PHILADELPHIA GAS WORKS

FIVE YEAR DEMAND SIDE MANAGEMENT PORTFOLIO

FIRST YEAR IMPLEMENTATION PLAN

FY 2011

SEPTEMBER 17, 2010

CONTENTS

PORTFOLIO IMPLEMENTATION PLAN

A. Introduction

This plan describes the processes and steps that Philadelphia Gas Work (PGW or "Company") will take to implement the first year (FY 2011) of its Demand-Side Management Portfolio (DSM Portfolio) outlined in the "Five-Year Gas Demand-Side Management Plan" submitted to the Pennsylvania Public Utility Commission (the Commission) on December 18, 2009, modified in certain respects by the Joint Petition for Settlement ("Settlement") submitted to the PUC on May 12, 2010 and approved by the Commission by order entered on July 29, 2010. In addition, this plan provides more limited information on the planned implementation activities during the remaining four years of PGW's DSM Portfolio because, this plan will also serve as a template for PGW's future annual reporting and planning (further detail on this issue can be found in the "Overview of Data Management, Reporting, Planning, and Evaluation" section of this document). For clarity, PGW is not requesting approval of any portion of the plan other than the plan for FY 2011.

PGW's DSM Portfolio has five broad goals:

- Reduce customer bills
- Maximize customer value
- Contribute to the fulfillment of the City's sustainability plan.
- Reduce PGW cash flow requirements
- Help the Commonwealth and the City of Philadelphia reduce greenhouse gas emissions

To achieve these goals, PGW will undertake the following activities during the first year of the DSM Portfolio:

- Develop the infrastructure required to scale up the DSM portfolio
- Transition the current Conservation Works Program (CWP) into the Enhanced Low-Income Retrofit Program (ELIRP). The new ELIRP program will ramp up quickly and seek aggressive savings targets by focusing on furnace replacements in addition to the services currently supplied by the CWP.
- Design and launch the Premium Efficiency Heating Equipment Program.

- Design the Commercial and Industrial Retrofit Program with an initial focus on multi-family buildings.

- Begin the detailed planning process for the additional programs within the DSM Portfolio.

The following material changes were made to PGW's DSM Plan to develop this First Year Implementation Plan and to ensure compliance with the approved settlement.

General

- The DSM Portfolio now operates on PGW's fiscal year[1], instead of the calendar years used in the initial five year plan. The portfolio will now go from FY 2011 to FY 2015.

- The Municipal Facilities Program was removed as a stand-alone program. Future energy efficiency services will be provided to the City of Philadelphia through the DSM Portfolio will be provided by the Commercial and Industrial Retrofit Program

Program Timing[2]

- In accordance with the Settlement, the launch of the Comprehensive Residential Heating Retrofit Program was moved back until the second half of PGW's fiscal year (FY) 2013

- The Premium Efficiency Heating Equipment Program was moved forward to launch in April of FY 2011. Full ramp-up of this program was delayed until FY 2013 to accommodate the budget cap for FY 2012 imposed by the Settlement.

- The Commercial and Industrial Retrofit Program was moved forward to launch in September of FY 2012 and the initial focus of the program will be providing services to the multi-family market. Full ramp-up of this program was delayed until FY 2013 to accommodate the budget cap for FY 2012 imposed by the Settlement.

- The start dates for the remaining three programs not explicitly referenced in the Settlement were moved back to FY 2013 to accommodate the budget cap for FY 2012 imposed by the Settlement.

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[1] PGW's fiscal year begins on the first of September preceding the regular calendar year and ends on the 31st of August in the corresponding calendar year. For example FY 2010 began September 1, 2009 and will end on August 31, 2010.

[2] Again the descriptions of Plan activities beyond FY 2011 are for information purposes only.

Program Participation

- Participation numbers for the Enhanced Low Income Program were increased for the first year to meet the targets required by the Settlement and to bring the total portfolio budget up to the maximum allowed by the Settlement.

- Participation levels for the Enhanced Low Income Program in FY 2012 were decreased in order to stay below the FY 2012 spending cap, while also launching new programs.

- The participation numbers for the Enhanced Low Income Program were decreased in later years to allow for increasing participation of the other programs, while maintaining the present value of five-year portfolio spending near the same level as originally proposed.

Budgeting

- Program spending for the first two years (FY 2011 and FY 2012) were decreased to not exceed 1% of PGW's total projected gross intrastate operating revenues, in accordance with the Settlement.

- More detailed budgets pertaining to non-measure costs were developed to provide a more accurate forecast of the DSM Portfolio's costs.

- The allocation of portfolio-wide costs to programs was modified slightly, so that costs associated with planning for future program activity was captured as well as the program activity for the same year.

Measure Inputs

- No changes were made to the measure input assumptions.

Avoided Costs

- Avoided natural gas costs were updated to reflect the current market environment and the recent fall in natural gas prices. These changes were dramatic, leading to a drop in the cost of avoided natural gas on the order of 20%. While this has a negative effect on cost-effectiveness, all of PGW's programs were still determined to be cost-effective.

B. Summary of Costs, Benefits, and Impacts

The following tables present the projected FY 2011 impacts for the DSM Portfolio. The exception is the "Cost-Effectiveness of Planned Results", which reflects projected results for the entire five year period of the portfolio. Unless otherwise stated, all dollar amounts in the plan are shown in nominal dollars. Please see Appendix E for additional five-year projections broken down by year.

Over the five years of the DSM Portfolio, PGW expects to spend $60.3 million on six DSM programs. The programs are projected to save 1,461 BBtus of natural gas during the first five years of the portfolio, and 21,918 BBtus of natural gas over the lifetime of the measures installed. For the natural gas system, the present value of benefits is $88.2 million leading to a present value of net benefits of $43.5 million and a benefit-cost ratio (BCR) of 1.97. From a total resource perspective, the present value of benefits is $96.2 million leading to a present value of net benefits of $37.2 million and a benefit-cost ration (BCR) of 1.63. The cost-effectiveness results of both tests show that the DSM Portfolio is very cost-effective, creating nearly $2 in benefits for every $1 dollar spent.

Additional benefits from the five years of the portfolio include:

- Saving 6,641 MWh of electricity
- Avoiding 7,747 kW of summer peak demand
- Creating over 984 new jobs in Pennsylvania
- Reducing the emissions of CO_2 by 1.24 million tons

In FY 2011, PGW plans to spend $7.96 million on launching two DSM programs, the Enhanced Low Income Retrofit Program and the Premium Efficiency Heating Equipment Program. These programs are expected to save 130 BBtus of natural gas in the first year and provide services to over 5,500 customers, most of whom will be residential. Additionally, the Enhanced Low Income Retrofit Program will save 532.5 MWh of electricity in FY 2011. Due to the initial burden of setting up the infrastructure for the DSM portfolio, PGW's administration costs come to $728,092, or 9.1% of the first year's budget. As the portfolio progresses, the percentage of portfolio funding going towards administration and management will fall to 4.3%.

i) Cost-Effectiveness of Planned Results

Table 1. Total Resource Cost-Effectiveness Results FY 2011 – FY 2015 (2009$)

Program	Total Resource			
	PV Benefits	PV Costs	PV Net Benefits	Benfit-Cost Ratio
Enhanced Low Income Retrofit	$ 33,497,162	$ 24,098,203	$ 9,398,959	1.39
Premium Efficiency Heating Equipment	$ 24,185,816	$ 5,056,572	$ 19,129,245	4.78
Comprehensive Residential Heating Retrofit	$ 29,941,155	$ 20,275,623	$ 9,665,532	1.48
High-Efficiency Construction - Residential	$ 2,694,547	$ 1,777,590	$ 916,957	1.52
Residential Total	**$ 90,318,681**	**$ 51,207,988**	**$ 39,110,692**	**1.76**
Commercial and Industrial Retrofit	$ 3,897,063	$ 2,884,844	$ 1,012,219	1.35
Premium Efficiency Commercial/Industrial Equipment	$ 1,288,043	$ 1,173,210	$ 114,833	1.10
High-Efficiency Construction - Non-Residential	$ 671,968	$ 443,297	$ 228,671	1.52
Commercial & Industrial Total	**$ 5,857,075**	**$ 4,501,351**	**$ 1,355,724**	**1.30**
Portfolio-wide Costs	n/a	$ 3,252,093	$ (3,252,093)	n/a
Total Portfolio	**$ 96,175,755**	**$ 58,961,432**	**$ 37,214,323**	**1.63**

Table 2. Gas Energy System Cost-Effectiveness Results FY 2011 – FY 2015 (2009$)

