencies. *Id.* at p. 6.

PSE&G ECONOMIC ENERGY EFFICIENCY STIMULUS PROGRAM (EEE Stimulus Program) DESCRIPTION

11. In an effort to stimulate the economy by lowering consumers' energy bills, stimulate job creation, address climate change and to assist the State in achieving its aggressive energy reduction goals, Public Service proposes the EEE Stimulus Program as described herein. The EEE Stimulus Program will serve as a vehicle to achieve these aggressive goals.

12. PSE&G seeks Board approval to implement an EEE Stimulus Program to offer energy efficiency projects across specific customer segments. Public Service proposes, through this regulated service, to target residential, industrial and commercial customers, as well as demonstrating new technology to its customers. PSE&G is proposing to undertake a set of eight (8) sub-programs that will result in expenditures of approximately \$190 million. These sub-programs were selected from a menu that was developed through a collaborative effort among the State's electric and gas utilities, under the facilitation of the New Jersey Institute of Technology's Center for Architecture

and Building Science Research. The sub-programs were identified while taking into consideration various factors such as potential for job creation, energy savings, and whether it would be complementary to the New Jersey Clean Energy Program (NJCEP) and other utility energy efficiency programs. The following is a summary of PSE&G's proposed EEE Stimulus sub-programs:

PSE&G Proposed EEE Stimulus Program Investments

Energy Efficiency Investments targeted for recovery in a RGGI clause are as follows:

Time Period: 2009-2011. 18 months over two calendar years with evaluation in the subsequent-year.

A. Residential Segment	
Residential Whole House Efficiency Sub-Program	\$25,000,000
Residential Multi-Family Housing Sub-Program	\$25,000,000
B. Industrial and Commercial Segment	
Small Business Direct Install Sub-Program	\$20,000,000
Municipal/Local/State Government Direct Install Sub-Program	\$35,000,000
Hospital Efficiency Sub-Program	\$35,000,000
Data Center Efficiency Sub-Program	\$12,000,000
Building Commissioning/O&M Sub-Program	\$2,000,000
Technology Demonstration Programs Sub-Program	\$12,000,000
C. Admin, Sales, Training, Evaluation, IT Capital	\$24,000,000
Total Energy Efficiency Expenditures	\$190,000,000

RESIDENTIAL SEGMENT

- **Residential Whole House Efficiency Sub-Program** is identical to PSE&G's Carbon Abatement Program. This will add funding to a Program already in the marketplace and allow PSE&G to address more customers.

- **Residential Multi-Family Housing Sub-Program** is a new sub-program based on PSE&G's Carbon Abatement Program. It targets multi-family housing with five or more units. Although some of the buildings could be classified as a C&I program, the end-user is the residential occupant.

INDUSTRIAL AND COMMERCIAL SEGMENT

- **Small Business Direct Install Sub-Program** is identical to PSE&G's Carbon Abatement Program. This will add funding to a sub-program already in the marketplace and address more customers.
- **Municipal/Local/State Government Direct Install Sub-Program** is the same design as the Small Business Direct Install Sub-Program and will use the same capabilities. It will target Municipal, Local, and State Government buildings, Schools, and Non-profits.
- **Hospital Efficiency Sub-Program** is identical to PSE&G's Carbon Abatement Program and will use the same capabilities. This will add funding to a sub-program already in the marketplace and address more customers.
- **Data Center Efficiency Sub-Program** is targeted to a high usage customer segment not currently addressed in New Jersey.
- **Building Commissioning/O&M Sub-Program** (aka Retro-commissioning) is targeted to building operators and is not currently offered in New Jersey.
- **Technology Demonstration Sub-Program** is a new category that enables funding for new technologies and demonstration projects. Potential projects include Jersey City Urban Geothermal Heat Pump Pilot and a LED Street Lighting Pilot. Residential projects will also be considered for funding under this sub-program.

A detailed description of each of the eight (8) sub-programs described above is set forth in Attachment 2.

**REQUEST FOR WAIVER OF CERTAIN RGGI MINIMUM FILING
REQUIREMENTS**

13. The Governor's New Jersey Economic Assistance and Recovery Plan calls for the utilities to invest in energy efficiency programs over the course of one year, namely 2009, in order to stimulate the State's economy. Public Service's filing is being submitted pursuant to the RGGI Legislation and the BPU's 120-Day RGGI Order. While both the RGGI legislation and the Board's 120-Day RGGI Order allot the BPU 180 days to review and approve of any filing submitted there under, if not truncated, having the Board take 180 days to review and approve this Petition will only cause further delay in the time for Public Service to commence energy efficiency investments in calendar year 2009. This being the case, expedited regulatory review and approval must be afforded this filing so as to allow the Company sufficient lead time to order the necessary energy efficiency equipment and provide the Company time to properly staff and train the requisite workforce needed to install such energy efficiency programs.

14. Public Service, as well as representatives from the State's other electric and gas distribution utilities met on several occasions during November and December 2008, with representatives from BPU Staff and Rate Counsel to discuss the details of the suite of energy efficiency programs that a utility could choose to implement. Subsequently, discussions were held with BPU Staff to discuss the Company's cost recovery methodology. On January 14, 2009, PSE&G met with BPU Staff and representatives

from Rate Counsel to discuss the Company's EEE Stimulus Program filing. Public Service respectfully requests that these meetings satisfy the 30-Day RGGI Pre-Filing Meeting requirement regarding the nature of the EEE Stimulus Program and cost recovery mechanism contemplated by the Company. In the alternative, PSE&G requests a waiver of the 30-Day RGGI Pre-Filing Meeting due to the expedited nature of this proceeding.

15. On January 14, 2009, the Company also informed BPU Staff of its intention to seek a waiver for certain RGGI Minimum Filing Requirements. Pursuant to the Board's 120-Day RGGI Order, the RGGI Minimum Filing Requirements may be modified by Board Staff as determined on a case-by-case basis if public policy considerations deem specific requirements unnecessary or onerous for a particular program or class of programs. Public Service asserts that its request for waivers of certain of the RGGI Minimum Filing Requirements be granted based upon the fact that the Governor's New Jersey Economic Assistance and Recovery Plan calls for the utilities to commence energy efficiency programs in 2009. PSE&G also notes that Rate Counsel and BPU Staff had adequate time to review the menu of sub-programs identified in Attachment 2 proposed herein. In order for Public Service to commence this EEE Stimulus Program, a waiver of certain minimum filing requirements is necessary for the Company to make this filing in order to address the Governor's timeline.

16. PSE&G seeks a waiver of the following RGGI Minimum Filing Requirements:

I. General Filing Requirements

- a. Waiver of pro forma income statement reflecting operating income at present and proposed rates (N.J.A.C. 14:1-5.12(a) 5) waiver of two Public Hearings in each of the North, Central & Southern part of service territory. Public Service proposes to conduct two (2) Public Hearings, one in its northern and one in its southern service territory. (N.J.A.C. 14:1-5.12 (c)).
- d. Waiver of pre-filed testimony

II. Program Description

- j. Proposed draft contracts (will be submitted as developed)
- m. Proposed marketing materials (will be submitted as developed)

See Attachment 3 which sets forth the requested waivers of the specific provisions of the Board's Minimum Filing Requirements contained in Appendix A. It is Public Service's understanding that the Rutgers Center for Energy, Economic, and Environmental Policy (CEEPP) will be performing the requisite cost/benefit analysis in lieu of PSE&G. Therefore, PSE&G is not submitting any such analysis as part of this EEE Stimulus Program filing. PSE&G will provide CEEPP with the necessary data, as requested by CEEPP, to enable CEEPP to perform such analysis.

17. As set forth in Attachment 3, and incorporated herein by reference, is Appendix A of the Board's Minimum Filing Requirements which identifies the applicable information PSE&G intends to submit in support of this Petition and February 4, 2009 Supplemental Filing. The RGGI minimum filing requirements pertaining to the

Program Description and Additional Requirement Information is contained in Attachment 5.

COST RECOVERY

A. COST RECOVERY PROPOSAL

18. PSE&G is requesting, for purposes of this EEE Stimulus Program, that the Board grant approval of recovery of the revenue requirements associated with all EEE Stimulus Program costs. Cost recovery would be made via two new EEE Stimulus sub-components of the Company's electric and gas RGGI Recovery Charges (RRC) that would be filed annually. Further, pursuant to the RGGI Legislation,⁷ the Company is requesting that the carrying charge on its deferred balances for this Program be set based upon PSE&G's monthly weighted average cost of capital ("WACC"), together with the income tax effects. PSE&G will describe in more detail the proposed cost recovery mechanism and rate impact on customers in its February 4, 2009 Supplemental Filing.

19. The revenue requirements methodology will be set forth in detail in the Company's February 4, 2009 Supplemental Filing. PSE&G proposes to recover the revenue requirements, including, but not limited to the following:

- Depreciation expense providing for the recovery of the invested capital over the appropriate useful book lives.

⁷ N.J.S.A. 48:3-98.1 (b)

- Amortization of regulatory assets established to recover the energy efficiency expenditures over ten (10) years.
- Return on the net investment where net investment is the capital expenditures and established regulatory assets less accumulated depreciation/amortization less associated accumulated deferred income taxes. The return on the net investment will be based upon PSE&G's WACC including income tax effects.
- Operation and maintenance expenses (O&M) related to the accelerated capital expenditures including allocated labor and associated overheads. O&M would include program management, sales and marketing, program evaluation, training and other costs associated with staffing the required workforce and managing that workforce.
- Less repayments from EEE Stimulus Program participants, where applicable.

PSE&G proposes that its revenue requirements will be based upon projections for the coming year. A true-up will occur where the estimates will be reconciled with actual costs.

20. The existing regulatory WACCs applied to the Company's electric and gas operations were established in 2003 and 2006 respectively. Since the third quarter of 2008, there has been extreme volatility in the financial markets. Therefore, the Company proposes that WACC be set to reflect current capital market conditions. PSE&G believes that elements of the WACC most recently approved by the Board in October 2008 are reflective of the increased cost of capital.

- The capital structure will:
 - Reflect that the incremental capital required to finance the accelerated Capital

Infrastructure Investment expenditures will be a combination of new long-term debt and common equity.

- Reflect an increase in the equity component of our capitalization thereby reducing financial risk and improving credit quality.
- The cost of long-term debt will:
 - Reflect the weighted embedded cost of the current actual PSE&G long-term debt outstanding.
 - Include a pro forma adjustment to the actual embedded cost to reflect the anticipated additional long-term debt, as described above, required to finance the expenditures at the current cost for such a new long-term utility debt issue.
- The cost of common equity will be equal to the 10.3% return on equity granted most recently by the Board in the fourth quarter of 2008. This higher equity return is necessary due to the increased business risks associated with the volatile financial markets.

B. RATE MECHANISM FOR COST RECOVERY

21. The Company's monthly revenue requirements associated with the proposed energy efficiency programs would be subject to deferred accounting and would be recovered through a new separate EEE Stimulus sub-component of the Company's electric and gas RRC's. The initial EEE Stimulus rate will be based on estimated Program revenue requirements from April 1, 2009 to December 31, 2010. The EEE Stimulus rate, will be proposed as part of this filing to be effective April 1, 2009, or on or about the time of the Board Order approving the Company's proposal set forth herein, whichever date is later. Thereafter, the EEE Stimulus sub-components of the electric and gas RRC's will be changed nominally on an annual basis incorporating a true-up for actuals and an estimate of the revenue requirements for the upcoming year. Carrying charges at the Company's monthly WACC would be applicable on any over/under recovered balance on a monthly basis.

22. PSE&G requests recovery of lost distribution margin revenues associated with this EEE Stimulus Program filing.

23. In order to provide flexibility in responding to market conditions and customer demand, any sub-program over or under spending may be carried over into subsequent years, as long as the total spending for the Program does not exceed the two-year total. Furthermore, based upon market conditions and the level of market response to each sub-program during the initial year, PSE&G can transfer EEE Stimulus Program

funding between sub-programs in a subsequent year in order to maximize energy savings and EEE Stimulus Program resources.

24. A draft Form of Notice of Filing and of Public Hearings (Notice) is set forth in Attachment 4. The draft Notice does not include any rate detail. This rate information will be included in the Notice and re-submitted with the February 4, 2009 Supplemental Filing. This Form of Notice will set forth the requested changes to the electric and gas rates and will be placed in newspapers having a circulation within the Company's electric and gas service territory upon receipt, scheduling and publication of public hearing dates. One public hearing will be held within the Company's northern service territory and one Public Hearing will be held within the Company's southern service territory. Concurrent with the February 4, 2009 Supplemental Filing with the BPU, a Notice of this filing will be served on the County Executives and Clerks of all municipalities within the Company's electric and gas service territories. A subsequent Notice will be served on the County Executives and Clerks of all municipalities within the Company's electric and gas service territories upon receipt, scheduling and publication of public hearing dates. Notice of this initial filing and two copies of the Petition, as well as copies of the February 4, 2009 Supplemental Filing, will be served upon the Department of Law and Public Safety, 124 Halsey Street, P.O. Box 45029, Newark, New Jersey 07101 and upon the Director, Division of Rate Counsel, 31 Clinton

Street, Newark, New Jersey 07101. Copies of the Petition and supporting attachments will also be sent to the persons identified on the service list provided with this filing.

25. Public Service will submit, in its February 4, 2009 Supplemental Filing, proposed tariff sheets (redlined and accepted), effective April 1, 2009 or upon issuance of a written Board order, whichever is later, proposing to include a new, separate sub-component of its RRC called the EEE Stimulus Program in both the Electric Tariff and the Gas Tariff. These proposed electric and gas rates are designed to recover the EEE Stimulus Program costs, which includes carrying charges on PSE&G's expenditures.

26. Public Service requests that the rates to be charged to recover all of the EEE Stimulus Program costs be approved by the Board along with the EEE Stimulus Program and cost recovery mechanism proposed in this Petition, as supplemented by the February 4, 2009 Supplemental Filing. Public Service also requests that the Board authorize the Company to implement the herein proposed rates on or about April 1, 2009 or upon issuance of a written Board order, whichever is later.

27. Public Service requests a Procedural Schedule Conference be convened and conducted by a Deputy Attorney General no later than the week of February 2, 2009 and a schedule be established that will enable the Board to issue a Final Order on this matter in the shortest practical time frame.

REQUEST FOR REVIEW AND APPROVAL

28. In order to achieve the 180-day administrative review period, Public Service respectfully requests that the Board retain jurisdiction of this matter and not transfer the filing to the Office of Administrative Law. PSE&G believes evidentiary hearings are not necessary or even required for the Board to approve this EEE Stimulus Program and related authorizations. The Company will work in good faith with all parties to arrive at a mutually acceptable resolution of any issues that may arise in this proceeding. As stated by the Board in the 120-Day RGGI Order, “The Board encourages all interested parties to work toward a settlement for the Board’s consideration before expiration of the 180 day period.” See 120-Day RGGI Order at p. 5. Depending on whether Rate Counsel or any other intervening party raise any issues, Public Service is confident that these potential issues can be resolved through settlement or through written comments to the Board for decision. Public Service would like to note that its recently approved Carbon Abatement Program (BPU Docket No. EO08060426 dated December 16, 2008) was approved by the Board well before the 180-day review period expired, specifically; the BPU approved the Joint Position two (2) months before the 180-day period ended.

29. Public Service requests that BPU Staff’s 30-day administrative completeness review period be shortened to five (5) business days. Public Service requests that the administrative completeness review commence from the date of the February 4, 2009 Supplemental Filing.

30. Public Service requests that the Board's 180-day review period commence from the filing date of this Petition. Furthermore, Public Service requests that the BPU truncate the 180-day review period and approve this filing as expeditiously as possible so as to allow the Company the necessary time to implement these proposed energy efficiency sub-programs.

CONCLUSION AND REQUESTS FOR APPROVAL

For all the foregoing reasons, PSE&G respectfully requests that the Board retain jurisdiction of this matter and review and expeditiously issue an order approving this Petition specifically finding that:

1. The EEE Stimulus Program is in the public interest and that PSE&G is authorized to implement and administer these regulated utility services under the terms set forth in this Petition and accompanying Attachments;

2. PSE&G is granted waiver of the provisions of the RGGI Minimum Filing Requirements as requested herein;

3. PSE&G is authorized to recover all costs requested herein associated with the EEE Stimulus Program, which will be recovered through the new EEE Stimulus sub-components of the Company's electric and gas RRC, that would be filed annually;

4. PSE&G is authorized to utilize the revenue requirements methodology as set forth in the February 4, 2009 Supplemental Filing;

5. The carrying charge on its deferred balances for this EEE Stimulus Program be set based upon PSE&G's monthly weighted average cost of capital, together with the income tax effects. The Company's requested WACC is reflective of the increased business and financial risks due to the volatility in the financial markets;

6. The proposed rates and charges, as set forth herein, are just and reasonable and PSE&G is authorized to implement the rates proposed herein on or about April 1, 2009 or upon issuance of a written Board order, whichever is later.

COMMUNICATIONS

Communications and correspondence related to the Petition should be sent as follows:

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Respectfully submitted,

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

*Original Signed by
Frances I. Sundheim, Esq.*

By _____
Frances I. Sundheim
Vice President and Corporate Rate Counsel
Public Service Electric and Gas Company

- 21 -

80 Park Plaza, T8C
P. O. Box 570
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Phone: (973) 430-6928
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DATED: January 21, 2009
Newark, New Jersey

VERIFICATION

STATE OF NEW JERSEY)
 :
COUNTY OF ESSEX)

FRANCES I. SUNDHEIM, of full age, being duly sworn according to law, on her oath deposes and says:

1. I am Vice President and Corporate Rate Counsel of Public Service Electric and Gas Company, the Petitioner in the foregoing Petition.

2. I have read the annexed Petition, and the matters and things contained therein are true to the best of my knowledge and belief.

3. Copies of the Petition have been hand delivered and emailed to the NJBPU, the Department of Law & Public Safety and the Public Advocate, Division of Rate Counsel.

*Original Signed by
Frances I. Sundheim, Esq.*

Frances I. Sundheim

Sworn and subscribed to)
before me this 21st day)
of January 2009)

ATTACHMENT 1

**NEW JERSEY ECONOMIC ASSISTANCE
AND
RECOVERY PLAN**



New Jersey Economic Assistance and Recovery Plan

[Governor Home](#) > Green Economy in New Jersey

[Green Economy in New Jersey](#)

- **Definition of a “Green Collar Job”:** Generally, green collar jobs involve environmentally friendly products and services or businesses and organizations that concern themselves with improving the environment.
- **Estimated Growth of Green Jobs in New Jersey:** Anticipated State investment in New Jersey energy infrastructure as a result of the Energy Master Plan is estimated to result in the creation of 20,000 jobs between now and 2020. These jobs will consist of operations and maintenance jobs, and construction jobs directly related to the State’s energy infrastructure.
- **Encourage Private Sector Investment in Energy Efficiency:** The Energy Savings Improvement legislation would allow \$80 million of private sector investment in schools, town, counties, and public colleges and universities. During the first year of the program, this investment would generate \$20 million in energy savings and 500 jobs. Between now and 2020 this will result in private investment totaling \$960 million resulting in nearly \$240 million in annual savings. It would also reduce the State’s consumption of energy by 140,000 megawatt hours and our emissions of greenhouse gases, largely carbon dioxide, by 80,000 tons. That’s the equivalent of taking 12,500 houses off the grid or 16,000 cars off the road for one year.
- In an effort to stimulate the economy by lowering consumers’ energy bills and stimulating job creation, Governor Corzine will aggressively move forward to put in place a statewide \$500 million energy efficiency program that works with the State’s electric and gas utilities. This is in addition to \$462 million that the BPU’s Clean Energy Program has budgeted for the rest of this year and all of next year. In total, this means an investment of approximately \$1 billion in clean energy programs for residential and business customers and it will provide an estimated creation of 3,000 jobs over the next year.
- **Promote Clean Energy Manufacturing Fund:** The EDA and BPU will soon implement this program designed to address the need to assist the

advancement of renewable energy and energy-efficiency technologies. This initiative will enable New Jersey to take a leadership role in the CleanTech arena by promoting new jobs and growth in the state while addressing the goals of New Jersey's Economic Growth Strategy. The program will be funded through 2012 and total \$60 million.

- **The Edison Renewable Energy Technologies Fund:** The program will provide funding to New Jersey technology companies for proof-of-concept research and development and ancillary activities necessary to commercialize identified renewable energy technologies and innovative technologies that significantly increase energy efficiency. The Commission on Science and Technology (CST) will award grants to New Jersey companies in the amounts of \$100,000 to \$500,000. Companies can receive up to 20% of the approved CST grant from the EDA in equity-like financing for non-R&D related costs.
- **Build Off-Shore Wind Generation:** The Governor recently announced his plan to triple the State's offshore wind goal to 1000 MW of by the end of 2012 and 3000 MW by 2020. Garden State Offshore Energy was recently selected to construct New Jersey's first wind farm 16 miles off the Atlantic City coast. The construction of this project will create hundreds of new skilled trade jobs for New Jersey residents as well as the development of new jobs such as: welders, mechanics, crane operators, electricians, engineers.
- **Expand the Green Collar Apprenticeship and Training Programs:** Increasing New Jersey's energy efficiency and on promoting alternative energy sources to reduce carbon emissions will encourage the development of new green-collar jobs with new skills. The expansion of green jobs, ranging from clean energy production, energy-efficient construction and even retrofitting existing buildings to meet green energy efficiency standards, will require workers trained for green jobs in these fields. Over the past three years, 1,953 New Jersey workers have been trained in the emerging green energy sector through more than \$1 million in Customized Training Grants provided by the Department of Labor and Workforce Development (LWD) and matched by funds from their employers. In addition, training and apprenticeship programs supported by LWD and local One-Stop Career Centers are currently training more than 200 workers for Trenton and Newark in green construction and energy-efficiency occupations.

ATTACHMENT 2

DETAILED PROGRAM DESCRIPTION

PSE&G

**Energy Efficiency Economic Stimulus Initiative
Residential Whole House Efficiency Sub-Program**

<p>Description of Program</p>	<p>The primary objective of the Residential Whole House Efficiency Sub-Program is to reduce the energy consumption of residential customers by direct installation of cost effective measures recommended by an energy audit. The goal is to motivate residential energy consumers to use a whole-house approach to reducing energy consumption when considering home improvements such as new heating and air conditioning equipment, replacing windows, or adding insulation. Rather than focusing on a single component, the homeowner will be provided with an assessment of how a combination of improvements, such as air sealing and duct leaks, adding insulation, improving the HVAC system and upgrading lighting and appliances would result in a more comfortable home, with lower electricity or natural gas consumption. This sub-program will achieve this goal through the direct installation of energy savings measures, as recommended by an energy audit. This sub-program will also provide comprehensive, personalized customer energy education and counseling. Three tiers of service will be offered to customers.</p> <p>During the audit, and with the customer’s approval, PSE&G will install up to ten CFLs in specific areas of higher energy use, as well as other specific energy efficiency measures. The audit will be designed to estimate potential energy savings due to infiltration and heat loss through walls and attics. In addition, the assessment will include identification of the age and size of the heating, air conditioning and water heating systems, the last service date, and assessment of duct leakage and insulation. The report will be presented to the customer with recommendations for upgrades and information about available incentives.</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>The Residential Whole House Efficiency Sub-Program will be targeted to:</p> <ol style="list-style-type: none"> 1. Residential customers in existing homes who receive electricity and/or natural gas from PSE&G. 2. Single family housing and multi-family with 2-4 units. 3. Residential customers in municipalities that contain Urban Enterprise Zone (UEZs). The following UEZ municipalities are located in PSE&G’s service territory: Mount Holly, Pemberton, Camden, East Orange, Irvington, Newark, Orange, Bayonne, Guttenberg, Jersey City, Kearny, North Bergen, Union City, West New York, Trenton, Passaic, Paterson, Carteret, Perth Amboy, Elizabeth, Hillside, Roselle and Plainfield. 4. Customers determined to be participants in the Universal Service Fund (USF), or those who are income qualified for other programs that provide greater benefits (such as the Comfort Partners Program or the Weatherization Assistance Program) will be referred to such programs.

PSE&G

**Energy Efficiency Economic Stimulus Initiative
Residential Whole House Efficiency Sub-Program**

<p>Delivery Method</p>	<p>PSE&G will identify a sub-program manager, along with supporting technical staff, to oversee the sub-program operation, coordination with the Clean Energy Program and other utility’s programs, contractor oversight and trade ally relations.</p> <p>PSE&G will implement the Residential Whole House Efficiency Sub-Program using the same procedures developed for the PSE&G Carbon Abatement Residential Home Energy Tune-up Sub-Program. PSE&G will continue to utilize the same audit tool used by the NJCEP Home Performance with Energy Star. The assessment will include identification of the age and size of the heating, air conditioning and water heating systems, the last service date, and assessment of duct leakage and insulation. The report will be presented to the customer with recommendations for upgrades and information about available incentives.</p> <p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>For the purposes of this sub-program, for those projects that qualify as a "public work" as defined by statute, the service provider will adhere to all aspects of the New Jersey State Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq., and will require the same of all subcontractors. For those projects that do not qualify as public works, service providers will be required to pay the equivalent of the prevailing wages for the county in which the work is to be performed, unless the work is performed by union employees, in which case the employees will be paid in accordance with the union contract.</p>		
<p>Estimated Program Participants</p>	<p>About 7,456 individual dwelling units. Number treated may vary depending upon the level of energy efficiency work required.</p>	<p>Estimated Savings</p>	<p>kW - 820</p> <p>kWh</p> <ul style="list-style-type: none"> • Annual – 5,427,968 • Lifetime – 86,847,488 <p>Dtherms</p> <ul style="list-style-type: none"> • Annual – 27,587 • Lifetime – 551,744 <p>Note: savings will vary based on Tier participation level.</p>

PSE&G

**Energy Efficiency Economic Stimulus Initiative
Residential Whole House Efficiency Sub-Program**

Link to Existing Programs	Existing programs include: NJCEP Comfort Partners (Low Income Program) and NJCEP Home Performance with Energy Star (HPES) PSE&G Carbon Abatement Residential Home Energy Tune-up		
Existing Incentives	<p>Comfort Partners installs energy efficiency measures and health and safety measures at no cost to customer.</p> <p>HPES provides an audit for \$125 and up to 8 hours of blower door guided air sealing at no charge. Additional energy efficiency measures can be provided with a 10-50% rebate (up to \$5,000) or a 3.99% low interest loan.</p>	Proposed Incentives	<p>Tier 1 - Audit with installation of simple energy savings measures such as CFLs at no charge.</p> <p>Tier 2 - Includes Tier 1 plus up to \$1,000 in air sealing at no charge.</p> <p>Tier 3 – Includes all measures covered by HPES. Incentive covers 80% of costs for customers between 225-300% of federal poverty guideline and 50% incentive for customers with income greater than 300% of federal poverty guideline. Customers may repay their share of the cost through their energy bill over a period of 24 months.</p>
Anticipated Job Creation	<p>This estimate of potential job creation was developed using factors developed by the Center on Wisconsin Strategy as reported by SAHF (Steward of Affordable Housing for the Future) in a literature review of research that demonstrates green job creation. This approach provides factors for both union and non-union wage jobs created or saved per \$1M investment. The SAHF review is attached as Attachment 2A.</p> <p>Approximately 120 Jobs.</p>		
Budget Information	\$25,000,000 Investment		
Marketing Approach	<p>PSE&G will work closely with municipal, local community, and non-profit entities to identify neighborhoods to target for sub-program participation. If community recruitment activities require augmentation, other marketing channels such as direct mail, bill inserts, and website will be employed. In addition community events such as local festivals and green fairs will be used to promote energy efficiency. Sub-program information will be posted on PSE&G’s website and provided through the utility Call Center.</p>		

PSE&G

**Energy Efficiency Economic Stimulus Initiative
Residential Whole House Efficiency Sub-Program**

Contractor Role	In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. If deemed necessary, contractor services could include: marketing and program enrollment services, provision of on-site customer audits, identification and recommendations for efficiency improvements above and beyond those provided by the sub-program, technical review and consultation, and direct installation of customer-accepted cost-effective efficiency improvements identified under the program.
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PSE&G

**Energy Efficiency Economic Stimulus Initiative
Residential Multi-Family Housing Sub-Program**

<p>Description of Program</p>	<p>The objective of the Residential Multi-Family Housing Sub-Program is to increase energy efficiency and reduce carbon emissions of existing residential housing developments. These buildings typically face thin operating margins and constrained ability to increase rents, which leads to deferred maintenance, poor condition, on going deterioration, and energy inefficiency that in turn further erodes operating margins and the ability to retrofit an inefficient building. High energy costs during the 2005-2008 timeframe have exacerbated these conditions. This sub-program will focus on providing cost-effective retrofit energy efficiency opportunities to this customer group.</p> <p>There about 500,000 rental units in multi-family housing in the state of New Jersey and that market represents about 16% of the total number of residential units in the state and about 26% of all dwelling units in New Jersey central cities.</p> <p>Multi-Family Housing building owners will receive an investment grade audit of their building(s) at no cost. All measures identified by the audit as having a simple payback of fifteen years or less will be targeted for retrofit opportunities. Audit results will determine the potential savings derived through a variety of measures and technologies including lighting, HVAC, humidification, building envelope, motors, and other energy consuming equipment.</p> <p>Energy efficiency measures with a payback of 15 years or less will be considered for incentives under this sub-program. This sub-program will provide an incentive by buying down the payback by 7 years, down to a level not less than 2 years. For example, a project with a 15 year payback will receive an incentive which will effectively reduce the payback to 8 years by buying down the payback by 7 years. A project with a payback of 5 years will receive an incentive which will effectively reduce the payback to 2 years.</p> <p>The customer is responsible for financing construction costs. PSE&G's investment in the program will be made after successful completion of a final inspection. Building owners may repay their contribution to the project (total cost less this sub-program incentive) over a period of six years or in a lump sum following the final inspection. There will not be a funding cap imposed per building in order to encourage a whole building approach. Opportunities to participate in PJM's Demand Response program will be identified, and information will be provided to building owners regarding participating Curtailable Service Providers (CSPs).</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>The Residential Multi-Family Housing Sub-Program will target residential multi-family buildings where:</p> <ol style="list-style-type: none"> 1. Natural gas and/or electricity is provided by PSE&G

PSE&G
Energy Efficiency Economic Stimulus Initiative
Residential Multi-Family Housing Sub-Program

	<ol style="list-style-type: none"> 2. Multi-family housing with five or more units. 3. Building is master metered or individually metered 4. Garden apartment and high rise facilities 5. Affordable and Market Rate <p>Urban rehabilitation projects identified by municipalities in PSE&G’s service territory.</p>
<p>Delivery Method</p>	<p>PSE&G will identify a sub-program manager, along with supporting technical staff, to oversee the sub-program operation, coordination with the Clean Energy Program and other utility programs, contractor oversight and trade ally relations.</p> <p>The sub-program audit will be provided through a qualified audit professional employed by PSE&G. The scope of work will include the on-site energy audit and the preparation of an audit report citing energy savings opportunities with associated payback information, using pre-determined calculations and algorithms. PSE&G will review facility audit results with the building owner to establish baseline performance information and projected savings. Based on the audit results, PSE&G will enter into contracts with the building owner to provide funding of eligible measures.</p> <p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>For the purposes of this sub-program, for those projects that qualify as a "public work" as defined by statute, the service provider will adhere to all aspects of the New Jersey State Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq., and will require the same of all subcontractors. For those projects that do not qualify as public works, service providers will be required to pay the equivalent of the prevailing wages for the county in which the work is to be performed, unless the work is performed by union employees, in which case the employees will be paid in accordance with the union contract.</p>

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**Energy Efficiency Economic Stimulus Initiative
Residential Multi-Family Housing Sub-Program**

<p>Estimated Program Participants</p>	<p>About 7,456 individual dwelling units. Number treated may vary depending upon the level of energy efficiency work required.</p>	<p>Estimated Savings</p>	<p>kW - 820 kWh <ul style="list-style-type: none"> • Annual - 5,427,968 • Lifetime - 86,847,488 Dtherms <ul style="list-style-type: none"> • Annual - 27,587 • Lifetime – 551,744 </p>
<p>Link to Existing Programs</p>	<p>Program provides targeted services to market with incomplete opportunities within existing CEP portfolio. Smaller properties may qualify for Home Performance w/ Energy Star. Larger properties may qualify for NJCEP Pay for Performance incentives and/or qualify for Smart Start equipment rebates, but may not take this sub-program and NJCEP incentives for the same measures.</p>		
<p>Existing Incentives</p>	<p>Although no existing programs are targeted specifically to this market, multi-family buildings would be eligible for CEP Home Performance w/ Energy Star or C&I program incentives.</p>	<p>Proposed Incentives</p>	<p>Program provides: 1) professional energy audit free of charge. 2) incentives to lower the simple payback period from 15 years or less by seven years to no less than two years for energy efficiency measures recommended by the audit. 3) PSE&G will pay the total cost of the measures upon completion of the project and successful completion of a final inspection. Customers will repay their contribution to the project (total cost less the PSE&G incentive) over a period of six years through their PSE&G bill.</p>
<p>Anticipated Job Creation</p>	<p>This estimate of potential job creation was developed using factors developed by the Center on Wisconsin Strategy as reported by SAHF (Steward of Affordable Housing for the Future) in a literature review of research that demonstrates green job creation. This approach provides factors for both union and non-union wage jobs created or saved per \$1M investment. The SAHF review is attached as Attachment 2A. Approximately 60 Jobs.</p>		
<p>Budget Information</p>	<p>\$25,000,000 Investment</p>		

PSE&G

**Energy Efficiency Economic Stimulus Initiative
Residential Multi-Family Housing Sub-Program**

<p>Marketing Approach</p>	<p>This sub-program will leverage existing agencies and associations that serve the multi-family housing market to identify participating housing projects. Sub-program specific marketing efforts will target affordable housing agencies, apartment associations, building owners, communities, and residents. PSE&G does not anticipate using any mass media or extensive direct marketing media to identify eligible participants, however, marketing may include targeted direct marketing and community outreach and direct contact by vendor personnel and large customer support managers.</p> <p>PSE&G will hold meetings with prospective participants to explain this sub-program in detail, including the benefits of sub-program participation.</p>
<p>Contractor Role</p>	<p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>Contractor(s) services may include:</p> <ul style="list-style-type: none"> • marketing and program enrollment; • provision of on-site customer audits; • identification and recommendations for efficiency improvements above and beyond those provided by the sub-program; and • direct installation of customer-accepted cost-effective efficiency improvements identified under the sub-program.