Program	Gas Energy System			
	PV Benefits	PV Costs	PV Net Benefits	Benfit-Cost Ratio
Enhanced Low Income Retrofit	$ 30,501,337	$ 24,098,203	$ 6,403,133	1.27
Premium Efficiency Heating Equipment	$ 24,185,816	$ 4,230,688	$ 19,955,128	5.72
Comprehensive Residential Heating Retrofit	$ 24,981,204	$ 8,761,931	$ 16,219,273	2.85
High-Efficiency Construction - Residential	$ 2,694,547	$ 1,507,098	$ 1,187,449	1.79
Residential Total	**$ 82,362,904**	**$ 38,597,921**	**$ 43,764,983**	**2.13**
Commercial and Industrial Retrofit	$ 3,897,063	$ 1,423,221	$ 2,473,842	2.74
Premium Efficiency Commercial/Industrial Equipment	$ 1,288,043	$ 1,030,091	$ 257,952	1.25
High-Efficiency Construction - Non-Residential	$ 671,968	$ 375,841	$ 296,127	1.79
Commercial & Industrial Total	**$ 5,857,075**	**$ 2,829,154**	**$ 3,027,921**	**2.07**
Portfolio-wide Costs	n/a	$ 3,252,093	$ (3,252,093)	n/a
Total Portfolio	**$ 88,219,979**	**$ 44,679,168**	**$ 43,540,811**	**1.97**

ii) Gas Savings

Table 3. Projected Natural Gas Savings for FY 2011

PROGRAM	FY 2011 INCREMENTAL NET ANNUAL GAS SAVINGS (BBtu)	FY 2011 INCREMENTAL NET LIFETIME GAS SAVINGS (BBtu)
Enhanced Low Income Retrofit	104.6	1,568.4
Premium Efficiency Heating Equipment	25.4	381.0
Comprehensive Residential Heating Retrofit	0.0	0.0
High-Efficiency Construction - Residential	0.0	0.0
Residential Total	**130.0**	**1,949.3**
Commercial and Industrial Retrofit	0.0	0.0
Premium Efficiency Commercial/Industrial Equipment	0.0	0.0
High-Efficiency Construction - Non-Residential	0.0	0.0
Commercial & Industrial Total	**0.0**	**0.0**
Total Portfolio	**130.0**	**1,949.3**

iii) Budgets

Table 4. FY 2011 Budget Cap Basis

PGW **DSM Spending - Settlement Agreement** **FY 2011**		
Settlement Agreement: 24 (b) – The yearly DSM spending budget for the plan for the first two years (FY 2011 and FY 2012) shall not exceed 1% of PGW's total projected gross intrastate operating revenues. PGW agrees that for the first two years (FY 2011 and FY 2012), it will fully fund the Enhanced Low Income Retrofit Program at the budget levels originally proposed for this Program by the Company in this proceeding.		
FY 2011 Projected Gross Intrastate Operating Revenues **FN 1**	$	798,012,000
		1.00%
FY 2011 Total DSM Spending Budget	$	7,980,120
FN 1: FY 2011 Operating Budget submitted to the Philadelphia Gas Commission on June 23, 2010.		

Table 5. Projected FY 2011 Portfolio Budgets

PROGRAM	FY 2011
Enhanced Low Income Retrofit	$ 6,654,670
Premium Efficiency Heating Equipment	$ 446,711
Comprehensive Residential Heating Retrofit	$ -
High-Efficiency Construction - Residential	$ -
Residential Total	**$ 7,101,381**
Commercial and Industrial Retrofit	$ 50,545
Premium Efficiency Commercial/Industrial Equipment	$ -
High-Efficiency Construction - Non-Residential	$ -
Commercial & Industrial Total	**$ 50,545**
Portfolio Administration and Management	$ 728,092
Portfolio Marketing and Business Development	$ 80,007
Portfolio-Wide Costs Total	**$ 808,099**
Utility Costs	**$ 7,960,026**
Participant Costs	$ 63,678
Total	**$ 8,023,704**

Table 6. Projected FY 2011 Portfolio Budget Details

Category	FY 2011
Customer Incentives & Measure Installation Costs	$ 6,333,660
Administration and Management	$ 728,092
Marketing and Business Development	$ 217,820
Contractor Costs	$ 662,427
Inspection and Verification	$ 18,025
Evaluation	$ -
Utility Costs	**$ 7,960,026**
Participant Costs	$ 63,678
Total	**$ 8,023,704**

Table 7. Projected FY 2011-2015 Budgets with Portfolio-Wide Costs Allocated to Programs

Nominal Dollars	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Enhanced Low Income Retrofit	$ 7,333,784	$ 6,744,181	$ 6,031,447	$ 6,951,270	$ 7,109,943	$ 34,170,625
Premium Efficiency Heating Equipment	$ 504,994	$ 972,122	$ 1,478,523	$ 1,523,934	$ 1,617,426	$ 6,096,998
Comprehensive Residential Heating Retrofit	$ 44,666	$ 51,164	$ 2,494,266	$ 5,011,607	$ 5,870,520	$ 13,472,223
Commercial and Industrial Retrofit	$ 61,700	$ 188,332	$ 520,996	$ 709,193	$ 576,390	$ 2,056,611
Premium Efficiency Commercial/Industrial Equipment	$ 5,219	$ 5,978	$ 277,456	$ 645,946	$ 637,938	$ 1,572,537
High-Efficiency Construction	$ 9,663	$ 11,069	$ 480,160	$ 1,098,908	$ 1,317,057	$ 2,916,858
Total Portfolio	$ 7,960,026	$ 7,972,846	$ 11,282,848	$ 15,940,858	$ 17,129,274	$ 60,285,852

iv) Electricity Savings

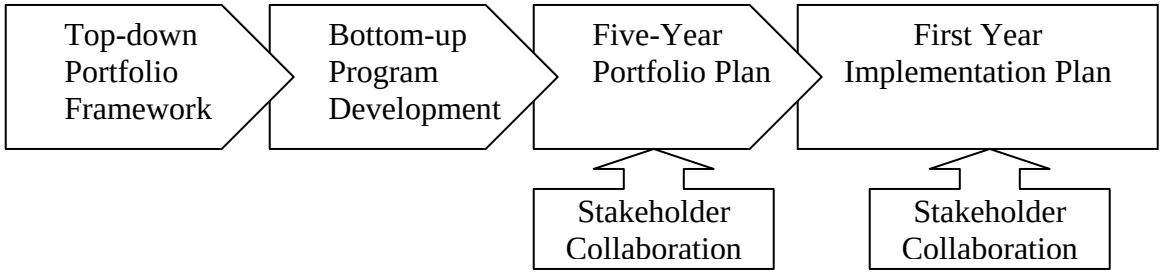
Table 8. Projected FY 2011 Electricity Savings

	FY 2011		
PROGRAM	**INCREMENTAL NET ANNUAL ELECTRICITY SAVINGS (MWh)**	**INCREMENTAL NET LIFETIME ELECTRICITY SAVINGS (MWh)**	**INCREMENTAL NET ANNUAL SUMMER PEAK DEMAND SAVINGS (kW)**
Enhanced Low Income Retrofit	532.5	7988.0	621.3
Premium Efficiency Heating Equipment	0.0	0.0	0.0
Comprehensive Residential Heating Retrofit	0.0	0.0	0.0
High-Efficiency Construction - Residential	0.0	0.0	0.0
Residential Total	**532.5**	**7988.0**	**621.3**
Commercial and Industrial Retrofit	0.0	0.0	0.0
Premium Efficiency Commercial/Industrial Equipment	0.0	0.0	0.0
High-Efficiency Construction - Non-Residential	0.0	0.0	0.0
Commercial & Industrial Total	**0.0**	**0.0**	**0.0**
Total Portfolio	**532.5**	**7988.0**	**621.3**

C. Plan Development Process

From the outset, PGW has sought to establish a portfolio of natural gas energy efficiency programs that would achieve results comparable to other top-tier portfolios nationwide. In order to reach this goal, PGW has incorporated both top-down and bottom-up approaches in the construction of the initial plan. Further details have been developed through an iterative process involving stakeholder collaboration and additional research into best practices at the portfolio, program, and measure levels.

FIGURE 1. Plan Development Process



i) Top-Down Portfolio Framework

At the start of the top-down development phase of the portfolio framework, PGW identified the goals stated in the Introduction (1.1). In consideration of these goals, as well as the guidelines for electric utilities established by Pennsylvania Act 129, the following principles were established:

- Present a portfolio of programs that targets cost-effective gas efficiency savings among all PGW's customers.
- Maximize delivery efficiency to minimize costs and maximize coverage within the available budget.
- Stage program implementation to permit orderly and sustainable expansion.
- Treat customers in greatest economic need and with most cost-effective opportunities first.
- Support economic development in the City of Philadelphia, both directly through more intensive employment of local resources to save natural gas, and indirectly by increasing the funds available to city households and businesses for spending on non-gas goods and services.

- For retrofit and new construction customers, avoid lost opportunities by seeking comprehensive energy savings.

PGW conducted research into the actual and planned results from over twenty leading natural gas DSM administrators. PGW was then able to establish a general range of savings (as a percent of sales as well as spending per therm sold) that would be comparable to other top-tier results for a natural gas DSM portfolio. These ranges were established on the portfolio level as well as on residential and non-residential sector levels. Though officially governing only electric utilities, the guidelines established by Pennsylvania Act 129 were also considered in establishing the structure of the Portfolio.