PSE&G

Energy Efficiency Economic Stimulus Initiative
C&I - Small Business Direct Install Sub-Program

<p>Description of Program</p>	<p>The objective of the C&I - Small Business Direct Install Sub-Program is to rapidly acquire durable savings in energy and peak demand usage among small and medium C&I customers with peak demands of 200 kW or less. These customers are traditionally hard to reach with standard approaches such as rebate and incentive programs. This sub-program will therefore focus on overcoming the numerous barriers existing among this customer group to target cost-effective retrofit efficiency opportunities.</p> <p>The customer will be provided an energy audit encouraging acceptance of sub-program delivered measures as applicable at that site. The audit will identify supplementary energy savings opportunities as well as identifying coordinated programs to further assist the customer with their follow through for these additional energy efficiency efforts.</p> <p>For many small C/I programs, lighting has been at the forefront of measures installed as well as the primary contributor to savings results. While this is also anticipated in this sub-program, focus on HVAC diagnostics and improvements to existing heating and air conditioning systems to optimize efficiency is also included along with Domestic Hot Water (DHW) measures. Through the diagnostic procedures, heating and AC units that are so inefficient that it is cost-effective to replace will be identified and the unit will be evaluated for replacement with a high efficiency one.</p> <p>PSE&G will conduct a free audit of eligible facilities and provide a report of recommended energy savings improvements. Customers who have received a NJCEP Municipal Audit Program audit will be able to use those audit results in lieu of the Municipal Direct Installation Sub-Program audit.</p> <p>PSE&G will initially provide 100% of the cost to install the recommended energy savings improvements upfront. In lieu of the PSE&G audit, the customer may submit a copy of an energy audit performed under the NJCEP Municipal Energy Audit to PSE&G and PSE&G will review the audit to determine eligible measures under this sub-program. Upon completion of the work, the customer will be required to repay 20% of the total cost to PSE&G, either in a lump sum or over two years, interest free, on their PSE&G bill.</p> <p>Typical eligible measures lists will include but are not limited to:</p> <p>Lighting:</p> <ul style="list-style-type: none"> • Super T8 lamp / ballast • Fluorescent high-low bay fixture – interior • Super T8 fixture • CFL fixture – interior • CFL screw-ins – interior / exterior
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PSE&G

**Energy Efficiency Economic Stimulus Initiative
C&I - Small Business Direct Install Sub-Program**

	<ul style="list-style-type: none"> • MH 25 W int ballast Par38 • Occupancy – (on-off), (high-low) • LED Exit Signs <p>HVAC</p> <ul style="list-style-type: none"> • Tune Up (Heating-Cooling) • Ventilation VFD • Duct Sealing (Heating-Cooling) • Dual Enthalpy Control • Vent Premium Efficiency Motors <p>DHW</p> <ul style="list-style-type: none"> • Pipe Insulation • Tank Insulation • Temperature Set Back <p>Misc.</p> <ul style="list-style-type: none"> • Walk-in Refrigerator Retrofit Package • Vending Miser <p>Actual measures selection will be based on customer acceptance of measures which are determined to be applicable at each site, i.e. Not all sites will receive all measures and customers are not required to accept all recommended measures.</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>The C&I - Small Business Direct Install Sub-Program will target C&I customers with annual peak demands of less than 200 kW monthly usage of 40,300 kWh or less, in municipalities that contain UEZs in PSE&G’s electric and/or gas service territory. If a portion of the targeted municipality does not reside in the UEZ, it will not be excluded from sub-program participation.</p> <p>Customers participating in this sub-program may not receive incentives for the same measures under other utility or Clean Energy Programs.</p>
<p>Delivery Method</p>	<p>PSE&G will identify a sub-program Administrator, along with supporting technical staff, who will oversee the sub-program operation, coordination with the Clean Energy Program, other utility’s programs, contractor oversight and trade ally relations.</p> <p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-Program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p>

PSE&G

Energy Efficiency Economic Stimulus Initiative
C&I - Small Business Direct Install Sub-Program

	<p>In the event that subcontractors are used for projects that qualify as a "public work" (as defined by statute), the service provider will adhere to all aspects of the New Jersey State Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq., and will require the same of all subcontractors. For those projects that are not public works, service providers will be required to pay the equivalent of the prevailing wages for the county in which the work is to be performed, unless the work is performed by union employees, in which case the employees will be paid in accordance with the union contract.</p>		
<p>Estimated Program Participants</p>	<p>Estimated 2,564 participants / facilities. Number treated may vary depending upon the level of energy efficiency work required.</p>	<p>Estimated Savings</p>	<p>kW – 11,966 kWh</p> <ul style="list-style-type: none"> • Annual – 35,897,436 • Lifetime – 538,461,538 <p>Dtherms</p> <ul style="list-style-type: none"> • Annual – 74,359 • Lifetime – 1,115,385 <p>*Note –actual results will vary depending on the type and number of buildings treated.</p>
<p>Link to Existing Programs</p>	<p>This sub-program is similar to the 2009 NJCEP Small Commercial Direct Install program and identical to PSE&G’s Carbon Abatement Program Small Business Direct Installation Sub-Program.</p>		

PSE&G

Energy Efficiency Economic Stimulus Initiative
C&I - Small Business Direct Install Sub-Program

<p>Existing Incentives</p>	<p>Smart Start Incentives: (for 75 kW or less average demand)- includes, 8 hours free tech assist and rebates for various prescriptive measures (Most common are captured below):</p> <p>HVAC -based on size and efficiency (\$2500 max including shell measures)</p> <p>Lighting – various per/unit (\$2000 max)</p> <p>Motors – based on size and efficiency (\$500 max)</p> <p>Custom measures – 20% with additional 10% for multiple measures.</p> <p>Also incentives are available for a portion of further energy audit and design consulting costs.</p>	<p>Proposed Incentives</p>	<p>This sub-program will be operated in the same manner as the PSE&G Carbon Abatement Small Business Direct Installation Sub-Program. PSE&G will conduct a free audit of eligible facilities and provide a report of recommended energy savings improvements. PSE&G will initially provide 100% of the cost to install the recommended energy savings improvements upfront. Upon completion of the work, the customer will be required to repay 20% of the total cost to PSE&G, either in a lump sum or over two years, interest free, on their PSE&G utility bill.</p>
<p>Anticipated Job Creation</p>	<p>This estimate of potential job creation was developed using factors developed by the Center on Wisconsin Strategy as reported by SAHF (Steward of Affordable Housing for the Future) in a literature review of research that demonstrates green job creation. This approach provides factors for both union and non-union wage jobs created or saved per \$1M investment. The SAHF review is attached as Attachment 2A.</p> <p>Approximately 80 Jobs.</p>		
<p>Budget Information</p>	<p>\$20,000,000 Investment</p>		

PSE&G

**Energy Efficiency Economic Stimulus Initiative
C&I - Small Business Direct Install Sub-Program**

<p>Marketing Approach</p>	<p>Potential sub-program participants will initially be identified from PSE&G’s customer information system locating customers with qualifying energy usage profiles (an average electric demand of 200 kilowatts or less, or 40,300 kilowatt-hours or less, per month).</p> <p>Based on the final list of potential participants, eligible small business customers will be targeted for sub-program participation through PSE&G’s relationships with the municipalities and community agencies. Marketing materials for this sub-program will be developed for use by those entities to explain the sub-program to customers and demonstrate the benefits of an on-site audit and energy efficiency improvements. PSE&G may also utilize direct marketing, such as mail or telemarketing, to reach target customers.</p> <p>This sub-program is envisioned to be a key offering of the Community Partners Program outreach, being especially attractive to communities where there is an ongoing effort to re-vitalize downtown areas with small shops and other businesses. Downtown business outreach may include “blitzing” specific commercial districts or areas of the service territory as well as other activity in conjunction with the Community Partners initiative. This approach can generate substantial two-way benefits for all related initiatives with such advantages as increased press coverage, increased word of mouth and ultimately higher acceptance rates for all Clean Energy Programs, residential and commercial, as customers see that their neighborhood businesses are participating.</p> <p>Other customer contacts like service calls, newsletters, on-bill messaging, bill inserts, monthly newsletters, community speaking engagements and events will also be utilized to promote the sub-program.</p>
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PSE&G

**Energy Efficiency Economic Stimulus Initiative
C&I - Small Business Direct Install Sub-Program**

<p>Contractor Role</p>	<p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>Contractor(s) services may include:</p> <ul style="list-style-type: none">• marketing and program enrollment;• provision of on-site customer audits;• identification and recommendations for efficiency improvements above and beyond those provided by the sub-program; and• direct installation of customer-accepted cost-effective efficiency improvements identified under the sub-program.
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PSE&G

Energy Efficiency Economic Stimulus Initiative

C&I – Municipal/Local/State Government Direct Install Program

<p>Description of Program</p>	<p>The objective of the C&I - Municipal/Local/State Government Direct Install Sub-Program is to rapidly acquire durable savings in energy and peak demand usage among municipal, local, and state government and non-profit entities.</p> <p>Most of these entities, particularly in older urban cities and towns with aging facilities, under-fund maintenance budgets and defer maintenance. Government contracting procedures, lack of familiarity with efficiency options, and the requirement to seek approval from the governing body for a capital budget item, make it difficult for government officials to identify, and act on, opportunities to reduce energy costs. Government also tends to diffuse and dilute responsibility for energy upgrades to the individual department level, while payment of bills often resides at a central finance office. There is little incentive for departments to upgrade the energy efficiency of their buildings because the reward for reduced energy bills may simply be a reduced budget in the subsequent year.</p> <p>For many C&I programs, lighting has been at the forefront of measures installed as well as the primary contributor to savings results. While this is also anticipated in this Sub-Program, focus on HVAC diagnostics and improvements to existing heating and air conditioning systems to optimize efficiency is also included along with DHW measures. Through the diagnostic procedures, heating and AC units that are so inefficient that it is cost-effective to replace will be identified and the unit will be evaluated for replacement with a high efficiency one.</p> <p>PSE&G will conduct a free audit of eligible facilities and provide a report of recommended energy savings improvements. Customers who have received a NJCEP Municipal Audit Program audit will be able to use those audit results in lieu of the C&I - Municipal/Local/State Government Direct Install Sub-Program audit.</p> <p>PSE&G will initially provide 100% of the cost to install the recommended energy savings improvements upfront. In lieu of the PSE&G audit, the customer may submit a copy of an energy audit performed under the NJCEP Municipal Energy Audit to PSE&G and PSE&G will review the audit to determine eligible measures under this sub-program. Upon completion of the work, the customer will be required to repay 20% of the total cost to PSE&G, either in a lump sum or over two years, interest free, on their PSE&G bill.</p> <p>Typical eligible measures lists will include but are not limited to:</p> <p>Lighting:</p> <ul style="list-style-type: none"> • Super T8 lamp / ballast • Fluorescent high-low bay fixture – interior • Super T8 fixture
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PSE&G
Energy Efficiency Economic Stimulus Initiative
C&I – Municipal/Local/State Government Direct Install Program

	<ul style="list-style-type: none"> • CFL fixture – interior • CFL screw-ins – interior / exterior • MH 25 W int ballast Par38 • Occupancy – (on-off), (high-low) • LED Exit Signs <p>HVAC</p> <ul style="list-style-type: none"> • Tune Up (Heating-Cooling) • Ventilation VFD • Duct Sealing (Heating-Cooling) • Dual Enthalpy Control • Vent Premium Efficiency Motors <p>DHW</p> <ul style="list-style-type: none"> • Pipe Insulation • Tank Insulation • Temperature Set Back <p>Misc.</p> <ul style="list-style-type: none"> • Walk-in Refrigerator Retrofit Package • Vending Miser <p>Actual measures selection will be based on customer acceptance of measures which are determined to be applicable at each site, i.e. Not all sites will receive all measures and customers are not required to accept all recommended measures.</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>The C&I - Municipal/Local/State Government Direct Install Sub-Program will target all government and non-profit entities, who receive natural gas and/or electricity from PSE&G, with annual peak demands of less than 200 kW. Customers with annual peak demand in excess of 200 kW will be considered for this sub-program on a case-by-case basis.</p> <p>Eligible facilities include municipal, local, and state government offices, courtrooms, town halls, police and fire stations, sanitation department buildings, transportation department structures, regional authorities, schools, community centers, and non-profit facilities.</p> <p>County or regionally structured bodies such as county colleges, and regional utility authorities (waster/sewer) also are included.</p> <p>In addition participants in the NJCEP Local Government Audit program will be eligible for direct install benefits under this Sub-Program.</p> <p>Customers participating in this Sub-Program may not receive incentives for the same measures under other utility or Clean Energy Programs.</p>

PSE&G

Energy Efficiency Economic Stimulus Initiative

C&I – Municipal/Local/State Government Direct Install Program

<p>Delivery Method</p>	<p>PSE&G will identify a sub-program Administrator, along with supporting technical staff, who will oversee the sub-program operation, coordination with the Clean Energy Program, other utility’s programs, contractor oversight and trade ally relations.</p> <p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-Program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>In the event that subcontractors are used for projects that qualify as a "public work" (as defined by statute), the service provider will adhere to all aspects of the New Jersey State Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq., and will require the same of all subcontractors. For those projects that are not public works, service providers will be required to pay the equivalent of the prevailing wages for the county in which the work is to be performed, unless the work is performed by union employees, in which case the employees will be paid in accordance with the union contract.</p>		
<p>Estimated Program Participants</p>	<p>Estimated 2,834 participants / facilities. Number treated may vary depending upon the level of energy efficiency work required.</p>	<p>Estimated Savings</p>	<p>kW – 22,672 kWh</p> <ul style="list-style-type: none"> • Annual – 49,595,142 • Lifetime – 743,927,126 <p>Dtherms</p> <ul style="list-style-type: none"> • Annual – 82,186 • Lifetime – 1,232,794 <p>*Note –actual results will vary depending on the type and number of buildings treated.</p>
<p>Link to Existing Programs</p>	<p>NJCEP Local Government Audit program - can provide referrals to this program for the direct installation of energy saving measures.</p> <p>Similar to 2009 NJCEP Small Commercial Direct Install Program and the PSE&G Carbon Abatement Program Small Business Direct Installation Sub-Program, but unlike those two programs which have a 200 kW capacity size limit, the C&I - Municipal/Local/State Government Direct Install Sub-Program does not have a kW size limit.</p>		

PSE&G

Energy Efficiency Economic Stimulus Initiative

C&I – Municipal/Local/State Government Direct Install Program

<p>Existing Incentives</p>	<p>Smart Start Incentives: (for 75 KW or less average demand)- includes, 8 hours free tech assist and rebates for various prescriptive measures (Most common are captured below):</p> <p>HVAC -based on size and efficiency (\$2500 max including shell measures)</p> <p>Lighting – various per/unit (\$2000 max)</p> <p>Motors – based on size and efficiency (\$500 max)</p> <p>Custom measures – 20% with additional 10% for multiple measures.</p> <p>Also incentives are available for a portion of further energy audit and design consulting costs.</p> <p>Local Government /Municipal Audit</p>	<p>Proposed Incentives</p>	<p>This sub-program will be operated in the same manner as the PSE&G Carbon Abatement Small Business Direct Installation Sub-Program. PSE&G will conduct a free audit of eligible facilities and provide a report of recommended energy savings improvements. PSE&G will initially provide 100% of the cost to install the recommended energy savings improvements upfront. In lieu of the PSE&G audit, the customer may submit a copy of an energy audit performed under the NJCEP Municipal Energy Audit to PSE&G and PSE&G will review the audit to determine eligible measures under this sub-program. Upon completion of the work, the customer will be required to repay 20% of the total cost to PSE&G, either in a lump sum or over two years, interest free, on their PSE&G bill.</p>
<p>Anticipated Job Creation</p>	<p>This estimate of potential job creation was developed using factors developed by the Center on Wisconsin Strategy as reported by SAHF (Steward of Affordable Housing for the Future) in a literature review of research that demonstrates green job creation. This approach provides factors for both union and non-union wage jobs created or saved per \$1MM investment. The SAHF review is attached as Attachment 2A</p> <p>Approximately 143 Jobs.</p>		
<p>Budget Information</p>	<p>\$35,000,000 Investment</p>		

PSE&G

Energy Efficiency Economic Stimulus Initiative

C&I – Municipal/Local/State Government Direct Install Program

<p>Marketing Approach</p>	<p>Potential eligible facilities will be identified by PSE&G’s Regional Public Affairs and Large Customer Support personnel. PSE&G representatives will then contact the senior officials in each municipality who can authorize sub-program participation and brief them on the sub-program’s benefits and requirements. At the same time, PSE&G representatives can also refer municipal officials to the NJCEP Municipal Audit Program and other NJCEP options that are available to them. Customers will have the choice of procuring an energy audit through the NJCEP program and, if they choose, can then have the identified measures installed by PSE&G.</p> <p>A wide range of potential marketing channels can be utilized to promote the sub-program to the target markets, but because this sub-program is directly marketed to decision makers, customer outreach and marketing materials can be highly targeted to that audience.</p>
<p>Contractor Role</p>	<p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>Contractor(s) services may include:</p> <ul style="list-style-type: none"> • marketing and sub-program enrollment; • provision of on-site customer audits; • identification and recommendations for efficiency improvements above and beyond those provided by the sub-program; and • direct installation of customer-accepted cost-effective efficiency improvements identified under the sub-program.

PSE&G
Energy Efficiency Economic Stimulus Initiative
C&I - Hospital Efficiency Sub-Program

<p>Description of Program</p>	<p>The C&I - Hospital Efficiency Sub-Program is designed to reduce carbon emissions by lowering the energy consumption of hospitals. According to the New Jersey Hospital Association, many New Jersey hospitals have closed their doors for good. In the last two years eight NJ hospitals were closed. Half of the remaining 75 acute care hospitals in New Jersey (down from 112 fifteen years ago) lost money last year. Five New Jersey hospitals filed for bankruptcy in the last 18 months. Many hospitals are located in areas that are not the preferred markets for most service providers. Hospitals in these areas face many challenges—Medicare reimbursements, reduced funding, staff shortages, treating the uninsured, replacing aging equipment—and rising energy costs. And they have facilities that have “mission critical” functions that require an integrated, whole-building approach. High energy costs during the 2005-2008 timeframe have exacerbated these conditions. The Energy Master Plan (EMP) identified Hospitals as a market sector that requires additional support.</p> <p>Customers will receive an investment grade audit of their hospital campus at no cost. Audit results will determine the potential savings derived through a variety of recommended measures and technologies: HVAC, humidification, building envelope, motors, and other energy consuming equipment. Lighting will be included, if applicable. There will not be a funding cap imposed per customer. This sub-program will integrate CHP measures into the same program offer and not require the customer to address CHP as a standalone technological option outside of energy efficiency.</p> <p>Energy efficiency measures, other than CHP, with a payback of 15 years or less will be considered for incentives under this sub-program. The sub-program will provide an incentive by buying down the payback by 7 years, down to a level not less than 2 years. For example, a project with a 15 year payback will receive an incentive which will effectively reduce the payback to 8 years by buying down the payback by 7 years. A project with a payback of 5 years will receive an incentive which will effectively reduce the payback to 2 years. CHP Incentives are addressed later in this document.</p> <p>The customer is responsible for financing construction costs. PSE&G’s investment in the sub-program will be made after successful completion of a final inspection. Building owners may repay their contribution to the project (total cost less the sub-program incentive) over a period of three years or in a lump sum following the final inspection. Opportunities to participate in PJM’s Demand Response program will be identified, and information will be provided to building owners regarding participating Curtailable Service Providers (CSPs).</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>The C&I - Hospital Efficiency Sub-Program will target:</p> <ol style="list-style-type: none"> 1) New and existing in-patient hospitals and other in-patient medical facilities that operate 24-7 in New Jersey 2) Natural gas and/or electricity is provided by PSE&G 3) Both for-profit and non-profit facilities are eligible, but non-profit hospitals and hospitals in municipalities that contain Urban Enterprise Zones (UEZ) shall be provided with funding priority. The following UEZ municipalities are located in PSE&G’s service territory: Mount Holly, Pemberton, Camden, East Orange,

PSE&G
Energy Efficiency Economic Stimulus Initiative
C&I - Hospital Efficiency Sub-Program

	Irvington, Newark, Orange, Bayonne, Guttenberg, Jersey City, Kearny, North Bergen, Union City, West New York, Trenton, Passaic, Paterson, Carteret, Perth Amboy, Elizabeth, Hillside, Roselle and Plainfield.		
<p>Delivery Method</p>	<p>PSE&G will identify a C&I sub-program manager, along with supporting technical staff, to oversee sub-program operation, coordination with the Clean Energy Program and other utility’s programs, contractor oversight and trade ally relations.</p> <p>The audit will be provided through a qualified audit professional employed by PSE&G. The scope of work will include the on-site energy audit and the preparation of an audit report citing energy savings opportunities with associated payback information, using pre-determined calculations and algorithms.</p> <p>PSE&G will review facility audit results with the customer to establish baseline performance information and projected savings. Hospitals will obtain services for the installation of the approved measures from qualified service providers. Based on the audit results, PSE&G will enter into contracts with hospitals to provide funding of eligible measures.</p> <p>PSE&G may also utilize subcontractors as needed. For the purposes of this sub-program, for those projects that qualify as a "public work" as defined by statute, the service provider will adhere to all aspects of the New Jersey State Prevailing Wage Act, <i>N.J.S.A. 34:11-56.25 et seq.</i>, and will require the same of all subcontractors. For those projects that do not qualify as public works, service providers will be required to pay the equivalent of the prevailing wages for the county in which the work is to be performed, unless the work is performed by union employees, in which case the employees will be paid in accordance with the union contract.</p>		
<p>Estimated Program Participants</p>	<p>About 31 separate building facilities. Number treated may vary depending upon the level of energy efficiency work required.</p>	<p>Estimated Savings</p>	<p>kW – 8,356 kWh <ul style="list-style-type: none"> • Annual – 73,200,000 • Lifetime – 1,098,000,000 Dtherms <ul style="list-style-type: none"> • Annual – 748,466 • Lifetime – 11,226,994 </p>
<p>Link to Existing Programs</p>	<p>This sub-program provides targeted services to market sector with incomplete opportunities within existing CEP portfolio.</p> <p>This program provides the same level of incentives as the PSE&G Carbon Abatement Program.</p> <p>Hospital and medical facilities may qualify for NJCEP Pay for Performance incentives and/or qualify for Smart Start equipment rebates, but may not take this sub-program and NJCEP incentives for the same measures.</p>		

**PSE&G
Energy Efficiency Economic Stimulus Initiative
C&I - Hospital Efficiency Sub-Program**

<p>Existing Incentives</p>	<p>Although no existing programs are targeted specifically to this market, hospital facilities would be eligible for NJCEP C&I program incentives.</p>	<p>Proposed Incentives</p>	<p>Program provides:</p> <ol style="list-style-type: none"> 1) professional energy audit free of charge. 2) incentives to lower the payback period for measures other than CHP from 15 years or less by seven years to no less than two years for energy efficiency measures recommended by the audit. PSE&G will pay the total cost of the measures upon completion of the project and successful completion of a final inspection. Customers will repay their contribution to the project (total cost less the PSE&G incentive) over a period of three years through their PSE&G bill. Customers may also choose to cover the cost for the balance of the project without the PSE&G on-bill payment, in which case the customer contribution will be deducted from the total cost of the project to determine PSE&G's payment to the customer. 3) See below for CHP incentives
<p>Anticipated Job Creation</p>	<p>This estimate of potential job creation was developed using factors developed by the Center on Wisconsin Strategy as reported by SAHF (Steward of Affordable Housing for the Future) in a literature review of research that demonstrates green job creation. This approach provides factors for both union and non-union wage jobs created or saved per \$1M investment. The SAHF review is attached as Attachment 2A.</p> <p>Approximately 140 Jobs.</p>		
<p>Budget Information</p>	<p>\$35,000,000 Investment</p>		
<p>Marketing Approach</p>	<p>This sub-program will leverage utility large customer support personnel to identify potential participating hospital new construction and retrofit projects. Sub-program specific marketing efforts will target hospital decision makers – facility manager, energy managers, and administrators. This marketing will entail targeted direct marketing and direct contact by vendor personnel and large customer support managers.</p>		

**PSE&G
Energy Efficiency Economic Stimulus Initiative
C&I - Hospital Efficiency Sub-Program**

<p>Contractor Role</p>	<p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>Contractor(s) services may include where appropriate:</p> <ul style="list-style-type: none"> • marketing and sub-program enrollment; • provision of on-site customer audits; • identification and recommendations for efficiency improvements above and beyond those provided by the sub-program; and • direct installation of customer-accepted cost-effective efficiency improvements identified under the sub-program.
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CHP Incentives

To encourage the use of CHP, the following incentives will be provided:

1. CHP Base incentives of 30% of installed cost but not to exceed \$450 per kW (\$100 per kW paid after the plant is tested and meets the required efficiency. The remaining \$350 per kW incentive may be paid by PSE&G under this sub-program or through other available programs in a manner consistent with the EMP) of the installed system with minimum of 70% of overall efficiency.
2. CHP using advanced technologies (advanced engines with 40% and above mechanical efficiencies, etc.) to improve CHP system efficiency (Electrical and Thermal) above 80%. The total incentive will be limited to 35% of the installed cost but not to exceed \$550 per kW (\$200 per kW paid after the plant is tested and meets the required efficiency. The remaining \$350 per kW incentive may be paid by PSE&G under this sub-program or through other available programs in a manner consistent with the EMP.)
3. CHP installed in PSE&G's focused area of sub-station congestion with a minimum of 70% overall efficiency will be eligible for a total incentive limited to 40% of the installed cost but not to exceed \$600 per kW (\$250 per kW paid after the plant is tested and meets the required efficiency. The remaining \$350 per kW incentive may be paid by PSE&G under this sub-program or through other available programs in a manner consistent with the EMP). PSE&G will enter into an agreement with the customer regarding operation of the plant during congestion periods, which may include penalties if the plant does not operate during the critical congestion periods. Any penalties collected shall be credited to ratepayers.

PSE&G

Energy Efficiency Economic Stimulus Initiative

C&I - Data Center Efficiency Sub-Program

<p>Description of Program</p>	<p>The C&I - Data Center Efficiency Program is designed to reduce carbon emissions by lowering the energy consumption of data center facilities. Data centers can be several buildings, one building; occupy one or several floors of a building; occupy one room or only a small closet space. Data centers are designed to accommodate the unique needs of energy intensive computing equipment along with specially-designed infrastructure to accommodate high electrical power consumption, redundant supporting equipment and the heat given off in the process. Data centers are owned and operated by a multitude of business, including Fortune 500 and IT companies, financial and banking institutions, and by government and academic institutions. In August 2007, the U.S. Environmental Protection Agency (EPA) developed a report in response to the request from Congress stated in Public Law 109-431 assessing current trends in energy use and energy costs of data centers and servers in the U.S. Among its findings were that in 2006, U.S. data centers used approximately 61 billion kWh (about 209 trillion Btu's in end use) and accounted for about 1.5% of all U.S. electricity consumption. This was more than the electricity consumed by the nation's color televisions or equivalent to 5.8 million average U.S. households. It is believed that by 2011 energy use by these servers and data centers could almost double to 100 billion kWh's. There is significant potential for energy efficiency improvements in data centers through new technologies already available or expected to be available in the marketplace. As many of the large data centers in New Jersey are planning to expand, and a number of new customers are planning to add new data centers, New Jersey has a unique opportunity to work with those customers to improve the energy efficiency of existing and/or new data centers.</p> <p>The C&I - Data Center Efficiency Sub-Program will conduct facility audits for existing data centers and perform a design review for proposed new data center sites. Audits will consist of meeting the data center management team, reviewing the overall operation of the data center, and collecting information regarding the energy consuming devices. The audit will consider the comprehensive analysis of all of the technologies associated with the data center and will also address redundancies needed for reliability and provide a report of recommendations with potential energy and cost savings opportunities.</p> <p>PSE&G will pay for the cost of the audit for an existing data center and the design review for a new data center facility. Based on the audit results, PSE&G will enter into contracts with data centers to provide funding of eligible measures based on reduction in total natural gas and electricity usage and/or demand.</p>
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PSE&G
Energy Efficiency Economic Stimulus Initiative
C&I - Data Center Efficiency Sub-Program

<p>Market Segment/ Efficiency Targeted</p>	<p>The C&I - Data Center Efficiency Sub-Program will target: New and existing data center facilities whose natural gas and/or electricity is provided by PSE&G.</p>
<p>Delivery Method</p>	<p>PSE&G will identify a sub-program manager, along with supporting technical staff, to oversee program operation, coordination with the Clean Energy Program and other utility programs, contractor oversight and trade ally relations.</p> <p>PSE&G will conduct an on-site audit and prepare an audit report citing energy savings opportunities with associated payback information, using pre-determined calculations and algorithms. For newly proposed data centers, PSE&G will perform a plan review and provide a report citing energy savings opportunities with associated payback information, using pre-determined calculations and algorithms.</p> <p>Based on the audit results, PSE&G will enter into contracts with data centers to provide funding of eligible measures. PSE&G will review facility audit results with the customer to establish baseline performance information and projected savings.</p> <p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity.</p> <p>For the purposes of this sub-program, for those programs that qualify as a "public work" as defined by statute, the service provider will adhere to all aspects of the New Jersey State Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq., and will require the same of all subcontractors. For those projects that do not qualify as public works, service providers will be required to pay the equivalent of the prevailing wages for the county in which the work is to be performed, unless the work is performed by union employees, in which case the employees will be paid in accordance with the union contract.</p>

PSE&G
Energy Efficiency Economic Stimulus Initiative
C&I - Data Center Efficiency Sub-Program

<p>Estimated Program Participants</p>	<p>Estimated 16 participants/ facilities. Number treated will vary depending upon the size of participating facilities and the level of energy efficiency work required.</p>	<p>Estimated Savings</p>	<p>kW – 4,384 kWh <ul style="list-style-type: none"> • Annual – 38,400,000 • Lifetime – 576,000,000 Dtherms <ul style="list-style-type: none"> • Annual – 147,239 • Lifetime – 2,208,589 *Note –actual results will vary depending on the type and number of facilities treated.</p>
<p>Link to Existing Programs</p>	<p>This sub-program provides targeted services to market sector with incomplete opportunities within existing CEP portfolio. Data Center facilities may qualify for Pay for Performance incentives and/or qualify for Smart Start equipment rebates</p>		
<p>Existing Incentives</p>	<p>Although no existing programs are targeted specifically to this market, data center facilities would be eligible for CEP C&I program lighting and HVAC incentives and possibly other customer incentives.</p>	<p>Proposed Incentives</p>	<p>Program provides: 1) professional energy audit free of charge. 2) Design review for new construction / additions 3) Incentives for reduced energy usage and/or demand</p>
<p>Anticipated Job Creation</p>	<p>This estimate of potential job creation was developed using factors developed by the Center on Wisconsin Strategy as reported by SAHF (Steward of Affordable Housing for the Future) in a literature review of research that demonstrates green job creation. This approach provides factors for both union and non-union wage jobs created or saved per \$1M investment. The SAHF review is attached as Attachment 2A. Approximately 50 Jobs.</p>		
<p>Budget Information</p>	<p>\$12,000,000 Investment</p>		
<p>Marketing Approach</p>	<p>This sub-program will leverage large customer account support personnel to identify potential participating data center new construction and retrofit projects. Sub-program specific marketing efforts will target data center decision makers – facility manager, energy managers, and administrators.</p>		

PSE&G
Energy Efficiency Economic Stimulus Initiative
C&I - Data Center Efficiency Sub-Program

Contractor Role	<p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>Contractor(s) services may include where appropriate:</p> <ul style="list-style-type: none">• marketing and sub-program enrollment;• provision of on-site customer audits;• identification and recommendations for efficiency improvements above and beyond those provided by the sub-program; and• direct installation of customer-accepted cost-effective efficiency improvements identified under the sub-program.
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PSE&G

**Energy Efficiency Economic Stimulus Initiative
C&I - Building Commissioning/O&M Sub-Program**

<p>Description of Program</p>	<p>The primary objective of the C&I - Building Commissioning/O&M Sub-Program (aka Retrocommissioning) is to motivate non-residential customers to reduce energy use through improvements in the manner facilities are operated and maintained. This sub-program will offer technical and financial assistance to identify and implement low cost tune-ups and adjustments that improve the efficiency of a building’s operating systems by bringing them to the intended operation or design specifications, with a focus on building controls and HVAC systems.</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>All non-residential customers, primarily in the commercial, governmental, and institutional sectors. Within this group, the sub-program will focus more heavily on large facilities that would typically be more receptive to retro-commissioning services.</p>
<p>Delivery Method</p>	<p>PSE&G will identify a sub-program Administrator, along with supporting technical staff, who will oversee the program operation, coordination with the Clean Energy Program, other utility programs, contractor oversight and trade ally relations. PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers.</p> <p>Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>In the event that subcontractors are used for projects that qualify as a "public work" (as defined by statute), the service provider will adhere to all aspects of the New Jersey State Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq., and will require the same of all subcontractors. For those projects that are not public works, service providers will be required to pay the equivalent of the prevailing wages for the county in which the work is to be performed, unless the work is performed by union employees, in which case the employees will be paid in accordance with the union contract.</p>

PSE&G

Energy Efficiency Economic Stimulus Initiative
C&I - Building Commissioning/O&M Sub-Program

<p>Estimated Program Participants</p>	<p>Estimated 29 participants / facilities. Number treated may vary depending upon the level of energy efficiency work required.</p>	<p>Estimated Savings</p>	<p>According to a DOE review of Retro-Cx case studies, energy savings can range from 5-30% over a wide range of building uses. Most have a simple payback of <2yrs.</p> <p>kW – 428 kWh</p> <ul style="list-style-type: none"> • Annual – 3,750,000 • Lifetime – 56,250,000 <p>Dtherms</p> <ul style="list-style-type: none"> • Annual – 38,462 • Lifetime – 576,923 <p>*Note –actual results will vary depending on the type and number of buildings treated.</p>
<p>Link to Existing Programs</p>	<p>There is currently no comparable CEP program.</p>		
<p>Existing Incentives</p>	<p>There are currently no existing incentives for retro-commissioning and O&M</p>	<p>Proposed Incentives</p>	<p>Share the customer cost of developing the retro-commissioning plan up to a maximum of \$10,000 per project. The cost of implementing a pilot list of low-cost improvements may be subsidized on a \$/kWh saved basis to demonstrate the value of commissioning efforts.</p>
<p>Anticipated Job Creation</p>	<p>This estimate of potential job creation was developed using factors developed by the Center on Wisconsin Strategy as reported by SAHF (Steward of Affordable Housing for the Future) in a literature review of research that demonstrates green job creation. This approach provides factors for both union and non-union wage jobs created or saved per \$1M investment. The SAHF review is attached as Attachment 2A.</p> <p>Approximately 8 Jobs.</p>		
<p>Budget Information</p>	<p>\$2,000,000 Investment</p>		

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Energy Efficiency Economic Stimulus Initiative
 C&I - Building Commissioning/O&M Sub-Program

<p>Marketing Approach</p>	<p>Sub-program specific marketing efforts will target customers, trade allies and the energy services industry in specific market segments where commissioning and improved O&M will provide cost-effective customer benefits. The sub-program will be marketed to both customers and trade allies. This marketing will entail targeted direct marketing and, direct contact by vendor personnel and Company Key Account Managers, trade shows and trade association outreach. Trade ally marketing to customers will also be an important component of the customer marketing efforts.</p>
<p>Contractor Role</p>	<p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>Contractor(s) services may include where appropriate:</p> <ul style="list-style-type: none"> • marketing and sub-program enrollment; • provision of on-site customer audits; • identification and recommendations for efficiency improvements above and beyond those provided by the sub-program; and • direct installation of customer-accepted cost-effective efficiency improvements identified under the sub-program.

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Energy Efficiency Economic Stimulus Initiative

C&I - Technology Demonstration Sub-Program

<p>Description of Program</p>	<p>The C&I - Technology Demonstration Program will be comprised of a number of technology and site-specific demonstration projects designed to measure the potential for energy savings for various technologies. The sub-program will also measure the replicability/applicability for numerous technologies and the potential for expansion to other projects. This sub-program will provide support for the State’s goals including economic development and Brownfield redevelopment. The sub-Program will provide funding to test emerging energy savings technologies not currently covered by existing programs. It will be geared toward testing and proving new technologies for next generation energy efficiency programs. This sub-program may also provide funding for market research to understand consumer behavior and receptivity toward adopting new approaches to energy efficiency. Potential projects could include Plug-In Hybrid Electric Vehicle (PHEV) technology replacements for standard terminal tractor equipment used in ports and warehouses and standard utility trouble trucks, LED Streetlighting applications, standing column geothermal systems in dense urban settings, office of the future applications, micro-energy homes in urban settings, university or museum demonstration buildings, etc.</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>This sub-program will not be offered to the market as a whole. Each of the technology and site-specific demonstration projects will be targeted to a specific location and/or technology type. PSE&G will identify and/or accept proposals for individual technology demonstration projects and evaluate the benefits, applicability and savings related to each project.</p>
<p>Delivery Method</p>	<p>PSE&G will identify a sub-program Administrator, along with supporting technical staff, who will oversee the sub-program operation, coordination with the Clean Energy Program, other utility’s programs, contractor oversight and trade ally relations.</p> <p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>In the event that subcontractors are used for projects that qualify as a "public work" (as defined by statute), the service provider will adhere to all aspects of the New Jersey State Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq., and will require the same of all subcontractors. For those projects that are not public works, service providers will be required to pay the equivalent of the</p>

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**Energy Efficiency Economic Stimulus Initiative
C&I - Technology Demonstration Sub-Program**

	prevailing wages for the county in which the work is to be performed, unless the work is performed by union employees, in which case the employees will be paid in accordance with the union contract.		
Estimated Program Participants	Participation driven by project mix. 12 participants are estimated for the purpose of this filing.	Estimated Savings	kW – 1,081 kWh Annual – 18,947,368 Lifetime – 284,210,526 Dtherms Annual – 192,000 Lifetime – 2,880,000 *Note – These are estimates. Actual results will vary depending on the type and number of projects.
Link to Existing Programs	There is currently no comparable NJCEP program. The 2009 NJCEP program plans do not carve out funding for a specific demonstration program category. Such a category is considered necessary as a means to test promising strategies and technologies that could be incorporated into new NJCEP offers in the future.		
Existing Incentives	There are currently no existing incentives for demonstration projects.	Proposed Incentives	Project specific.
Anticipated Job Creation	This estimate of potential job creation was developed using factors developed by the Center on Wisconsin Strategy as reported by SAHF (Steward of Affordable Housing for the Future) in a literature review of research that demonstrates green job creation. This approach provides factors for both union and non-union wage jobs created or saved per \$1M investment. The SAHF review is attached as Attachment 2A. Approximately 50 Jobs.		
Budget Information	\$12,000,000 Investment		
Marketing Approach	No marketing is anticipated for this sub-program. The technology demonstration projects will be identified by the large customer account support and/or considered based on proposals submitted to the utility by technology vendors, developers, and community organizations.		