Individual programs within the residential and commercial/industrial (nonresidential) sectors were designed to target specific customer classes and market opportunities. PGW also reviewed existing local, state, and federal energy efficiency programs for which its customer base was eligible in order to find opportunities for collaboration as well as gaps in service.

In the residential sector, PGW's current CWP was identified as having great potential for expansion in terms of number of customers served as well as the depth of savings. The existing CWP provides mainly lower-cost measures in order to reach as many low-income customers as possible. A pilot program that provides a more comprehensive package of measures has recently been included in the CWP. Based on the success of the pilot program, the expansion of the CWP will incorporate this more comprehensive package of measures, thereby achieving deeper savings with a greater number of low-income customers.

By making this program the cornerstone of the portfolio, the Company aims to satisfy its core principle of treating customers in the greatest economic need with the most cost-effective opportunities first. Low-income customers' enrolled in PGW's Customer Responsibility Program are provided affordable heating bills calculated as a set percentage of their annual income. These affordable rates for CRP participants are achieved due to a subsidy borne by PGW's firm rate-paying customers. Reducing low-income customer's usage then will reduce the amount of the subsidy that other customers provide.

The enhanced low income program provides a platform from which to launch a program targeting non-low income, high-use customers for a comprehensive heating retrofit starting in the spring of 2012. By offering similar energy efficiency services to non-low income customers, PGW will leverage past experience and existing relationships to aid these customers in the cost-effective enhancement of their whole homes' energy efficiency. The other main opportunity identified for the residential sector was that of providing rebates on the purchase of residential-sized space and water heating appliances. PGW will introduce financial incentives for high-efficiency equipment starting in April, 2011.

In the commercial and industrial sector, the Company plans to offer financial and technical assistance to owners and managers of multifamily dwellings to encourage customers to retrofit existing heating systems with high-efficiency equipment replacement and the installation of supplemental controls.

PGW developed a set of avoided costs along with other economic assumptions to use for cost-effectiveness assessment of individual efficiency investments, each PGW program, and the entire DSM portfolio.

ii) Bottom-Up Program Development

After developing the general framework for the portfolio, the Company used a bottom-up approach to fill in the details for each of its constituent programs. Results from leading natural gas energy efficiency programs throughout New England, including programs in Vermont, Massachusetts, New York, and Connecticut, were referenced in order to establish characteristics for typical projects and measures. The Company's experience with the CWP (including the comprehensive pilot program within CWP) was also used to model typical projects. Additional measure-level details were collected for furnaces and boilers as well as for compact-fluorescent lamps (CFLs). All projects and measures were then screened for cost-effectiveness using the Total-Resource Cost (TRC) test before being included in the programs.

PGW's customer sales and usage history along with saturation percentages achieved by reference programs were used to develop program-level characteristics. After screening individual programs for cost-effectiveness, the overall portfolio was then screened for cost-effectiveness and balanced in accordance with the goals established by the portfolio framework. Program staging was adjusted to reflect the existing experience and infrastructure of the Company. Since the CWP and its pilot programs had already been successfully implemented, participation levels in the Enhanced Low Income Program were adjusted to reach full penetration quickly. Other programs requiring new planning and infrastructure had slower staging. For the entire portfolio, PGW also estimated bill and rate impacts and air pollution emission reductions.

iii) Five-Year Portfolio Plan

After establishing the framework for the portfolio, the five-year plan took shape through the finalization of the bottom-up program development phase. Brief program descriptions were constructed from the best practices used by benchmarking leading programs. PGW also undertook additional research into the programs for which collaboration opportunities were identified: delivering CFLs through the low-income residential retrofit program in concert with PECO, coordination with delivery of benefits by Weatherization Assistance Program (WAP) agencies, partnering with American Recovery and Reinvestment Act (ARRA) funded energy-efficiency programs, and

working with the Keystone HELP program to secure loans for the Comprehensive Residential Heating Retrofit Program.

The initial plan was filed in April of 2009 at Docket No. P-2009-2097639. After extensive stakeholder review, additional detail was provided for the Enhanced Low-Income Retrofit Program, Comprehensive Residential Heating Retrofit Program, Premium Efficiency Heating Equipment Program, and the Municipal Facilities Retrofit Program. The revised plan was filed with the Commission on December 18, 2009, as part of the Company's base rate filing.

In accordance with an all-party settlement of the base rate filing ("Settlement"), PGW was authorized to implement its DSM Plan, subject to certain modifications set forth in the Settlement. The Settlement was approved by PUC order entered July 29, 2010.

iv) First Year Implementation Plan

As noted above, the Company's DSM Plan was approved as part of an all-party settlement. The Settlement cleared the way for the development of the Company's implementation plans and the specific creation of the First Year Implementation Plan. As stated in 24(a) of the settlement:

> "After PUC approval of the Program and approval of the initial implementation plans through the end of PGW fiscal year (FY) 2011, PGW shall make a filing with the parties and the Commission four months prior to the end of the initial implementation period, and four months prior to the end of each subsequent year. Such filing shall report on the progress of the its plan to date and describe its operation plans and budget for the next year."

The first step in developing the initial implementation plans was to revise the five-year DSM Portfolio forecasts to account for the terms of the Settlement. The Settlement established clear program staging requirements as well as budget restraints. PGW used these revised five-year portfolio projections to establish the specific goals of the First Year Implementation Plan.

Going forward, PGW will use an annual implementation plan, similar in format to the First Year Implementation Plan, to establish the specific actions the Company will take in the next year of program activity. PGW will use the guidelines and projections from the Five Year Plan as the main framework for development of these future plans. Further modifications and details will be derived from the evaluation of results achieved in previous program years, additional research, and input from stakeholders.

D. Overview of Portfolio Structure

Please see Appendix D for an organizational chart of the DSM Portfolio.

PGW Program Administration

Within the Company, DSM Administration staff will oversee the management of each program and the portfolio as a whole. Program Administration staff will monitor program activity, assist in training and education, analyze results, and organize coordination between PGW, Conservation Service Providers (CSPs), and with external market actors.

PGW Marketing/Communications

The Company's internal Marketing/Communications staff will raise general awareness about the DSM portfolio and incorporate individual program marketing and communications activities within PGW's ongoing marketing and communciation efforts. This will include the development of a cohesive overall messaging theme, updates to PGW's website, and inclusion of program marketing materials and information in regular communciations. Specific Marketing efforts will be distinct and customized depending on the needs of the individual DSM programs. Marketing plans then will be described in greater detail within the context of the individual program implementation descriptions.

PGW Finance/Accounting

The Company's Finance and Accounting department staff will be responsible for the payment of invoices received from implementation contractors. They will also be responsible for maintaining records of internal expenses related to DSM Portfolio activity.

PGW Legal/Regulatory Affairs

Legal and Regulatory Affairs will be responsible for communicating regulatory requirements to the Program Administrators and/or any other relevant parties as well as for the regular dissemeniation of reports to the Commission. Legal staff will also be involved in the drafting and execution of contracts with third parties.

PGW Information Services

Information Services will develop and maintain the DSM Tracking System. This includes designing, building, and testing the initial system as well as adding additional functionality as new programs are rolled out. Part or all of this activity may be contracted out to a third party at the discretion of the Company. Additionally, Information Services will assist in the production of the data for the annual reports to be submitted to the PUC.

Program Development Consultants

PGW will retain the services of one or more consultants to aid in the design, implementation, and analysis of both programs and the entire DSM Portfolio. Additionally, the Program Development Consultants will aid in the prepartation of regulatory filings. The Company will hire the consultants as needed based on implementation schedules and planning requirements.

The Company has retained the services of Green Energy Economics Group, Inc. (GEEG), a consulting firm with extensive experience energy efficiency portfolio development, design, and analysis. GEEG was originally contracted to develop the Five Year DSM Plan and continues to work closely with PGW to to aid in the continual development of the DSM Portfolio through the implementation stages

Communications Hub/Hotline

PGW will establish a dedicated communications hub/hotline for the purposes of handling customer inquiries and coordinating communications with contractors. Personnel will be specifically trained in the technical content and program structure in order to provide the necessary information and/or relay requests to relevant parties. Information tracked by the communications hub will be used to aid in the improvement of energy efficiency service delivery to customers.

External Marketing

PGW will contract out any marketing activities not handled by its internal staff or implementation contractors. Individual programs within the DSM portfolio will require distinct marketing approaches. For instance, the Enhanced Low Income Retrofit Program will require little to no marketing activities as participants will be targeted from PGW generated listsof CRP participants.. The Premium Efficiency Gas Appliance and Heating Equipment Program will require marketing activities in order to raise program awareness and generate customer interest. .

Conservation Service Providers

Pursuant to an RFP process, PGW will seek implementation conservation service providers (CSP) that will be responsible for all aspects of program delivery. Programs may be served by one or more contractors, or may share contractors with other programs in the portfolio. DSM Program Administration staff will be responsible for overseeing the activity of the CSPs.