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**Energy Efficiency Economic Stimulus Initiative
C&I - Technology Demonstration Sub-Program**

Contractor Role	<p>PSE&G intends to use its PSE&G unionized workforce wherever possible. In circumstances that require expertise that PSE&G does not have currently and cannot develop in time to meet the market need, PSE&G will obtain services for the installation of the approved measures from qualified service providers. Sub-program and skill-specific qualifications will be developed and an RFP will be issued to advertise the competitive opportunity. Selection criteria typically include overall quality, completeness and responsiveness to the RFP, quality of approach, prior experience, and cost.</p> <p>Contractor(s) services may include where appropriate:</p> <ul style="list-style-type: none">• marketing and sub-program enrollment;• provision of on-site customer audits;• identification and recommendations for efficiency improvements above and beyond those provided by the sub-program; and• direct installation of customer-accepted cost-effective efficiency improvements identified under the sub-program.
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November 18, 2008

Retrofitting existing privately owned affordable housing—a literature review of research that demonstrates job creation as a result of greening multifamily buildings.

Job Creation while reducing Energy Consumption

There is a growing body of evidence to support the conclusion that energy efficiency initiatives have a positive effect on employment by either directly creating new business opportunities or indirectly where money saved on utility costs can then be spent in other ways.¹ The purpose of this brief is to review recent research conducted in the field and to highlight studies that make evident the positive impact energy efficient retrofits— from multifamily properties, to single family homes, to commercial developments— have on job creation and stimulating local economies.

National Association of Home Builders. A recent study by the National Association of Home Builders (NAHB) notes that 1.11 jobs and \$30,217 in taxes is generated directly for every \$100,000 spent on residential remodeling in a typical metropolitan area of the United States.² Although the NAHB remodeling report does not address green job creation, NAHB notes that the report could be used to estimate green job creation arising from energy efficient retrofit projects. The estimated cost of a typical multifamily retrofit project could be used to estimate the number of green jobs created, applying the ratio of money spent to jobs created, found in the remodeling report. For example, using NAHB's ratio, we can assume that an energy efficient retrofit project would generate 3.33 full-time jobs if the project consisted of 100 apartments costing \$3,000.00 per retrofitted unit, totaling \$300,000.00.³ To date, the largest and most ambitious retrofitting project is the German Alliance for Work and the Environment. Under this initiative, 342,000 apartments were retrofitted and 140,000 jobs created or saved.⁴

¹ Diana Ürge-Vorsatz and Aleksandra Novikova, 2007: Residential and commercial buildings. In *Climate Change 2007: Mitigation. Contribution of Working Group III*

to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, p. 417

² Helen Fei Liu and Paul Emrath (October 7, 2008). "The Direct Impact of Home Building and Remodeling on the U.S. Economy," National Association of Home Builders, p. 1.

³ It is important to account for the possibility that a typical energy efficiency retrofit may be more labor intensive than a normal remodeling job and the retrofit may call for workers with specialized skills.

⁴ Michael Renner, Sean Sweeney, Jill Kubit, *Green Jobs: Towards Decent Work in a Sustainable Low-carbon World*. Worldwatch Institute. United Nations Environment Programme, International Labour Organization, International Organisation of Employers, International Trade Union Confederation, (September, 2008), pp. 133-34. It was originally estimated that 200,000 new jobs would be created under the program but actually 25,000 jobs were created and 116,000 jobs were saved during a recession of the German economy. 140,000 new or saved jobs is thus the official job number.

U.S. Conference of Mayors. The United States Conference of Mayors (USCM) and the Mayors Climate Protection Center released a report in October, 2008 entitled, "Green Jobs in Metro Areas." USCM's study provides a forecast of the number of green jobs that will be created by 2038 due to building retrofits. USCM bases its job growth estimate on the projected amount of energy that will be saved during the next thirty years.⁵ USCM assumes a 35 percent reduction in energy consumption by 2038.⁶ A 35 percent reduction would equal incremental savings of 32,000 million kilowatt-hours per year with 81,000 green jobs created to achieve this energy efficiency goal.⁷ 49 percent (15,680 million kilowatt-hours) of the annual energy savings would be in the residential sector and approximately 36,000 of the 81,000 green jobs created, would be in the residential sector.⁸ The USCM's ratio equals 2.3 green jobs created for every million kilowatt hours saved.⁹

Center on Wisconsin Strategy. Preliminary analysis by the Center on Wisconsin Strategy used modeling to estimate the labor content per \$1 million investment in measure installation for multifamily and single-family housing and for commercial (office buildings) in Chicago.¹⁰ The findings demonstrate several points:

- Efficiency work, if brought to scale, will create thousands of installation jobs
- The precise number and type of jobs created will depend partly on program design and partly on wage scales
- Higher costs, including those for labor, will mean less energy efficiency work per unit of investment
- Based on typical construction crew make-up, about 30 percent of the work would be considered entry-level, which might provide an opportunity for modest wages, assuming the positions afford workers a way into better paying jobs¹¹

Data from two surveys published in 2000 and 2005 by the Energy Center of Wisconsin quantify efficiency measures that would be cost-effective in various building types – energy savings would pay for the measures in 10 years or less.¹² The ECW report on multifamily buildings provides measure frequency by building size (units per building), where these findings were applied to Chicago's multifamily building stock.¹³

⁵ United States Conference of Mayors and the Mayors Climate Protection Center, "U.S. Metro Economies: Current and Potential Green Jobs in the U.S. Economy" (October 2008), p. 15.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ The USCM's study lumps multifamily and single-family homes into the "residential sector" in making its job growth estimate, thus making it difficult to determine exactly what portion of job growth can be attributed to the multifamily sector.

¹⁰ 2008 Center on Wisconsin Strategy (COWS) study for the City of Chicago (as of yet an unpublished memo). The model used for this report – developed by COWS and the University of Florida's Powell Center for Building and Environment – is based on construction estimation techniques, taking out contractor's profit and overhead, cost for materials, and then allocating the labor portion of the investment based on loaded labor rates and typical crew make-up. The estimates do not account for other program-related costs, such as auditing or engineering studies, general program overhead, or customer service.

¹¹ *Id.*

¹² Scott Pigg and Andrew Price (April 2005). "Energy and Rental Housing: A Wisconsin Characterization Study." Energy Center of Wisconsin. Scott Pigg (October 2002). "Energy Savings from the Wisconsin Energy Star® Homes Program." Energy Center of Wisconsin.

¹³ Abby Vogen (May-June 2006). "Best Practices for New Multifamily Buildings." Energy Center of Wisconsin.

By inputting loaded labor rates into the analysis, costs the contractor must pay, including liability insurance, benefits and other costs, COWS conducted three runs for each building type which resulted in the following labor rates:

1. Costs for an all-union workforce which included supervisory and skilled work at the journeyman rate, semi-skilled work at the full apprentice rate, and entry-level work at 80 percent of the apprentice rate
2. The costs to reflect a mix of union and non-union workers and arrangements to reduce contractor liability
3. The costs reflecting smaller non-union contractors¹⁴

These inputs provide a range of job-creation estimates, and highlight the tradeoff that policymakers face: To start, the higher the pay for measure installation, the fewer jobs are created for the same investment. For example, in commercial buildings, \$1 million invested in efficiency measures would produce an estimated 4.3 job-years.¹⁵ The same investment would produce 5.4 job-years in the union/nonunion scenario and would result in 11.5 job-years based on the Powell Center's loaded wage survey.¹⁶

COWS "Implementation Strategy" draft provides an estimate of employment in job-years. (One job year is a full-time job for one person for one year, so 100 job-years in a 10-year program would provide 10 full-time jobs per year.):¹⁷

- The single-family residential program produces 4,864 to 12,262 job-years.
- The multifamily residential program produces 2,432 to 6,444 job-years.
- The commercial program produces 4,089 to 10,882 job-years.

Skill levels for jobs shown in the results are independent of the union status or pay of the workers, but are instead based on the make-up of a typical construction crew. Nearly 30 percent of the jobs created would be entry level, which might provide a justification for modest wages in those jobs, particularly if the work provides an opportunity to move up into better paying, possibly unionized jobs.¹⁸ Weatherization programs traditionally pay much less than full union or even prevailing wage rates, citing the programs as the first step on a career ladder.¹⁹

Greg Kats, John Braman and Michael James. Using a macro-economic model to analyze employment impact based on costs and energy savings in a green building, Greg Kats et al. found that "relative to conventional construction, green buildings increase employment by shifting resources from energy spending toward design and construction, efficiency, renewable

¹⁴ 2008 Center on Wisconsin Strategy (COWS) study for the City of Chicago (as of yet an unpublished memo).

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.* Note that the total and per-unit cost estimates in "Implementation Strategy" are based on rough estimates from current Weatherization Assistance programs, which employ non-union workers.

¹⁸ *Id.* Note that the estimates in this memo are for measure installation only, and do not include program overhead or the cost of diagnosing buildings for retrofit measures.

¹⁹ *Id.* Loaded labor rates from Leopardo and the Powell Center surveys respectively. These estimates do not necessarily reflect net new labor supply requirements, since some new demand is likely to be satisfied by skilled workers who are currently unemployed or underemployed.

energy, and recycling.²⁰ An input-output model was used by Kats et al. yet to be published
“Green Buildings and Communities: Costs and Benefits” 2008 study.²¹ Input-output models
have previously shown that for every one million dollars spent on utilities and energy-related
services, directly or indirectly, supported the creation of 2-4 jobs. Kats et al. assume that if the
identical one million dollars were spent on green building, circa 8 to 12 jobs would be generated,
directly and indirectly. One can therefore safely conclude that shifting to energy efficiency has
the potential to create a substantial net employment benefit for the economy.²² To make this
point evident, Kats’s model assumes that reducing building energy and water use by 30%, typical
of green buildings, costs \$3.50/sf (~a roughly 2% “green premium” on a conventional building
with a total cost of \$175/sf). Using a conservative assumption, it is presumed that the combined
total savings on the utility and water bills are on average \$0.50 per square foot annually. As the
report demonstrates, this means that the reduced utility bills alone provide a payback of 7 years
for green building improvements. “If the building is expected to last, 50 years, that means there
will be about 43 years of utility bill savings as a benefit to the building owner occupants.”²³ It
is then subsequently assumed that the building occupant borrows the money to make the
improvements at a 7 percent interest rate over a 20-year period. “That means the architect, the
engineer, and the building contractor immediately have work “providing a short-term stimulus
for the economy.”²⁴ While indirectly, the resident has more money to spend during the next 20
years as a result of lower energy and water bills.

Kats et al. further ran a model with inputs from a green office building which indicated that the
net increase in jobs from 92,500sf green building is approximately 1/3 of a full-time job per
year.²⁵ This translates to one net job-year being created annually per additional million dollars
invested in green building over conventional building costs.²⁶

On a per square foot basis, the increased economic output
over 20 years from increased employment is roughly \$1/sf based
on investments in energy efficiency. While small on the level of
an individual building, a broad transition to green building can
have significant economic impacts. For example, if the US were
to upgrade about one-third of its commercial building space so that
such facilities use about one-third less water and energy by 2030,
the economy would in turn support an estimated 100,000 net new
long-term, good-paying jobs.²⁷

American Council for an Energy Efficient Economy. The American Council for an Energy
Efficiency Economy estimated in their 2008 report that energy efficiency in the building industry
currently supports more than one million US jobs, including 332,000 in commercial construction

²⁰ Greg Kats, John Braman and Michael James, 2008: “Greening Buildings and Communities: The Costs and Benefits” p.75.

²¹ *Id.* An input-output model is a set of economic accounts that model how consumers and businesses buy and sell to each other,
illuminating how changes in spending can affect the economy both directly and indirectly.

²² *Id.*, p.78.

²³ *Id.*, p.78.

²⁴ *Id.*, p.78.

²⁵ *Id.*, p.78.

²⁶ *Id.*, p.78.

²⁷ *Id.*, p.78.

and renovation.²⁸ Further, a 2007 report also conducted by the American Council for an Energy Efficiency Economy used energy efficiency and renewable energy strategies to assess the economic impact to counter Texas's growing energy demand—assuming demand that requires a cumulative \$50 billion investment statewide between 2008 and 2036. It was found that the investment would produce small reductions in profits for traditional utilities by 2035 but, over the same period of time, the net gain in job-years (i.e. years of full time employment for one person) state-wide would result in 28,300 and a \$1.7 billion net increase in wages.²⁹

Southwest Energy Efficiency Project. Further, a 2002 study by the Southwest Energy Efficiency Project estimated that increased investment in energy efficiency could generate 20,500 net new job-years in Arizona, Colorado, New Mexico, Nevada, Utah and Wyoming by 2010. By 2020 58,400 net additional job-years would be created under a high energy efficiency scenario—compared with continuing to invest in conventional technology.³⁰ Black and Veatch examined the impact of meeting a renewable portfolio standard in Pennsylvania in 2004 and found that relative to a business as usual scenario, 85,000 net job-years would be created.³¹ Finally, a 2000 report by the Association for the Conservation of Energy in the United Kingdom (UKACE) analyzed the impact of recent energy efficiency initiatives including programs for efficient HVAC systems and improved building codes. UKACE found that for every one million Euros invested in energy efficiency, 8-14 job-years were created. The types of jobs created varied from unskilled labor to skilled trades to engineering and management.³²

German Experience. According to a study of general-efficiency programs in West Germany between 1973 and 1990, approximately 400,000 new jobs were created due to energy savings of 4.1 exajoules per year, which equals 100 new jobs per petajoule of primary energy saved.³³ Other studies performed in Europe and North America in the late 1990s show 40-60 jobs created for every petajoule of primary energy saved.³⁴

American Solar Energy Society. The American Solar Energy Society (ASES) estimates that by 2030 the energy efficiency industry will create 14.96 million jobs assuming no change in policy and no major energy efficiency initiatives, 17.8 million new jobs assuming moderate federal and state initiative and 32.2 million new jobs assuming aggressive energy initiatives and policies at the state and federal level.³⁵

²⁸ Ehrhardt-Martinez, Karen and Skip Laitner (2008). *The Size of the U.S. Energy Efficiency Market: Generating a More Complete Picture*—American Council for an Energy Efficient Economy.

²⁹ John "Skip" Laitner, M. E., R. Neal Elliot (2007). *The Economic Benefits of an Energy Efficiency and Onsite Renewables Strategy to Meet Growing Electricity Needs in Texas*—American Council for an Energy Efficient Economy.

³⁰ *The New Mother Lode: the Potential for More Efficient Electricity Use in the Southwest*, Southwest Energy Efficiency Project (2002).

³¹ *Economic impact of Renewable Energy in Pennsylvania* (2004). Black and Veatch, Heinz Endowments, Community Foundation for the Alleghenies.

³² Joanne Wade, V. W., Ivan Scrase (2000). *National and Local Employment Impacts of Energy Efficiency Investment Programmes*, Association for the Conservation of Energy, UK.

³³ Eberhard Jochem and Reinhard Madlener, *The Forgotten Benefits of Climate Change Mitigation: Innovation, Technological Leapfrogging, Employment and Sustainable Development* (Paris: OECD, 2003), p. 18. available at <http://www.oecd.org/dataoecd/6/49/19524534.pdf> 1 petajoule is equal to approximately 277 million kilowatt-hours.

³⁴ *Id.*

³⁵ Bezdek, Roger *Renewable Energy and Energy Efficiency: Economic Drivers for the 21st Century*, American Solar Energy Society (July 2007), p. 33, 39.

Apollo Alliance. Finally, according to a study by the Apollo Alliance, 21.5 new jobs are created in the United States for every one million dollars invested in energy efficiency programs.³⁶ Using an input-output modeling exercise conducted by the Perryman Group in Waco, Texas, the findings of the study suggest that the New Apollo Project's \$300 billion investment in energy and the economy will result in an addition of 3.3 million jobs to the economy, \$1.4 trillion in GDP and produce \$284 billion in net energy cost savings, among other key ramifications.

³⁶ Apollo Alliance, "New Energy for New America" (Washington, D.C., 2004), p. 8.

ATTACHMENT 3

RGGI MINIMUM FILING REQUIREMENTS

APPENDIX A

APPENDIX A TO BOARD ORDER: IN THE MATTER OF PSE&G OFFERING ENERGY EFFICIENCY AND CONSERVATION PROGRAMS, INVESTING IN CLASS I RENEWABLE ENERGY RESOURCES, AND OFFERING CLASS I RENEWABLE ENERGY PROGRAMS IN IT'S SERVICE TERRITORIES ON A REGULATED BASIS PURSUANT TO N.J.S.A. 48:3-98.1	
MIMIMUM FILING REQUIREMENTS FOR PETITIONS UNDER N.J.S.A. 48:3-98.1	LOCATION IN FILING
I. General Filing Requirements	
a. The utility shall provide with all filings, information and data pertaining to the specific program proposed, as set forth in applicable sections of <u>N.J.A.C. 14:1-5.11</u> and <u>N.J.A.C. 14:1-5.12</u> .	Waiver Requested 5.12 (a) 5 Limit # of Public Hearings (2)
b. All filings shall contain information and financial statements for the proposed program in accordance with the applicable Uniform System of Accounts that is set forth in <u>N.J.A.C. 14:1-5.12</u> . The utility shall provide the Accounts and Account numbers that will be utilized in booking the revenues, costs, expenses and assets pertaining to each proposed program so that they can be properly separated and allocated from other regulated and/or other programs.	February 4, 2009 Supplemental Filing
c. The utility shall provide supporting explanations, assumptions, calculations, and work papers for each proposed program and cost recovery mechanism petition filed under <u>N.J.S.A. 48:3-98.1</u> and for all qualitative and quantitative analyses therein. The utility shall provide electronic copies of all materials and supporting schedules, with all inputs and formulae intact.	February 4, 2009 Supplemental Filing
d. The utility shall file testimony supporting its petition.	Waiver Requested
e. For any small scale or pilot program, the utility shall only be subject to the requirements in this Section and Sections II, III, and IV. The utility shall, however, provide its estimate of costs and a list of data it intends to collect in a subsequent review of the benefits of the program. Information in Section V may be required for pilot and small programs if such programs are particularly large or complex. A "small scale" project is defined as one that would result in either a rate increase of less than a half of one percent of the average residential customer's bill or an additional annual total revenue requirement of less than \$5 million. A pilot program shall be no longer than three years, but can be extended under appropriate circumstances.	Waiver Requested

APPENDIX A TO BOARD ORDER: IN THE MATTER OF PSE&G OFFERING ENERGY EFFICIENCY AND CONSERVATION PROGRAMS, INVESTING IN CLASS I RENEWABLE ENERGY RESOURCES, AND OFFERING CLASS I RENEWABLE ENERGY PROGRAMS IN IT'S SERVICE TERRITORIES ON A REGULATED BASIS PURSUANT TO N.J.S.A. 48:3-98.1	
MIMIMUM FILING REQUIREMENTS FOR PETITIONS UNDER <u>N.J.S.A. 48:3-98.1</u>	LOCATION IN FILING
f. If the utility is filing for an increase in rates, charges etc., or for approval of a program which may increase rates/charges to ratepayers in the future, the utility shall include a draft public notice with the petition and proposed publication dates.	February 4, 2009 Supplemental Filing
II. Program Description	
a. The utility shall provide a detailed description of each proposed program for which the utility seeks approval.	Attachment 2 at pages 1-33
b. The utility shall provide a detailed explanation of the differences and similarities between each proposed program and existing and/or prior programs offered by the New Jersey Clean Energy Program, or the utility.	Attachment 2 at pages 3, 7,11, 17, 22, 26, 29, 32 Attachment 5 at page 5
c. The utility shall provide a description of how the proposed program will complement, and impact existing programs being offered by the utility and the New Jersey Clean Energy Program with all supporting documentation.	Attachment 2 at pages 1-33 Attachment 5 at page 5
d. The utility shall provide a detailed description of how the proposed program is consistent with and/or different from other utility programs or pilots in place or proposed with all supporting documentation.	Attachment 2 at pages 1-33 Attachment 5 at page 5
e. The utility shall provide a detailed description of how the proposed program comports with New Jersey State policy as reflected in reports, including the New Jersey Energy Master Plan, or, pending issuance of the final Energy Master Plan, the draft Energy Master Plan, and the greenhouse gas emissions reports to be issued by the New Jersey Department of Environmental Protection pursuant to N.J.S.A. 26:2C-42(b) and (c) and N.J.S.A. 26:2C-43 of the Global Warming Response Act, N.J.S.A. 26:2C-37 et seq.	Attachment 5 at pages 6-8
f. The utility shall provide the features and benefits for each proposed program including the following: <ul style="list-style-type: none"> i. the target market and customer eligibility if incentives are to be offered; 	Attachment 2 at pages 1-33

APPENDIX A TO BOARD ORDER: IN THE MATTER OF PSE&G OFFERING ENERGY EFFICIENCY AND CONSERVATION PROGRAMS, INVESTING IN CLASS I RENEWABLE ENERGY RESOURCES, AND OFFERING CLASS I RENEWABLE ENERGY PROGRAMS IN IT'S SERVICE TERRITORIES ON A REGULATED BASIS PURSUANT TO N.J.S.A. 48:3-98.1	
MIMIMUM FILING REQUIREMENTS FOR PETITIONS UNDER N.J.S.A. 48:3-98.1	LOCATION IN FILING
<ul style="list-style-type: none"> ii. the program offering and customer incentives; iii. the quality control method including inspection; iv. program administration; and v. program delivery mechanisms. 	
g. The utility shall provide the criteria upon which it chose the program.	Attachment 5 at page 2
h. The utility shall provide the estimated program costs by the following categories: administrative (all utility costs), marketing/sales, training, rebates/incentives including inspections and quality control, program implementation (all contract costs) and evaluation and other.	Attachment 5 at pages 12-13 Attachment 5F at pages 1-6
i. The utility shall provide the extent to which the utility intends to utilize employees, contractors or both to deliver the program and, to the extent applicable, the criteria the utility will use for contractor selection.	Attachment 2 at pages 1-33
j. In the event the program contemplates an agreement between the utility and its contractors and/or the utility and its ratepayers, copies of the proposed standard contract or agreement between the ratepayer and the utility, the contractor and the utility, and/or the contractor and the ratepayer shall be provided.	Waiver Requested (Provide as developed) For standard Terms & Conditions see Attachment 5D, pages 1-17
k. The utility shall provide a detailed description of the process for resolving any customer complaints related to these programs.	Attachment 5 at pages 9-10 Attachment 5C
l. The utility shall describe the program goals including number of participants on an annual basis and the energy savings, renewable energy generation and resource savings, both projected annually and over the life of the measures.	Attachment 2 at pages 1-33 Attachment 5 at pages 16-17 Attachment H at pages 1-4 Attachment 5I at pages 1-12
m. Marketing – The utility shall provide the following: a description of where and how the proposed program/project will be marketed or promoted throughout the demographic segments of the utility's customer base including an explanation of how prices and the service for each proposed program/project will be conveyed to customers.	Waiver Requested for Initial Filing. (Provide as developed)

APPENDIX A TO BOARD ORDER: IN THE MATTER OF PSE&G OFFERING ENERGY EFFICIENCY AND CONSERVATION PROGRAMS, INVESTING IN CLASS I RENEWABLE ENERGY RESOURCES, AND OFFERING CLASS I RENEWABLE ENERGY PROGRAMS IN IT'S SERVICE TERRITORIES ON A REGULATED BASIS PURSUANT TO N.J.S.A. 48:3-98.1	
MIMIMUM FILING REQUIREMENTS FOR PETITIONS UNDER <u>N.J.S.A. 48:3-98.1</u>	LOCATION IN FILING
III. Additional Required Information	
a. The utility shall describe whether the proposed programs will generate incremental activity in the energy efficiency/conservation/renewable energy marketplace and what, if any, impact on competition may be created, including any impact on employment, economic development and the development of new business with all supporting documentation. This shall include a breakdown of the impact on the employment within this marketplace as follows: marketing/sales, training, program implementation, installation, equipment, manufacturing and evaluation and other applicable markets. With respect to the impact on competition the analysis should include the competition between utilities and other entities already currently delivering the service in the market or new markets that may be created.	Attachment 5 at pages 2-3
b. The utility shall provide a description of any known market barriers that may impact the program and address the potential impact on such known market barriers for each proposed program with all supporting documentation. This analysis shall include barriers across the various markets including residential (both single and multi-family), commercial and industrial (both privately owned and leased buildings), as well as between small, medium and large commercial and industrial markets. This should include both new development and retrofit or replacement upgrades across the market sectors.	Attachment 5 at pages 3-4
c. The utility shall provide a qualitative/quantitative description of any anticipated environmental benefits associated with the proposed program and a quantitative estimate of such benefits for the program overall and for each participant in the program with all supporting documentation. This shall include an estimate of the energy saved in kWh and/or therms and the avoided air emissions, wastewater discharges, waste generation and water use or other saved or avoided	Attachment 5 at pages 16-17

APPENDIX A TO BOARD ORDER: IN THE MATTER OF PSE&G OFFERING ENERGY EFFICIENCY AND CONSERVATION PROGRAMS, INVESTING IN CLASS I RENEWABLE ENERGY RESOURCES, AND OFFERING CLASS I RENEWABLE ENERGY PROGRAMS IN IT'S SERVICE TERRITORIES ON A REGULATED BASIS PURSUANT TO N.J.S.A. 48:3-98.1	
MIMIMUM FILING REQUIREMENTS FOR PETITIONS UNDER N.J.S.A. 48:3-98.1	LOCATION IN FILING
resources.	
d. To the extent known, the utility shall identify whether there are similar programs available in the existing marketplace and provide supporting documentation if applicable. This shall include those programs that provide other societal benefits to other under-served markets. This should include an analysis of the services already provided in the market place, and the level of competition.	Attachment 2 at pages 1-33 Attachment 5 at page 5
e. The utility shall provide an analysis of the benefits or impacts in regard to Smart Growth.	Attachment 5 at pages 5-6
f. The utility shall propose the method for treatment of Renewable Energy Certificates ("REC") including solar RECs or any other certificate developed by the Board of Public Utilities, including Greenhouse Gas Emissions Portfolio and Energy Efficiency Portfolio Standards including ownership, and use of the certificate revenue stream(s).	Attachment 5 at page 17
g. The utility shall propose the method for treatment of any air emission credits and offsets, including Regional Greenhouse Gas Initiative carbon dioxide allowances and offsets including ownership, and use of the certificate revenue stream(s).	Attachment 5 at page 17
h. The utility shall analyze the proposed quantity and expected prices for any REC, solar REC, air emission credits, offsets or allowances or other certificates to the extent possible.	Attachment 5 at page 17
IV. Cost Recovery Mechanism	
a. The utility shall provide appropriate financial data for the proposed program, including estimated revenues, expenses and capitalized investments, for each of the first three years of operations and at the beginning and end of each year of said three-year period. The utility shall include pro forma income statements for the proposed program, for each of the first three years of operations and actual or estimated balance sheets as at the beginning and end of each years of said three	February 4, 2009 Supplemental Filing

APPENDIX A TO BOARD ORDER: IN THE MATTER OF PSE&G OFFERING ENERGY EFFICIENCY AND CONSERVATION PROGRAMS, INVESTING IN CLASS I RENEWABLE ENERGY RESOURCES, AND OFFERING CLASS I RENEWABLE ENERGY PROGRAMS IN IT'S SERVICE TERRITORIES ON A REGULATED BASIS PURSUANT TO N.J.S.A. 48:3-98.1	
MINIMUM FILING REQUIREMENTS FOR PETITIONS UNDER N.J.S.A. 48:3-98.1	LOCATION IN FILING
year period.	
b. shall provide detailed spreadsheets of the accounting treatment of the cost recovery including describing how costs will be amortized, which accounts will be debited or credited each month, and how the costs will flow through the proposed method of recovery of program costs.	February 4, 2009 Supplemental Filing
c. The utility shall provide a detailed explanation, with all supporting documentation, of the recovery mechanism it proposes to utilize for cost recovery of the proposed program, including proposed recovery through the Societal Benefits Charge, a separate clause established for these programs, base rate revenue requirements, government funding reimbursement, retail margin, and/or other.	January 21, 2009 Petition at pages 11-16
d. The utility's petition for approval, including proposed tariff sheets and other required information, shall be verified as to its accuracy and shall be accompanied by a certification of service demonstrating that the petition was served on the Department of the Public Advocate, Division of Rate Counsel simultaneous to its submission to the Board.	February 4, 2009 Supplemental Filing
e. The utility shall provide an annual rate impact summary by year for the proposed program, and an annual cumulative rate impact summary for all approved and proposed programs showing the impact of individual programs as well as the cumulative impact of all programs upon each customer class of implementing each program and all approved and proposed programs based upon a revenue requirement analysis that identifies all estimated program costs and revenues for each proposed program on an annual basis. The utility shall also provide an annual bill impact summary by year for each program, and an annual cumulative bill impact summary by year for all approved and proposed programs showing bill impacts on a typical customer for each class.	February 4, 2009 Supplemental Filing
f. The utility shall provide, with supporting documentation, a detailed breakdown of the total costs for the proposed program, identified by cost segment (capitalized costs, operating expense, administrative	February 4, 2009 Supplemental Filing

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MIMIMUM FILING REQUIREMENTS FOR PETITIONS UNDER <u>N.J.S.A. 48:3-98.1</u>	LOCATION IN FILING
expense, etc.). This shall also include a detailed analysis and breakdown and separation of the embedded and incremental costs that will be incurred to provide the services under the proposed program with all supporting documentation.	
g. The utility shall provide a detailed revenue requirement analysis that clearly identifies all estimated program costs and revenues for the proposed program on an annual basis, including effects upon rate base and pro forma income calculations.	February 4, 2009 Supplemental Filing
h. The utility shall provide, with supporting documentation: (i) a calculation of its current capital structure as well as its calculation of the capital structure approved by the Board in its most recent electric and/or gas base rate cases, and (ii) a statement as to its allowed overall rate of return approved by the Board in its most recent electric and/or gas base rate cases.	February 4, 2009 Supplemental Filing
i. If the utility is seeking carrying costs for a proposed program, the filing shall include a description of the methodology, capital structure, and capital cost rates used by the utility.	February 4, 2009 Supplemental Filing
j. A utility seeking incentives or rate mechanism that decouples utility revenues from sales, shall provide all supporting justification, and rationale for incentives, along with supporting documentation, assumptions and calculations.	N/A
<u>V. Cost/Benefit Analysis</u>	
a. The utility shall provide a detailed analysis with supporting documentation of the net benefits associated with the proposed program, including, if appropriate, a comprehensive and detailed avoided cost savings study with supporting documentation. The value of the avoided environmental impacts and the environmental benefits and the value of any avoided or deferred energy infrastructure should be stated separately.	Analysis to be performed by CEEEP
b. The utility shall calculate a cost/benefit analysis utilizing the Total	Analysis to be performed by CEEEP

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MINIMUM FILING REQUIREMENTS FOR PETITIONS UNDER N.J.S.A. 48:3-98.1	LOCATION IN FILING
Resource Cost ("TRC") test that assesses all program costs and benefits from a societal perspective. The utility may also provide any cost benefit analysis that it believes appropriate with supporting rationales and documentation.	
c. The utility shall quantify all direct and indirect benefits as well as provide projected costs resulting from a proposed program that is subject to a cost/benefit test.	PSE&G will provide inputs for cost/benefit analysis
d. Renewable energy programs shall not be subject to a cost/benefit test but the utility must quantify all direct and indirect benefits resulting from such a proposed program as well as provide the projected costs. The utility must also demonstrate how such a proposed program will support energy and environmental statewide planning objectives, such as attainment of the Renewable Portfolio Standard and any emission requirements.	Analysis to be performed by CEEEP
e. The utility must demonstrate for the proposed program that it results in a positive benefit/cost ratio, or, if the utility cannot make such a demonstration, it must provide the rationale for why the proposed program should be approved.	Analysis to be performed by CEEEP
f. The level of energy and capacity savings utilized in these calculations shall be based upon the most recent protocols approved by the Board of Public Utilities to measure energy savings for the New Jersey Clean Energy Program. In the event no such protocols exist, or to the extent that a protocol does not exist for a filed program, the utility must submit a measurement protocol for the program or contemplated measure for approval by the Board.	Analysis to be performed by CEEEP
g. The utility shall also quantify and deduct from the energy and capacity savings any free rider effects and the business as usual benefits from homeowners and businesses installing Energy Efficiency or Renewable Energy without the N.J.S.A. 48:3-98.1 benefits or incentives.	Analysis to be performed by CEEEP

ATTACHMENT 4

**FORM OF NOTICE OF FILING
AND OF
PUBLIC HEARINGS DESCRIPTION**

NOTICE TO PUBLIC SERVICE ELECTRIC AND GAS COMPANY CUSTOMERS

IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY OFFERING AN ECONOMIC ENERGY EFFICIENCY 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

Notice of a Filing And Notice of Public Hearings

TAKE NOTICE that, on January 21, 2009 Public Service Electric and Gas Company ("Public Service", "PSE&G", "the Company") filed a Petition and supporting documentation with the New Jersey Board of Public Utilities ("Board", "BPU") in Docket Number XXXXXXXX. On February 4, 2009 the Company made a Supplemental Filing with supporting documentation. The Company is seeking Board approval to implement and administer a PSE&G Economic Energy Efficiency ("EEE") Stimulus Program ("Program") and to approve an associated cost recovery mechanism.

PSE&G seeks Board approval to implement an EEE Stimulus Program to offer energy efficiency projects to residential, industrial and commercial customers. PSE&G is proposing to undertake a set of eight (8) sub-programs resulting in an investment of approximately \$190 million over a two-year period. The Program directly supports the Governor's New Jersey Economic Assistance and Recovery Plan.

PSE&G proposes to recover all Program costs through a separate component of the electric and gas RGGI Recovery Charge ("RRC") entitled EEE Stimulus Program. The EEE Stimulus Program component will be applicable to all electric and gas rate schedules. The component would be reviewed and modified in an annual filing. The Company is requesting that the carrying charge on its deferred balances for this Program be set based upon PSE&G's monthly weighted average cost of capital ("WACC"), together with the income tax effects. The proposed RRC, if approved by the Board, is shown in Table #1.

Table #2 and #3 below provides customers with the approximate net effect of the proposed increase in rates relating to this Program, if approved by the Board. The annual percentage increase applicable to specific customers will vary according to the applicable rate schedule and the level of the customer's usage. The approximate effect of the

proposed increase on typical electric and gas residential monthly bills, if approved by the Board, is illustrated in Table # 4 and 5 below.

Based on the filing, a typical residential electric customer using 722 kilowatthours per summer month and 6,960 kilowatthours on an annual basis would see an increase in the annual bill from \$XXXX.XX to \$XXXX.XX, or \$X.XX or approximately X.XX%.

Under the Company's proposal, a residential heating customer using 100 therms per month during the winter months and 606 therms on an annual basis would see an increase in the annual bill from \$XXX.XX to \$XXX.XX, or \$X.XX or approximately X.XX%. Moreover, under the Company's proposal, a typical residential heating customer using 200 therms per month during the winter months and 1,210 therms on an annual basis would see an increase in the annual bill from \$XXXX.XX to \$XXXX.XX, or \$X.XX or approximately X.XX%.

Any final rate adjustments with resulting changes in bill impacts found by the Board to be just and reasonable as the result of the Company's filing may be modified and/or allocated by the Board in accordance with the provisions of N.J.S.A 48:2-21 and for other good and legally sufficient reasons to any class or classes of customers of the Company. Therefore, the described charges may increase or decrease based upon the Board's decision.

Copies of the Company's filing are available for review at the Company's Customer Service Centers and at the Board of Public Utilities at Two Gateway Center, Newark, New Jersey 07102.

The following dates, times and locations for public hearings have been scheduled on the Company's filing so that members of the public may present their views.

Date 1, 2009	Date 2, 2009
Location 1	Location 2
Time 1	Time 2
Location 1 Overflow	Location 2 Overflow
Room 1	Room 2
Room 1 Overflow	Room 2 Overflow
Address 1	Address 2
City 1, N.J. Zip 1	City 2, N.J. Zip 2

In order to encourage full participation in this opportunity for public comment, please submit any requests for needed accommodations, including interpreters, listening devices or mobility assistance, 48 hours prior to the above hearings. Customers may file written comments with the Secretary of the Board

of Public Utilities at Two Gateway Center, Newark, New Jersey 07102 ATTN: Kristi Izzo whether or not they attend the public hearings.

Table # 1
RRC Charges

	Economic Energy Efficiency Stimulus Program Component of the RRC		Total RRC	
	Present \$/kWhr (Incl SUT)	Proposed \$/kWhr (Incl SUT)	Present \$/kWhr (Incl SUT)	Proposed \$/kWhr (Incl SUT)
RRC Electric - \$ per kWhr	\$0.000000	\$X.XXXXXX	\$0.000021	\$X.XXXXXX
RRC Gas - \$ per Therm	\$0.000000	\$X.XXXXXX	\$0.000384	\$X.XXXXXX

Table # 2
Impact By Electric Customer Class

PROPOSED PERCENTAGE INCREASES BY CUSTOMER CLASS FOR ELECTRIC SERVICE		
BGS-FP	Rate Class	% Increase
Residential	RS	X.XX
Residential Heating	RHS	X.XX
Residential Load Management	RLM	X.XX
General Lighting & Power	GLP	X.XX
Large Power & Lighting - Secondary (Peak Load Share 0 – 749)	LPL-S	X.XX
Large Power & Lighting - Secondary (Peak Load Share 750 – 999)	LPL-S	X.XX
BGS-CIEP		
Large Power & Lighting - Secondary (Peak Load Share 1,000+)	LPL-S	X.XX
Large Power & Lighting – Primary	LPL-P	X.XX
High Tension – Subtransmission	HTS-S	X.XX
High Tension - High Voltage	HTS-HV	X.XX

The percent increases noted above are based upon current Delivery Rates and the applicable Basic Generation Service (BGS) charges and assumes that customers receive commodity service from Public Service Electric and Gas Company.

Table # 3
Impact By Gas Customer Class

PROPOSED PERCENTAGE INCREASES BY CUSTOMER CLASS FOR GAS SERVICE		
Residential Service	RSG	X.XX
General Service	GSG	X.XX
Large Volume Service	LVG	X.XX
Firm Transportation Gas Service	TSG-F	X.XX
Non-Firm Transportation Gas Service	TSG-NF	X.XX
Cogeneration Interruptible Service	CIG	X.XX

The percent increases noted above are based upon current Delivery Rates and the Basic Gas Supply Service (BGSS) charges and assumes that customers receive commodity service from Public Service Electric and Gas Company.

Table #4
Residential Electric Service

If Your Annual kWhr Use Is:	And Your Monthly Summer kWhr Use Is:	Then Your Present Monthly Summer Bill (1) Would Be:	And Your Proposed Monthly Summer Bill (2) Would Be:	Your Monthly Summer Bill Increase Would Be:	And Your Monthly Percent Increase Would Be:
1,800	170	\$XX.XX	\$XX.XX	\$X.XX	X.XX%
3,600	360	XX.XX	XX.XX	X.XX	X.XX
6,960	722	XXX.XX	XXX.XX	X.XX	X.XX
7,800	803	XXX.XX	XXX.XX	X.XX	X.XX
12,000	1,250	XXX.XX	XXX.XX	X.XX	X.XX

- (1) Based upon current Delivery Rates and Basic Generation Service Fixed Pricing (BGS-FP) charges in effect January 1, 2009 and assumes that the customer receives BGS-FP service from Public Service.
- (2) Same as (1) except includes the change for the Economic Energy Efficiency Stimulus Program component of the RGGI Recovery Charge.

Table #5
Residential Gas Service

If Your Annual Therm Use Is:	And Your Monthly Winter Therm Use Is:	Then Your Present Monthly Winter Bill (1) Would Be:	And Your Proposed Monthly Winter Bill (2) Would Be:	Your Monthly Winter Bill Increase Would Be:	And Your Monthly Percent Increase Would Be:
222	25	\$XX.XX	\$XX.XX	\$X.XX	X.XX
444	50	XX.XX	XX.XX	X.XX	X.XX
606	100	XXX.XX	XXX.XX	X.XX	X.XX
1,210	200	XXX.XX	XXX.XX	X.XX	X.XX
1,816	300	XXX.XX	XXX.XX	X.XX	X.XX

- (1) Based upon current Delivery Rates and Basic Gas Supply Service (BGSS-RSG) charges in effect January 1, 2009 and assumes that the customer receives commodity service from Public Service.
- (2) Same as (1) except includes change for the Economic Energy Efficiency Stimulus Program component of the RGGI Recovery Charge.

Frances I. Sundheim, Esq.
Vice President and Corporate Rate Counsel

PUBLIC SERVICE ELECTRIC AND GAS COMPANY

ATTACHMENT 5

**APPLICATION
OF THE
RGGI MINIMUM FILING REQUIREMENTS
APPENDIX A
TO
PSE&G'S EEE STIMULUS PROGRAM**

**APPLICATION OF THE
 RGGI MINIMUM FILING REQUIREMENTS
 APPENDIX A TO
 PSE&G'S EEE STIMULUS PROGRAM**

Public Service Electric and Gas Company's (PSE&G, Public Service, the Company) Energy Efficiency Economic Stimulus Program (EEE Stimulus Program) is comprised of the following eight (8) sub-programs: (1) Residential Whole House Efficiency Sub-Program, (2) Residential Multi-Family Housing Sub-Program, (3) C&I - Small Business Direct Install Sub-Program, (4) C&I - Municipal/Local/State Government Direct Install Sub-Program, (5) C&I - Hospital Efficiency Sub-Program, (6) C&I - Data Center Efficiency Sub-Program, (7) C&I - Building Commissioning/O&M Sub-Program, and (8) C&I - Technology Demonstration Sub-Program. These sub-programs are described in greater detail in Attachment 2. The EEE Stimulus Program description set forth in Attachment 2 provides the following information:

- Description of Program
- Market Segment/Efficiency Targeted
- Delivery Method
- Estimated Program Participants
- Link to Existing Programs
- Existing Incentives
- Proposed Incentives
- Anticipated Job Creation
- Budget Information
- Marketing Approach
- Contractor Role

- 2 -

RGGI Filing Requirements***Criteria Used to Select Sub-Program - RGGI Section II-G***

The sub-programs were selected from a menu that was developed through a collaborative effort among the State's electric and gas utilities, under the facilitation of the New Jersey Institute of Technology's Center for Architecture and Building Science Research. The sub-programs were identified while taking into consideration various factors such as potential for job creation, energy savings, and whether it would be complementary to the New Jersey Clean Energy Program (NJCEP) and other utility energy efficiency programs. The resulting menu was submitted by the New Jersey Utilities Association (NJUA) on December 9, 2008. See Attachment 5A attached hereto.

Marketing - RGGI Section II-M

Refer to sub-program descriptions (Attachment 2)

Marketing materials will be provided to Board Staff and Rate Counsel as they are developed, prior to EEE Stimulus Program implementation.

Impact on Marketplace, Competition, Employment, Economic Development and New Business - RGGI Section III-A

Since this EEE Stimulus Program is incremental to existing programs, it will increase customers' access to energy efficiency options. By raising customer awareness of opportunities to increase energy efficiency, the market may benefit by

- 3 -

1 customers' increased participation in these services (e.g. the purchase of additional
2 CFL light bulbs, or the future purchase of an energy efficient appliance). Estimates of
3 potential job creation were developed for each sub-program using factors developed
4 by the Center on Wisconsin Strategy as reported by Steward of Affordable Housing
5 for the Future (SAHF) in a literature review of research that demonstrates green job
6 creation. This approach provides factors for single family, multi-family, and
7 commercial programs for union and non-union wage jobs created or saved per \$1M
8 investment. The SAHF is attached hereto as Attachment 2A. Refer to sub-program
9 descriptions for estimates of jobs created. PSE&G has not identified any other
10 impacts on the marketplace as a whole, competition, employment, economic
11 development or new business.

12

13 ***Market Barriers - RGGI Section III-B***

14 The EEE Stimulus Program portfolio was developed to provide a
15 "whole building" and direct install approach to energy efficiency for residential
16 single-family and multi-family customers, small business, municipal/local/state
17 government facilities, hospitals, data centers, building operators, and technology
18 sectors. The whole building approach is designed to overcome certain market barriers
19 common to all sectors. These include:

- 20 ■ Misplaced or split incentives are identified where the economic benefits of
21 energy efficiency do not accrue to the person who is trying to be energy

- 4 -

1 efficient. This is the case in landlord/tenant situations where the tenant pays
2 the bill and the landlord has no financial incentive to invest in higher efficiency
3 equipment. It is also common in government entities where responsibility for
4 energy upgrades may be delegated to the individual department level, while
5 payment of bills often resides at a central finance office.

- 6 ■ Lack of capital and/or access to financing is a common barrier faced by nearly
7 all residential and business customers in the current economic climate. The
8 whole building, direct install approach, and the ability to repay the customer's
9 share of the energy efficiency measure costs on their utility energy bill are
10 program elements designed to overcome this barrier.
- 11 ■ Lack of information is an issue for many residential and business customers
12 who are not in a position to become energy experts. The whole building
13 approach that starts with an energy audit or design review and customer
14 education, provided by an entity that customers trust to provide them with
15 reliable information, is designed to overcome this barrier.

16
17 For a complete discussion of market barriers and the theory upon which they are built,
18 see Chapter 2 in "A Scoping Study on Energy-Efficiency Market Transformation by
19 California Utility DSM Programs", prepared by Joseph Eto, Ralph Prah, and Jeff
20 Schlegel, Energy & Environment Division, Ernest Orlando Lawrence Berkeley
21 national Laboratory, July 1996. (Attachment 5B attached hereto.)

22
23 ***Differences and Similarities to NJCEP - RGGI Section II-B***

24 Refer to sub-program descriptions (See Attachment 2)

1 ***Complement / Impact NJCEP - RGGI Section II-C***

2 Refer to sub-program descriptions (See Attachment 2)

3 PSE&G will coordinate program implementation with the NJCEP
4 Market Managers.

5
6 ***Consistent / Different from Utility Programs - RGGI Section II-D***

7 See table below.

8
9 ***Document any Similar Programs - RGGI Section III-D***

Energy Efficiency Economic Stimulus Program	Utility Programs/Similar Programs
Residential Whole House Efficiency Sub-Program	PSE&G Carbon Abatement Program NJCEP Home Performance w/ Energy Star
Residential Multi-Family Housing Sub-Program	NYSERDA Multi-Family Pay for Performance NJCEP Pay for Performance
C&I - Small Business Direct Install Sub-Program	PSE&G Carbon Abatement Program NJCEP Small Commercial Direct Install National Grid Small Commercial Direct Install
C&I - Municipal Direct Install Sub-Program	PSE&G Carbon Abatement Program NJCEP Small Commercial Direct Install National Grid Small Commercial Direct Install
C&I - Hospital Efficiency Sub-Program	PSE&G Carbon Abatement Program NJCEP Pay for Performance
C&I - Data Center Efficiency Sub-Program	Austin Energy Data Center Efficiency PGE High Tech Energy Efficiency
C&I - Building Commissioning/O&M Sub-Program	NYSERDA Technical Assistance and FlexTech San Diego Retro-commissioning Program SCE Retro-commissioning Program

10

11 ***Smart Growth Benefits / Impacts - RGGI Section III-E***

12 PSE&G has not identified any specific Smart Growth benefits or
13 impacts that would result from these sub-programs. However, the focus on UEZs

- 6 -

1 under certain sub-programs will result in work to be completed in Smart Growth
2 areas.

3

4 ***Relationship to New Jersey State Policies - RGGI Section II-E***

5 PSE&G's EEE Stimulus Program supports the Energy Master Plan
6 (EMP) Goal 1: Maximize the State's energy conservation and energy efficiency to
7 achieve reductions in energy consumption of at least 20% by 2020 resulting in a
8 reduction in our current energy consumption. (See EMP at p. 54)

9 As indicated in the EMP, "electric and gas utilities' relationships with
10 their customers position them to help those customers improve the energy efficiency
11 of existing buildings." (See EMP at p.56). New Jersey customers, residential and
12 business, have consistently rated the utility as the preferred and most reliable source
13 for information on how to conserve energy. NJCEP 2007 market research survey
14 results report that "...*electric utilities are seen as performing somewhat better than*
15 *the State at helping businesses address energy issues.*" In that same report, focus
16 group participants "...*noted that the utilities have been communicating about energy*
17 *efficiency for a long time and, of late, have been increasingly focused on messages*
18 *about efficiency and the environment.*" This is consistent with the 2006 NJCEP
19 research, "*While several NJ government entities are seen as key stakeholders who can*
20 *play an important role, the energy utilities themselves are thought to be the primary*
21 *vehicles to provide programs to help consumers conserve energy and use renewable*

1 *energy*” and with older PSE&G research that found that the largest percentage of
2 customers reported that their utility (PSE&G) would be the most reliable source of
3 energy efficiency information because they believe that utility company staff are
4 knowledgeable about energy efficiency and they trust them to provide reliable
5 information. This is a legacy of trust that has been developed over 100 years of
6 providing safe, reliable energy and providing reliable information on how to save
7 energy. Utility personnel (service technicians, customer service representatives, large
8 customer support managers, community affairs managers, union members, managers,
9 and executives) have thousands of personal contacts with customers on a daily basis –
10 in their homes, neighborhoods, towns, and businesses. PSE&G has first hand
11 knowledge of how, when, and why customers use energy and the ability to develop
12 and implement programs that address customers’ energy needs. PSE&G has a
13 professional marketing staff with the experience and understanding of how to
14 communicate energy conservation and efficiency to all customer sectors. And
15 PSE&G has the ability to provide unique programs that allow customers to pay for
16 their share of energy efficiency investments on their PSE&G billing statement.

17 The draft 2020 Global Warming Response Act Recommendations were
18 issued December 15, 2008 (pursuant to N.J.S.A. 26:2C-42(b) of the Global Warming
19 Response Act, N.J.S.A. 26:2C-37 et seq.), recommends the full implementation of the
20 Energy Master Plan, and references the EMP’s recommendation to “Expand

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1 electricity and gas utility participation to support cost effective achievement of the
2 State's desired energy efficiency goal.” PSE&G’s proposed program is consistent
3 with the recommendations presented in this draft plan by expanding utility
4 participation in energy efficiency.

5

6 ***Quality Assurance Provisions - RGGI Section II-F(iii)***

7 PSE&G will utilize an independent third-party quality assurance
8 inspector(s) to perform inspections targeting about 10% of randomly selected treated
9 buildings. These inspections are intended to identify the quality and appropriateness
10 of installations, identify missed opportunities and review adequacy and accuracy of
11 sub-program paperwork. PSE&G will advise the customer as part of the sub-program
12 that an inspector may call for an appointment to perform an inspection on their
13 home/small business following the installation of the energy conservation measures.
14 For multi-family housing, hospitals and data centers, and technology demonstration
15 projects, PSE&G will review and approve all projects and will conduct a post
16 implementation inspection of the completed project prior to paying financial
17 incentives.

18

19 ***Program Administration - RGGI Section II-F(iv)***

20 PSE&G will provide EEE Stimulus Program administration.
21 Administration includes activities required to support the delivery of services to

- 9 -

1 customers, and may include marketing, inspections, customer surveys, evaluation,
2 results tracking and reporting, customer billing, vendor management, and invoice
3 processing. As the EEE Stimulus Program administrator, PSE&G will oversee the
4 EEE Stimulus Program implementation by both PSE&G employees as well as outside
5 contractors, as applicable. Customers participating in this EEE Stimulus Program are
6 not eligible for additional incentives on the same investment under the NJCEP.

7
8 ***Complaint Resolution - RGGI Section II-K***

9 Customer complaints relating to the design, delivery, or administration
10 of the PSE&G's sub-programs potentially may be received through several means –
11 directly to various PSE&G customer contact personnel and departments or directly to
12 the NJBPU. In both instances the immediate issue would be referred to the EEE
13 Stimulus Program management personnel to investigate and resolve. PSE&G will
14 utilize the same complaint resolution procedures in this EEE Stimulus Program that
15 were approved for use in the Solar Loan Program and the Carbon Abatement
16 Program. PSE&G will attempt to resolve disputes with its customers informally in
17 the first instance. See Attachment 5C attached hereto for a flow chart on how
18 customer complaints will be processed. Disputes that involve PSE&G's
19 administration of the EEE Stimulus Program that cannot be resolved informally will
20 be resolved through the BPU's existing process for customer complaints within the
21 appropriate Division. Disputes between PSE&G and its sub-contractors will be

1 resolved in accordance with contract provisions. Disputes under the EEE Stimulus
2 Program that involve monetary claims or civil damages that cannot be decided by the
3 NJBPU will be resolved in an appropriate court of law. Administrative agencies such
4 as the NJBPU do not have the power to exercise or perform a judicial function and
5 may not determine damages. *Muise v. GPU, Inc.*, 332 N.J. Super 140, 167 (App. Div.
6 2000); See also, *Slowinski v. City of Trenton*, 92 N.J.A.R. 2d (BRC) 71, 73 (1992).

7
8 ***General Filing Requirements - RGGI Section I-E***

9 PSE&G will collect data from this Program for a subsequent review of
10 the benefits. PSE&G will track the following information: customer participation,
11 EEE Stimulus Program costs, incentive repayments, administration, training,
12 marketing, inspection and evaluation costs, energy savings measures installed, energy
13 savings based on NJCEP protocols, and environmental benefits (CO₂, NO_x, SO₂,
14 Hg) based on NJCEP protocols.

15 PSE&G plans to track all key program participation data throughout the
16 duration of the EEE Stimulus sub-programs. In addition to the measures installed,
17 program costs, incentives, customer payments, energy savings, and environmental
18 benefits required for an effective program evaluation, PSE&G will also track
19 customer and program data in the following categories:

- 20 ▪ Customer Information – Name, Address, PSE&G Account #, PSE&G electric
21 customer, PSE&G gas customer, Home Phone, Work Phone;

- 1 ▪ Demographics - Home Type – Single/Multi family - # of units, Heating Type
2 – gas, oil, propane, other, Age of home – size of home, Number of full-time
3 residents;
- 4 ▪ Sub-Program - Program in which customer participates;
- 5 ▪ Customer Status - Scheduling information, Appointment status – Complete,
6 Customer no-show or Re-scheduled (reason), Services performed, Measures
7 installed;
- 8 ▪ Customer Interface - Log of customer calls/customer contacts;
- 9 ▪ Customer Written Agreements Executed - Income qualification (if required),
10 Program referrals, Landlord permission required, Repayment agreements;
- 11 ▪ Customer Repayment/Billing - Data to PSE&G billing system, Billing on
12 account set-up, bill route, payment dates.

13
14 ***Contracts - RGGI Section II-J –***

15 Contracts will be provided to Board Staff and Rate Counsel as they are
16 developed, prior to EEE Stimulus Program implementation.

17 PSE&G utilizes standard terms and conditions for outside vendors. A
18 sample copy of these standard terms and conditions are included as Attachment 5D
19 attached hereto.

Summary of Budgets, Administrative Costs, Savings, Benefits

Budgets and Administrative Costs - RGGI Section II-H

PSE&G will commit up to \$190 million in Program investments over a minimum one-year period towards the delivery of these EEE Stimulus sub-programs that benefit various customer segments.

- Residential Whole House Efficiency Sub-Program: \$25.0 million
- Residential Multi-Family Housing Sub-Program: \$25.0 million
- C&I - Small Business Direct Install Sub-Program: \$20.0 million
- C&I – Municipal/Local/State Government Direct Install Sub-Program: \$35.0 million
- C&I - Hospital Efficiency Sub-Program: \$35.0 million
- C&I - Data Center Efficiency Sub-Program: \$12.0 million
- C&I - Building Commissioning/O&M Sub-Program: \$2.0 million
- C&I - Technology Demonstration Sub-Program: \$12.0 million
- Admin, Sales, training, Evaluation, IT Capital: \$24.0 million

In order to provide flexibility in responding to market conditions and customer demand, any sub-program over or under spending may be carried over into subsequent years, as long as the total spending for the EEE Stimulus Program does not exceed the two-year total. Furthermore, based upon market conditions and the level of market response to each sub-program during the initial year, PSE&G can transfer EEE Stimulus Program funding between sub-programs in a subsequent year in order to maximize energy savings and EEE Stimulus Program resources.

1 Certain sub-programs provide for 100% of capital from PSE&G, with
2 customers repaying a portion of the investment as previously described. Estimates of
3 sub-program investment repayments (repayments) are as follows:

- 4 ▪ Residential Whole House Efficiency Sub-Program: \$ 4.6 million
- 5 ▪ Residential Multi-Family Housing Sub-Program: \$7.5 million
- 6 ▪ C&I - Small Business Direct Install Sub-Program: \$4.0 million
- 7 ▪ C&I - Municipal/Local/State Government Direct Install Sub-Program: \$7.5
8 million
- 9 ▪ C&I - Hospital Efficiency Sub-Program: \$4.5 million

10 Sub-program investments, administrative costs, capitalized IT costs, and
11 repayments are provided in Attachment 5E for each sub-program. These calculations
12 are documented in the workpaper, WP_REB-1 (being submitted electronically only)
13 and are further described below.

14 Estimated Program investments and administrative costs are provided in
15 Attachment 5F as required by the following categories: administrative,
16 marketing/sales, training, rebates/incentives including inspections and quality control,
17 program implementation (all contract costs), evaluation and other. Since these
18 categories are the same as those utilized to report program and administrative costs
19 for the NJCEP, the NJCEP format was utilized in these schedules. Program
20 investments and administrative costs were allocated between electric and gas based
21 upon the percent of projected sub-program kWh and therm savings and associated

1 costs, as further described below. Capitalized IT costs are not included in these
2 schedules.

3 Sub-program investments, administrative costs, and repayments were
4 developed for each sub-program based on inputs unique to each sub-program such as
5 the number of participants, the number and costs for energy efficiency measures
6 specific to each sub-program, the number and type of quality assurance measures, etc.
7 In addition, EEE Stimulus Program administrative costs were benchmarked against
8 NJCEP 2007 reported results in order to ensure consistency with NJCEP program
9 delivery. The sub-program investments, administrative costs, and repayments were
10 then allocated to electric and gas based on the percent of projected total electric and
11 gas energy savings associated with each sub-program. The methodology for
12 determining the estimated energy savings and the subsequent allocation of those
13 savings to electric and gas are described below.

- 14 ▪ For Residential Whole House Efficiency and Residential Multi-Family
15 Housing, all budgets and costs were allocated 60% electric and 40% gas based
16 on the NJCEP Comfort Partners historical results.
- 17 ▪ For the C&I - Small Business Direct Install and C&I – Municipal/Local/State
18 Government Direct Install budgets and costs were assumed to be 90% electric
19 and 10% gas. These sub-programs were assumed to be primarily electric based
20 on early National Grid experience; however, actual results will depend on the
21 type of energy savings measures that are installed, which may include gas
22 measures. The C&I - Data Center Efficiency Sub-Program was assumed to be

1 80% electric and 20% gas. Sub-program investments per kWh and therm were
2 estimated based on a review of historical NJCEP Commercial and Industrial
3 energy savings reported in NJCEP annual reports. Since historical NJCEP
4 savings were primarily driven by electric measures and the data centers have
5 high cooling loads, sub-program investments per kWh and therm were
6 estimated based on a review of historical NJCEP Commercial and Industrial
7 energy savings reported in NJCEP annual reports.

- 8 ■ The C&I - Hospital Efficiency, C&I - Building Commissioning/O&M, and
9 C&I - Technology Demonstration Sub-Programs were assumed to be 60%
10 electric and 40% gas. Sub-program investments per kWh and therm were
11 estimated based on a review of historical NJCEP Commercial and Industrial
12 energy savings reported in NJCEP annual reports. Since historical NJCEP
13 savings were primarily driven by electric measures, the historical data were
14 adjusted to reflect a whole building approach, which increases the anticipated
15 level of gas savings. Further, the analysis is based on generic assumptions, and
16 the actual results will be dependent on the nature of the measures installed
17 when the projects are actually implemented and the work performed. Since
18 PSE&G did not have a basis for estimating the number and type of CHP
19 installations that will occur in the C&I - Hospital Efficiency Sub-Program, the
20 impact of CHP was not specifically considered in the estimation of energy
21 savings; however, actual results will capture the impact of CHP installations.

22
23 Capitalized IT costs were based on a management estimate. These costs
24 were allocated to each sub-program based on the sub-program's percent of total EEE
25 Stimulus Program investments. Each sub-program's share of total Capitalized IT

1 costs were then allocated to electric and gas based on the percent of projected total
2 electric and gas energy savings associated with each sub-program.

3

4 ***Goals, Energy Savings and Environmental Benefits - RGGI Section II-L and III-C***

5 PSE&G estimates of annual participants for each sub-program are
6 documented in Attachment 5G. Energy savings, annual and lifetime, overall and for
7 each participant, were estimated for each sub-program for program years 2009 – 2010
8 and are documented in Attachment 5H, using the methodology previously described.
9 Avoided air emissions were estimated using projected Program energy savings by
10 applying electric and gas emissions factors developed by the New Jersey Department
11 of Environmental Protection (NJ DEP) and documented in the Protocols. Avoided air
12 emissions for each sub-program, annual and lifetime, overall and for each participant,
13 are provided in Attachment 5I. Program savings and the environmental benefits of
14 avoided emissions were determined by applying NJCEP Protocols to Measure
15 Resource Savings, Revisions to September 2004 Protocols, December 2007, to the
16 energy savings associated with each sub-program. The amount of air emission
17 reductions resulting from the energy savings were calculated using the energy savings
18 at the system level and multiplying them by factors developed by the NJ DEP.

1 System average air emissions reduction factors provided by the NJ DEP
 2 are:

Emissions Product	Electric Emissions Factors	Gas Emissions Factors
CO ₂	1,520 lbs per MWh saved	11.7 lbs per therm saved
NO _x	2.8 lbs per MWh saved	0.0092 lbs per therm saved
SO ₂	6.5 lbs per MWh saved	
Hg	0.0000356 lbs per MWh saved	

3

4 ***Credits, Offsets, Allowances, and Certificates - RGGI Section III-G***

5 The sub-programs do not generate any Renewable Energy Credits, Air
 6 Emission Credits, or any other credit, offset, allowances or certificates. If any such
 7 credits are created in the future, any net proceeds from such credits will be provided
 8 to ratepayers by reducing revenue requirements. PSE&G will collect data related to
 9 such credits where applicable.

VERIFICATION

STATE OF NEW JERSEY)
:)
COUNTY OF ESSEX)

I, the undersigned, being duly sworn, depose and say that the information contained in Attachment 5, to the best of my knowledge, information and belief, is true, correct, accurate and complete.

Robin E. Bryant
Manager, Market Strategy and Planning
Public Service Electric and Gas Company

Sworn and Subscribed to)
before me this 21st day)
of January 2009)

December 9, 2008

Mr. Sam Wolfe, Esq.
Chief Counsel
New Jersey Board of Public Utilities
Two Gateway Center
Newark, New Jersey 07102

Re: Program Design for \$500 Million Energy Efficiency Economic Stimulus Investment

Dear Sam:

On behalf of the energy utility company members of the New Jersey Utilities Association, I am submitting for further discussion with the Administration a matrix of possible energy efficiency programs to be conducted under the Governor's Economic Stimulus initiative. Please note that Jersey Central Power and Light has suggested an alternative approach to achieving the desired economic stimulus and consequently is not a party to this proposal.

Shortly after the kick-off meeting at which the Administration advised the utilities of the intention to quickly pursue initiating utility-run energy efficiency programs to help stimulate the State's economy, the utilities began meeting among themselves to strategize the best way to approach this challenge. It was concluded that while coordination was needed and possible, in the short-time frame that has been given and in light of the differences in utility service territories, including financial and technical circumstances, it would not be feasible to undertake a single filing of programs that would be offered across all utilities. Instead, the companies agreed that it would make sense to develop a matrix or "menu" of programs that, to the greatest extent possible, meet the criteria articulated by the Administration as important to meet their goals and to allow the utilities to identify which of the programs they could offer and for which they would submit filings to the Board.

The utilities had numerous meetings and conference calls facilitated by Deane Evans, Executive Director of NJIT. During those sessions, programs that utilities were interested in offering were discussed and reviewed with consideration of the potential relationship to existing and pending programs under New Jersey's Clean Energy Program, perceived needs in the market, potential for job creation and potential energy savings. This menu of programs is included in the Attachment.

The menu provides an overview of possible programs that the utilities believe best meet the key criteria of the Administration and could be initiated some time in the first part of 2009. For each program, there is a separate description that is also included in the Attachment.

The descriptions apply generically and may be further tailored by utilities in their individual filings based on their specific technical and financial circumstances for individual customer needs.

We envision that each utility will produce a filing that details the programs it intends to offer, the energy savings that it anticipates the program(s) to generate at assumed participation levels, the associated

estimated costs and cost recovery mechanism with anticipated customer bill impacts. While appropriate cost recovery is essential for all companies, the specific financial requirements of the energy utilities will vary by company and will be identified in the company-specific filings.

Although the program design discussions have been conducted separately from the financial discussions, they are directly related. While a number of the financial issues have been addressed in previous meetings, for the sake of clarity we have summarized the issues the utilities believe the State will need to address directly and expeditiously to enable utilities to move forward with program filings. It is important that the Administration address these issues in a way that demonstrates that utility participation in the \$500 million energy efficiency economic stimulus initiative benefits both the New Jersey economy generally and consumers specifically, while allowing the companies to continue to meet the needs of their employees and shareholders.

Access to and Cost of Capital

The most recent tightened credit markets affect utilities as much as consumers and other businesses. As a result, current market conditions tighten access to capital and meaningfully increase a utility's cost of capital. Assuming that the companies are able to access capital, there must be assurances that they will receive a reasonable return on their investment that covers the rising cost of capital. The State has made it clear that investment in energy efficiency and job creation are highly valued. For utilities to play a significant role in achieving those goals, it will be important for the value placed on energy efficiency and job creation to be recognized in the financial treatment of the investments made to meet those goals as equal to competing investments to which the relatively scarce capital might otherwise be put. The utilities must be able to receive a return on energy efficiency investments equal to that for putting the same capital resources into distribution investments.

Cost Recovery and Funding Mechanisms

The costs of delivering energy efficiency programs must be fully recoverable within a reasonable time frame. Whether recovery would occur through a rider or clause or embedded in base rates it will need to be determined on a company-by-company basis.

We appreciate the State's interest in having individual customers bear some of the costs of the energy efficiency measures that they might choose given that they are the intended beneficiaries. However, given that there is also a societal benefit to achieving the Governor's short and long-term energy efficiency goals, it will be important to achieve an appropriate and effective balance between what the individual customer pays and what costs will be borne by all customers. Models such as "Pay as You Save" have not shown demonstrable levels of success in jurisdictions where they have been tried and can not be effectively packaged for some HVAC equipment upgrades over reasonable terms. Additionally, in a waning economy, levels of payment delinquencies for the cost of the commodity and service rise above normal levels. Under current economic constraints where customers have difficulties making mortgage or basic utility payments, customers will need to be very highly incentivized to make short-term energy efficiency capital investments with long term payoffs. Utility companies cannot be at risk for these investments.

Avoidance of Financial Harm to Utilities

The energy utilities can provide statewide support and implementation for energy efficiency programs but there needs to be a mechanism in place to enable them to cover their fundamental costs of doing business as revenues decline from successful energy efficiency and conservation measures. Although

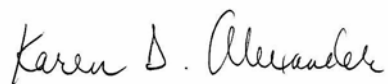
Section 13 of the RGGI law provides for the Board to allow a mechanism to accommodate lost revenues, this issue has yet to be addressed. It is unlikely that certain provisions for addressing reduced margin recovery in the two existing Conservation Incentive Programs will be an adequate means of addressing this issue in permanent longer-term programs for some utilities. On a going-forward basis, these concerns need to be resolved in order to ensure that the goals of the State can be met in a program that fairly aligns the interests of ratepayers and utilities. We encourage the Administration to address these issues and ensure that cost recovery mechanisms appropriate to the individual circumstances of each utility is put in place.

Cost-benefit Analyses

We agree that the most effective savings can be achieved through programs directed at commercial and industrial (C&I) customers. However, the OCE has a very broad based C&I program in place statewide. It seems reasonable to assume that this program should be providing the most cost effective projects and the most motivated customers are being addressed by the existing program. Therefore, there will be a higher cost to achieve energy efficiency benefits incremental to and above those of the existing program. In addition, some utility service territories have few C&I customers, many of whom bear more of the characteristics of a residential customer. For those companies, the cost per unit of energy saved will not be as beneficial as it could be in a territory with a higher number of C&I customers. The cost for each program will, therefore, vary greatly by each utility. If the State expects a certain level of benefit to be achieved for the cost of the programs, that should be specified as soon as possible so that companies do not propose programs that cannot achieve the targeted level.

I hope that the information we have provided here and in the attachments is helpful. We look forward to discussing these issues further with you and Rate Counsel and working jointly to create a road to success for these and future energy efficiency programs.

Sincerely,



Karen D. Alexander
President and CEO

Attachment

**WHOLE BUILDING Energy Efficiency Programs
Enhanced Residential HVAC Rebate Program Description
November 25, 2008**

Description of Program	<p>Currently, the overwhelming majority of customers with existing HVAC equipment that is being replaced due to immediate or imminent equipment failure opt for standard efficiency for their new units. In order to get on track toward the Energy Master Plan savings targets, the state would need nearly every customer faced with an equipment decision to select high efficiency equipment. Since this decision will most likely be made only once by most households between now and 2020, it is critical to start significantly influencing those purchases now. Accordingly, participating utilities may offer enhanced incentives for heating and air conditioning equipment purchases which qualify for incentives under the current Warm and Cool Advantage programs. However, customers would only be entitled to this enhanced rebate if they agree to have a free HPES Tier I audit or an equivalent offering under a BPU approved program. These audits may be performed either by certified contractors or by utility personnel.</p>		
Market Segment/ Efficiency Targeted	<p>Residential customers in existing homes who receive electricity and/or natural gas from a New Jersey public utility and who are customers of record with a separately metered electric and/or gas account are eligible for participation in this program. Residential customers that have existing HVAC equipment needing imminent replacement. The program will incent the installation of high efficiency HVAC equipment and the installation of energy conservation measures. This program will target customers in older existing homes, with good potential for whole house energy savings.</p>		
Delivery Method	<p>This program will be directly promoted to customers through HVAC contractors, and through targeted utility promotion.</p>		
Estimated Program Participants	utility specific	Estimated savings	Savings estimates will be applied according to accepted protocols
Link to existing programs	<ul style="list-style-type: none"> • WARM Advantage • COOL Advantage • Home Performance with Energy Star • Residential Home Energy Tune-up 		

<p>Existing Incentives</p>	<p>* WARM Advantage \$300 - 400 per heating system</p> <p>* HPES Tier I- NJCEP discount on the cost of the audit. Tier II- NJCEP Program offers up to \$1000 for air and duct sealing. Tier III- choice of rebates ranging from 10% to 50% of the improvements with total rebate cap of \$5000 or low cost financing through a 3rd party.</p> <p>* Residential Home Energy Tune-up – Tier 1 Free audit. Tier II – Air sealing up to \$1000. Tier III – Incentives from 50%-80% based on income.</p>	<p>Proposed Incentive</p>	<p>This proposed plan will offer an incremental rebate and/or repayment plan to customers who upgrade to an energy efficient heating system. The repayment option is subject to meeting approved utility credit criteria.</p>
<p>Estimated avoided air emissions</p>	<p>All savings will be calculated by the Clean Energy Program Manager, according to approved protocols</p>		
<p>Anticipated Job Creation</p>	<p>Need CEEEP info here.</p>		
<p>Budget information</p>	<p>Utility specific</p>		
<p>Marketing Approach</p>	<p>This program will be marketed using multi-layered approaches. Participating utilities will target market the program directly to customers, and will work with local HVAC contractors to ensure that they understand the additional rebates available and the associated requirements.</p>		
<p>Cost Recovery/ Rate design</p>	<p>Utility specific</p>		
<p>Contractor Role</p>	<p>It will be the role of any local HVAC contractor who is currently engaged in equipment replacement to make the customer aware of the enhanced rebate opportunity. The enhanced rebates should also provide significant support to the demand for contractor services in this tighter economy.</p>		

WHOLE BUILDING Energy Efficiency Programs
Non Residential Energy Efficiency Investment Program Description
November 25, 2008

Description of Program	<p>This program is designed to generate large energy savings for larger commercial / industrial accounts, including but not limited to: multifamily housing complexes, institutions, municipal complexes, schools, medical facilities, hotels and casinos, and industrial users. The major thrust of this program is to provide an additional incentive to non residential customers but it may also be combined with the commercial customer repayment plans referenced in a separate template. Participating utilities may buy down the difference to install whole building energy efficient technologies, devices, and related equipment and yield positive cash flows over time for the customer. The needs of the customer would be assessed by a representative of the participating utility or by the NJ Clean Energy Program Market Manager. The project would be coordinated with the NJCEP Market Manager in territories where the utility is not operating an independent program.</p> <p>This incentive may be matched with additional NJCEP incentives.</p>		
Market Segment/ Efficiency Targeted	<p>The plan is applicable to all non residential customers within a participating utility's service territory who receive natural gas and/or electricity is provided by a New Jersey public utility.</p> <p>The program will be specifically targeted to larger commercial and industrial customers.</p>		
Delivery Method	<p>The selection of program delivery personnel will be determined by the participating utility. Program implementation and sales may include outside resources, the NJCEP Market Manager, and utility staff. The actual work will be performed by area mechanical contractors, engineering firms, energy services companies, or utility personnel.</p>		
Estimated Program Participants	Utility Specific	Estimated savings	The savings calculations will be performed based upon approved NJCEP protocols

Link to existing programs	NJCEP SmartStart Program		
Existing Incentives	See Current 2009 NJCEP TRC Filing	Proposed Incentives	Utility will provide repayment and incentive options,
Estimated avoided air emissions	Will follow approved NJCEP Protocol		
Anticipated Job Creation	Utility specific. Need CEEEP info here.		
Budget information	See Attachment ____ for categorization of costs.		
Marketing Approach	The approach to this program will entail a multi-level approach. This program will require marketing from energy service providers and developers; coupled with web site applications, heavy business outreach and education, trade ally programs, trade publications, and contractor outreach. In addition, the communication will need to be supplemented with coordinated utility sales efforts.		
Cost Recovery/ Rate design	Utility specific		
Contractor Role	It will be the role of energy service contracting firms, energy engineering companies, and engineers who specialize in large applications, to promote, design, and install energy efficiency measures.		