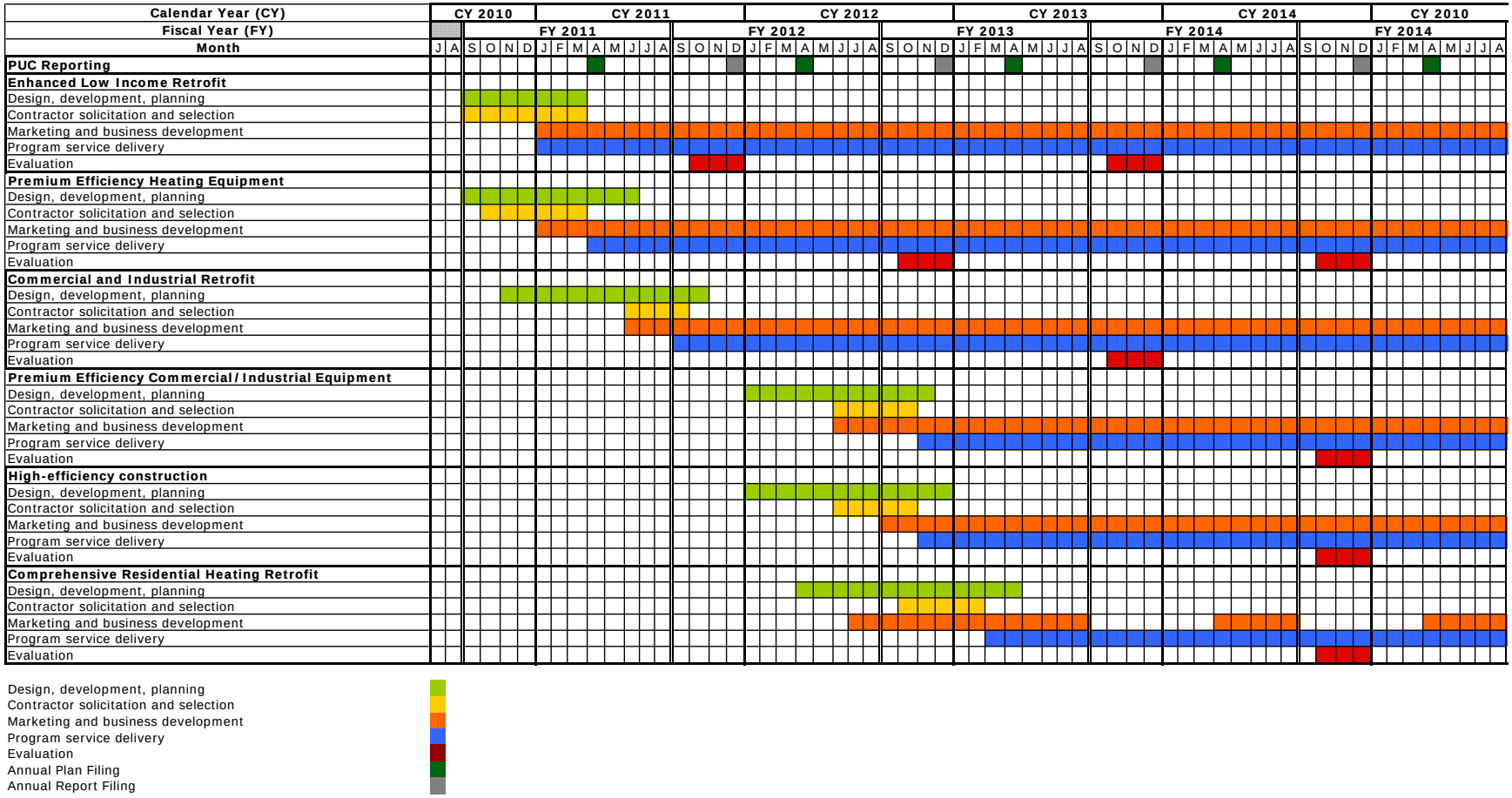
Evaluator

PGW will hire an independent evaluator to complete an in-depth evaluation of each program every two years following the creation of that program. The evaluator will be responsible for gathering reporting requirements from regulators and preparing the evaluation report. PGW and its contractors will provide the evaluator with all required

information. PGW will work with stakeholders to develop the research agenda for each upcoming evaluation in advance of issuing requests for proposals from contractors.

E. Summary of Implementation Schedule

PROGRAM IMPLEMENTATION TIMELINE



F. Overview of Coordination

PGW will seek to coordinate DSM Portfolio efforts as much as possible with other organizations and programs in order to leverage existing resources and avoid lost opportunities and duplication of services. The following opportunities have been identified as being avenues of coordination:

- PGW is working to coordinate the installation of CFLs with PECO through the Enhanced Low Income Program. Under the current proposal, PGW's implementation CSPs would install the bulbs and PECO would contribute toward the costs. More details on these efforts are included in the plan for the Enhanced Low Income Program below.
- The two agencies administering the State Weatherization Assistance Program in Philadelphia, ECA and PHDC, have received increased funding through ARRA to supplement their annual weatherization activities for low-income households. The eligibility for participating in WAP is very similar to PGW's CRP, and by extension CWP, eligibility criteria. In order to assist the WAP agencies in achieving the greatest impact, PGW will work with the WAP agencies to avoid the duplication of efforts, provide deeper savings, and to reach the most customers possible.
- In order to increase customer participation in its retrofit programs, the Company will aid customers in seeking and securing financing. PGW will target the Keystone HELP program as well as local banks and credit unions. As the portfolio develops and additional programs are rolled out, PGW will expand these efforts to include other retrofit programs.
- PGW is currently pursuing all possible opportunities to partner with the City of Philadelphia to identify potential opportunities to align PGW energy efficiency funds with Energy Efficiency and Conservation Block Grants that have been granted to the City through the American Recovery and Reinvestment Act (ARRA).
- PGW will coordinate current marketing efforts with efforts by program CSPs. Examples of such cooperation include referencing recent program activity in "Good Gas News," PGW's monthly newsletter, providing information though bill inserts, and organizing joint training and education events.
- PGW will direct CSPs to provide information on other relevant energy efficiency programs at the time of service delivery. This includes information about additional PGW programs as well as other local, state, and federal programs.

G. Overview of Data Management, Reporting, Planning, and Evaluation

i) Overview of Reporting and Planning

To satisfy the Settlement plan and provide a regular annual reporting cycle, PGW proposes the following:

- The reporting cycle will follow PGW's fiscal year (FY). The first year of the portfolio will be FY 2011, which starts September 1, 2010 and goes to August 31, 2011. The last year of the current DSM Portfolio will be FY 2015, which begins September 1, 2014 and ends on August 31, 2015.

- The Company will file and distribute to the parties for comment an "Annual Proposed Fiscal Year Implementation Plan" four months before the end of each fiscal year (April 30). The report will include:
    - Quantitative tables covering the first six months of the current fiscal year and portfolio inception-to-date activity.
    - Detailed plans for the next full program year based on the current "First Fiscal Year Implementation Plan" structure

- The Company will file an "Annual Fiscal Year Report" four months after a program year ends (December 31). The report will include:
    - Quantitative tables covering all twelve months of the previous fiscal year and portfolio inception-to-date activity.
    - A qualitative narrative covering the past fiscal year's activity.

- For each program, the Company will retain the services of an evaluation contractor to perform a biennial, in depth analysis of the program's activities. These evaluations will be similar in scope and timing to the activities currently performed on the CWP, although the actual evaluation scope and schedule will be determined on a program by program basis.

Please see Appendices G and H for a detailed description of the fields and sections that will be provided as part of the quantitative and qualitative analysis in the Annual Fiscal Year Implementation Plan and Annual Fiscal Year Report.

The following figure shows the reporting cycle covering the first year of the portfolio (FY 2011).

FIGURE 2. First Fiscal Year Reporting Cycle

Fiscal Year (FY)	FY 2011												FY 2012											
Month	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
Annual Implementation Plan								X																
Annual Report																X								

Reporting Period Covered
Planning Period Covered
X Filed at month-end

ii) Overview of Evaluation Strategy

Annual Implementation Plan

Each Annual Implementation Plan will have the same structure as the "First Fiscal Year Implementation Plan". The narrative sections in the annual plans will cover the detailed steps and strategies that PGW will implement in the next program year. Each plan will provide more details on programs with activity in the next year. Programs with no activity in the next year will have a less detailed overview of future plans. This satisfies the settlement requirement to provide the detailed "program plans" for the next year.

To satisfy the Settlement requirement that the Annual Implementation Plan "report on the progress of the program to date" and show "budgets for next year", the quantitative (tabular) sections of the plan will provide the values outlined in Appendix G for the following:

- Actual results for the first six months of the current year
- Project results for the entire 12 months of the current year
- Projected results for the next year
- Actual and projected results from portfolio inception-to-date

The plan will be filed in accordance with the settlement, four months prior to the end of the current plan year.

Annual Reporting

The Annual Report provides an overview of the DSM Portfolio's activity for the past year (report year). The report will specifically:

- Compare the actual results from the past year to annual goals

- Report on progress towards five-year goals

- Highlight important results

- Identify barriers to success from the past year and present steps to overcoming those barriers

- Report on changes to service

There are two general types of reporting encompassed by the Annual Report; quantitative reporting and qualitative reporting. The Annual Report integrates the two into a narrative, although this outline separates the specifications for each. PGW will develop a separate Annual Report outline as part of its First Year Implementation Plan. Most information in the Annual Report will be presented on the program and portfolio-levels. Limited measure-level information will also be included.