**WHOLE BUILDING Energy Efficiency Programs
Commercial Customer Repayment Program
November 25, 2008**

Description of Program	This program will encourage participation and implementation of NJCEP SmartStart Building program qualified measures or improvements identified by the 2009 NJCEP Direct Install program. Participating utilities will offer commercial customers repayment options for the customer's financial obligation, to install energy efficiency measures identified through these programs. Such programs may be net of any NJCEP rebates received. The repayment period and applicable interest rate may vary by utility and by program. Utilities may choose to limit the technology improvements to their fuel type or may accept improvements for all fuel types. Utilities may impose a limit of the amount of financing available per customer. Financing eligibility may be based on a utility's approved credit review. The project would be coordinated with the NJCEP Market Manager in territories where the utility is not operating an independent program.		
Market Segment/ Efficiency Targeted	The program will be marketed to all customers, who receive natural gas and/or electricity provided by a New Jersey public utility, who can install measures which are eligible for either SmartStart Buildings program, or the new NJCEP Direct Install program.		
Delivery Method	The improvements will be delivered consistent with existing SmartStart and Direct Install channels. Utilities will work with the NJCEP Commercial Market Manager, and may employ the services of another energy engineering company, to raise awareness of new financing options with active contractors and commercial customers. This program will also be supported by managerial and sales staff provided by the utility.		
Estimated Program Participants	Utility Specific	Estimated savings	Energy savings which result from this program will be determined by the NJCEP Market Manager, according to approved protocols.
Link to existing programs	Directly linked to NJCEP SmartStart Building and new NJCEP Direct Install program		
Existing Incentives for 2009	SmartStart- NJCEP rebate incentives vary by measures. No changes to rebate levels proposed Direct install- NJCEP provides 80 percent of the costs of the recommended measures.	Proposed Whole Building Incentives	Utility to provide the up-front cost of installing the recommended gas measures and offer a repayment plan to the customer. This repayment option may be conditioned upon the customer forwarding all NJCEP incentives and rebates received under this program to the utility and is subject to meeting approved credit criteria.

Estimated avoided air emissions	To be calculated by the NJCEP Market Manager, according to approved protocols
Anticipated Job Creation	Utility specific. Need CEEEP info here.
Budget information	See Attachment ____ for categorization of costs.
Marketing Approach	Utilities will partner with the NJCEP Market Manager, and other local energy engineering firms to promote this program by working with contractors, local business organizations, and Chambers of Commerce, industry and trade groups. Utilities will also promote this offer through utility Web Sites, and may also employ various print publications
Cost Recovery/ Rate design	See Attachment __ (to be drafted) which maps the budget information to cumulative program cost and first year cost recovery.
Contractor Role	It will be the role of energy service contracting firms, energy engineering companies, and engineers who specialize in large applications, to promote, design, and install energy efficiency measures. The program will be coordinated with the commercial market manager of the NJCEP.

**WHOLE BUILDING Energy Efficiency Programs
Residential Repayment Plans Description
November 25, 2008**

Description of Program	<p>Through this program, participating utilities will offer eligible customers an aggressive financial package to assist in obtaining whole house energy efficiency, comfort and savings either through the NJCEP Home Performance with Energy Star (HPES) program or other residential utility energy efficiency programs approved by the BPU. Participating utilities will offer residential customers repayment options for the customer's financial obligation, to install energy efficiency measures identified through these programs. Such programs may be net of any NJCEP or utility rebates received. The repayment period and applicable interest rate may vary by utility and by program. Utilities may choose to limit the technology improvements to their fuel type or may accept improvements for all fuel types. Utilities may impose a limit of the amount of the repayment plan available per customer. Repayment plan eligibility may be based on a utility's approved credit review. Utilities may choose to limit the availability of repayment plans for customers that prefer certain rebate options or may establish separate considerations to provide both options for income qualified customers.</p>		
Market Segment/ Efficiency Targeted	<p>Residential customers in existing homes who receive electricity and/or natural gas from a New Jersey public utility and who are customers of record with a separately metered electric and/or gas account are eligible for participation in this program. All residential customers within the participating utility's service territory, which are not income eligible for NJCEP Low Income Program services. The purpose of this program is to aggressively boost customer implementation of comprehensive energy efficiency improvements, and to achieve comprehensive energy savings through additional incentives and financing.</p>		
Delivery Method	<p>This program will be delivered through certified home energy auditors, trained external heating, home improvement and energy service contractors, and utility personnel.</p>		
Estimated Program Participants	Utility specific	Estimated savings	Savings will be based upon approved NJCEP protocols.
Link to existing programs	<p>NJ Home Performance with Energy Star® program Residential Home Energy Tune-up</p>		

Existing Incentives	Tier I- NJCEP discount on the cost of the audit. Tier II- NJCEP Program offers up to \$1000 for air and duct sealing. Tier III- choice of rebates ranging from 10% to 50% of the improvements with total rebate cap of \$5000 or low cost financing through a 3 rd party	Proposed Incentive	Utility will provide the up-front cost of installing the recommended energy savings measures and offer a repayment plan to the customer. This repayment option may be conditioned upon the customer forwarding any NJCEP incentives and rebates received under this program, to the utility, and are subject to meeting approved utility or outside financial company credit criteria.	Total Incentiv
Estimated avoided air emissions	To be calculated by the NJCEP Market Manager, according to approved protocols			
Anticipated Job Creation	Utility Specific. Need CEEEP info here.			
Budget information	Utility Specific			
Marketing Approach	Multi tiered approach: Service providers and homeowners. Direct mail complemented by print and broadcast media channels. Bill stuffers, web site, community outreach and education, trade ally programs, call center “up-selling”, and targeted outreach where available may be used.			
Cost Recovery/ Rate design	Utility specific			
Contractor Role	Availability of repayment plans is expected to increase the quantity and depth of contractor workload.			

Energy Efficiency Programs
Residential Whole House Program Description
November 20, 2008

<p>Description of Program</p>	<p>The primary objective of the Residential Whole House Program is to motivate residential energy consumers to use a whole-house approach to reducing energy consumption when considering home improvements such as new heating and air conditioning equipment, replacing windows, or adding insulation. Rather than focusing on a single component, the homeowner will be provided with an assessment of how a combination of improvements, such as air sealing and duct leaks, adding insulation, improving the HVAC system and upgrading lighting and appliances would result in a more comfortable home, with lower electricity or natural gas consumption. The program will achieve this goal through the direct installation of energy savings measures, as included in the program and recommended by an energy audit. The program will also provide comprehensive, personalized customer energy education and counseling. Three audit tiers will be offered to customers.</p> <p>During the audit, and with the customer's approval, the contractor will install up to ten CFLs in specific areas of higher energy use, as well as other specific measures included in the detailed program descriptions. The audit will be designed to estimate potential energy savings due to infiltration and heat loss through walls and attics. In addition, the assessment will include identification of the age and size of the heating, air conditioning and water heating systems, the last service date, and assessment of duct leakage and insulation. The report will be presented to the customer with recommendations for upgrades and information about available rebates.</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>Residential customers in existing homes who are looking for ways to save money by reducing energy use or are considering upgrades and improvements to their home. HVAC, remodeling, insulation and weatherization contractors and other trade allies interested in offering comprehensive home energy performance services to their customers will also be a target of this program.</p> <p>Residential customers in existing homes who receive electricity and/or natural gas from a New Jersey public utility and who are customers of record with a separately metered electric and/or gas account are eligible for participation in this program.</p>
<p>Delivery Method</p>	<p>Program implementation will be provided by a utility and/or third-party vendor. The vendor will be selected through a competitive RFP process. The utility and/or vendor will be responsible for recruiting and training contractors, processing incentives, and ongoing spot audit verification. A detailed implementation plan, measures list, deemed savings, and rebate levels are to be developed.</p> <p><u>Key elements of the Residential Whole house Program implementation strategy include:</u></p> <p>Home energy analysis software: The Utility will work with the implementation vendor to select appropriate home energy analysis software. Or if feasible the participating utility may use the same software utilized by the NJCEP HPwES market manager. The software must be capable of storing and downloading each analysis to enable tracking and verification. (Onsite reporting capability will likely depend on the availability of utility bills.)</p> <p>Contractor recruitment: The implementation vendor and/or the utility will recruit HVAC, remodeling, insulation and weatherization contractors and other trade allies interested in offering comprehensive home energy performance services to their customers. Contractors will be required to sign a participation agreement, and abide by all program protocols and reporting requirements.</p> <p>Customer recruitment: The primary customer recruitment mechanism will be the direct marketing activities of participating contractors/utilities. The Utility and/or its implementation vendor will conduct direct marketing to customers that may include direct</p>

	<p>mail, bill stuffers, and door hangers. Program information will also be posted on the utility website and provided through the utility Call Center. The utility will work closely with municipal, local community, and non-profit entities to identify neighborhoods to target for program participation.</p> <p>Home energy survey: Participating trade allies and/or utility personnel will provide energy assessments for interested customers. The cost of the assessment will be determined by the utility: no cost or a nominal fee. The remainder of the audit cost will be subsidized by the program. During the audit and with the customer's approval, the contractor will install CFLs in specific areas, as well as other specific measures included in the detailed program descriptions. The audit will be designed to estimate potential energy savings due to infiltration and heat loss through walls and attics. In addition, the assessment will include identification and of the age and size of the heating, air conditioning and water heating systems, the last service date, and assessment of duct leakage and insulation. The report will be presented to the customer with recommendations for upgrades and information about available rebates.</p>		
Estimated Program Participants	Utility Specific Estimate	Estimated savings	Estimate: 728 kWh and 41 therms per participant, and 0.11 kW per participant (based on Comfort Partners 2007 results). Note: savings will vary based on Tier participation level and the age and condition of the participating housing stock.
Link to existing programs	<p>Existing programs include: Comfort Partners (Low Income Program) Home Performance with Energy Star Tier 1, Tier 2 and Tier 3. Residential Home Energy Tune-up</p> <p>Note: This Residential Whole House Program provides similar services to a greater number of customers.</p>		
Existing Incentives		Proposed Incentives	<p>Check-Up (Tier 1)- Audit with installation of simple energy savings measures such as CFLs</p> <p>Tune Up (Tier 2) - Includes Tier 1 plus up to \$1,000 in air sealing.</p> <p>Fix-Up (Tier 3)- Includes Tier 1 and Tier 2 plus customer contribution for a % of the cost for enhanced measures recommended by the audit.</p>
Estimated avoided air emissions	To be based on existing NJDEP protocols.		

Anticipated Job Creation	To be based on CEEEP findings.
Budget information	Utility Specific
Marketing Approach	<p>Program specific marketing efforts will target contractors and trade allies in the HVAC and home improvement industries. These industries will be marketed using targeted direct marketing, direct contact by utility and/or program vendor personnel, trade shows and trade association outreach. Trade ally marketing to their customers will also be an important component of the customer marketing efforts.</p> <p>The primary customer recruitment mechanism will be the direct marketing activities of participating contractors/utilities. The Utility and/or its implementation vendor will conduct direct marketing to customers that may include direct mail, bill stuffers, and door hangers. Program information will also be posted on the utility website and provided through the utility Call Center. The utility will work closely with municipal, local community, and non-profit entities to identify neighborhoods to target for sub-program participation.</p>
Cost Recovery/ Rate design	Utility Specific
Contractor Role	<p>The implementation vendor/utility will recruit HVAC, remodeling, insulation and weatherization contractors and other trade allies interested in offering comprehensive home energy performance services to their customers. Contractors will be required to sign a participation agreement, and abide by all program protocols and reporting requirements. The implementation vendor/utility will conduct ongoing monitoring and evaluation to verify contractor work.</p>

**New Jersey Utilities
Governor's Economic Stimulus Package
Building Commissioning and O&M Program**

Description of Program	The primary objective of the Building Commissioning and O&M Program is to motivate non-residential customers to reduce energy use through improvements in the manner facilities are operated and maintained. The Program will offer technical and financial assistance to identify and implement low cost tune-ups and adjustments that improve the efficiency of a building's operating systems by bringing them to the intended operation or design specifications, with a focus on building controls and HVAC systems.		
Market Segment/ Efficiency Targeted	All non-residential customers, primarily in the commercial, governmental, and institutional sectors, who receive electricity and/or natural gas from a New Jersey public utility and who are customers of record with a separately metered electric and/or gas account are eligible for participation in this program. Within this group, the program will focus more heavily on large facilities that would typically be more receptive to retro-commissioning services.		
Delivery Method	Each participating utility will identify a Program Administrator, along with supporting technical staff, to oversee the program operation, coordination with the Clean Energy Program, other utility's programs, contractor oversight and trade ally relations. Utilities may offer field services through third party contractors or may elect to utilize internal staff. Reporting will be compiled and supplied to the BPU through the Program Administrator at each participating utility.		
Estimated Program Participants	Utility Specific	Estimated savings	According to a DOE review of Retro-Cx case studies, energy savings can range from 5-30% over a wide range of building uses. Most have a simple payback of <2yrs.
Link to existing programs	There is currently no comparable CEP program.		
Existing Incentives	There are currently no existing incentives for retro-commissioning and O&M	Proposed Incentives	Share the customer cost of developing the retro-commissioning plan up to a maximum of \$10,000 per project. The cost of implementing a pilot list of low-cost improvements may be subsidized on a \$/kWh saved basis to demonstrate the value of commissioning efforts.
Estimated avoided air emissions			

Anticipated Job Creation	
Budget information	Utility Specific
Marketing Approach	Program specific marketing efforts will target customers, trade allies and the energy services industry in specific market segments where commissioning and improved O&M will provide cost-effective customer benefits. The Program will be marketed to both customers and trade allies. This marketing will entail targeted direct marketing and, direct contact by vendor personnel and Company Key Account Managers, trade shows and trade association outreach. Trade ally marketing to customers will also be an important component of the customer marketing efforts.
Cost Recovery/ Rate design	.
Contractor Role	Utility Specific

**New Jersey Utilities
Governor's Economic Stimulus Package
Data Center Efficiency Program**

<p>Description of Program</p>	<p>The Data Center Energy Efficiency Program is designed to reduce carbon emissions by lowering the energy consumption of data center facilities. Data centers can be several buildings, one building; occupy one or several floors of a building; occupy one room or only a small closet space. Data centers are designed to accommodate the unique needs of energy intensive computing equipment along with specially-designed infrastructure to accommodate high electrical power consumption, redundant supporting equipment and the heat given off in the process. Data centers are owned and operated by a multitude of business, including Fortune 500 and IT companies, financial and banking institutions, and by government and academic institutions. In August 2007, the U.S. Environmental Protection Agency (EPA) developed a report in response to the request from Congress stated in Public Law 109-431 assessing current trends in energy use and energy costs of data centers and servers in the U.S. Among its findings were that in 2006, U.S. data centers used approximately 61 billion kWh (about 209 trillion Btu in end use) and accounted for about 1.5% of all U.S. electricity consumption. This was more than the electricity consumed by the nation's color televisions or equivalent to 5.8 million average U.S. households. It is believed that by 2011 energy use by these servers and data centers could almost double to 100 billion kWh. There is significant potential for energy efficiency improvements in data centers through new technologies already available or expected to be available in the marketplace. As many of the large data centers in New Jersey are planning to expand, and a number of new customers are planning to add new data centers, New Jersey has a unique opportunity to work with those customers to improve the energy efficiency of existing and/or new data centers.</p> <p>The Data Center Efficiency Program will conduct facility audits for existing data centers and perform a design review for proposed new data center sites. Audits will consist of meeting the data center management team, reviewing the overall operation of the data center, and collecting information regarding the energy consuming devices. The audit will consider the comprehensive analysis of all of the technologies associated with the data center and will also address redundancies needed for reliability and provide a report of recommendations with potential energy and cost savings opportunities.</p> <p>The participating utility will pay for the cost of the audit for an existing data center and the design review for a new data center facility. Based on the audit results, the participating utility will enter into contracts with data centers to provide funding of eligible measures based on reduction in total natural gas and electricity usage and/or demand.</p> <p>Customers will also be eligible for CHP incentives and will be eligible to participate in PJM demand response program.</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>The Data Center Efficiency Program will target:</p> <ol style="list-style-type: none"> 1) New and existing data center facilities located in New Jersey whose 2) Natural gas and/or electricity is provided by a New Jersey public utility
<p>Delivery Method</p>	<p>Each participating utility will identify a C&I program manager, along with supporting technical staff, to oversee program operation, coordination with the Clean Energy Program and other utility's programs, contractor oversight and trade ally relations. Some utilities may offer field services through third party contractors doing outreach, energy audits and installation of qualifying measures. Some utilities may elect to utilize internal staff qualified to conduct energy surveys and complete measures installations internally. Reporting will be compiled and supplied through the C&I Program Administrator at each participating utility.</p> <p>The Program audit will be provided by a qualified audit professional employed by or contracted with the participating utilities and will include the on-site energy audit and an audit report citing</p>

	energy savings opportunities with associated payback information, using pre-determined calculations and algorithms. Program personnel will review facility audit results with the building owner to establish baseline performance information and projected savings. Based on the audit results, the serving utility will enter into contracts with the building owner to provide funding of eligible measures.		
Estimated Program Participants	Utility Specific	Estimated savings	Estimate average savings per facility: 2,000 MWh, 250 kW, and 5,600 dth. This is an average estimate and could vary widely based on the size, age, building characteristics, whether new or retrofit, and energy usage of the participating data center facilities.
Link to existing programs	<p>Program provides targeted services to market sector with incomplete opportunities within existing CEP portfolio.</p> <p>Data Center facilities may qualify for Pay for Performance incentives and/or qualify for Smart Start equipment rebates</p>		
Existing Incentives	Although no existing programs are targeted specifically to this market, data center facilities would be eligible for CEP C&I program lighting and HVAC incentives and possibly custom incentives.	Proposed Incentives	<p>Program provides:</p> <ol style="list-style-type: none"> 1) professional energy audit free of charge. 2) Design review for new construction / additions 3) Incentives for reduced energy usage and/or demand
Estimated avoided air emissions	Based on protocols tied to final energy savings estimate.		
Anticipated Job Creation	Need CEEEP info here.		
Budget information	Utility specific.		
Marketing Approach	This program will leverage utility large customer account personnel to identify potential participating data center new construction and retrofit projects. Program specific marketing efforts will target data center decision makers – facility manager, energy managers, and administrators. This marketing will entail targeted direct marketing and direct contact by vendor personnel and company key account managers.		
Cost Recovery/ Rate design	Utility specific.		

Contractor Role	<p>Each utility will (as defined in their individual filings) identify roles for outside contractors or internal staff conducting program support functions such as marketing, energy audits and direct installation of qualified measures. The utility's contractor(s) services may include:</p> <ul style="list-style-type: none">• marketing and program enrollment;• provision of on-site customer audits;• identification and recommendations for efficiency improvements above and beyond those provided by the program; and• direct installation of customer-accepted cost-effective efficiency improvements identified under the program.
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**New Jersey Utilities
Governor's Economic Stimulus Package
Multi-Family Housing Program**

<p>Description of Program</p>	<p>The objective of the Multi-Family Housing Program is to increase energy efficiency and reduce carbon emissions of existing residential housing developments. These buildings typically face thin operating margins and constrained ability to increase rents, which leads to deferred maintenance, poor condition, on going deterioration, and energy inefficiency that in turn further erodes operating margins and the ability to retrofit an inefficient building. High energy costs during the 2005-2008 timeframe have exacerbated these conditions. This program will focus on providing cost-effective retrofit energy efficiency opportunities to this customer group.</p> <p>There about 500,000 rental units in multi-family housing in the state of New Jersey and that market represents about 16% of the total number of residential units in the state and about 26% of all dwelling units in New Jersey central cities.</p> <p>Multi-Family Housing building owners will receive an investment grade audit of their building(s) at no cost. Audit results will determine the potential savings derived through a variety of recommended measures and technologies: HVAC, humidification, building envelope, motors, lighting and other energy consuming equipment.</p> <p>Energy efficiency measures with a payback of 15 years or less will be considered for incentives under this program to reduce the payback period. The Program will finance construction costs and finalize permanent financing upon completion of the project and successful completion of a final inspection. Building owners may repay their contribution to the project (total cost less the Program incentive) over a set period of time or in a lump sum following the final inspection. There will not be a funding cap imposed per building in order to encourage a whole building approach. Opportunities to participate in PJM's Demand Response program will be identified, and information will be provided to building owners regarding participating Curtailable Service Providers (CSPs).</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>The Multi-Family Housing Program will target residential multifamily buildings in New Jersey where</p> <ol style="list-style-type: none"> 1) Natural gas and/or electricity is provided by a New Jersey public utility 2) Building can be master metered or individually metered 3) Garden apartment and high rise facilities 4) Multi-family housing with 5 or more units.
<p>Delivery Method</p>	<p>Each participating utility will identify a C&I program manager, along with supporting technical staff, to oversee program operation, coordination with the Clean Energy Program and other utility's programs, contractor oversight and trade ally relations. Some utilities may offer field services through third party contractors doing outreach,</p>

	<p>energy audits and installation of qualifying measures. Some utilities may elect to utilize internal staff qualified to conduct energy surveys and complete measures installations internally. Reporting will be compiled and supplied through the C&I Program Administrator at each participating utility.</p> <p>The Program audit will be provided by a qualified audit professional employed by or contracted with the participating utilities and will include the on-site energy audit and an audit report citing energy savings opportunities with associated payback information, using pre-determined calculations and algorithms. Program personnel will review facility audit results with the building owner to establish baseline performance information and projected savings. Based on the audit results, the serving utility will enter into contracts with the building owner to provide funding of eligible measures.</p>		
Estimated Program Participants	Utility Specific	Estimated savings	Utility Specific
Link to existing programs	<p>Program provides targeted services to market with incomplete opportunities within existing CEP portfolio.</p> <p>Smaller properties may qualify for Home Performance w/ Energy Star or the Residential Home Energy Tune-up programs.</p> <p>Larger properties may qualify for NJCEP Smart Start equipment or Pay for Performance incentives</p>		
Existing Incentives	<p>Although no existing programs are targeted specifically to this market, MF buildings would be eligible for CEP C&I program incentives.</p>	Proposed Incentives	<p>Program provides:</p> <ol style="list-style-type: none"> 1) professional energy audit free of charge. 2) incentives to lower the payback period for energy efficiency measures recommended by the audit. 3) zero percent up front financing repayable over set period of time for customers' share of cost
Estimated avoided air emissions	Based on protocols tied to final energy savings estimate.		
Anticipated Job Creation	Need CEEEP info here.		
Budget information	Utility specific.		

Marketing Approach	This program will leverage existing agencies and associations that serve the multi-family housing markets to identify participating housing projects. Program specific marketing efforts will target affordable housing agencies, apartment associations, building owners, and residents. This marketing will entail targeted direct marketing and direct contact by vendor personnel and Company Key Account Managers.
Cost Recovery/ Rate design	Utility Specific.
Contractor Role	<p>Each utility will (as defined in their individual filings) identify roles for outside contractors or internal staff conducting program support functions such as marketing, energy audits and direct installation of qualified measures. The utility's contractor(s) services may include:</p> <ul style="list-style-type: none"> • marketing and program enrollment; • provision of on-site customer audits; • identification and recommendations for efficiency improvements above and beyond those provided by the program; and • direct installation of customer-accepted cost-effective efficiency improvements identified under the program.

**New Jersey Utilities
Governor’s Economic Stimulus Package
Hospital Efficiency Program**

<p>Description of Program</p>	<p>The Hospital Efficiency Program is designed to reduce carbon emissions by lowering the energy consumption of hospitals. According to the New Jersey Hospital Association, many New Jersey hospitals have closed their doors for good. In the last two years eight NJ hospitals were closed. Half of the remaining 75 acute care hospitals in New Jersey (down from 112 fifteen years ago) lost money last year. Five New Jersey hospitals filed for bankruptcy in the last 18 months. Many hospitals are located in areas that are not the preferred markets for most service providers. Hospitals in these areas face many challenges—Medicare reimbursements, reduced funding, staff shortages, treating the uninsured, replacing aging equipment—and rising energy costs. And they have facilities that have “mission critical” functions that require an integrated, whole-building approach. High energy costs during the 2005-2008 timeframe have exacerbated these conditions. The Energy Master Plan (EMP) identified Hospitals as a market sector that requires additional support.</p> <p>Customers will receive an investment grade audit of their hospital campus at no cost. Audit results will determine the potential savings derived through a variety of recommended measures and technologies: HVAC, humidification, building envelope, motors, and other energy consuming equipment. Lighting will be included, if applicable. There will not be a funding cap imposed per customer. This program will integrate CHP measures into the same program offer and not require the customer to address CHP as a standalone technological option outside of energy efficiency.</p> <p>Energy efficiency measures with a payback of 15 years or less will be considered for incentives under this program to reduce the payback period.</p> <p>The Program will finance construction costs and finalize permanent financing upon completion of the project and successful completion of a final inspection. Building owners may repay their contribution to the project (total cost less the Program incentive) over a set period of time or in a lump sum following the final inspection. Opportunities to participate in PJM’s Demand Response program will be identified, and information will be provided to building owners regarding participating Curtailable Service Providers (CSPs).</p>
<p>Market Segment/ Efficiency Targeted</p>	<p>The Hospital Efficiency Program will target:</p> <ol style="list-style-type: none"> 1) New and existing in-patient hospitals and other in-patient medical facilities that operate 24-7 in New Jersey 2) Natural gas and/or electricity is provided by a New Jersey public utility 3) Both for-profit and non-profit facilities are eligible, but priority will be given to non-profit organizations
<p>Delivery Method</p>	<p>Each participating utility will identify a C&I program manager, along with supporting technical staff, to oversee program operation, coordination with the Clean Energy Program and other utility’s programs, contractor oversight and trade ally relations. Some utilities may offer field services through third party contractors doing outreach, energy audits and installation of qualifying measures. Some utilities may elect to utilize internal staff qualified to conduct energy surveys and complete measures installations internally. Reporting will be compiled and supplied through the C&I Program Administrator at each participating utility.</p> <p>The Program audit will be provided by a qualified audit professional employed by or contracted with the participating utilities and will include the on-site energy audit and an audit report citing energy savings opportunities with associated payback information, using pre-determined calculations and algorithms. Program personnel will review facility audit results with the building owner to establish baseline performance information and projected savings. Based on the audit results, the serving utility will enter into contracts with the building owner</p>

	to provide funding of eligible measures.		
Estimated Program Participants	Utility Specific	Estimated savings	Estimate average savings per facility: 500 MWh, 63 kW, and 5,600 dth. This is an average estimate and could vary widely based on the size, age, building characteristics, and energy usage of the participating data center facilities.
Link to existing programs	<p>Program provides targeted services to market sector with incomplete opportunities within existing CEP portfolio.</p> <p>This program is similar to the PSE&G Carbon Abatement Program.</p> <p>Hospital and medical facilities may qualify for Pay for Performance incentives and/or qualify for Smart Start equipment rebates</p>		
Existing Incentives	Although no existing programs are targeted specifically to this market, hospital facilities would be eligible for CEP C&I program incentives.	Proposed Incentives	<p>Program provides:</p> <ol style="list-style-type: none"> 1) professional energy audit free of charge. 2) incentives to lower the payback period for energy efficiency measures recommended by the audit (other than CHP). 3) incremental CHP incentives
Estimated avoided air emissions	Based on protocols tied to final energy savings estimate.		
Anticipated Job Creation	Need CEEEP info here.		
Budget information	Utility specific.		
Marketing Approach	This program will leverage utility large customer account personnel to identify potential participating hospital new construction and retrofit projects. Program specific marketing efforts will target hospital decision makers – facility manager, energy managers, and administrators. This marketing will entail targeted direct marketing and direct contact by vendor personnel and Company Key Account Managers.		
Cost Recovery/ Rate design	Utility specific.		
Contractor Role	<p>Each utility will (as defined in their individual filings) identify roles for outside contractors or internal staff conducting program support functions such as marketing, energy audits and direct installation of qualified measures. The utility's contractor(s) services may include:</p> <ul style="list-style-type: none"> • marketing and program enrollment; • provision of on-site customer audits; • identification and recommendations for efficiency improvements above and beyond those provided by the program; and • direct installation of customer-accepted cost-effective efficiency improvements identified under the program. 		

**New Jersey Utilities
Governor's Economic Stimulus Package
Technology Demonstration Program**

Description of Program	The Technology Demonstration Program will be comprised of a number of technology and site-specific demonstration projects designed to measure the potential for energy savings for various technologies. The program will also measure the replicability / applicability for numerous technologies and the potential for expansion to other projects. This program will provide support for the State's goals including economic development and Brownfield redevelopment. The Program will provide funding to test emerging energy savings technologies not currently covered by existing programs. It will be geared toward testing and proving new technologies for next generation energy efficiency programs. Potential projects could include Plug-In Hybrid Electric Vehicle (PHEV) technology replacements for standard terminal tractor equipment used in ports and warehouses and standard utility trouble trucks, LED Streetlighting applications, standing column geothermal systems in dense urban settings, office of the future applications, micro-energy homes in urban settings, university or museum demonstration buildings, etc.		
Market Segment/ Efficiency Targeted	This sub-program will not be offered to the market as a whole. Each of the technology and site-specific demonstration projects will be targeted to a specific location and/or technology type. Participating utilities will identify and/or accept proposals for individual technology demonstration projects and evaluate the benefits, applicability and savings related to each project.		
Delivery Method	Each participating utility will identify a Program Administrator, along with supporting technical staff, to oversee the program operation, coordination with the Clean Energy Program, other utility's programs, contractor oversight and trade ally relations. Utilities may offer field services through third party contractors or may elect to utilize internal staff. Reporting will be compiled and supplied to the BPU through the Program Administrator at each participating utility.		
Estimated Program Participants	Utility Specific	Estimated savings	
Link to existing programs	There is currently no comparable NJCEP program. The 2009 NJCEP program plans do not carve out funding for a specific demonstration program category. Such a category is considered necessary as a means to test promising strategies and technologies that could be incorporated into new NJCEP offers in the future.		
Existing Incentives	There are currently no existing incentives for demonstration projects.	Proposed Incentives	Project specific.

Estimated avoided air emissions	
Anticipated Job Creation	
Budget information	Utility Specific
Marketing Approach	No marketing is anticipated for this program. The technology demonstration projects will be identified by the participating utilities and/or considered based on proposals submitted to the utility by technology vendors, developers, and community organizations.
Cost Recovery/ Rate design	Utility Specific
Contractor Role	<p>Project Specific. Each utility will (as defined in their individual filings) identify roles for outside contractors or internal staff conducting project specific functions. The utility's contractor(s) services may include:</p> <ul style="list-style-type: none"> • marketing and program enrollment; • provision of on-site customer audits; • identification and recommendations for efficiency improvements above and beyond those provided by the program; and • direct installation of customer-accepted cost-effective efficiency improvements identified under the program.

**WHOLE BUILDING Energy Efficiency Programs
Combined Heat and Power Program Description
December 8, 2008**

Description of Program	This program will provide an incentive to promote the efficient generation of electricity, and offset thermal loads otherwise satisfied by boilers. A rate and contract mechanism offset will be designed to stabilize natural gas prices over a fixed term to mitigate the volatility of natural gas prices.				
Market Segment/ Efficiency Targeted	Commercial / Industrial Customers with a heavy requirement for thermal load. Will also target localities where anticipated growth is expected to create heavy demand upon the existing power infrastructure. Other localities include areas of electric congestion, areas of contiguous building infrastructure, and areas affected by Local Marginal Pricing. Priority will be given to review medical and institutional facilities, which operate 24 hours per day, 7 days per week on a consistent basis.				
Delivery Method	Engineering firms, energy service companies, mechanical contractors; coordinated by utility sales engineers				
Estimated Program Participants	utility specific	Estimated savings	Savings estimates will be applied according to accepted protocols		
Link to existing programs	The program will link to the CLEP SmartStart Program				
Existing Incentives	See Attached Table	Proposed Incentive		Total Incentive	
Estimated avoided air emissions	All savings will be calculated by the Clean Energy Program Manager, according to approved protocols				
Anticipated Job Creation	Need CEEEP info here.				
Budget information	Utility specific				

Marketing Approach	Direct contact with customers who fit the profile discussed in market segment, coupled with trade publications, web site, and up channel market allies, such as distributors, engineering firms, developers, mechanical contractors, manufactures, and dealer reps.
Cost Recovery/ Rate design	Utility specific
Contractor Role	It will be the role of the contractors and developers will be to sell, install, and where appropriate maintain the equipment. The program will be coordinated with the commercial market manager of the NJCLEP.

TABLE 1: CHP TECHNOLOGY AND INCENTIVE LEVELS

<i>Eligible Technology⁽¹⁾</i>	<i>Incentive⁽²⁾</i> <i>(\$/Watt)</i> <i>(Up to \$1.0 Million)</i>	<i>Maximum % of Project Cost</i>	<i>Minimum System Size</i>
Level 1 •Fuel cells not fueled by Class I renewable fuel	\$4.00/Watt	60%	None
Level 2 •Micro turbines •Internal Combustion Engines •Combustion Turbines	\$1.00/Watt	30% ⁽³⁾	None
Level 3 •Heat Recovery or Other Mechanical Recovery from Existing Equipment Utilizing New Electric Generation Equipment	\$0.50/Watt	30%	None

⁽¹⁾ Insert New Jersey's code requirements or any other mandates if applicable to the appropriate technology.

⁽²⁾ No one particular level will receive more than 50% of the funding, subject to review after 6 months

⁽³⁾ The maximum % of project cost will go to 40% where a cooling application is used or included with the CHP system.

Description of Program

**New Jersey Utilities
Governor's Economic Stimulus Package
Small Commercial Direct Installation Program**

The objective of the Small Commercial Direct Install program is to rapidly acquire durable savings in energy and peak demand usage among small and medium Commercial & Industrial (C&I) customers with peak demands of 200 kW or less. These customers are traditionally hard to reach with standard approaches such as rebate and incentive programs. The program will therefore focus on overcoming the numerous barriers existing among this customer group to target cost-effective retrofit efficiency opportunities.

This program also targets local government entities. Most municipalities, particularly older urban cities and towns with aging facilities, under-fund maintenance budgets and defer maintenance. Government contracting procedures, lack of familiarity with efficiency options, and the requirement to seek approval from the governing body for a capital budget item, make it difficult for municipal and local government officials to identify, and act on, opportunities to reduce energy costs. Government also tends to diffuse and dilute responsibility for energy upgrades to the individual department level, while payment of bills often resides at a central finance office. There is little incentive for departments to upgrade the energy efficiency of their buildings because the reward for reduced energy bills may simply be a reduced budget in the subsequent year.

The customer will be provided an energy audit encouraging acceptance of program delivered measures as applicable at that site. The audit will identify supplementary energy savings opportunities as well as identifying coordinated programs to further assist the customer with their follow through for these additional energy efficiency efforts. These will include identification of available financing and rebate programs offered through the utility and the Clean Energy Programs etc.

For many small C/I programs, lighting has been at the forefront of measures installed as well as the primary contributor to savings results. While this is also anticipated in this program, focus on HVAC diagnostics and improvements to existing heating and air conditioning systems to optimize efficiency is also included along with DHW measures. Through the diagnostic procedures, heating and AC units that are so inefficient that it is cost-effective to replace will be identified and the unit will be evaluated for replacement with a high efficiency one.

The customer audit will be delivered free and customer measures installed incentive will be set at a percentage of the installed measures costs to be determined by the utility provider. In practice, customers will only make a payment equal to the remaining cost of the measures after the utility incentive is paid. Typical eligible measures lists will include but are not limited to:

Lighting:

- Super T8 lamp / ballast
- Fluorescent high-low bay fixture – interior
- Super T8 fixture
- CFL fixture – interior

- CFL screw-ins – interior / exterior
- MH 25 W int ballast Par38
- Occupancy – (on-off), (high-low)
- LED Exit Signs

HVAC

- Tune Up (Heating-Cooling)
- Ventilation VFD
- Duct Sealing (Heating-Cooling)
- Dual Enthalpy Control
- Vent Premium Efficiency Motors

DHW

- Pipe Insulation
- Tank Insulation
- Temperature Set Back

Misc.

- Walk-in Refrigerator Retrofit Package
- Vending Miser

Actual measures selection will be based on customer acceptance of measures which are determined to be applicable at each site, i.e. Not all sites will receive all measures and customers are not required to accept all recommended measures.

<p>Market Segment/ Efficiency Targeted</p>	<p>The Direct Install Program will target C&I customers with annual peak demands of less than 200 kW, who receive natural gas and/or electricity from a New Jersey public utility.</p> <p>This program will be open to all C/I customers including specific target markets such as municipal customers, multi-family and food service, if applicable under the energy use ceilings defined for the program.</p> <p>Eligible local government facilities include municipal offices, courtrooms, town halls, police and fire stations, sanitation department buildings, transportation department structures, regional authorities, schools and community centers. County or regionally structures bodies such as county colleges, and regional utility authorities (waster/sewer) also are included. In addition participants in the NJCEP Local Government Audit program will be eligible for direct install benefits under this program.</p> <p>Customers participating in this program may not receive incentives for the same measures under other utility or Clean Energy Programs.</p> <p>According to O&R’s Market Potential Study, approximately 90% of the electric economic potential identified in the commercial market segment is attributable to lighting, cooling, heating, ventilation, DHW and refrigeration upgrades. This program will target each of these end uses and focus on the most cost effective measures.</p> <p>It is expected that through the marketing and outreach relationship with Community Partners and program audit recommending additional measures above and beyond those available for direct installation under this program will be initiated. Many customers will participate in other related programs or implement measures on their own, thereby achieving additional energy conservation.</p>		
<p>Delivery Method</p>	<p>Each participating utility will identify a C&I Program Administrator, along with supporting technical staff, who will oversee the program operation, coordination with the Clean Energy Program, other utility’s programs, contractor oversight and trade ally relations. Some utilities may offer field services through third party contractors doing outreach, energy audits and installation of qualifying measures. Some utilities may elect to utilize internal staff qualified to conduct energy surveys and complete measures installations internally. Reporting will be compiled and supplied through the C&I Program Administrator at each participating utility.</p>		
<p>Estimated Program Participants</p>	<p>Utility Specific</p>	<p>Estimated savings</p>	<p>Numbers from the O&R NY Filing Estimated: 2100 MWh saved per \$1M or \$465/MWh 6000 KW per \$1M</p> <p>2007 National Grid Sm Com DI results for municipal participants: 17,500 kWh, 8 kW \$9,500 per participant cost <i>*Note – this will vary depending on the specific utility offering and the mix of buildings types.</i></p>

<p>Link to existing programs</p>	<p><i>As a component of the energy audit, opportunities for conservation and related program participation are identified and encouraged:</i> Community Partners – Coordinated marketing and outreach Finance Programs – Utility specific Clean Energy Equipment Rebate and Technical Assistance Programs – Smart Start Utility specific equipment rebate programs Local Government Audit program - can provide referrals to this program for the direct installation of energy saving measures.</p> <p>In addition, this program is similar to the 2009 NJCEP Small Commercial Direct Install program and to PSE&G’s Carbon Abatement Program Small Business Direct Installation sub-program.</p>		
<p>Existing Incentives</p>	<p>Smart Start Incentives: (for 75 KW or less average demand)- includes, 8 hours free tech assist and rebates for various prescriptive measures (Most common are captured below):</p> <p>HVAC -based on size and efficiency (\$2500 max including shell measures) Lighting – various per/unit (\$2000 max) Motors – based on size and efficiency (\$500 max) Custom measures – 20% with add’l 10% for multiple measures.</p> <p>Also incentives are available for a portion of further energy audit and design consulting costs.</p> <p>Local Government /Municipal Audit</p>	<p>Proposed Incentives</p>	<p>The initial customer audit is free. Incentives will be set at a fixed percentage of the installed measures cost to be determined by the sponsor utility. Customers will be responsible to pay the remaining cost of the measures. The customer portion of the payment will go to the DI contractor where one is being utilized, otherwise to the program implementer where a utility may elect to conduct the installations internally. Subject to individual company filings, customer portions may be financed through this program or related finance programs.</p>
<p>Estimated avoided air emissions</p>	<p>Will follow approved NJCEP Protocol</p>		
<p>Anticipated Job Creation</p>	<p>From O&R NY 90 filing (Looking for CEEEP information here) 13.5 jobs per \$1M in EE spending For the Small Commercial Direct Installation Program these jobs will likely be auditing and measures installation jobs.</p>		
<p>Budget information</p>	<p>Utility Specific</p>		

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A Scoping Study on Energy-Efficiency Market Transformation by California Utility DSM Programs

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CHAPTER 2

Market Barriers, Market Effects, and Market Transformation

This chapter presents three critical elements of our analysis of the market effects of California utility energy-efficiency programs: (1) definitions and discussion of relationships among market barriers, market effects, market transformation, and the related concepts of market failure and market intervention; (2) detailed descriptions of market barriers to energy efficiency that are relevant to utility energy-efficiency programs; and (3) a framework for examining the market effects of utility energy-efficiency programs and a categorized list of market effects that are most often discussed.

2.1 Definitions of Key Terms

Controversy about the market transforming properties of utility energy-efficiency programs results from confusion about the terms market barrier, market failure, and market transformation. We have adopted the following definitions for the purposes of our study:

Market Barrier - any characteristic of the market for an energy-related product, service, or practice that helps to explain the gap between the actual level of investment in or practice of energy efficiency and an increased level that would appear to be cost beneficial.

We recognize that what is cost beneficial depends on one's perspective and is influenced by both energy and non-energy considerations. We propose to limit discussion in this report to activities that are cost beneficial either from a consumer's point of view or from society's.⁸ We use the term "consumer" to refer to both individuals and firms. With this definition, one form of evidence for the presence of market barriers relies on comparing the implicit discount rate observed in consumers' energy-efficiency purchase decisions with the discount rate applied by consumers to comparable activities (i.e., those with comparable risks and liquidity) or those with an even lower social discount rate. Other forms of evidence include findings from studies in conservation behavior, transaction costs economics, and cognitive psychology.⁹

⁸ To the extent that a utility has an obligation to overcome market barriers, the utility's perspective must also be accounted for. Ensuring alignment of utility and customer or utility and societal perspectives, however, is a matter of regulatory policy, which we examine in Chapter 4.

⁹ See Goldstone (1996) for a recent discussion of the contributions of these disciplines to our understanding of market barriers to energy efficiency.

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It is logical that if a market barrier is lowered, market adoption of energy-efficient products, services, or practices will increase. We recognize, however, that reducing any one market barrier may not lead to increases in adoption because other barriers may remain or be reinforced, or new barriers may be introduced.

Market Failure - a condition of a market that violates one or more neoclassical assumptions (e.g., perfect information, costless transactions, no externalities, rational behavior, etc.). These assumptions define an ideal market for products or services.

Market failure is a formal economic concept.¹⁰ It is widely agreed that the existence of a market failure provides necessary but not sufficient justification for government intervention.¹¹ Market barriers, on the other hand, were defined by practitioners attempting to characterize what they believed was wrong with current energy service markets (i.e., what explained the "efficiency gap"). Not surprisingly, market barriers defined under these practical conditions do not appear to derive from a unified conceptual framework of human behavior as is required by the formal structure of neoclassical economic analysis, although some market barriers are formally recognized as market failures by economists (such as externalities). Recently, analysts have shown that, in fact, many market barriers can be seen as particular examples of accepted market failures, notably those associated with imperfect information. These analysts have shown that market barriers are generally consistent with the transaction cost economics notion of market failure.¹²

Whether the existence of market barriers provides justification for government intervention in markets is still hotly contested. Resolution of this debate is outside the scope of this report.¹³ We rely on the precedent of Jaffe and Stavins (1994): "[T]hose market barriers that might justify public policy intervention to overcome them, we denote as [neoclassical] market failures." In other words, if there is an intervention that is net beneficial (enhances societal welfare) for a specific market barrier, then this market barrier is a market failure and we have a justification to intervene.

Market Intervention - a deliberate effort by government or utilities to reduce market barriers and thereby change the level of investment in (or practice of) energy efficiency.

¹⁰ See, for example, Harris and Carmen (1983) for a comprehensive listing of market failures.

¹¹ The existence of market failure is not sufficient to justify intervention and does not by itself point to the appropriateness of any particular form of intervention. A proposed intervention must demonstrably improve social welfare; interventions might also decrease social welfare.

¹² See Golove and Eto (1996) and Goldstone (1995), which use concepts from transaction cost economics to describe market barriers. See Williamson (1989) for an introduction to transaction cost economics.

¹³ See Golove and Eto (1996) for a recent treatment of these issues.

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For the purpose of this report, utility energy-efficiency programs are examples of market interventions;¹⁴ that is, interventions are defined as activities designed to reduce market barriers. An intervention's success in reducing market barriers, therefore, hinges on whether it leads to or causes a net beneficial outcome from a societal perspective. A net beneficial outcome requires that the increase in the adoption, procurement, or practice of energy efficiency is not offset by other losses (such as the cost of the intervention or its consequences).

We recognize that there other justifications for market interventions to achieve other societal objectives (such as equity). In this report, we are concerned primarily with those associated with economic efficiency (broadly defined to include environmental costs and benefits).

Market Effect - a change in the structure of a market or the behavior of participants in a market that is reflective of an increase in the adoption of energy-efficient products, services, or practices and is causally related to market intervention(s).

Market effects, as we have defined them, are evidence of whether and to what extent a market barrier(s) has been addressed effectively. If there is no observable market effect, then by our definition the relevant market barriers have not been reduced to a noticeable degree. For example, a market effect may not be observed because reductions in some market barriers may be accompanied by off-setting increases in others.

Market effects may be difficult to observe for reasons including the possibility of lagged market response to an intervention.¹⁵ For example, market effects in the form of changes in consumer's attitudes, incentives, and knowledge are hard to observe independent of specific energy-efficiency actions, such as purchases.

If there is an observable market effect, it is necessary to be able to attribute this effect to a particular market intervention(s) in order to use this finding as evidence that the intervention reduced the market barrier(s). Markets change for many reasons. There are two alternative possibilities that are important to consider when trying to relate observable changes in markets to market interventions: (1) market changes that result from reductions in market barriers, but that are not caused by the particular market intervention being examined (i.e., the barrier would have been reduced without the intervention); and (2) market changes which do not result from any reduction in market barriers. Technological

¹⁴ There are many other examples of market intervention, ranging from standards to public exhortation. One objective of this report is to identify the market effects of utility energy-efficiency programs in order to establish a common framework within which to assess their value as models for future interventions.

¹⁵ We also recognize that market effects could be defined as a change in the pattern of adoption of energy-efficient products, services, or practices, independent of any net increases in adoption. For the purpose of this report, we are concerned primarily with those market effects that lead to net changes in adoption.

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breakthroughs or producer pricing policies, for example, may change the incremental cost of the energy-efficiency features of products or services, leading to changes in the purchases of these products or services. However, changes in product or service costs are not by themselves evidence that any market barrier (or barriers) has changed. Only the conditions under which the market barrier originally prevented adoption of energy-efficiency measures have changed. Nevertheless, these changes may be sufficient to make intervention no longer needed (see discussion of the market barriers associated with first cost in the next section of this chapter).

Our definition allows for positive and negative market effects. The focus of this report is on positive effects; that is, on those effects that lead to increases net social welfare. Moreover, we are concerned only with those market effects that result from the operation of a utility's energy-efficiency program. In this regard, we will also consider market effects that may be unintended consequences of a utility energy-efficiency program. Ascertaining whether a market effect would have occurred in the absence of the energy-efficiency program (i.e., "but for") may be a useful test for establishing a causal link between an intervention and a market effect in this regard.

Strictly speaking, individual purchases of and subsequent load impacts from energy-efficiency measures acquired through a utility energy-efficiency program are also among the market effects of the program; however, we are far more interested in market effects that are "outside" the program, effects beyond the individual act of participation by the customer. These effects could include changes in dealer stocking practices of the measure promoted and changes in manufacturing practices in response to increased demand for the measures; they could also include additional energy-efficiency measures or practices adopted by the participating customer (see section 2.3). These effects are more important for our study of market transformation because they are more likely to indicate there have been lasting changes in the market. That is, we view markets as on-going systems of exchange. The transaction between the utility and the customer (e.g., the purchase of an energy-efficient measure) cannot by definition be a lasting market effect; it is a singular market effect in space and time. Thus, we do not consider a single transaction, by itself, to be evidence that a market barrier has been reduced in a lasting fashion. Instead, we are interested in the lasting consequences of such transactions.

Market Transformation - a reduction in market barriers resulting from a market intervention, as evidenced by a set of market effects, that lasts after the intervention has been withdrawn, reduced, or changed.

Our definition is based on the need to have a standard by which to judge market interventions in a regulatory environment; it is not intended to describe the actions of private-sector market actors seeking to profit from their efforts to "transform" markets. Our definition covers three possibilities: (1) if there are no lasting market effects, then the market has not been transformed (because the reduction in market barriers has been only

temporary);¹⁶ (2) if there are lasting effects but further intervention is still warranted, then the market has only been partially transformed; and (3) if there are lasting effects and the most important and relevant market barriers have been reduced to the point where further intervention is no longer deemed to be net beneficial to society, then the market has been completely transformed. These distinctions reflect our concern to ascertain the permanence of market effects from energy-efficiency programs.

All utility energy-efficiency programs have the potential to transform markets under our definition. Market transformation is not a label that uniquely identifies certain utility energy-efficiency program designs to the exclusion of others. It is instead an objective that utility energy-efficiency programs all succeed in achieving to varying degrees. Evidence of success, then, rests on determining to what extent market barriers have been lowered. Whether they have been lowered to the point where further intervention is not warranted, determines whether the market is fully transformed. In other words, the degree of success cannot be settled in the abstract. It must be established by a review of the program's design intent and execution, and of the market effects attributable to the program.

We recognize that there are different opinions on (1) how long market effects must last, and (2) how much (or in what way) a market intervention can be changed (if it is not withdrawn entirely) so that whatever market effects are observed can still be considered evidence for some degree of market transformation.

2.2 Market Barriers Relevant to Utility DSM Programs

As early critics were quick to point out, market barriers are not classified based on a consistent conceptual framework; there is no well-defined, all-encompassing set of market barriers comparable to the major market failures formally recognized by economists.¹⁷ Therefore, an inescapable degree of subjectivity plays a role in assembling a list of market barriers that is (1) comprehensive but not extremely long, and (2) robust in the sense that any particular market barrier is not immune to re-interpretation as a different manifestation of another market barrier or vice versa. We address these limitations by describing market barriers most frequently referred to by utility DSM practitioners

¹⁶ Our interest in market transformation is not intended to suggest that we believe public support for activities that only temporarily reduce market barriers is not warranted. Programs that do not transform markets are legitimate strategies for improving social welfare.

¹⁷ Harris and Carmen (1983) list eight major market failures: imperfect competition, excessive competition, anticompetitive conduct, imperfect information, side effects (such as externalities), public goods, (de)merit goods, and income maldistribution. As noted earlier, this chapter does not analyze the derivation of our list of market barriers from these market failures, as defined by economists. See Golove and Eto (1996) for a discussion of these linkages.

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Where appropriate, we indicate important relationships among barriers and identify areas in which they overlap.

As noted earlier, many market barriers have been analyzed as examples of market failures associated with imperfect information or as situations fraught with high (yet, presumed reducible) transaction costs. Information, risk, and incentives emerge as three recurring themes in many market barriers. Information-related market barriers include a variety of difficulties associated with the availability, cost, and trust-worthiness of information. Risk-related market barriers include difficulties associated with assessing and managing risk. Incentive-related market barriers involve the financial and nonfinancial rewards or penalties to individuals and organizations for pursuing energy-efficiency opportunities that would appear to be cost-effective measured by standard economic means.

We do not include *high first cost* on our list of market barriers, even though it was routinely identified by our utility energy-efficiency program interviewees as the single most important market barrier addressed by their programs (see Chapter 3). High first cost arises naturally in DSM programs; many are designed to increase market adoption rates for energy-efficient products or services by reducing their first cost (for example, through rebates or other forms of financial assistance). We think there is a basic difference between market barriers and the strategy used to overcome them. Thus, while reducing first cost may be an effective strategy to increase market adoption, we do not consider high first cost to be the market barrier, which this strategy has overcome.

We believe it is essential to understand precisely why high first cost is thought to be a barrier to energy efficiency and how, by reducing first cost, it has been addressed. If, in fact, high first cost is considered to be a market barrier and is, in this sense, the *only* market barrier addressed by a program, then discontinuation of the program would *by definition* result in a reversion to purchasing and operating practices that existed prior to the program.¹⁸ As a result, there would be no evidence of market transformation. In order to understand how reductions in first costs might lead to market transformation, we have broken down the concept of high first cost into a number of distinct market barriers that we believe might be addressed programs that lower first cost as a strategy for addressing these market barriers.

In analyzing the market barriers underlying high first cost, we clarify an important policy objective that is sometimes addressed by utility energy-efficiency programs, which reduce first cost, equity. Equity is a distinct policy objective from economic efficiency. The poor are certainly not immune from the economic-efficiency market barriers associated

¹⁸ In this example, we are assuming that the increase in demand for the product, due to its lower cost to the consumer, does not also result in any upstream market effect, for example, increases in production volumes that generate significant manufacturing economies that are then passed on to consumers in the form of lower prices.

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with high first cost listed below; in fact, the poor are often at the greatest disadvantage from these barriers. However, successfully addressing these barriers would not change the basic income constraint faced by the poor: lack of money.¹⁹ In this report, we are concerned primarily with the ability of utility energy-efficiency programs to transform markets in order to improve economic efficiency; we do not comment on the ability of these programs to effect permanent changes in the distribution of wealth in society.

Having addressed high first costs, we offer the following working list of market barriers to energy efficiency:

A. *Information or search costs*—the costs of identifying energy-efficient products or services or of learning about energy-efficient practices. These can include the value of time spent finding out about or locating an energy-efficient product or service or hiring someone else to do it on the consumer's behalf. Search costs can be thought of as costs of acquiring information.

B. *Performance uncertainties*—the difficulties consumers face in evaluating claims about future benefits, which are made for many energy-efficiency investments and activities. This market barrier is closely related to high search costs; acquiring the information needed to evaluate claims regarding future performance is rarely costless. In some cases it may be impossible to obtain the relevant information; one may not be able to generalize from existing information but instead must “experience” the energy performance as it is affected by one's own unique operating conditions, practices, or preferences. Producers, as well as consumers, face these costs in forecasting the market response to decisions they make to manufacture, promote, stock, or offer energy-efficient products.

C. *Asymmetric information and opportunism*—another aspect of the difficulties consumers face in evaluating the veracity, reliability, and applicability of claims made by sales personnel for a particular energy-efficient product or service. This barrier reflects the fact that sellers of energy-efficient products or services typically have more and better information about their offerings than do consumers. It also reflects the incentive that sellers have to provide misleading information. This market barrier is closely related to high information costs and performance uncertainties because obtaining the information

¹⁹ When the distinction between the equity and economic-efficiency rationales for programs designed to lower first cost is clear, one can better understand the basis for a key critique of utility energy-efficiency programs. This critique holds that utility energy-efficiency programs have not had lasting market effects or made lasting reductions in market barriers. As a result, they represent no more than a transfer of wealth, which, according to these critics, is inappropriate because it is inequitable. Addressing this challenge in the context of this report requires showing that there have been net improvements in economic efficiency (i.e., lasting reductions in market barriers), as opposed to mere transfers of wealth.

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required to assess claims adequately may be costly or impossible.²⁰ This barrier is different from high information costs however, in that appropriate use of the information may require specialized knowledge held only by the vendor; thus, opportunism on the part of those with the specialized knowledge is a special concern.²¹ This barrier is also related to bounded rationality, described below.

D. *Hassle or transaction*²² costs—the indirect costs of acquiring energy efficiency and are also closely related to information or search costs. These costs include the time, materials, and labor involved in obtaining or contracting for an energy-efficient product or service.

E. *Hidden costs*—unexpected costs associated with reliance on or operation of energy-efficient products or services. These costs could include additional operating and maintenance costs associated with energy-efficient equipment or additional staff costs associated with monitoring or servicing transactions (e.g., contractor supervision). They might also include additional costs resulting from the quality of installation. Many of these unplanned costs are incurred after the acquisition of an energy-efficient product or service. To some extent, they can also be thought of as performance uncertainties.

F. *Access to financing*—the difficulties associated with the lending industry's historic inability to account for the unique features of loans for energy savings projects (i.e., that future reductions in utility bills increase the borrower's ability repay a loan) as distinct from the other factors affecting the evaluation of a borrower's credit-worthiness. In principle, accounting for energy-efficiency improvements funded by loans ought to result in lower borrowing costs. This market barrier can be analyzed as reflecting lenders' uncertainty regarding the reliability of future savings and reflecting the additional costs associated with formally recognizing this feature of energy savings projects (another aspect of hassle costs described previously). Institutionally, this market barrier manifests in the absence of secondary financial institutions such as those established in other

²⁰ The differences among information cost, performance uncertainties, and asymmetric information are referred to in the transaction cost economics literature as the differences among search, experience, and credence goods (Goldstone 1996).

²¹ In fact, opportunism pervades many of these first three market barriers. In lay terms, there is a significant cost associated with knowing who to trust when making energy-efficiency related decisions precisely because one may lack knowledge for one of these three reasons.

²² Transaction cost as used here, should not be confused with the term used in the formal study of transaction cost economics (see, for example, Williamson 1989). Transaction cost economics refers to a powerful perspective from which to examine both market and nonmarket interactions based on the relationships established among various participants. Some believe that many if not all of the market barriers on our list could be profitably examined using transaction cost economics concepts. (See, for example, Golove and Eto 1996.) In this report, we use transaction costs only as defined here.

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markets to allow investors to “lay-off” separately the unique risks associated with the future performance of energy-efficiency investments.

G. *Bounded rationality*—the behavior of an individual during the decision making process that may seem inconsistent with a individual’s goals. Everyone relies on “rules of thumb” to varying degrees. Sometimes rules of thumb are referred to as matters of habit or custom. Rules of thumb serve to limit the focus or scope of considerations for a given decision. Such behavior is hardly irrational, in view of the potentially high search and information processing costs associated with trying to make every decision based on first principles, e.g., net present value. As a result, behavior is often described as rational in intention, but limited in its execution. This barrier has sometimes been construed to include examples of what can only be characterized as plainly irrational behavior or behavior inconsistent with one's articulated goals and understanding. This barrier is distinct from high search costs, performance uncertainties, and asymmetric information because more or better information alone may be insufficient to change behavior. Instead, this barrier refers to the way in which individuals process and act (not necessarily logically) on whatever information they may have.

H. *Organization practices or custom*—organizational behavior or systems of practice that discourage or inhibit cost-effective energy-efficiency decisions. This barrier is closely related to bounded rationality but applies to organizations or social networks rather than to individuals. A good example is institutional procurement rules, policies, and practices that make it difficult for organizations to act on energy-efficiency decisions based on economic merit. This barrier is also closely related to hassle costs or subsequent hidden costs, which in this case might be faced by individuals acting within organizations.

I. *Misplaced or split incentives*—institutional relationships which mean that the incentives of an agent charged with purchasing energy efficiency are not aligned with those of the persons who would benefit from the purchase. One example is in new construction where builders attempting to minimize first cost do not install higher-first-cost energy-efficiency features that would be valued by the future building owners who must pay the utility bills. In this case, the builder has no incentive to minimize utility bills she will not pay and every incentive to increase her profit by minimizing the first costs she does incur. A second example arises in rental property where the landlord has no incentive to install energy saving retrofits in buildings where she does not pay the utility bills. In this case, the tenant, having no financial interest in the building structure or fixtures, is not to be in a position to authorize retrofits that would benefit her directly in the form of reduced utility bills.

J. *Product or service unavailability*—the adequacy of supply. Unavailability of a product is different from high search costs that make it expensive for the consumer to locate a product or service. Unavailability is a market barrier created by the manufacturers and distributors of products or service providers that inhibits consumer demand. One result may be higher prices to reflect the fact that supplies are tight. Unavailability and high prices may be the result of collusive or anticompetitive practices to hold some products (or producers) off the market in favor of others that offer higher profit or other advantages (e.g. market share). Distributors may face high search and acquisition costs in order to accurately anticipate demand or they may react in a

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boundedly rational way to expectations for future demand caused, for example, by the newness of a product. As a result, they may limit shelf space for or not stock energy-efficient products.

K. *Externalities*—costs that are associated with transactions, but which are not reflected in the price paid in the transaction. For example, environmental costs associated with electricity generation by fossil fuel are not incorporated into prices for electricity or fossil fuel use; these prices are too low in that they do not reflect the full cost to society of using these sources of energy. For markets to operate efficiently, transactions must incorporate full costs.

L. *Nonexternality mispricing*—other factors that move prices away from marginal cost. An example of this barrier arises when regulated utility commodity prices are set using ratemaking practices based on average (rather than marginal) costs.

M. *Inseparability of product features*—the difficulties consumers sometimes face in acquiring desirable energy-efficiency features in products without also acquiring (and paying for) additional undesirable features that increase the total cost of a product beyond what the consumer would be willing to pay for just the added energy-efficiency features alone. For example, energy-efficiency may be offered as an option on only the highest priced models in a product line, which also include a variety of other non-energy amenities. There are two aspects of this phenomenon, that need to be analyzed separately. On the one hand, if the decision to bundle product features is made at the discretion of manufacturers or distributors, then inseparability can be thought of as a market barrier that is closely related to product unavailability. On the other hand, if the inseparability is either required by law or unavoidable because it is inherent in the design of the product, then the phenomenon is not a market barrier in and of itself but is an (apparently) inescapable feature of the product. For the purpose of this study, a justification for utility energy-efficiency intervention to increase market adoption to overcome the high first cost associated with this second situation must be made based on overcoming some other market barrier (e.g., the presence of externalities or other forms of mispricing). Interventions other than conventional utility energy-efficiency programs might address this market barrier directly—e.g., changes to laws or basic research and development to change product designs.

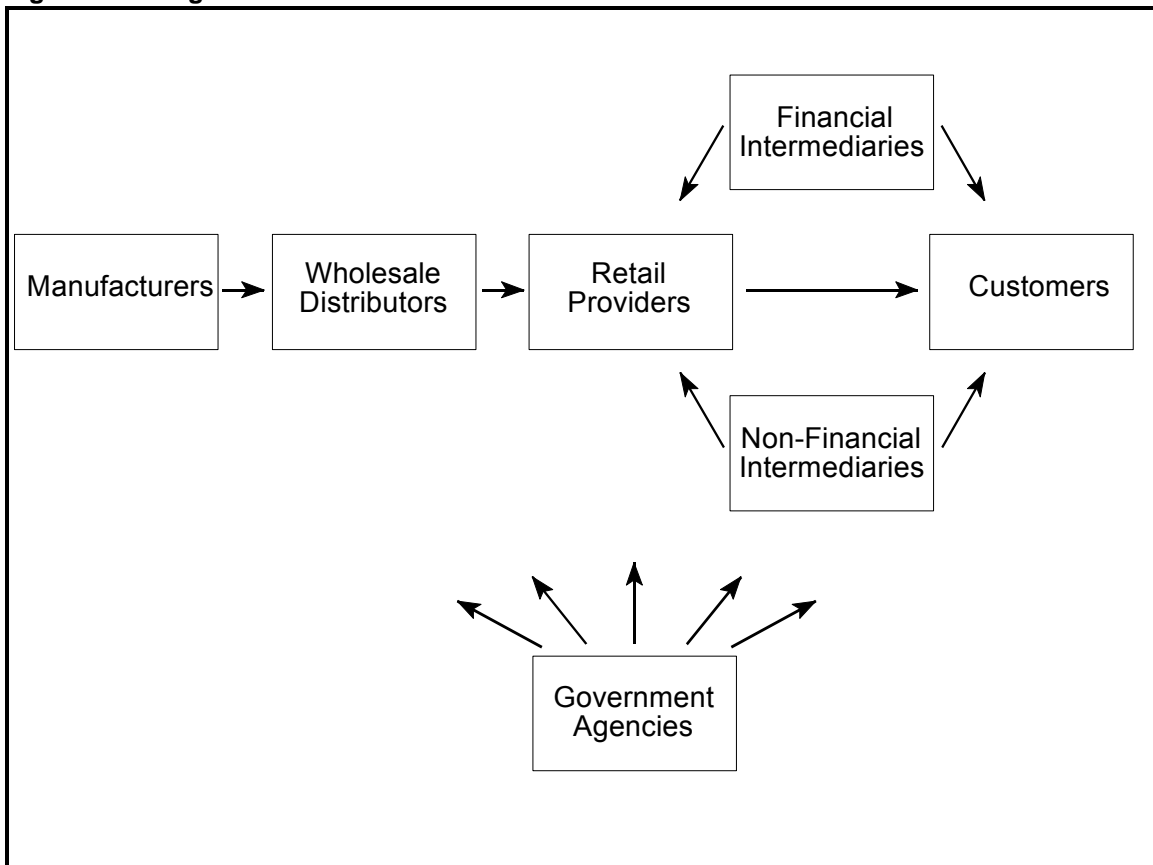
N. *Irreversibility*—once a decision to purchase an energy-efficient product or service is made, it is often difficult to revise it in light of future information because aspects of the decision are irreversible (e.g., if future energy prices go down, one cannot get “salvage” insulation that has already been blown into a wall). Irreversibility is an attribute of many energy-efficient products and closely related to performance uncertainty. Utility energy-efficiency programs to overcome irreversibility must be justified with reference to some other market barrier (e.g., externalities or mispricing). In other words, no conventional utility program intervention can change the irreversible nature of certain products although another type of intervention, such as basic research and development to change the physical characteristics of the measure could do so.

2.3 Market Effects Attributable to Utility Energy-Efficiency Programs

We begin with observations about the fundamental characteristics of market effects in general; we then assemble a framework for analyzing and illustrating the market effects of individual programs.

Market Actors versus Market Structure. As we have defined them, all market effects can ultimately be characterized as changes in the structure or market behavior of one or more sets of market actors (see Figure 2-1). Market actors can include but are not necessarily limited to the following groups: (a) consumers; (b) retail providers (such as equipment vendors, material suppliers, and new home sales staff); (c) wholesale distributors; (d) ancillary, nonfinancial intermediaries (such as design professionals and auditors); (f) financial intermediaries (such as banks and other lending institutions); (g) manufacturers (including, to some extent, builders and their subcontractors); and (h) government agencies (including both state and local building code officials). The concept of "structure" has a long tradition in the social sciences and is also an indispensable tool in understanding complex social systems such as markets. However, our methodological orientation focuses on the behavior of actors in the market.

Figure 2-1. Organization of Market Actors in an "Idealized" Market



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For illustration, consider a case in which the distribution chain for a specific energy-efficiency measure initially tends to flow from manufacturers to distributors to retailers to consumers, but, as a result of a utility energy-efficiency program, distributors are partially eliminated from the chain. Some measures now flow directly from manufacturers to retailers. Clearly, this represents a change in the structure of the market. However, at a more fundamental level, the distribution chain would not have changed in this fashion unless one or more groups of market actors found it in their interests to change either selling or buying behavior.

For the purposes of this report, we attempt to characterize all market effects according to the behavior change of one or more specific sets of market actors.

A Working List of Market Effects. Because markets consist of diverse actors engaging in diverse economically motivated behaviors, there is a wide range of ways in which utility energy-efficiency programs could alter behavior, thereby leading to market effects. In Table 2-1, we have listed a number of the specific market effects that were either offered as hypotheses by our interviewees or have appeared repeatedly in the literature on the market effects of utility energy-efficiency programs. Consistent with our approach of characterizing market effects as changes in the behavior of one or more specific sets of actors, the list is organized according to the market actor whose behavior changes. For ease of presentation and to avoid duplication, we have included manufacturers and all businesses (e.g., retail providers, wholesale distributors, nonfinancial intermediaries, and financial intermediaries) under a single category labeled “other businesses.”

Behavior Can Change in Three Ways. There are only a small number of mechanisms by which the behavior of market actors can be changed to lead to market effects. We classify the ways that utility energy-efficiency programs may alter the behavior of market actors based on a simple model of human behavior, which holds that, in order to make a choice, an actor must: (a) be able to make the choice; (b) be aware that the choice is available; and (c) either believe that the choice is in his or her own best interest or believe that the choice is the right thing to do. This model suggests the following ways that utility energy-efficiency programs may change the behavior of market actors:

- *Changes in options.* Utility energy-efficiency programs can create new options (for example, by accelerating the development of new technologies) or by eliminating old ones (for example, by accelerating the development or enforcement of new codes and standards.)
- *Changes in incentives.* We include not only direct financial incentives such as rebates but an entire array of incentives. For example, if dealers perceive that an appliance rebate program has increased customer demand for efficient appliances, they may find themselves facing a new incentive to stock more efficient units.

CHAPTER 2

- *Changes in knowledge, awareness, attitudes, including moral suasion.* This category is largely self-explanatory. Moral suasion involves changing a market actor's values by causing the actor to believe that some energy-related behaviors are more “normal” or ethical than others.²³

Market Effects Are Interactive. Market effects are inherently interactive; behavioral changes among one set of market actors often lead to behavioral changes for another set. Markets generally consist of a large number of individuals pursuing their self-interest in a more or less (perhaps, boundedly) rational fashion. Because systematic and large-scale changes in the behavior of one set of market actors are likely to change the manner in which other sets of market actors must behave in order to optimize their self interests, market effects are likely to beget further market effects. This iterative process continues until a new, stable pattern of market-oriented behavior is reached. Usually, when commentators discuss the market effects of utility energy-efficiency programs, they refer to the causal sequence of specific market effects that leads to a new pattern of market-oriented behavior. In relation to Table 2-1, this process can be viewed as a sequence of events in which the specific market effects listed under each category of “market actor” cause market effects listed under other categories. For example, changes in customer purchasing behavior may lead to changes in dealer pricing, promotion and stocking, which may, in turn, lead to changes in the way manufacturers design, price, or ship products. In Chapter 3, we formalize these relationships using “market influence diagrams.”