Quantitative reports show actual figures from past activity and future projections. Further detail on the types of figures in this section is provided in Appendix G. The annual report will show these figures for the following:

- Actual and projected results for the previous year

- Actual and project results for report year

- Projected results for the next year

- Actual and projected results from portfolio inception-to-date

The qualitative sections present a narrative analysis of program activity and explanations of the results from the quantitative reports. The Annual Report, unlike the Annual Implementation Plan will contain limited forward-looking statements, as its main objective is a broad accounting of the previous year's activity. Results from the Annual Report will be used in the creation of the Annual Implementation Plan. Further detail on the qualitative reporting in the annual report can be found in Appendix H.

The Annual Report will be filed at the end of the fourth month after the close of the program year. This will allow PGW time to finalize annual data collection and prepare the report.

Upon written request and execution of a confidentiality agreement provided by PGW, on an annual basis in connection with the filing of its Annual Fiscal Year Report, PGW will provide, on a per account basis, the CRP usage for the 36 months prior to the end of the relevant fiscal year and the weatherization treatment date. Such data will be provided to the requesting party in an excel format on a protected CD or USB flash drive.

LIURP Reporting

Since the Enhanced Low-Income Program (ELIRP) will be replacing the Conservation Works Program (CWP) as PGW's Low Income Usage Reduction Program (LIURP), current reporting activity for the CWP will continue for the ELIRP. This includes:

- The preparation of an annual report filed with the PUC. This report covers a calendar year and is filed 16 months after the close of the year covered.

- Maintenance of the data provided to the LIURP evaluators.

Process Evaluations

The primary objectives of program evaluations are to:

- Assess the energy savings achieved by the program

- Estimate program effects on efficiency markets

- Explore the performance of implementation contractors

- Examine the savings by measure type

- Identify the impacts on bill payment behavior, and

- Calculate cost-effectiveness.

An independent evaluation contractor selected through a competitive bidding process will perform each evaluation. The evaluation will be more detailed than the analysis performed by PGW for their Annual Report and Annual Implementation Plan, especially relating to measures and customer impacts. The specific scope of process evaluations will be tailored to the program being evaluated and RFP(s) will be issued for the programs. PGW will provide the evaluator with relevant program, customer, and contractor data and each program will have an evaluation performed approximately every two years (biennially).

No program process evaluations will occur in FY 2011. The first program evaluation will be for the Enhanced Low Income Program at the beginning of FY 2012. In FY 2015, PGW proposes to conduct a portfolio-wide evaluation of the implementation of its DSM portfolio. This will include a comparative analysis of PGW's performance against that of its peers.

Additional Reporting

The company also may submit periodic memoranda detailing any type of unusual conditions or events that may lead to major program changes, cancellation, or replacement.

iii) Quality Control

The Company will utilize the following methods to ensure that high-quality natural gas conservation programs are provided to its customers:

PGW will establish a DSM Portfolio team to provide overall program management, emphasize funding level requirements, and coordinate program delivery with other utilities and energy efficiency programs.

The Company will continuously monitor the program results, and, when necessary, program managers will modify the delivery of program services to meet changing customer and market conditions. Included in this oversight is the monitoring of vendor performance, customer satisfaction, and market responsiveness.

Inspections will be performed on a randomly selected set of projects by a third-party contractor. These inspections will assure that contractors follow program guidelines and are in compliance with local, state, and federal codes.

PGW will analyze customer usage data to verify that customers are achieving savings. These results will be compared to, and may lead to the modification of, savings assumptions.

A third-party evaluator will perform regular, detailed evaluations on each program in the DSM Portfolio. PGW will use the results of these evaluations to improve service delivery and customer satisfaction.

The Company will analyze programs' cost-effectiveness and impact by using industry-accepted guidelines for developing energy savings and economic assumptions.

iv) Data Management

PGW will construct a DSM Tracking System ("the Database") as a central repository for data relating to the DSM Portfolio. The Database will be a key part of the Company's approach to oversight and quality control and PGW is currently developing a full set of specifications for the database system and plans to roll out the initial version of the system for tracking program activity starting January 1, 2011.

<u>Database Structure</u>

DSM Tracking System is expected to include a back-end relational database with multiple, secure front-end web portals that will be modified to fit the needs of the parties utilizing them. For instance, CSPs will have a web portal through which they add job information and tests for customer eligibility. PGW administrators would be able to run reports on program activity and track progress toward annual goals. In addition, the Database will have the following characteristics:

- Scale with the ramp-up of the DSM Portfolio, as new programs are added and the volume of records increases.

- Interface with PGW's relevant, existing IT infrastructure, such as customer account and contractor invoicing systems.

- Handle the storage of electronic documents (.PDFs, pictures, etc.) relating to the DSM Portfolio.

- Import from and export to a common electronic format such as Microsoft Excel.

- Utilize standard data validation techniques such as maintaining and enforcing field parameters, checking for possible duplication, and retaining an audit trail.

- Track the changing status of projects within programs. For example, tracking the status of a retrofit project from the initial audit to the payment of the incentive check.

- Allow for the storage and retrieval of information on multiple levels of data, including:
    - Portfolio
    - Program
    - Customer Class
    - Customer
    - Project
    - Facility/Building
    - Measure

<u>System Access</u>

PGW aims to maintain oversight of the DSM Portfolio as close to real-time as possible. Maintaining a thin interface between contractors and DSM Administrators will be essential to meeting this goal. PGW will utilize web-based solutions where possible and the DSM Tracking System will be expected to support the following types system usage:

- CSPs will submit program activity data to the DSM Tracking System through a secure web portal. They will also be able to track the status of past projects and update current projects through this interface. Although the web portal will be the

primary point of access, the Database will also be able to handle offline data uploads. Examples of program activity data include rebate applications, energy audits, inspections, and customer surveys.

- Limited customer information will be provided to CSPs for the purposes of marketing efforts and determining customer eligibility. For example, CSPs will need to identify targeted customers to provide services to, in the case of the ELIRP, and test for customer eligibility, in the case of the PEHEP.

- Program Administration Personnel will access the system to run reports on program activity. They will also need to be able to easily update program targets, measure assumptions, and any other assumptions used to calculate savings and cost-effectiveness.

- Evaluators will have access to raw program activity information to perform independent analysis on. The DSM Tracking System will be able to export data to a format agreed upon in the evaluation CSP contracts.

- To protect the confidentiality of its customers, the DSM Tracking System will have strict security measures in place.
    - Various levels of access controlled by PGW Staff and assigned to specific users or groups of users.
    - Appropriate levels of encryption for sensitive data
    - Logs of user's access

Reporting

The DSM Tracking System will generate a number of key reports as well as support the creation of other ad hoc reports. These reports will be used for the day to day evaluation of program results, as well as for preparing annual reports and plans. The reports are expected to have the following characteristics:

- Support the output of data for multiple time frames, including:
    - Monthly
    - Quarterly
    - Annual
    - Inception-to-Date
    - Custom Date Range

- Calculate cost-effectiveness according to the TRC and Utility Cost tests.

- Calculate deemed savings using inputs from the TRM and program activity data.

- Aggregate customer participation, program costs, and measure-level data.

- Export results to be used in other software (e.g. Microsoft Excel).

H. Key Assumptions

i) Avoided Costs

PGW will update its avoided cost assumptions every year. Accordingly, the updated avoided costs will be used to adjust the five-year cost-effectiveness goals. PGW's avoided cost estimation methodology is the same as that utilized in its DSM Plan. In summary, it estimates avoided gas costs for three load shapes: base load, heating and water heating.

- Baseload, modeled as using the same amount of gas every day.
- Space heating, modeled as using gas in proportion to daily heating degree days (HDD).
- Water heating.

The avoided gas cost consists of the following three parts:

- Commodity: The market prices of gas delivered to a utility's citygate in a normal year.
- Water heating commodity: Modeled as a mix of baseload and space-heating load. This approximation reflects the observation that gas usage by water-heating customers rises in the winter months, probably as a combination of higher standby losses and warmer water temperatures for baths, showers and washing.
- Peaking capacity: The costs of local capacity to cover the difference between normal and design-peak conditions.

Commodity Cost

The forecast of monthly delivered gas prices to the PGW citygate for gas delivered evenly over the month was estimated through August 2013 as the sum of:

- The NYMEX forward price for gas delivered to Henry hub, plus
- The NYMEX forwards for the price basis from Henry Hub to Transco Zone 6, which includes the PGW citygate.

For baseload end uses, where use of gas does not vary with weather or the season, the analysis weights the forecast monthly gas price by the number of days in the month.

Space-heating commodity costs are higher than baseload costs, since heating uses more gas in the colder, higher-priced months and more gas in the higher-priced, higher-cost days within each month. The analysis computes avoided annual heating commodity costs as the HDD-weighted monthly forward price, with the prices in each month adjusted by the historical ratio of HDD-weighted to simple average prices in the month.