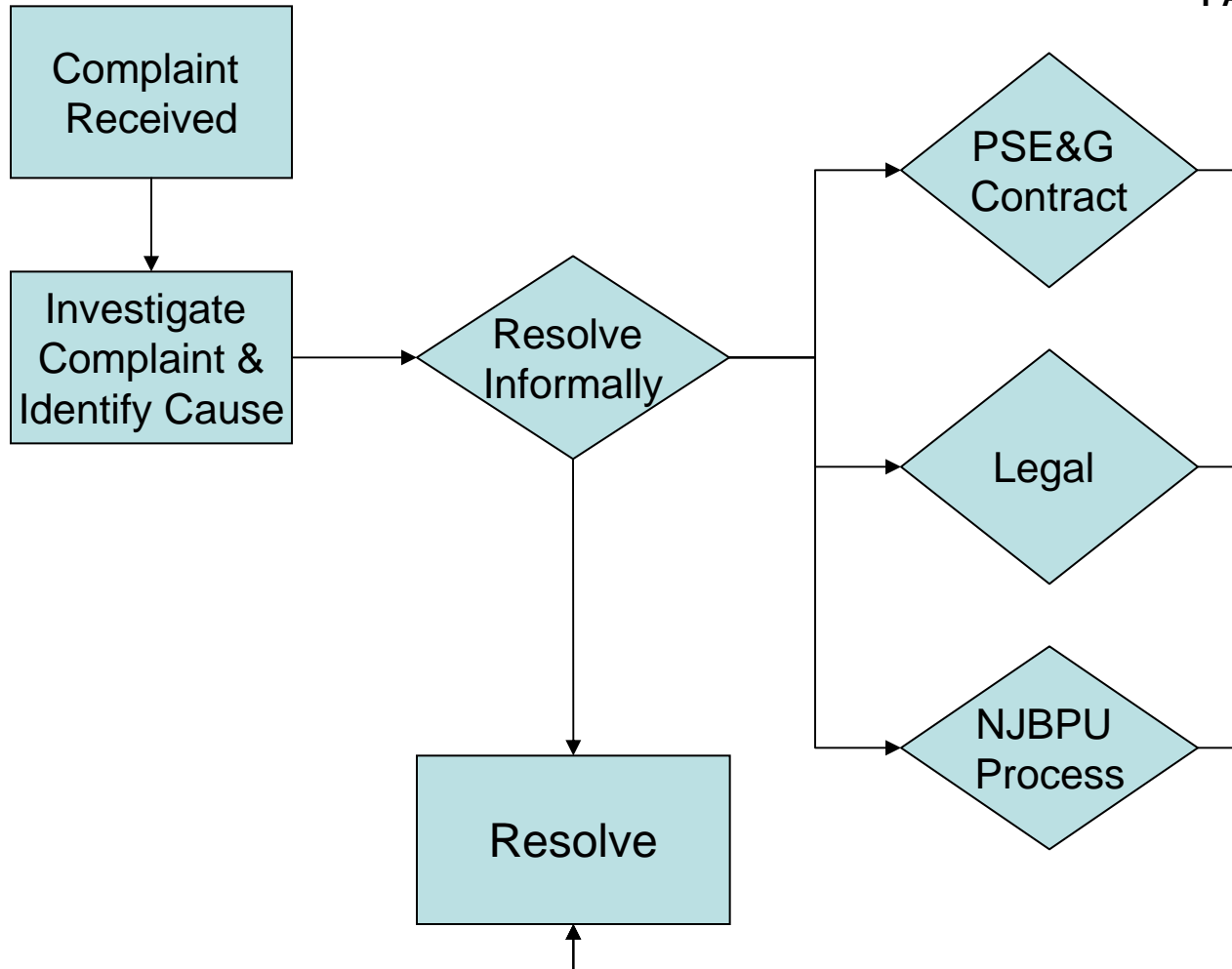
Lasting Market Effects? Market effects can be transient or lasting, depending on whether the behavioral change leading to a market effect lasts after the intervention is withdrawn. Much ink has been spilled over the issue of whether and how long the market effects of utility energy-efficiency programs can be expected to last. We suggest some tentative answers to this question in Chapter 3. For now we limit ourselves to a few key observations that follow from the previous points. The first is that, if the overall process by which a utility energy-efficiency program affects the market can be described in a causal sequence of specific behavioral changes on the part of various market actors, then the behavioral changes that are posited as coming before the end of this sequence are, by definition, not lasting. Second, whether the behavioral changes that are posited as coming at the end of the sequence can be regarded as lasting is largely a matter of whether a case can be made that, once the program is withdrawn, there are no obvious incentives (i.e., unaddressed or new market barriers) present that would cause behavior to revert to the original “pre-intervention” scenario.

²³ In theory, we believe moral suasion could be a powerful mechanism for influencing energy-efficiency markets, although one that may be difficult to employ. In recent practice, for example, utilities have largely avoided moral suasion as a marketing approach. We therefore focus in the remainder of this chapter on changes in options, changes in incentives, and changes in knowledge, awareness or attitudes.

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Table 2-1. List of Market Effects Potentially Attributable to Utility Energy-Efficiency Programs

<p>Customers</p> <p>Change in purchasing energy-efficiency behavior due to change in:</p> <ul style="list-style-type: none"> -- awareness -- attitudes -- knowledge -- decision-making processes <p>Other Businesses includes retail providers (such as equipment vendors, material suppliers, and builders/contractors), wholesale distributors, nonfinancial intermediaries (such as design professionals and auditors), and financial intermediaries (such as banks and other lending institutions)</p> <p>Changes in promotional practices (all)</p> <p>Changes in business strategies (all)</p> <p>Changes in prices offered to customers (all)</p> <p>Creation of new players (all)</p> <p>Changes in stocking and distribution practices (retail providers and wholesale distributors)</p> <p>Changes in design practices (design professionals)</p> <p>Changes in service offerings (all)</p> <p>Changes in the nature and type of employee compensation (all)</p> <p>Changes in contract provisions (all)</p> <p>Development of new skills (all)</p> <p>Changes in underwriting practices (financial intermediaries)</p> <p>Development of new financial instruments (financial intermediaries)</p> <p>Development of secondary financial markets for energy efficiency (financial intermediaries)</p> <p>Manufacturers</p> <p>Changes in product quality</p> <p>Changes in product attributes</p> <p>Development of new products</p> <p>Changes in promotion</p> <p>Changes in business strategies</p> <p>Changes in prices offered to retailers</p> <p>Changes in shipping and distribution practices</p> <p>Changes in retooling rates</p> <p>Changes in bundling of features</p> <p>Changes in production schedule and quantity (<i>amounts</i> produced)</p> <p>Changes in warranties</p> <p>Building of new plant</p> <p>Acceleration of response to oncoming standards</p> <p>Government</p> <p>Changes in codes, standards, or regulations</p> <p>Changes in enforcement of codes, standards, and regulations</p>
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PSE&G Standard Terms and Conditions

Proprietary and Confidential

PSEG SERVICES CORPORATION
80 Park Plaza
Newark, New Jersey 07102

SUPPLY CHAIN MANAGEMENT

**AGREEMENT FOR
CONSULTING SERVICES**

BETWEEN

PSEG SERVICES CORPORATION

And

DATED:

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THIS AGREEMENT (the “Agreement”), effective as of _____ (the “Effective Date”), is made by and between PSEG SERVICES CORPORATION, on behalf of itself, its parent, subsidiaries, affiliates, successors and assigns, now existing or hereafter created, having its principal office located at 80 Park Plaza, Newark, New Jersey 07102 (hereinafter “Company”), and _____, with its principal office located at _____ (hereinafter “Consultant”). Company and Consultant may be referred to as a “Party” and collectively referred to as the “Parties.”

WHEREAS, Company wishes to secure certain services involving consulting, advice, guidance, opinions, services, or other work, and including all data, documents, items or deliverables to be provided in accordance with the terms and conditions of this Agreement, as more specifically set forth in Exhibit A – Statement of Work and/or corresponding Purchase Order (“Work”); and

WHEREAS, Consultant is qualified, able and willing to provide the Work, subject to the terms and conditions of this Agreement;

NOW, THEREFORE, in consideration of the promises and the mutual covenants and premises contained in this Agreement, the Parties agree as follows:

1. INTERPRETATION

1.1 Agreement Documents. The Agreement shall consist of this executed document and attached exhibits, together with all Purchase Orders or changes to the Purchase Orders covering the Work to be performed hereunder and any other documents incorporated by reference. A Purchase Order is a written document, signed by the Parties, or at a minimum, signed by an authorized Company representative, more specifically describing the services to be performed.

1.2 Order of Precedence. In the event of any conflict among the terms of the Agreement documents, the order of precedence shall be: any special terms and conditions contained in a Purchase Order, this Agreement, then the General Terms and Conditions on the back of the Purchase Order. The Company’s good faith interpretation of the Agreement shall govern in the event of any disagreement as to the meaning or intent of the Agreement documents.

2. CONSULTANT REPRESENTATIONS

2.1 Personnel. Consultant represents that it is fully and properly experienced, qualified, licensed, organized, equipped, insured and financed to provide the Work, and that its employees and subcontractors are experienced, qualified, competent, reliable and trustworthy. All personnel who will be performing the Work shall be acceptable to the Company. The Consultant shall not substitute personnel assigned to the Work without the Company’s prior written approval. The Company reserves the absolute right to deny any individual or entity access to the Company’s property.

- 2.2 Background Checks.** Prior to the start of any Work that may involve Consultant's unescorted access to a Company facility or information network system, Consultant shall be responsible for completing background checks on any applicable employee or agent. Consultant shall submit a letter for Company approval certifying as to each individual with unescorted access that it has performed the requisite background checks and will continue to comply with this requirement to the Company contact set forth in Section 15 - Notices of this Agreement. Minimum background check requirements include, but are not limited to: social security verification, seven (7) year criminal history and state criminal record checks, and government watch list searches. Should the Consultant engage a subcontractor to perform any portion of the Work, the same conditions shall apply to the subcontractor, and Consultant shall be responsible for compliance with regard to the subcontractor.
- 2.3 Compliance with Laws and Required Authorizations.** The Consultant shall not violate any laws or regulations in the performance of the Work and has all necessary authorizations, approvals and consents to perform such Work. Consultant shall defend, indemnify and hold harmless the Company against any actual or alleged violation of said laws or regulations or failure to obtain authorizations, except where violation or failure is due to the Company's sole negligence or intentional misconduct.
- 2.4 Independent Contractor.** Consultant's status shall be that of Independent Contractor, and the Consultant shall not, for any reason or purpose, be deemed to be an agent, partner or employee of the Company and shall not represent that it is authorized to act in representative capacity as regards the Company. Consultant shall have full responsibility for all withholding, payroll or other taxes of any kind arising out of the Work. Company shall rely on the organization, management, skill, cooperation and efficiency of the Consultant to provide the intended Work conforming to the Agreement within the scheduled times. Consultant shall, at all times, be fully responsible for its acts or omissions, as well as those of its employees and subcontractors. Any general superintendence, inspection, review, coordination, monitoring or oversight by the Company or the exercise of any of the Company's rights under this Agreement shall not relieve the Consultant of any of its responsibilities under this Agreement.
- 2.5 Co-employment.** Consultant shall be the employer in law and in fact of all persons assigned to perform Work pursuant to this Agreement. Consultant shall take all necessary efforts and precautions to protect Company from co-employment status, including taking any and all steps necessary or prudent to ensure compliance with any laws, rules or regulations regarding co-employment. Consultant agrees to indemnify and hold Company, its parent, affiliates, divisions, subsidiaries, successors, assigns, directors, officers and employees harmless from any and all liabilities, damages, expenses, court costs, attorneys' fees, costs and any direct or consequential damages whatsoever resulting from any finding of co-employment with respect to any of its personnel having performed Work for the Company.

2.6 Equal Employment Opportunity/Affirmative Action / Employee Protection.

Consultant agrees that it is in compliance with all of the laws and Executive Orders prohibiting discrimination, where applicable, including, but not limited to, Title VII of the Civil Rights Act of 1964 as amended, the Civil Rights Act of 1991, 42 U.S.C. 2000(e), et seq., and all New Jersey Laws against discrimination, N.J.S.A. § 10:5-1. Consultant confirms that its facilities are not segregated, that it does not discriminate against its employees or employment applicants because of race, color, religion, sex or national origin and that it takes affirmative action to ensure that applicants are employed, and treated during employment, without regard to their race, color, religion, sex or national origin. Where applicable, Consultant also complies with the Equal Opportunity Clauses (41 C.F.R. § 60-1.4), the Equal Opportunity Clause for Workers with Disabilities (41 CFR § 60 - 741.5), and the Equal Opportunity Clause for Veterans of the Vietnam Era (41 CFR § 60-250.5), which are incorporated herein by reference. Additionally, Consultant complies with 29 CFR, part 470, where applicable.

3. COMPANY COVENANTS

3.1 Company Information. Any documents, reports or information provided to the Consultant shall be for informational purposes only, unless stated otherwise in a written document signed by an authorized Company representative.

4. CONSULTANT COVENANTS

Consultant agrees to accept, receive or hold information, whether in oral, written or physical form, which is confidential or proprietary, in the manner set forth in that certain separate Confidentiality and Non-Disclosure Agreement executed between the Parties on _____, the terms of which shall survive any termination or expiration of this Agreement.

4.1 Conflicts of Interest. Consultant shall not undertake to perform any services for other persons or entities that will prevent Consultant from performing the Work to be provided to Company. Consultant shall not enter into any business relationship, engage in any commercial transaction, or take part in any proceeding, legal or otherwise, that creates a conflict of interest or impropriety. Where a potential conflict of interest or impropriety exists, Consultant shall promptly disclose and discuss said conflict or impropriety with Company..

4.2 Insurance. Prior to the start of any Work, Consultant shall, at its own expense, procure and maintain until final completion and acceptance of the Work the following minimum insurance in forms and with insurance companies acceptable to the Company. Further, prior to start of Work, Consultant shall deliver to PSEG Supply Chain Management the Certificates of Insurance evidencing that the coverage set forth below is in effect:

- A. Workers' Compensation Insurance in accordance with statutory requirements and Employer's Liability Insurance with a minimum limit of \$500,000 per each occurrence where the Consultant's employees will be performing the Work on the Company's premises.
- B. Comprehensive General Liability Insurance (occurrence form) including Premises, Contractual Liability, Products Liability, Completed Operations, Independent Consultants, and Broad Form Property Damage with Bodily Injury limits of \$1,000,000 per each occurrence and Property Damage limits of \$1,000,000 per each occurrence.
- C. Comprehensive Automobile Liability Insurance including coverage for all owned, non-owned and hired automobiles used by the Consultant in the performance of the Work with Bodily Injury limits of \$1,000,000 per each occurrence and Property Damage limits of \$1,000,000 per each occurrence.
- D. Umbrella and/or Excess Liability Insurance with a minimum of \$10,000,000 per each occurrence to apply in excess of coverage outlined in Employer's Liability, Commercial General and Commercial Automobile coverage above, which are scheduled as primary.
- E. Professional Liability Insurance with a minimum limit of \$1,000,000 per claim, where the Work involves providing an design, architectural or engineering services, construction management services, environmental or subsurface investigations, or in any case where the Work is of a nature where professional liability insurance is usually and customarily required or expected to be carried.

4.2.1 Additionally Insured. All coverage under Sections B, C and D above shall name the Company, its parent, divisions, affiliates, subsidiaries and assigns, and entities thereof, as an additional insured to support the contractual obligations assumed by the Consultant in acceptance of this Agreement and provide that this coverage is primary and without right of contribution from insurance carried by the Company. The Company shall have the right, at its option, to require Consultant to provide certified copies of all insurance policies evidencing the coverage required by this Section.

4.2.2 Waiver of Subrogation. All coverage shall provide a waiver of subrogation stating: "It is agreed that in no event shall this Consultant or its insurers have any right of recovery against the Company, its parent affiliates, owners, directors or officers."

4.2.3 Insurance Alteration Notification. Consultant shall provide at least thirty days notice to the Company of any cancellation, termination or material alteration of said insurance. Where applicable, the Certificates of Insurance shall be submitted annually for at least two years after completion of the Work showing completed operations coverage is in effect.

4.2.4 Third Party Claims. The insurance requirements set forth above are to fully protect the Company from claims by third parties, including employees of the Consultant, its agents, subcontractors and invitees, whether due in part to any actual or alleged fault or negligence by the Company. Said insurance, however, is in no manner to relieve or release Consultant, its agents, subcontractors and invitees from, or limit their liability as to any and all obligations assumed under this Agreement.

4.2.5 Subrogation. Consultant agrees that Consultant, its insurers and any person or entity claiming by, through, under or on behalf of Consultant shall have no claims, rights, causes of action or rights of subrogation against the Company or its officers, directors, employees, shareholders or joint owners based on any risks, losses or liabilities insured against under the insurance coverage required under this Agreement.

4.2.6 Additional Insurance. The Company shall have the right to require additional insurance to that requested above after the Work has commenced. If the Company requests additional insurance after Work has commenced, Consultant agrees to immediately furnish such additional insurance.

4.2.7 Cost of Insurance. The premium cost of insurance coverage required under this Agreement shall be borne solely by the Consultant and provided at no cost to the Company. In those instances where the Company requests additional insurance during the Term of this Agreement, the increase in premium cost from that listed above shall be borne by the Company exclusive of any markup or profit above the increased premium cost.

4.2.8 Subcontractors. Should the Consultant engage a subcontractor, the same conditions applicable under these insurance requirements shall apply to such subcontractor.

4.3 Reporting Minority and Women Owned Business Enterprises (“MWBE”). The Company is committed to increasing the amount of business placed with MWBE firms. The Consultant is encouraged to utilize MWBE firms wherever possible in connection with providing the Work. If the Consultant elects to utilize an MWBE business in connection with the Work, the Consultant shall notify the Company thereof, specifying in such notice *(i)* the name of the MWBE business, *(ii)* whether or not such business is certified as a minority or women-owned business by a certifying agency and if so, the name of the certifying agency, *(iii)* the services provided to the Consultant, and *(iv)* the amount paid for the Work.

4.4 Standards of Integrity. In the performance of any activities related to the Work, Consultant, and its employees, shall adhere at all times to the provisions contained in PSEG's Standards of Integrity, which can be found on its website, www.pseg.com/integrity or in booklet form upon request. In conjunction therewith,

Consultant and its employees may be required to complete a Certification of Compliance if they are deemed to be involved in duties related to procurement activities, such as the selection or evaluation of bidders; contract administration activities; or, have access to what the Company regards as confidential information.

5. PERFORMANCE OF WORK

5.1 Changes and Extras. Company shall have the right during the progress of the Work to order extra Work and to make alterations, additions, omissions, deletions, modifications, changes or departures in the scope, schedule, sequence, method or performance of the Work, or make any other changes without invalidating this Agreement, and Consultant shall effect all such changes. If said changes increase or decrease the cost of the Work, the compensation will be adjusted accordingly on a prorated basis. The Consultant shall not perform extra Work nor incur any extra cost or expense unless a written request for said extra Work, cost or expense shall have been obtained from the Company prior to the performance of such extra Work or incurring any extra cost or expense.

5.2 Company Option to Accept Defective/Non-Conforming Work. (a) The Company may, at its sole discretion but without any duty or obligation, accept defective Work, or Work that does not strictly conform to the Agreement. In such event, payment shall be reduced by the reasonable costs to the Company of removing and correcting such defective/non-conforming Work, regardless of whether final payment has been made or the defective/non-conforming Work be replaced or corrected. The Company may use such reduction of costs as a credit to remedy the foregoing at a time and in a manner that is convenient to the Company.

Work Schedule. The Consultant shall keep the Company advised as to the progress and schedule of the Work. The Company shall have the right to require Consultant to provide a schedule. Where the Consultant believes the occurrence of any event or any act or omission by any person or entity (including by the Company or its employees or others) will or may delay the Work or increase the cost, the Consultant shall provide verbal notification to be followed by written notice to the Company within three business days of the occurrence of said event, act or omission. Said written notice shall specify the nature and cause of the actual or potential delay, cost or expense increase to the Work, as well as the expected length of delay or expected increase in cost or expense. Consultant shall at all time's conduct it's Work and cooperate with all others so as to mitigate any possible interference with the Company's operations.

5.4 Suspension of Work. The Company shall at all times have the right, without cost, expense or prejudice to any other of its rights or remedies, to temporarily suspend the performance of the Work, in whole or in part, for its convenience by giving written notice to the Consultant. The written notice shall state the extent, effective date and expected duration of the suspension.

5.5 Safety. The Consultant shall protect the safety of persons and property in the performance of the Work, and Consultant shall defend, indemnify and hold harmless

the Company against any actual or alleged personal injury or property damage arising out of the Consultant's performance of the Work except where due to the Company's sole negligence or intentional misconduct.

6. OWNERSHIP OF WORK

6.1 Ownership of Work. All Work shall constitute works made for hire, and the ownership of such Work, including all copyrights, patents or other intellectual property rights shall be vested in the Company. Where the Consultant has preexisting copyrights, patents or other intellectual property rights that are provided as part of the Work, the Company shall have a perpetual, royalty-free, non-exclusive license to use the Work, including any derivative works developed by the Company.

6.2 Exclusivity. The Parties acknowledge that Consultant's Work for the Company is provided on a non-exclusive basis and that Consultant is free to provide services to other persons or entities provided said services to other persons or entities do not create a conflict of interest or appearance of impropriety (as detailed in Section 4 – Conflicts of Interest), or do not interfere with Consultant's satisfactory and timely performance of the Work.

7. PAYMENTS AND INVOICING

7.1 Payments. The terms and amount of payment shall be in accordance with Exhibit B – Payment Schedule, or in accordance with a Purchase Order.

7.2 Invoicing. Unless otherwise specified herein, Consultant shall provide Company with one monthly bill for all Work. Company will not be obligated to pay Consultant if an invoice is received more than sixty (60) calendar days after any Work has been performed. Each invoice shall include a description of the task performed as part of the Work and the time spent for each task.

7.3 Reimbursement for Inappropriate Payments/Setoff. If at any time the Company has been overcharged under this Agreement, the Company shall be entitled to a refund, setoff, or withholding. Any payments made by the Company for the Work performed by unqualified persons or entities shall be reimbursed to the Company. All claims for money due or which becomes due from the Company shall be subject to deduction or setoff by the Company by reason of any claim arising out of this Agreement or any other transaction with Consultant.

7.4 Acceptance and Waiver. Consultant's acceptance, by endorsement or otherwise, of final payment shall constitute a waiver of any Claim against the Company except for those pending Claims previously made in writing, in accordance with this Agreement, to the Company. No payment or acceptance, final or otherwise, shall constitute acceptance by the Company of defective or otherwise non-conforming Work.

7.5 Taxes. To the extent the Work under this Agreement may be either exempt from taxation under the New Jersey Sales and Use Tax Law, or taxable to the Company, the Company shall issue the necessary exemption and direct payment certificates to Consultant, as appropriate. In no event, however, shall the Company be responsible, or reimburse Consultant, for any corporate franchise, net income, or local taxes imposed upon it for the general privilege of doing business.

8. DELAYS AND EXTENSIONS OF TIME

8.1 Time Of The Essence. Time is of the essence as to the observance, performance, and fulfillment of Consultant's duties, obligations, and responsibilities to the Company.

8.2 Extensions of Time. The Project schedule shall only be changed for the following causes, and then only to the extent such causes are unforeseeable and beyond Consultant's reasonable control: (i) if Consultant is delayed at any time in the progress of the Work by an improper act or neglect of the Company, (ii) by material changes ordered in the Project by the Company that cause an actual delay, (iii) acts of God (such as tornado, hurricane, flood, etc.), (iv) strikes, lockouts and other unexpected labor disturbances, civil disorders, acts of terrorism, acts of civil or military authority or (v) unusually severe and unfavorable weather conditions. In all such above-referenced events, the Work shall be extended by the Company in writing for such amount of time as the Company reasonably determines is necessary to compensate for such delay, but only if all the following conditions are satisfied:

- (i) the delay relates to an activity that, during the period of delay, is deemed by the Company to be a critical component of the Project and is not reasonably susceptible to being made up;
- (ii) within 48 hours after Consultant becomes aware of the event or condition causing the delay, Consultant delivers Notice to the Company describing in detail such event or condition and the actual delay expected to result from said cause; and
- (iii) Consultant has provided the Company with all updated schedules required by this Agreement and has made available all pertinent documentation requested by the Company relating to the delay or request for extension.

8.2.1 Compensation. No change in Consultant's compensation or payment shall be made by reason of a request for extension of time.

9. AUDIT RIGHTS

Consultant shall keep a detailed account of all costs necessary for proper financial management with a system in accordance with Generally Accepted Accounting Procedures, consistently applied. Consultant shall keep daily time sheets, including number of hours worked and a description of the Work performed. Maintaining proper records shall not relieve Consultant of

its responsibility to properly document all invoices submitted for payment. Company, including its agents or employees, shall, at all times, have timely access to all of Consultant's books, vouchers, memoranda, records, data and other documents relative to the Work for inspection, audit or reproduction. Any audit conducted by the Company shall be at the Company's expense except that if it is determined that Consultant incorrectly charged the Company, the Consultant shall be liable to the Company for all charges, including the amount of the overcharge or incorrect charge and cost of audit or other investigation. Under no circumstances shall the Company be liable for the cost of record retention, retrieval or production.

10. LIENS

In consideration of any payments made to Consultant, Consultant waives any lien rights against the Company and shall immediately defend, indemnify and hold harmless the Company against any liens or lien claims and discharge any liens or lien claims brought against the Company premised upon the Consultant's actual or alleged nonpayment of subcontractors or suppliers of any tier.

11. WARRANTY

Consultant shall provide all Work with a high degree of care, skill, diligence, professional knowledge, judgment and expertise, according to sound work practices and accepted professional and industry standards, in a well-managed, organized and efficient manner, and to the entire satisfaction of the Company. Consultant warrants that all Work provided by the Consultant shall be of high quality, free from any defects, suitable for the purposes for which it was intended, complies with all applicable laws, regulations, standards and codes; does not violate any patent, copyright, trade secret or other proprietary interests; and otherwise fully conforms in all respects to the Agreement. Consultant shall promptly correct or re-perform nonconforming Work at the Company's request at no charge.

12. LIMITATION OF LIABILITIES

THE COMPANY'S TOTAL LIABILITY TO THE CONSULTANT FOR ALL CLAIMS OR SUITS OF ANY KIND, WHETHER BASED UPON AGREEMENT, TORT (INCLUDING NEGLIGENCE), WARRANTY, STRICT LIABILITY, OR OTHERWISE, FOR ANY LOSSES, DAMAGES, COSTS OR EXPENSES OF ANY KIND WHATSOEVER ARISING OUT OF, RESULTING FROM, OR RELATED TO THE PERFORMANCE OR BREACH OF THIS AGREEMENT SHALL, UNDER NO CIRCUMSTANCES, EXCEED THE AGREEMENT PRICE, AS MAY BE AMENDED IN WRITING. THE COMPANY SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL LOSSES, DAMAGES, COSTS OR EXPENSES WHATSOEVER. ANY ACTION AGAINST THE COMPANY ARISING OUT OF, RESULTING FROM OR RELATED TO THE PERFORMANCE OR BREACH OF THIS AGREEMENT SHALL BE FILED NOT LATER THAN ONE YEAR AFTER THE CAUSE OF ACTION HAS ACCRUED.

13. INDEMNIFICATION

Consultant hereby agrees to indemnify, save and hold harmless the Company, as well as its affiliates, owners, directors, officers, employees and agents (each an “Indemnified Person”) from and against any and all claims, damages, losses and expenses, on an after-tax basis, including, without limitation, reasonable attorneys’ fees, disbursements, awards, fines and judgments imposed on, asserted against or incurred by any Indemnified Person in any way relating to, or arising out of, in connection with or resulting from the following: (i) any inaccuracy of any representation or warranty when made by the Consultant herein; (ii) any failure of Consultant to perform any covenant, obligation or agreement hereunder or under any related agreement; (iii) Consultant’s failure to pay any amounts that have become due and owing from Consultant to any Subcontractor or other entity; (iv) any and all claims that any item provided or used by Consultant infringes upon, misappropriates or violates a patent, copyright, or other intellectual property right or proprietary interest; (v) the death or bodily injury to persons, and; (vi) injury or damage to property, destruction of tangible property or the use thereof, to the extent caused by any negligent act or omission, including, without limitation, negligent design, of Consultant, Consultant’s employees, agents, suppliers, subcontractors and/or anyone for whose acts the Consultant may be liable. This indemnification shall survive the expiration or sooner termination of this Agreement.

14. TERM AND TERMINATION

14.1 Term. The term of this Agreement shall commence on the Effective Date set forth above and end one year from the Effective Date (the “Term”), at which time all Work will conclude, unless the Term is extended by mutual written agreement by the Parties. This Agreement, however, is subject to earlier termination by Company, at its discretion, with or without cause, upon prior written notice to Consultant as set forth herein.

Termination. The Parties acknowledge that the nature of consulting services in general, as well as the Work to be performed hereunder, are personal services involving personal satisfaction with a high degree of subjectivity and individual judgment. As such, the Company shall have the absolute right and discretion to terminate this Agreement based upon its judgment, with or without cause. However, the Company shall give seven days prior written notice to the Consultant of its election to terminate, at which time any fees and expenses due and owing to the Consultant under this Agreement shall be invoiced. On the effective date of Termination pursuant to this Section, Consultant shall: stop the terminated Work on the date, and, to the extent specified in the Notice of termination, place no further orders or Subcontracts except as may be (A) required to complete portions of the Work not terminated, or (B) directed by the Company; perform, at rates or on terms not to exceed those in this Agreement, any incidental or “close-out” work necessary, as directed by the Company, to ensure that the Company receives the full use and benefit of any Work provided prior to termination, including the provision of any and all information or documentation; to the extent possible, transfer title and possession of all terminated Work, either partially or completely performed,

and complete all Work, if any, that was not terminated, provided, however, that such transfer shall not constitute acceptance of non-conforming Work; execute and deliver all such papers and take all such steps, including the legal assignment of Consultant's contractual rights, as Company may request, for the purpose of fully vesting in it the rights and benefits of the Consultant under such obligations or commitments; promptly comply with the Company's instructions and continue to perform and fully complete all Work that has not been terminated; and keep the Company fully informed about all actions taken or intended to be taken as a result of the termination.

15. MISCELLANEOUS

15.1 Advertising. Consultant or its employees or agents shall not use the Company's name, photographs, logo, trademark or other identifying characteristics or that of any of Company's subsidiaries or affiliates without Company's prior written approval.

Assignment. Consultant shall not subcontract or otherwise assign its rights or obligations under this Agreement or any part thereof to any other person or entity without the prior written consent of the Company.

Notices. All notices or other communications required or permitted under this Agreement shall be in writing and shall be deemed to have been duly given if delivered by electronic transmission, overnight delivery service or personally, otherwise any such notice or other communication shall be deemed to have been duly given five days after mailing if sent by certified or registered mail, return receipt requested. Any and all notices shall be addressed as follows:

If to Company: Vice President – Supply Chain Management
PSEG Services Corporation
80 Park Plaza, T6
Newark, New Jersey 07102
Telephone: 973-430-5454
Fax: 973-596-9201

Copy to: *[Client, address, telephone & fax]*

If to Consultant: _____

Telephone: _____
Fax: _____

Any Party may change the address to which notices or other communications are to be sent to it by giving written notice of such change in the manner provided herein.

Waiver. Company's failure to insist in any one or more instances upon strict performance of any provision of the Agreement, or failure or delay to take advantage of any of its rights or remedies hereunder, or failure to notify Consultant of any breach, violation or default, shall not be construed as a waiver by Company of any such performance, provision, right, breach, violation or default, either then or for the future. Any waiver shall be effective only if in writing and signed by Company's authorized representative, and only with respect to the particular case expressly covered in that writing.

15.5 No Third Party Beneficiaries. The Parties to this Agreement are the only Parties to this Agreement, and there are no third party beneficiaries to this Agreement.

15.6 Law and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey, without regard to principles governing conflict of laws, and any claims or suits arising out of this Agreement shall be litigated in New Jersey. If Consultant does not have a registered agent located in New Jersey, Consultant consents, in the event a suit is filed, to service by registered mail, return receipt requested, upon any corporate officer at its principal place of business or registered office. The Parties agree that prior to commencing any legal action relating to or arising from this Agreement and/or the underlying transaction, the Parties will attempt in good faith to resolve any issues by discussions and negotiations to be agreed upon by the Parties.

15.7 Headings. The headings assigned to the Articles of this Agreement are for convenience only and shall not limit the scope and applicability of the Articles.

15.8 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall constitute an original, but all of which together shall constitute one instrument.

15.9 Prevailing Wage Act. All labor provided by or on behalf of the Consultant in connection with work on Projects that qualify as a "public work" under the New Jersey State Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq. (the "Act"), shall be performed by union craft or will be provided in compliance with all aspects of the Act. All Labor provided by or on behalf of the Consultant in connection with work on Projects that do not qualify as a "public work" as defined by the Act, shall be performed by union craft paid in accordance with the union contract or by non-union employees paid at a rate equivalent of the prevailing wages for the county in which the work is to be performed. Contractor shall require the same of all subcontractors.

15.10 Entire Agreement. This Agreement constitutes the full, complete and only agreement between the Parties hereto with respect to the Work. This Agreement supercedes any course of performance, course of dealings, usage of trade, previous agreements, representations and understandings, either oral or written. No terms, conditions, agreements, representations, understandings, course of performance,

course of dealing or usage of trade purporting to modify, vary, supplement, expand or amend any provisions of this Agreement shall be effective unless in writing, signed by a Company representative authorized to amend this Agreement. Only corporate officers and procurement analysts are authorized to execute documents on behalf of the Company.

WHEREFORE, the Parties hereto have caused this Agreement to be executed by their duly authorized agents.

PSEG SERVICES CORPORATION

By: _____
(Signature)

By: _____
(Signature)

Name: _____
(Printed)

Name: _____
(Printed)

Title: _____

Title: _____

Date: _____

Date: _____

EXHIBIT A

STATEMENT OF WORK

Insert a description of the work to be done

**EXHIBIT B
PAYMENT SCHEDULE**

Insert outline of various rates and/or flat rate pricing

For Work performed on a time and expense basis, the hourly rate(s) specified in the Agreement shall incorporate all overheads, and Company shall not be billed for word processing, computer, and secretarial or clerical time. Company shall reimburse Consultant for necessary photocopying, toll calls, fax transmissions, mailing, or other costs as may be approved by the Company in advance. Travel expenses, meals, and accommodations shall not be charged to the Company unless agreed to prior to any such expense being incurred. No commuting expenses shall be charged to the Company.