Water-Heating Commodity

Based on previous experience, the analysis assumed that water-heating load is similar in shape to 75% baseload and 25% space-heating load. The heating-like shape is probably attributable to a combination of higher standby losses and longer, hotter showers and baths in cold weather.

Peaking Capacity Cost

In addition to providing gas to meet normal weather, PGW must provide enough reserve capacity to meet loads under design conditions, including both a design day with 65 HDD and a design winter with heating loads approximately 19.4% greater than normal. The analysis estimated the cost of that reserve as the price of PGW's Equitrans storage supply times the percentage increase in heating load between normal and design winters.

The resulting peaking-reserve cost for heating load is about $0.50/Dth of annual heating load. Reserves for water heating are assumed to be 25% of the heating value, or $0.13/Dth. Since baseload has no increment of sendout on the design peak over average conditions, it would not have any peaking capacity charges. Peaking costs are assumed to remain constant in real terms.

Post-2012 Escalation

After 2012, the avoided costs are escalated at 2% for general inflation and at 90% of the real reference-case escalation rate forecast in DOE's *Annual Energy Outlook 2010*. After 2031, the avoided costs are projected as constant in real terms.

Avoided-Cost Summary

Appendix A shows avoided costs for the three load shapes. The relationships among the prices for the various load shapes are as expected. The heating cost is higher than the water-heating cost, which is higher than the baseload cost.

ii) Benefit-Cost Analysis

The cost-effectiveness results reported in this plan followed standard industry practices for utilizing the Total Resource Cost (TRC) test for cost-effectiveness. The Company employed an Excel spreadsheet-based tool to calculate the cost-effectiveness of the DSM Portfolio. A functioning version of the tool with all PGW's cost, savings, and participation assumptions as an electronic appendix to this plan.

The analysis used a real discount rate (RDR) of 5.9%. The RDR was calculated using an assumption of a nominal discount rate (NDR) of 8.02% and inflation rate of 2.0%. This is

the same discount rate used in present worth calculations in PGW's most recent evaluation of its low-income retrofit program

iii) Technical Reference Manual

In order to establish a consistent framework for measuring the energy savings and cost effectiveness of the DSM program efficiency measures, a technical reference manual (TRM) will be developed. The TRM will include the efficiency measure characterizations for standard gas measures that are commonly encountered and can be determined based on easily obtainable input variables, such as equipment size and efficiency levels. More complex custom efficiency measures based on site-specific conditions or custom analysis will not be provided in the TRM, but the TRM may serve as guidance for developing custom characterizations.

The TRM measure characterizations will be used for determining energy savings and cost effectiveness both at the customer and program levels. Measure characterizations will be developed separately for residential and non-residential applications, to recognize the inherent differences between the different customer types and their usage patterns.

The following is a list of characteristics that will be developed for each gas measure included in the TRM:

- Efficiency measure description, including the applicable market (new construction, at time of natural equipment replacement, early replacement of existing functioning equipment)
- Gas energy saving algorithms based on variables such as equipment size and efficiency level
- Pattern of gas savings (space heating, water heating, baseload)
- Annual hours of equipment usage
- Efficient equipment efficiency level
- Baseline equipment efficiency level
- Lifetime of measure savings, including persistence
- Incremental measure costs (efficient equipment costs net of baseline equipment costs)
- Operation and Maintenance cost differences between the efficient and baseline equipment
- Electricity savings – energy and coincident peak

- Water savings

- Net-to-Gross (NTG) ratios. The NTG ratio takes into account free-riders (customers that would have installed the measure absent a DSM program) and spillover (non-participants in the DSM program that are influenced by the DSM program and install the efficient measure – also known as free-drivers)

The information in the TRM will be based on the best information available. Initially, this will be based primarily on other utilities' gas DSM programs with regional adjustments, where appropriate. In the future the characterizations may also be based on PGW program experience and evaluations. Sources for all measure characteristics will be documented in the TRM.

The TRM will be considered a living document and will be updated as new information becomes available. This might be due to equipment efficiency changes for either the proposed efficient equipment or the baseline equipment that is being replaced.

I. Summary of Cost Recovery Mechanism

The cost of the energy efficiency programs, including administrative costs incurred from running the programs, for the firm customer rate classes listed below will be recovered by an Efficiency Cost Recovery Surcharge (ECRS) applicable to all volumes of gas delivered. Cost recovery is only from firm customers, not interruptible. Recovery of program costs for each customer class are recovered only from that customer class.

Computation of the Efficiency Cost Recovery Surcharge factors will be in accordance with the automatic adjustment procedures utilized under Section 1307(f) of the Public Utility Code and will be filed and approved in conjunction with the Company's annual Section 1307(f)-GCR filing**.**

Once the surcharge is in place, it will be automatically adjusted effective March 1, June 1, September 1, and December 1 of each year in accordance with Section 1307(f) quarterly adjustment procedures. No interest will be included in such surcharge computations. The basic component of the surcharge will be determined by dividing the total energy efficiency program costs approved for annual recovery plus (or minus) any over (or under) recovery from the prior period by the estimated applicable throughput in Mcfs. The costs related to customers other than low income residential customers are tracked and recovered separately from each of the following firm customer rate classes served by the energy efficiency program:

a) Residential on Rate GS;
b) Commercial on Rate GS;
c) Industrial Customers on Rate GS; and
d) Municipal Customers on Rate MS;

The surcharge shall be a cents per Ccf charge calculated to the nearest one-thousandth of a cent (0.00001) which shall be added to the distribution rates for billing purposes for all customers in each of the above rate classes. The rate shall be calculated separately for each rate class.

The Enhanced Low Income Retrofit Program costs shall be recovered through the Universal Services Surcharge beginning on September 1, 2010.

The Efficiency Cost Recovery Surcharge shall take effect upon approval of the initial implementation plans through the end of PGW fiscal year (FY) 2011.

Programs Launching in Year One (FY 2011)

This section contains the detailed plans for programs that will provide delivery of energy efficiency services in the first year of the DSM Portfolio, FY 2011. This includes two programs, the Enhanced Low Income Retrofit Program (ELIRP) and the Premium Efficiency Heating Equipment Program (PEHEP) for residential customers. The ELIRP will be an expansion of PGW's current CWP, both in customers served and the depth of savings achieved. The PEHEP is a new program that will provide prescriptive incentives for high efficiency gas heating equipment. The ELIRP and PEHEP will begin service delivery on January 1, and April 1, of 2011 respectively.

A. Enhanced Low Income Retrofit Program

i) Program Description

The Enhanced Low-Income Retrofit Program seeks to provide cost-effective energy savings to low-income customers who participate in PGW's Customer Responsibility Program (CRP). A secondary goal of the program is to reduce the overall long-term cost of the CRP as paid by all firm customers. The program will achieve these goals and make customers' homes more energy efficient and comfortable by:

- Repairing or replacing older and less energy efficiency heating systems
- Providing comprehensive weatherization services
- Educating customers on ways to reduce their energy use along with basic health and safety information
- Raising awareness of energy conservation and encouraging the incorporation of energy saving behavior
- Targeting high-use customers to maximize impact and increase cost-effectiveness
- Streamlining the delivery mechanism through the use of implementation contractors

The program will replace the Conservation Works Program (CWP) as the Company's Low-Income Usage Reduction Program (LIURP).

ii) Costs, Benefits, and Impacts

Over FY 2011 to FY 2015, the program is expected to provide net present value benefits of $9.4 million with a benefit-cost ratio (BCR) of 1.39. The program aims to serve 2,531 customers in FY 2011, with associated annualized gas savings of 104.6 BBtus, or 41.3 MMbtu/customer. In FY 2011, the program is projected to cost $6.7 million, or $2,630

per participant. The following table shows a detailed breakout of participation, costs, and savings.

Table 9. Projected FY 2011 Impacts for the Enhanced Low Income Retrofit Program

	FY 2011	
PARTICIPATION		
Analyses/Audits		2,531
Customers with Installations		2,531
COSTS		
Measure Installation Costs	$	6,075,550
Administration and Management	$	-
Marketing and Business Development	$	-
Contractor Costs	$	568,815
Inspection and Verification	$	10,305
Evaluation	$	-
Utility Costs	**$**	**6,654,670**
Participant Costs	$	-
Total	**$**	**6,654,670**
BENEFITS		
Net Annual BBtu		104.6
Net Lifetime BBtu		1,568.4
Net Annual MMBtu / Customer		41.3
Weighted Lifetime (years)		15.0

iii) Workflow

The program will continue to provide services in the same way as the current CWP pilot program with a few additional modifications identified as ways to achieve deeper savings. This includes an energy audit to address low-cost maintenance issues and identify cost-effective weatherization and early-replacements of furnaces and boilers and the installation of the cost-effective measures identified in the audit. The steps below outline the workflow of the program.

Home Energy Audit

The implementation CSP will perform a home energy audit on a list of eligible customers provided by PGW. Each home energy audit will include the following elements.

- An introduction and explanation to customers of the services to be provided
- Performance of basic health and safety checks
- Delivery of a “core treatment” of basic low-cost measures

- A blower-door test to quantify the amount of air leakage and determine what additional air-sealing measures would be required

- Evaluation of potential energy savings and the identification of cost-effective measures with an emphasis on three main end-uses: weatherization, heating system, and hot water usage.

- Customer education on the ELIRP, energy conservation, and the ELIRP goals and objectives

Direct Installation

A number of low-cost measures covering weatherization, heating systems, and hot water usage will be directly installed during the initial energy audit. Additionally, PGW is currently pursuing a partnership agreement in which up to ten incandescent bulbs per home will be replaced with CFLs with costs contributed to by PECO. The additional cost-effective measures identified in the home energy audit will be installed in follow-up visits.

iv) Ramp-Up Strategy and Milestones

PGW is planning to launch ELIRP on January 1, 2011. The existing CWP contracts will be extended from September 1, 2010 to January 1, 2011. However, the current CWP cap of 25% on pilot program measures will be removed and the contractors will provide pilot program measures if needed, as well as other core measures required. Any services provided through the CWP before January 1, 2011 will be included in regular LIURP reporting but will not be counted as part of the DSM Portfolio or the ELIRP.

Task	Time Period
Extend current CWP contract with ECA and Honeywell.	September 1, 2010
Develop details for expanded implementation contractor scope of work	July 23, 2010 – August 31, 2010
Generate database of highest-use customers and normalized gas usage	August 13, 2010 – August 27, 2010
Develop ex-ante savings calculation protocols, finalize inspection and verification protocols, and develop evaluation study research agenda	August 13, 2010 – September 17, 2010
Issue RFP for implementation contractor(s)	September 1, 2010
Secure implementation contractor(s) for expanded program	October 6, 2010 – November 16, 2010

Task	Time Period
Pre-launch planning, training, and infrastructure development between PGW and CSP(s)	November 16, 2010 – December 31, 2010
Launch Program	***January 1, 2011***
Develop scope of work for evaluation contractor(s)	May 1, 2011 – June 5, 2011
Issue RFP for evaluation services	June 5, 2011
Secure evaluation contractor(s)	July 15, 2011 – August 29, 2011
Issue draft process evaluation study	November 27, 2011
Issue final process evaluation study, covering the end of the CWP and start of the ELIRP	***December 17, 2011***

v) Target Market and Program Eligibility

Only customers participating in PGW's CRP are eligible. The implementation CSPs will target customers based on usage, targeting the highest users in order to prioritize greatest potentials for savings. For FY 2011, a high-use customer is defined as one using more than 1,400 ccf per year.

Customer Eligibility Parameters
Customer Type: Residential
Rate Class: GS Residential
Building Type: Single family, mobile home
Building Vintage: Existing
Building Ownership: Owner or tenant with owner approval

vi) Target End-use Measures

Each customer will receive a "core-treatment" consisting of a blower-door diagnostic test and basic low-cost treatments. These treatments may include:

- Blower-door guided air sealing and duct sealing
- "Clean, test, and tune" (CTT) service on furnaces, including filter replacement
- Radiator bleeding and the installation of radiator reflectors
- Water heater and pipe wrapping

- Installation of low-flow faucet aerators and showerheads
- Hot water leak repairs
- Direct installation of CFLs

Outside of the "core treatment", special consideration will be placed on heating system replacement and repair. Additional measures that will be installed if determined to be cost-effective include:

- Set back thermostats with intensive education
- Water heater replacement or repair
- Attic insulation
- Wall and ceiling repair
- Any additional health and safety measures, such as but not limited to minor heating system repairs, blocked chimneys, ground covers for wet crawlspaces, and the replacement of leaky jalousie-type windows.
- Any other cost-effective measures

The energy efficiency education component of the program covers:

- Information about the ELIRP and its goals and objectives
- Literature on as savings tips and the potential benefits to the customer's health, comfort, safety, and quality of life.
- Information on other energy efficiency programs for which the customer may be eligible

vii) Incentive Strategy

PGW will cover all costs for the delivery of energy efficiency services under the Enhanced Low Income Program.

viii) Roles and Responsibilities

Pursuant to an RFP process, PGW will seek one or more implementation CSPs to deliver home energy audits and, in follow-up visits, install measures identified as cost-effective at no cost to customers. The CSPs will bill PGW for the cost of services and provide

regular reports on program activity and market acceptance. The current CWP utilizes two CSPs, Honeywell and ECA, with extensive experience delivering services comparable to the ELIRP.

The Company will oversee the delivery of services by tracking invoices and program activity as well as holding regular meetings with CSP staff. Additionally, PGW will provide regular impact reports and coordinate any other evaluation activities, such as LIURP reporting and a biennial process evaluation.

ix) Marketing Strategy

No marketing plan will be prepared for the ELIRP since services will be provided automatically based on the eligibility criteria.

x) Coordination with other Programs

Program/Organization	Description of Coordination
Energy Coordinating Agency (ECA) and the Philadelphia Housing Development Corp. (PHDC)	PGW will be coordinating with the two Philadelphia WAP agencies, ECA and PHDC, in selecting and potentially treating low-income CRP households within the ELIRP.
PECO's CFL Initiative	A partnership arrangement is being pursued in which up to ten incandescent bulbs per home will be replaced with CFLs working with PECO.
Philadelphia's Basic System Repair Program (BSRP)	Initial conversations have taken place regarding coordinating DSM activities with the City's Basic System Repair Program. An arrangement has not yet been feasible, however PGW will continue to seek ways to coordinate programming between the DSM and BSRP.

xi) Evaluation, Monitoring, and Verification

Quality Assurance

Through constant appraisal of program achievements, PGW will ensure that program activity meets the stated goals. PGW will review customer usage data pre- and post-installation to verify that savings are being realized. This analysis will be supplemented with on-site inspections of a randomly selected group of projects. These inspections will include the verification of the type and quality of contractor work and interviews with customers. A contractor independent from the main program CSP will perform

inspections and report results to the program administrators. The Company will include report results through regular impact evaluations and a biennial process evaluation, similar in scope to the evaluations performed in the past on the CWP.

Data Collection

Implementation CSPs will provide PGW with program activity data for populating the DSM Tracking System. Program data will be collected from customer application forms, site visits, and surveys of participants and non-participants. PGW's tracking system supports program evaluation through the collection of all relevant data pertaining to customer rebates and installed equipment. Customer name, account, premise level, and other non-program specific data are captured in the system. Measure-specific data as appropriate will also be captured. Examples of measure-specific data that will be collected can include:

- Date of contract/agreement to install measure(s)
- Start date of installation process
- Installation completion date
- Installation contractor
- Installation location
- Project or work order number
- Type of measure
- Annualized energy savings
- Measure life
- Total measure installed cost
- Incremental measure cost
- Project completion date
- Evaluation inspection/commissioning date
- Date of evaluation of measure or program
- Types of evaluation conducted
- Result of evaluation

Reporting

As part of the Annual Reporting process described in the "Overview of Data Collection, Reporting, Planning, and Evaluation", PGW will provide regular evaluations of the programs impacts. Deemed savings will be calculated using the values established in the TRM, and formulas will be updated as the TRM changes. The report will show the number of customers served as well as a breakdown of the measures installed by the implementation CSP.

Evaluation

PGW has conducted extensive evaluation of its low-income program. PGW will continue to use the results of independent evaluation to update savings estimates and redirect program activities.

Primary evaluation issues to be addressed in the initial set of evaluations will include:

- Costs and savings from enhanced efficiency services

PGW's first biennial process evaluation of the ELIRP is scheduled to occur in the beginning of FY 2012.

B. Premium Efficiency Heating Equipment Program

i) Program Description

The Premium Efficiency Heating Equipment Program (PEHEP) will issue prescriptive rebates on premium efficiency gas appliances and heating equipment to increase the penetration of these measures in the homes of PGW's customers. The program has the following objectives:

- Promote the selection of premium efficiency residential models at the time of purchase of residentially-sized gas heating equipment
- Increase consumers' awareness of the breadth of energy efficiency opportunities in their homes
- Strengthen PGW's relationship with customers as a partner in energy efficiency
- Encourage market actors throughout the supply chain to provide and promote high efficiency options
- Align incentives with other programs
- Aid in market transformation towards highest-efficiency options

Eligible customers will use a certified contractor to install the premium efficiency equipment and receive cash rebates to offset most of the incremental cost of the higher efficiency equipment.

ii) Costs, Benefits, and Impacts

Over FY 2011 to FY 2015, the program is expected to provide net present benefits of $19.1 million with a benefit-cost ratio (BCR) of 4.78, making it extremely cost-effective. The program aims to serve 2,988 customers in FY 2011, with associated annualized gas savings of 25.4 BBtu, or 8.5 MMBtu/customer. The program is projected to cost $510,389. The following table shows a detailed breakout of participation, costs, and savings.