PSE&G Energy Efficiency Economic Stimulus Program
Budgets and Repayments - Electric

(dollars)

Projected Direct Program Costs

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
<i>Projected Program Investments</i>										
Residential Whole House Efficiency		5,000,000	10,000,000							
Multi-Family Housing		5,000,000	10,000,000							
Small Business Direct Installation		6,000,000	12,000,000							
Municipal Direct Installation		10,500,000	21,000,000							
Hospital Efficiency		7,000,000	14,000,000							
Data Center Efficiency		3,200,000	6,400,000							
Building Commissioning/O&M		400,000	800,000							
Technology Demonstration		2,400,000	4,800,000							
Total Projected Program Investments		39,500,000	79,000,000	-	-	-	-	-	-	-

Cumulative Total Projected Program Investments: 118,500,000

Capitalized IT Costs

Residential Whole House Efficiency	271,085
Multi-Family Housing	271,084
Small Business Direct Installation	325,301
Municipal Direct Installation	569,277
Hospital Efficiency	379,518
Data Center Efficiency	173,494
Building Commissioning/O&M	21,687
Technology Demonstration	130,120
Total Capitalized Costs	2,141,566

Cumulative Total Capitalized Costs: 2,141,566

Administrative Costs:

Residential Whole House Efficiency	589,609	1,179,218	128,765
Multi-Family Housing	589,609	1,179,218	128,765
Small Business Direct Installation	707,531	1,415,061	154,518
Municipal Direct Installation	1,238,179	2,476,358	270,407
Hospital Efficiency	825,452	1,650,905	180,271
Data Center Efficiency	377,349	754,699	82,410
Building Commissioning/O&M	47,169	94,337	10,301
Technology Demonstration	283,012	566,024	61,808
Total Administrative Costs	4,657,910	9,315,820	1,017,245

Cumulative Total Administrative Costs: 14,990,975

Program Investment Repayments:

Residential Whole House Efficiency	64,491	812,582	1,322,058	580,416	6,449	-				
Multi-Family Housing	34,722	437,500	746,528	750,000	750,000	750,000	715,278	312,500	3,472	
Small Business Direct Installation	83,333	1,050,000	1,708,333	750,000	8,333	-	-	-	-	
Municipal Direct Installation	145,833	1,837,500	2,989,583	1,312,500	14,583	-	-	-	-	
Hospital Efficiency	41,667	525,000	895,833	858,333	375,000	4,167	-	-	-	
Data Center Efficiency	-	-	-	-	-	-	-	-	-	
Building Commissioning/O&M	-	-	-	-	-	-	-	-	-	
Technology Demonstration	-	-	-	-	-	-	-	-	-	
Total Program Investment Repayments	370,046	4,662,582	7,662,336	4,251,249	1,154,366	754,167	715,278	312,500	3,472	

Cumulative Total Program Investment Repayments: 19,885,996

PSE&G Energy Efficiency Economic Stimulus Program
Budgets and Repayments - Gas

(dollars)

Projected Direct Program Costs

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
<i>Projected Program Investments</i>										
Residential Whole House Efficiency		3,333,333	6,666,667							
Multi-Family Housing		3,333,333	6,666,667							
Small Business Direct Installation		666,667	1,333,333							
Municipal Direct Installation		1,166,667	2,333,333							
Hospital Efficiency		4,666,667	9,333,333							
Data Center Efficiency		800,000	1,600,000							
Building Commissioning/O&M		266,667	533,333							
Technology Demonstration		<u>1,600,000</u>	<u>3,200,000</u>							
Total Projected Program Investments	-	15,833,333	31,666,667	-	-	-	-	-	-	-

Cumulative Total Projected Program Investments: 47,500,000

Capitalized IT Costs

Residential Whole House Efficiency	180,723
Multi-Family Housing	180,722
Small Business Direct Installation	36,145
Municipal Direct Installation	63,253
Hospital Efficiency	253,012
Data Center Efficiency	43,374
Building Commissioning/O&M	14,458
Technology Demonstration	<u>86,747</u>
Total Capitalized Costs	- 858,434

Cumulative Total Capitalized Costs: 858,434

Administrative Costs:

Residential Whole House Efficiency	393,073	786,145	85,843
Multi-Family Housing	393,073	786,145	85,843
Small Business Direct Installation	78,615	157,229	17,169
Municipal Direct Installation	137,576	275,151	30,045
Hospital Efficiency	550,302	1,100,603	120,181
Data Center Efficiency	94,338	188,675	20,602
Building Commissioning/O&M	31,446	62,892	6,868
Technology Demonstration	<u>188,675</u>	<u>377,350</u>	<u>41,205</u>
Total Administrative Costs	1,867,096	3,734,192	407,756

Cumulative Total Administrative Costs: 6,009,044

Program Investment Repayments:

Residential Whole House Efficiency	42,994	541,721	881,372	386,944	4,299	-	-	-	-
Multi-Family Housing	23,148	291,667	497,685	500,000	500,000	500,000	476,852	208,333	2,315
Small Business Direct Installation	9,259	116,667	189,815	83,333	926	-	-	-	-
Municipal Direct Installation	16,204	204,167	332,176	145,833	1,620	-	-	-	-
Hospital Efficiency	27,778	350,000	597,222	572,222	250,000	2,778	-	-	-
Data Center Efficiency	-	-	-	-	-	-	-	-	-
Building Commissioning/O&M	-	-	-	-	-	-	-	-	-
Technology Demonstration	-	-	-	-	-	-	-	-	-
Total Program Investment Repayments	119,383	1,504,221	2,498,270	1,688,333	756,846	502,778	476,852	208,333	2,315

Cumulative Total Program Investment Repayments: 7,757,331

**PSE&G Energy Efficiency Economic Stimulus Program
Estimated Program Costs by Year**

PSE&G Electric - 2009

Program	Total Estimated EEE Stimulus Expenditures	Administration & Program Development	Sales, Call Centers, Marketing and Website	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections, and Other Quality Control	Evaluation and Related Research
RESIDENTIAL PROGRAMS							
Residential Whole House Efficiency	\$5,589,609	\$277,199	\$255,181	\$57,229	\$4,518,073	\$481,928	\$0
Multi-Family Housing	\$5,589,609	\$277,199	\$255,181	\$57,229	\$4,518,073	\$481,928	\$0
Sub-Total: Residential Programs	\$11,179,219	\$554,399	\$510,361	\$114,458	\$9,036,145	\$963,855	\$0
COMMERCIAL & INDUSTRIAL PROGRAMS							
Small Business Direct Install	\$6,707,531	\$332,639	\$306,217	\$68,675	\$5,421,687	\$578,313	\$0
Municipal Direct Install	\$11,738,179	\$582,119	\$535,880	\$120,181	\$9,487,952	\$1,012,048	\$0
Hospital Efficiency	\$7,825,453	\$388,079	\$357,253	\$80,120	\$6,325,302	\$674,699	\$0
Data Center Efficiency	\$3,577,349	\$177,407	\$163,316	\$36,626	\$2,891,566	\$308,434	\$0
Retro-Commissioning O&M	\$447,169	\$22,176	\$20,414	\$4,578	\$361,446	\$38,554	\$0
Sub-Total: C&I Programs	\$30,295,681	\$1,502,420	\$1,383,080	\$310,180	\$24,487,952	\$2,612,048	\$0
TECHNOLOGY DEMONSTRATION PILOTS							
Technology Demonstration Pilots	\$2,683,012	\$133,056	\$122,487	\$27,470	\$2,168,675	\$231,325	\$0
Sub-Total: Technology Demonstration Pilots	\$2,683,012	\$133,056	\$122,487	\$27,470	\$2,168,675	\$231,325	\$0
TOTAL Energy Efficiency Programs	\$44,157,911	\$2,189,874	\$2,015,928	\$452,108	\$35,692,772	\$3,807,229	\$0

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Program Costs by Year

PSE&G Electric - 2010

Program	Total Estimated EEE Stimulus Expenditures	Administration & Program Development	Sales, Call Centers, Marketing and Website	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections, and Other Quality Control	Evaluation and Related Research
RESIDENTIAL PROGRAMS							
Residential Whole House Efficiency	\$11,179,218	\$554,399	\$510,361	\$114,458	\$9,036,144	\$963,855	\$0
Multi-Family Housing	\$11,179,218	\$554,399	\$510,361	\$114,458	\$9,036,144	\$963,855	\$0
Sub-Total: Residential Programs	\$22,358,435	\$1,108,797	\$1,020,723	\$228,916	\$18,072,289	\$1,927,711	\$0
COMMERCIAL & INDUSTRIAL PROGRAMS							
Small Business Direct Install	\$13,415,061	\$665,278	\$612,434	\$137,349	\$10,843,373	\$1,156,627	\$0
Municipal Direct Install	\$23,476,358	\$1,164,237	\$1,071,759	\$240,361	\$18,975,903	\$2,024,097	\$0
Hospital Efficiency	\$15,650,904	\$776,158	\$714,506	\$160,241	\$12,650,602	\$1,349,397	\$0
Data Center Efficiency	\$7,154,699	\$354,815	\$326,631	\$73,253	\$5,783,133	\$616,867	\$0
Retro-Commissioning O&M	\$894,337	\$44,352	\$40,829	\$9,157	\$722,891	\$77,109	\$0
Sub-Total: C&I Programs	\$60,591,359	\$3,004,840	\$2,766,159	\$620,361	\$48,975,903	\$5,224,097	\$0
TECHNOLOGY DEMONSTRATION PILOTS							
Technology Demonstration Pilots	\$5,366,024	\$266,111	\$244,973	\$54,939	\$4,337,349	\$462,651	\$0
Sub-Total: Technology Demonstration Pilots	\$5,366,024	\$266,111	\$244,973	\$54,939	\$4,337,349	\$462,651	\$0
TOTAL Energy Efficiency Programs	\$88,315,819	\$4,379,749	\$4,031,855	\$904,216	\$71,385,541	\$7,614,458	\$0

This schedule utilizes the NJCEP program reporting format to provide the estimated program costs required by RGGI Section II.h.

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Program Costs by Year

PSE&G Electric - 2011

Program	Total Estimated EEE Stimulus Expenditures	Administration & Program Development	Sales, Call Centers, Marketing and Website	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections, and Other Quality Control	Evaluation and Related Research
RESIDENTIAL PROGRAMS							
Residential Whole House Efficiency	\$128,765	\$0	\$0	\$0	\$0	\$0	\$128,765
Multi-Family Housing	\$128,765	\$0	\$0	\$0	\$0	\$0	\$128,765
Sub-Total: Residential Programs	\$257,530	\$0	\$0	\$0	\$0	\$0	\$257,530
COMMERCIAL & INDUSTRIAL PROGRAMS							
Small Business Direct Install	\$154,518	\$0	\$0	\$0	\$0	\$0	\$154,518
Municipal Direct Install	\$270,407	\$0	\$0	\$0	\$0	\$0	\$270,407
Hospital Efficiency	\$180,271	\$0	\$0	\$0	\$0	\$0	\$180,271
Data Center Efficiency	\$82,410	\$0	\$0	\$0	\$0	\$0	\$82,410
Retro-Commissioning O&M	\$10,301	\$0	\$0	\$0	\$0	\$0	\$10,301
Sub-Total: C&I Programs	\$697,907	\$0	\$0	\$0	\$0	\$0	\$697,907
TECHNOLOGY DEMONSTRATION PILOTS							
Technology Demonstration Pilots	\$61,808	\$0	\$0	\$0	\$0	\$0	\$61,808
Sub-Total: Technology Demonstration Pilots	\$61,808	\$0	\$0	\$0	\$0	\$0	\$61,808
TOTAL Energy Efficiency Programs	\$1,017,245	\$0	\$0	\$0	\$0	\$0	\$1,017,245

This schedule utilizes the NJCEP program reporting format to provide the estimated program costs required by RGGI Section II.h.

**PSE&G Energy Efficiency Economic Stimulus Program
Estimated Program Costs by Year**

PSE&G Gas - 2009

Program	Total Estimated Carbon Abatement Expenditures	Administration & Program Development	Sales, Call Centers, Marketing and Website	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections, and Other Quality Control	Evaluation and Related Research
RESIDENTIAL PROGRAMS							
Residential Whole House Efficiency	\$3,726,406	\$184,800	\$170,120	\$38,153	\$3,012,048	\$321,285	\$0
Multi-Family Housing	\$3,726,406	\$184,800	\$170,120	\$38,153	\$3,012,048	\$321,285	\$0
Sub-Total: Residential Programs	\$7,452,811	\$369,599	\$340,241	\$76,305	\$6,024,096	\$642,570	\$0
COMMERCIAL & INDUSTRIAL PROGRAMS							
Small Business Direct Install	\$745,281	\$36,960	\$34,024	\$7,631	\$602,410	\$64,257	\$0
Municipal Direct Install	\$1,304,242	\$64,680	\$59,542	\$13,353	\$1,054,217	\$112,450	\$0
Hospital Efficiency	\$5,216,968	\$258,719	\$238,169	\$53,414	\$4,216,867	\$449,799	\$0
Data Center Efficiency	\$894,338	\$44,352	\$40,829	\$9,157	\$722,892	\$77,108	\$0
Retro-Commissioning O&M	\$298,113	\$14,784	\$13,610	\$3,052	\$240,964	\$25,703	\$0
Sub-Total: C&I Programs	\$8,458,942	\$419,495	\$386,174	\$86,607	\$6,837,349	\$729,317	\$0
TECHNOLOGY DEMONSTRATION PILOTS							
Technology Demonstration Pilots	\$1,788,675	\$88,704	\$81,658	\$18,313	\$1,445,783	\$154,217	\$0
Sub-Total: Technology Demonstration Pilots	\$1,788,675	\$88,704	\$81,658	\$18,313	\$1,445,783	\$154,217	\$0
TOTAL Energy Efficiency Programs	\$17,700,428	\$877,798	\$808,072	\$181,225	\$14,307,228	\$1,526,104	\$0

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Program Costs by Year

PSE&G Gas - 2010

Program	Total Estimated Carbon Abatement Expenditures	Administration & Program Development	Sales, Call Centers, Marketing and Website	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections, and Other Quality Control	Evaluation and Related Research
RESIDENTIAL PROGRAMS							
Residential Whole House Efficiency	\$7,452,812	\$369,600	\$340,241	\$76,305	\$6,024,096	\$642,570	\$0
Multi-Family Housing	\$7,452,812	\$369,600	\$340,241	\$76,305	\$6,024,096	\$642,570	\$0
Sub-Total: Residential Programs	\$14,905,625	\$739,201	\$680,481	\$152,611	\$12,048,192	\$1,285,140	\$0
COMMERCIAL & INDUSTRIAL PROGRAMS							
Small Business Direct Install	\$1,490,563	\$73,920	\$68,048	\$15,261	\$1,204,819	\$128,514	\$0
Municipal Direct Install	\$2,608,485	\$129,361	\$119,085	\$26,707	\$2,108,433	\$224,899	\$0
Hospital Efficiency	\$10,433,937	\$517,440	\$476,337	\$106,827	\$8,433,734	\$899,599	\$0
Data Center Efficiency	\$1,788,675	\$88,704	\$81,658	\$18,313	\$1,445,783	\$154,217	\$0
Retro-Commissioning O&M	\$596,225	\$29,568	\$27,219	\$6,105	\$481,928	\$51,405	\$0
Sub-Total: C&I Programs	\$16,917,885	\$838,993	\$772,347	\$173,213	\$13,674,698	\$1,458,634	\$0
TECHNOLOGY DEMONSTRATION PILOTS							
Technology Demonstration Pilots	\$3,577,350	\$177,408	\$163,316	\$36,627	\$2,891,566	\$308,433	\$0
Sub-Total: Technology Demonstration Pilots	\$3,577,350	\$177,408	\$163,316	\$36,627	\$2,891,566	\$308,433	\$0
TOTAL Energy Efficiency Programs	\$35,400,860	\$1,755,602	\$1,616,145	\$362,451	\$28,614,456	\$3,052,207	\$0

This schedule utilizes the NJCEP program reporting format to provide the estimated program cost data required by RGGI Section II.h.

**PSE&G Energy Efficiency Economic Stimulus Program
Estimated Program Costs by Year**

PSE&G Gas - 2011

Program	Total Estimated Carbon Abatement Expenditures	Administration & Program Development	Sales, Call Centers, Marketing and Website	Training	Rebates, Grants, and Other Direct Incentives	Rebate Processing, Inspections, and Other Quality Control	Evaluation and Related Research
RESIDENTIAL PROGRAMS							
Residential Whole House Efficiency	\$85,843	\$0	\$0	\$0	\$0	\$0	\$85,843
Multi-Family Housing	\$85,843	\$0	\$0	\$0	\$0	\$0	\$85,843
Sub-Total: Residential Programs	\$171,686	\$0	\$0	\$0	\$0	\$0	\$171,686
COMMERCIAL & INDUSTRIAL PROGRAMS							
Small Business Direct Install	\$17,169	\$0	\$0	\$0	\$0	\$0	\$17,169
Municipal Direct Install	\$30,045	\$0	\$0	\$0	\$0	\$0	\$30,045
Hospital Efficiency	\$120,181	\$0	\$0	\$0	\$0	\$0	\$120,181
Data Center Efficiency		\$0	\$0	\$0	\$0	\$0	\$20,602
Retro-Commissioning O&M	\$6,868	\$0	\$0	\$0	\$0	\$0	\$6,868
Sub-Total: C&I Programs	\$194,865	\$0	\$0	\$0	\$0	\$0	\$194,865
TECHNOLOGY DEMONSTRATION PILOTS							
Technology Demonstration Pilots	\$41,205	\$0	\$0	\$0	\$0	\$0	\$41,205
Sub-Total: Technology Demonstration Pilots	\$41,205	\$0	\$0	\$0	\$0	\$0	\$41,205
TOTAL Energy Efficiency Programs	\$407,756	\$0	\$0	\$0	\$0	\$0	\$407,756

This schedule utilizes the NJCEP program reporting format to provide the estimated program cost data required by RGGI Section II.h.

PSE&G Energy Efficiency Economic Stimulus Program
Estimated Participants

Program	Participants			
	2009	2010	2011	2012
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	2,485	4,971		
Multi-Family Housing	2,485	4,971		
<i>Sub-Total: Residential Programs</i>	4,971	9,941	0	0
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	855	1,709		
Municipal Direct Install	945	1,889		
Hospital Efficiency	10	21		
Data Center Efficiency	5	11		
Retro-Commissioning O&M	10	19		
<i>Sub-Total: C&I Programs</i>	1,825	3,649	0	0
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	4	8		
<i>Sub-Total: Technology Demonstration Pilots</i>	4	8		
TOTAL Energy Efficiency Programs	6,799	13,599	0	0

PSE&G Energy Efficiency Economic Stimulus Program
Overall Electric Energy Savings

Energy Savings - Electric MWh Program	Annual Savings				Lifetime Savings			
	2009	2010	2011	2012	2009	2010	2011	2012
RESIDENTIAL PROGRAMS								
Residential Whole House Efficiency	1,809	3,619			28,949	57,898		
Multi-Family Housing	1,809	3,619			28,949	57,898		
Sub-Total: Residential Programs	3,619	7,237	0	0	57,898	115,797	0	0
COMMERCIAL & INDUSTRIAL PROGRAMS								
Small Business Direct Install	11,966	23,932			179,487	358,974		
Municipal Direct Install	16,532	33,063			247,976	495,951		
Hospital Efficiency	24,400	48,800			366,000	732,000		
Data Center Efficiency	12,800	25,600			192,000	384,000		
Retro-Commissioning O&M	1,250	2,500			18,750	37,500		
Sub-Total: C&I Programs	66,948	133,895	0	0	1,004,213	2,008,426	0	0
TECHNOLOGY DEMONSTRATION PILOTS								
Technology Demonstration Pilots	6,316	12,632			94,737	189,474		
Sub-Total: Technology Demonstration Pilots	6,316	12,632	0	0	94,737	189,474	0	0
TOTAL PSE&G EEE Stimulus Program	76,882	153,764	0	0	1,156,848	2,313,696	0	0

PSE&G Energy Efficiency Economic Stimulus Program
Overall Electric Demand Savings

Energy Savings - Electric kW Program	Annual Savings			
	2009	2010	2011	2012
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency		820		
Multi-Family Housing		820		
Sub-Total: Residential Programs	0	1,640	0	0
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install		11,966		
Municipal Direct Install		22,672		
Hospital Efficiency		8,356		
Data Center Efficiency		4,384		
Retro-Commissioning O&M		428		
Sub-Total: C&I Programs	0	47,806	0	0
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots		1,081		
Sub-Total: Technology Demonstration Pilots	0	1,081	0	0
TOTAL PSE&G EEE Stimulus Program	0	50,527	0	0

Energy Savings - Gas dTherms Program	Annual Savings				Lifetime Savings			
	2009	2010	2011	2012	2009	2010	2011	2012
RESIDENTIAL PROGRAMS								
Residential Whole House Efficiency	9,196	18,391			183,915	367,829		
Multi-Family Housing	9,196	18,391			183,915	367,829		
Sub-Total: Residential Programs	18,391	36,783	0	0	367,829	735,659	0	0
COMMERCIAL & INDUSTRIAL PROGRAMS								
Small Business Direct Install	24,786	49,573			371,795	743,590		
Municipal Direct Instal	27,395	54,791			410,931	821,862		
Hospital Efficiency	249,489	498,978			3,742,331	7,484,663		
Data Center Efficiency	49,080	98,160			736,196	1,472,393		
Retro-Commissioning O&M	12,821	25,641			192,308	384,615		
Sub-Total: C&I Programs	363,571	727,142	0	0	5,453,561	10,907,123	0	0
TECHNOLOGY DEMONSTRATION PILOTS								
Technology Demonstration Pilots	64,000	128,000			960,000	1,920,000		
Sub-Total: Technology Demonstration Pilots	64,000	128,000	0	0	960,000	1,920,000	0	0
TOTAL PSE&G EEE Stimulus Program	445,962	891,924	0	0	6,781,391	13,562,781	0	0

PSE&G Energy Efficiency Economic Stimulus Program
Participant Electric Energy Savings

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Energy Savings - Electric MWh Program	Annual Savings				Lifetime Savings			
	2009	2010	2011	2012	2009	2010	2011	2012
RESIDENTIAL PROGRAMS								
Residential Whole House Efficiency	0.73	0.73			11.65	11.65		
Multi-Family Housing	0.73	0.73			11.65	11.65		
Sub-Total: Residential Programs	1	1	0	0	23	23	0	0
COMMERCIAL & INDUSTRIAL PROGRAMS								
Small Business Direct Install	14.00	14.00			210.00	210.00		
Municipal Direct Install	17.50	17.50			262.50	262.50		
Hospital Efficiency	2,361.29	2,361.29			35,419.35	35,419.35		
Data Center Efficiency	2,400.00	2,400.00			36,000.00	36,000.00		
Retro-Commissioning O&M	129.31	129.31			1,940	1,940		
Sub-Total: C&I Programs	4,922	4,922	0	0	73,832	73,832	0	0
TECHNOLOGY DEMONSTRATION PILOTS								
Technology Demonstration Pilots	1,579	1,579			23,684	23,684		
Sub-Total: Technology Demonstration Pilots	1,579	1,579	0	0	23,684	23,684	0	0
TOTAL PSE&G EEE Stimulus Program	6,503	6,503	0	0	97,539	97,539	0	0

PSE&G Energy Efficiency Economic Stimulus Program
Participant Electric Demand Savings

Energy Savings - Electric kW Program	Annual Savings			
	2009	2010	2011	2012
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency		0.11		
Multi-Family Housing		0.11		
Sub-Total: Residential Programs	0.00	0.22	0	0
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install		5		
Municipal Direct Install		8		
Hospital Efficiency		270		
Data Center Efficiency		274		
Retro-Commissioning O&M		15		
Sub-Total: C&I Programs	0	571	0	0
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots		90		
Sub-Total: Technology Demonstration Pilots	0	90	0	0
TOTAL PSE&G EEE Stimulus Program	0	661	0	0

Energy Savings - Gas dTherms Program	Annual Savings				Lifetime Savings			
	2009	2010	2011	2012	2009	2010	2011	2012
RESIDENTIAL PROGRAMS								
Residential Whole House Efficiency	3.7	3.7			74	74		
Multi-Family Housing	3.7	3.7			74	74		
Sub-Total: Residential Programs	7	7	0	0	148	148	0	0
COMMERCIAL & INDUSTRIAL PROGRAMS								
Small Business Direct Install	29	29			435	435		
Municipal Direct Instal	29	29			435	435		
Hospital Efficiency	24,144	24,144			362,161	362,161		
Data Center Efficiency	9,202	9,202			138,037	138,037		
Retro-Commissioning O&M	1,326	1,326			19,894	19,894		
Sub-Total: C&I Programs	34,731	34,731	0	0	520,962	520,962	0	0
TECHNOLOGY DEMONSTRATION PILOTS								
Technology Demonstration Pilots	16,000	16,000			240,000	240,000		
Sub-Total: Technology Demonstration Pilots	16,000	16,000	0	0	240,000	240,000	0	0
TOTAL PSE&G EEE Stimulus Program	50,738	50,738	0	0	761,110	761,110	0	0

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Annual Emissions Savings - Electric

Program Year: 2009
 (Metric Tons)

Program	CO2	NOX	SO2	Hg
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	1,250.0775	2.3028	5.3457	0.0000
Multi-Family Housing	1,250.0775	2.3028	5.3457	0.0000
Sub-Total: Residential Programs	2,500.1550	4.6055	10.6915	0.0001
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	8,267.2883	15.2292	35.3535	0.0002
Municipal Direct Install	11,421.9114	21.0404	48.8437	0.0003
Hospital Efficiency	16,858.1818	31.0545	72.0909	0.0004
Data Center Efficiency	8,843.6364	16.2909	37.8182	0.0002
Retro-Commissioning O&M	863.6364	1.5909	3.6932	0.0000
Sub-Total: C&I Programs	46,254.6542	85.2059	197.7995	0.0011
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	4,363.6364	8.0383	18.6603	0.0001
Sub-Total: Technology Demonstration Pilots	4,363.6364	8.0383	18.6603	0.0001
TOTAL PSE&G EEE Stimulus Program	53,118.4456	97.8498	227.1512	0.0012

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Annual Emissions Savings - Electric

Program Year: 2010
 (Metric Tons)

Program	CO2	NOX	SO2	Hg
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	2,500.1550	4.6055	10.6915	0.0001
Multi-Family Housing	2,500.1550	4.6055	10.6915	0.0001
Sub-Total: Residential Programs	5,000.3099	9.2111	21.3829	0.0001
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	16,534.5765	30.4584	70.7071	0.0004
Municipal Direct Install	22,843.8228	42.0807	97.6874	0.0005
Hospital Efficiency	33,716.3636	62.1091	144.1818	0.0008
Data Center Efficiency	17,687.2727	32.5818	75.6364	0.0004
Retro-Commissioning O&M	1,727.2727	3.1818	7.3864	0.0000
Sub-Total: C&I Programs	92,509.3085	170.4119	395.5990	0.0022
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	8,727.2727	16.0766	37.3206	0.0002
Sub-Total: Technology Demonstration Pilots	8,727.2727	16.0766	37.3206	0.0002
TOTAL PSE&G EEE Stimulus Program	106,236.8911	195.6995	454.3025	0.0025

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Lifetime Emissions Savings - Electric

Program Year: 2009
 (Metric Tons)

Program	CO2	NOX	SO2	Hg
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	20,001.2397	36.8444	85.5316	0.0005
Multi-Family Housing	20,001.2397	36.8444	85.5316	0.0005
<i>SUB-TOTAL Residential Programs</i>	<i>40,002.4793</i>	<i>73.6888</i>	<i>171.0632</i>	<i>0.0009</i>
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	124,009.3240	228.4382	530.3030	0.0029
Municipal Direct Install	171,328.6713	315.6054	732.6555	0.0040
Hospital Efficiency	252,872.7273	465.8182	1,081.3636	0.0059
Data Center Efficiency	132,654.5455	244.3636	567.2727	0.0031
Retro-Commissioning O&M	12,954.5455	23.8636	55.3977	0.0003
<i>SUB-TOTAL C&I Programs</i>	<i>693,819.8135</i>	<i>1,278.0891</i>	<i>2,966.9926</i>	<i>0.0162</i>
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	65,454.5455	120.5742	279.9043	0.0015
<i>Sub-Total: Technology Demonstration Pilots</i>	<i>65,454.5455</i>			
TOTAL PSE&G EEE Stimulus Program	733,822.2928	1,351.7779	3,138.0559	0.0172

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Lifetime Emissions Savings - Electric

Program Year: 2010
 (Metric Tons)

Program	CO2	NOX	SO2	Hg
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	40,002.4793	73.6888	171.0632	0.0009
Multi-Family Housing	40,002.4793	73.6888	171.0632	0.0009
<i>SUB-TOTAL Residential Programs</i>	<i>80,004.9586</i>	<i>147.3776</i>	<i>342.1265</i>	<i>0.0019</i>
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	248,018.6480	456.8765	1,060.6061	0.0058
Municipal Direct Install	342,657.3427	631.2109	1,465.3110	0.0080
Hospital Efficiency	505,745.4545	931.6364	2,162.7273	0.0118
Data Center Efficiency	265,309.0909	488.7273	1,134.5455	0.0062
Retro-Commissioning O&M	25,909.0909	47.7273	110.7955	0.0006
<i>SUB-TOTAL C&I Programs</i>	<i>1,387,639.6270</i>	<i>2,556.1783</i>	<i>5,933.9852</i>	<i>0.0325</i>
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	130,909.0909	241.1483	559.8086	0.0031
<i>Sub-Total: Technology Demonstration Pilots</i>	<i>130,909.0909</i>	<i>241.1483</i>	<i>559.8086</i>	<i>0.0031</i>
TOTAL PSE&G EEE Stimulus Program	<i>1,598,553.6766</i>	<i>2,944.7041</i>	<i>6,835.9203</i>	<i>0.0374</i>

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Annual and Lifetime Emissions Savings - Gas

Program Year: 2009
 (Metric Tons)

Program	Annual Savings		Lifetime Savings	
	CO2	NOX	CO2	NOX
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	4.8905	0.0038	97.8092	0.0769
Multi-Family Housing	4.8905	0.0038	97.8092	0.0769
<i>SUB-TOTAL Residential Programs</i>	9.7809	0.0077	195.6183	0.1538
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	13.1818	0.0104	197.7273	0.1555
Municipal Direct Install	14.5694	0.0115	218.5407	0.1718
Hospital Efficiency	132.6827	0.1043	1,990.2398	1.5650
Data Center Efficiency	26.1015	0.0205	391.5226	0.3079
Retro-Commissioning O&M	6.8182	0.0054	102.2727	0.0804
<i>SUB-TOTAL C&I Programs</i>	193.3535	0.1520	2,900.3031	2.2806
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	34.0364	0.0268	510.5455	0.4015
<i>Sub-Total: Technology Demonstration Pilots</i>	34.0364	0.0268	510.5455	0.4015
TOTAL PSE&G EEE Stimulus Program	237.1708	0.1865	3,606.4669	2.8359

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Annual and Lifetime Emissions Savings - Gas

Program Year: 2010
 (Metric Tons)

Program	Annual Savings		Lifetime Savings	
	CO2	NOX	CO2	NOX
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	9.7809	0.0077	195.6183	0.1538
Multi-Family Housing	9.7809	0.0077	195.6183	0.1538
<i>SUB-TOTAL Residential Programs</i>	19.5618	0.0154	391.2367	0.3076
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	26.3636	0.0207	395.4545	0.3110
Municipal Direct Install	29.1388	0.0229	437.0813	0.3437
Hospital Efficiency	265.3653	0.2087	3,980.4796	3.1299
Data Center Efficiency	52.2030	0.0410	783.0452	0.6157
Retro-Commissioning O&M	13.6364	0.0107	204.5455	0.1608
<i>SUB-TOTAL C&I Programs</i>	386.7071	0.3041	5,800.6062	4.5612
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	68.0727	0.0535	1,021.0909	0.8029
<i>Sub-Total: Technology Demonstration Pilots</i>	68.0727	0.0535	1,021.0909	0.8029
TOTAL PSE&G EEE Stimulus Program	474.3416	0.3730	7,212.9337	5.6717

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Per Participant Annual Emissions Savings - Electric

Program Year: 2009
 (Metric Tons)

Program	CO2	NOX	SO2	Hg
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	0.5030	0.0009	0.0022	0.0000
Multi-Family Housing	0.5030	0.0009	0.0022	0.0000
Sub-Total: Residential Programs	1.0060	0.0019	0.0043	0.0000
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	9.6727	0.0178	0.0414	0.0000
Municipal Direct Install	12.0909	0.0223	0.0517	0.0000
Hospital Efficiency	1,631.4370	3.0053	6.9765	0.0000
Data Center Efficiency	1,658.1818	3.0545	7.0909	0.0000
Retro-Commissioning O&M	89.3417	0.1646	0.3821	0.0000
Sub-Total: C&I Programs	3,400.7241	6.2645	14.5426	0.0001
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	1,090.9088	2.0096	4.6651	0.0000
Sub-Total: Technology Demonstration Pilots	1,090.9088	2.0096	4.6651	0.0000
TOTAL PSE&G EEE Stimulus Program	4,492.6389	8.2759	19.2119	0.0001

This schedule utilizes the NJCEP program reporting format to provide the estimated emissions savings data required by RGGI Section II.I.

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Per Participant Annual Emissions Savings - Electric

Program Year: 2010
 (Metric Tons)

Program	CO2	NOX	SO2	Hg
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	0.5030	0.0009	0.0022	0.0000
Multi-Family Housing	0.5030	0.0009	0.0022	0.0000
Sub-Total: Residential Programs	1.0060	0.0019	0.0043	0.0000
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	9.6727	0.0178	0.0414	0.0000
Municipal Direct Install	12.0909	0.0223	0.0517	0.0000
Hospital Efficiency	1,631.4370	3.0053	6.9765	0.0000
Data Center Efficiency	1,658.1818	3.0545	7.0909	0.0000
Retro-Commissioning O&M	89.3417	0.1646	0.3821	0.0000
Sub-Total: C&I Programs	3,400.7241	6.2645	14.5426	0.0001
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	1,090.9088	2.0096	4.6651	0.0000
Sub-Total: Technology Demonstration Pilots	1,090.9088	2.0096	4.6651	0.0000
TOTAL PSE&G EEE Stimulus Program	4,492.6389	8.2759	19.2119	0.0001

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Per Participant Lifetime Emissions Savings - Electric

Program Year: 2009
 (Metric Tons)

Program	CO2	NOX	SO2	Hg
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	8.0477	0.0148	0.0344	0.0000
Multi-Family Housing	8.0477	0.0148	0.0344	0.0000
<i>SUB-TOTAL Residential Programs</i>	16.0954	0.0296	0.0688	0.0000
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	145.0909	0.2673	0.6205	0.0000
Municipal Direct Install	181.3636	0.3341	0.7756	0.0000
Hospital Efficiency	24,471.5543	45.0792	104.6481	0.0006
Data Center Efficiency	24,872.7273	45.8182	106.3636	0.0006
Retro-Commissioning O&M	1,340.1254	2.4687	5.7308	0.0000
<i>SUB-TOTAL C&I Programs</i>	51,010.8615	93.9674	218.1386	0.0012
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	16,363.6367	30.1435	69.9761	0.0004
<i>Sub-Total: Technology Demonstration Pilots</i>	16,363.6367	30.1435	69.9761	0.0004
TOTAL PSE&G EEE Stimulus Program	67,390.5936	124.1406	288.1835	0.0016

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Per Participant Lifetime Emissions Savings - Electric

Program Year: 2010
 (Metric Tons)

Program	CO2	NOX	SO2	Hg
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	8.0477	0.0148	0.0344	0.0000
Multi-Family Housing	8.0477	0.0148	0.0344	0.0000
<i>SUB-TOTAL Residential Programs</i>	16.0954	0.0296	0.0688	0.0000
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	145.0909	0.2673	0.6205	0.0000
Municipal Direct Install	181.3636	0.3341	0.7756	0.0000
Hospital Efficiency	24,471.5543	45.0792	104.6481	0.0006
Data Center Efficiency	24,872.7273	45.8182	106.3636	0.0006
Retro-Commissioning O&M	1,340.1254	2.4687	5.7308	0.0000
<i>SUB-TOTAL C&I Programs</i>	51,010.8615	93.9674	218.1386	0.0012
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	16,363.6367	30.1435	69.9761	0.0004
<i>Sub-Total: Technology Demonstration Pilots</i>	16,363.6367	30.1435	69.9761	0.0004
TOTAL PSE&G EEE Stimulus Program	67,390.5936	124.1406	288.1835	0.0016

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Per Participant Emissions Savings - Gas

Program Year: 2009
 (Metric Tons)

Program	Annual Savings		Lifetime Savings	
	CO2	NOX	CO2	NOX
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	0.0020	0.0000	0.0394	0.0000
Multi-Family Housing	0.0020	0.0000	0.0394	0.0000
<i>SUB-TOTAL Residential Programs</i>	<i>0.0039</i>	<i>0.0000</i>	<i>0.0787</i>	<i>0.0001</i>
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	0.0154	0.0000	0.2313	0.0002
Municipal Direct Install	0.0154	0.0000	0.2313	0.0002
Hospital Efficiency	12.8403	0.0101	192.6039	0.1514
Data Center Efficiency	4.8940	0.0038	73.4105	0.0577
Retro-Commissioning O&M	0.7053	0.0006	10.5799	0.0083
<i>SUB-TOTAL C&I Programs</i>	<i>18.4705</i>	<i>0.0145</i>	<i>277.0570</i>	<i>0.2179</i>
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	8.5091	0.0067	127.6364	0.1004
<i>Sub-Total: Technology Demonstration Pilots</i>	<i>8.5091</i>	<i>0.0067</i>	<i>127.6364</i>	<i>0.1004</i>
TOTAL PSE&G EEE Stimulus Program	26.9835	0.0212	404.7720	0.3183

PSE&G Energy Efficiency Economic Stimulus Program
 Estimated Per Participant Emissions Savings - Gas

Program Year: 2010
 (Metric Tons)

Program	Annual Savings		Lifetime Savings	
	CO2	NOX	CO2	NOX
RESIDENTIAL PROGRAMS				
Residential Whole House Efficiency	0.0020	0.0000	0.0394	0.0000
Multi-Family Housing	0.0020	0.0000	0.0394	0.0000
<i>SUB-TOTAL Residential Programs</i>	<i>0.0039</i>	<i>0.0000</i>	<i>0.0787</i>	<i>0.0001</i>
COMMERCIAL & INDUSTRIAL PROGRAMS				
Small Business Direct Install	0.0154	0.0000	0.2313	0.0002
Municipal Direct Install	0.0154	0.0000	0.2313	0.0002
Hospital Efficiency	12.8403	0.0101	192.6039	0.1514
Data Center Efficiency	4.8940	0.0038	73.4105	0.0577
Retro-Commissioning O&M	0.7053	0.0006	10.5799	0.0083
<i>SUB-TOTAL C&I Programs</i>	<i>18.4705</i>	<i>0.0145</i>	<i>277.0570</i>	<i>0.2179</i>
TECHNOLOGY DEMONSTRATION PILOTS				
Technology Demonstration Pilots	8.5091	0.0067	127.6364	0.1004
<i>Sub-Total: Technology Demonstration Pilots</i>	<i>8.5091</i>	<i>0.0067</i>	<i>127.6364</i>	<i>0.1004</i>
TOTAL PSE&G EEE Stimulus Program	26.9835	0.0212	404.7720	0.3183