Table 10. Projected FY 2011 Impacts for the Premium Efficiency Heating Equipment Program

	FY 2011
PARTICIPATION	
Analyses/Audits	4,482
Customers with Installations	2,988
COSTS	
Customer Incentives	$ 258,110
Administration and Management	$ -
Marketing and Business Development	$ 103,360
Contractor Costs	$ 77,520
Inspection and Verification	$ 7,721
On-site Technical Assessment	$ -
Evaluation	$ -
Utility Costs	**$ 446,711**
Participant Costs	$ 63,678
Total	**$ 510,389**
BENEFITS	
Net Annual BBtu	25.4
Net Lifetime BBtu	381.0
Net Annual MMBtu / Customer	8.5
Weighted Lifetime (years)	15.0

iii) Workflow

The following steps describe the delivery of services for the PEHEP:

- Customers are made aware of the program through various marketing channels, including efforts by the CSP, the Company, equipment dealers, and contractors.

- The customer obtains information pertaining to eligibility and measures covered by the program from the CSP, the Company, retailers, or contractors. This information includes a document describing eligible measures as well as a copy of the application form, both of which will be available in physical and electronic formats and details the exact rebate that they may receive.

- Customers work with contractors and retailers to purchase and install the eligible equipment. They then fill out the rebate application and submit the form, along with proof of purchase and the contractor's certification that the measure was installed, to the program's CSP.

- The CSP processes the application, checking customer and measure eligibility. If the application meets program guidelines, a check is mailed to the customer.

Otherwise, the customer is notified that the rebate application was not accepted and the reason for rejection.

- A randomly selected group of applications will be selected for a post-installation inspection. Please see the Evaluation, Monitoring, and Verification section of this program for additional details.

iv) Ramp-Up Strategy and Milestones

The program will begin accepting rebate application in April of 2011, giving program participants time to prepare for the 2011-heating season. The amount of rebates offered in the first year will be smaller than those offered in future years, as customers gain awareness of the program and the CSP(s) work out any issues with service delivery. The pace of rebates is expected to double by FY 2012, and increase another 50% by 2013 as the DSM portfolio matures and larger budgets can be supported.

Task	Time Period
Finalize qualified equipment and incentive amounts	July 16, 2010 – August 22, 2010
Develop ex-ante savings calculation protocols, inspection and verification protocols, and develop evaluation study research agenda	August 6, 2010 – September 3, 2010
Develop detailed implementation and marketing contractor scopes of work	September 3, 2010 – September 30, 2010
Issue RFPs for implementation and marketing service contracts	October 1, 2010
Secure implementation and marketing CSP(s)	November 5, 2010 – December 31, 2010
Pre-launch planning, training, and infrastructure development between PGW, CSP(s), and market actors	January 1, 2011 – March 31, 2011
Launch Program	***April 1, 2011***

v) Target Market and Program Eligibility

The program's target market is a PGW customer purchasing residential-sized, high efficiency space and water heating equipment. To be eligible for a rebate, a participant must be a customer of PGW. Owners and renters, with the approval of the owner, are both eligible. Additionally, an individual customer may only receive one rebate per category, space heating and water heating, in any given calendar year in order to reach

the maximum amount of customers possible. Only equipment installed after the start date of the program, April 1, 2011, will be eligible for a rebate.

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Customer Eligibility Parameters
Customer Type: Residential and Small Commercial
Rate Class: GS Residential, GS Commercial
Building Type: All
Building Vintage: All
Building Ownership: Owner or tenant with owner approval

vi) Target End-use Measures

Measures in the program include high-efficiency furnaces, high-efficiency water heaters, and space heating controls. Measures targeted by the program are designed to exceed the levels set by the National Appliance Energy Conservation Act (NAECA) with the highest rebates going towards measures with efficiency levels of at least Tier 2 as quantified by the Consortium for Energy Efficiency (CEE)[3]. The following table shows a preliminary list of efficient measures and their incentives.

Table 11. Residential Equipment Rebates

Residential Efficienct Equipment Incentives		
Measure	**Minimum Efficiency**	**Rebate**
Tankless Water Heaters (w/ electronic ignition)	EF = 80	$ 150.00
Tankless Water Heaters (w/ electronic ignition)	EF = 82	$ 300.00
Storage Tank (min 40 gallons)	N/A	$ 50.00
Natural Gas Furnace	AFUE = 92	$ 200.00
Natural Gas Furnace	AFUE = 92 / ECM driving fan	$ 400.00
Natural Gas Water Boiler(w/ electronic ignition)	.82 AFUE	$ 200.00
Natural Gas Water Boiler(w/ electronic ignition)	.85 AFUE	$ 500.00
Natural Gas Water Boiler(w/ electronic ignition)	.90 AFUE	$ 1,000.00
Programmable Thermostat	N/A	$ 25.00

PGW will finalize the list of eligible incentives and corresponding rebates before issuing the RFP for an implementation CSP. The Company does not anticipate modifying rebate amounts or measures covered after the plan launches in April of 2011. However, the Company will do a periodic review of the rebates being offered and may change the types

[3] Higher tiers are more energy efficiency. In general, Tier 3 is the highest efficiency on market, while Tier 0 is the base-line equipment.

of measures covered, the minimum efficiency level required, and/or the rebate amount based on changing market conditions.

vii) Incentive Strategy

Fixed rebates will be used to streamline program delivery and increase customer participation. Rebates covering approximately 80% of the incremental cost of premium-efficiency equipment will be offered to customers to help offset the barriers that the higher costs of the more efficient equipment often pose.

viii) Roles and Responsibilities

Pursuant to an RFP process, PGW will seek an implementation CSP to setup and manage the system for providing rebates to customers. The CSP will be responsible for the processing of rebate applications from start to finish, including collecting applications, checking eligibility, and either sending a rebate check or notifying the applicant with the reason for rejection. The implementation CSP will also monitor program performance and market acceptance, reporting results to the programs administrators.

Marketing and communication activities will mainly be carried out by a CSP, though not necessarily the same CSP that processes rebates. The marketing CSP will be responsible for outreach, training, and support with retailers, equipment suppliers, contractors, and customers. The Company will work with the marketing CSP to coordinate efforts with other programs and across the DSM Portfolio.

As the program administrator, PGW will oversee the service delivery through regular communications with CSPs and by tracking program data. Additionally, the Company will seek an independent inspector to perform on-site verifications for a random selection of completed applications.

ix) Marketing Strategy

Pursuant to an RFP process, PGW will seek a CSP with experience marketing rebate programs. The CSP, in coordination with the Company, will craft a marketing plan that works with equipment manufacturers, distributors, and retailers/vendors to make the high-efficiency equipment available for purchase. Engineers and contractors will be encouraged to recommend or specify the choice of high-efficiency equipment to customers making purchases of gas appliances and heating equipment. Additional marketing activities may include:

- Promotional materials and program information provided at the point-of-sale
- Inclusion in PGW customer communications (i.e. bill inserts, newsletters, etc.)
- An online presence, through the Company's website, and/or a stand-alone site

- Advertising in newspapers, on the radio, and other mass media outlets
- Outreach and coordination with trade groups, community organizations, and other market partners

x) Coordination with other Programs

Program/Organization	Description of Coordination
Pennsylvania's Home Heating Equipment Rebate Program	There is a distinct possibility that Pennsylvania's Home Heating Equipment Rebate Program will have exhausted its funding by the time PGW's PEHEP launches. Regardless, PGW will soon reach out to the State Department of Environmental Protection (DEP) regarding coordination and to determine if there are other partnering opportunities for PEHEP, or any of the other DSM programs.
Keystone Home Energy Loan Program (Keystone HELP)	In order to aid customers who are undertaking more comprehensive energy efficiency projects, PGW will include a brief description and directions for learning more about Keystone HELP in some of its PEHEP communications.
Federal Tax Credits for Energy Efficiency	Several Federal Tax Credits for Energy Efficiency cover the same equipment as the PEHEP. Since eligibility criteria may differ, rebate application material will provide language notifying customers that specific equipment may be covered by federal tax credits and direct them to the appropriate information.

xi) Evaluation, Monitoring, and Verification

Quality Assurance

PGW will monitor the ongoing progress of the program and work closely with CSPs to provide the highest possible service to its customers. PGW will track rebate application data and provide regular impact evaluations that will be supplemented by more in-depth, biennial process evaluations performed by a third-party evaluator. To insure that measures are installed correctly, rebates must be signed by certified contractors. Independent inspectors will perform on-site evaluations on a random selection of projects to verify that installed measures exist, are covered by the program, work correctly and to prevent and identify fraud.

Data Collection

Implementation CSPs will provide PGW with program activity data for populating the DSM Tracking System. Program data will be collected from rebate application forms, site visits, and surveys of participants and non-participants. PGW's tracking system supports program evaluation through the collection of all relevant data pertaining to customer rebates and installed equipment. Application data and status, customer details and installation contractor information will be captured by the system as well as measure level data. Information to be included on a rebate application and stored in the DSM Tracking system include:

- Application Number
- Application Date
- Application Status
- Customer Account Number
- Customer Name, Address, and Phone
- Building Type
- Own or rent
- Contractor Name, Address, and Phone
- Contractor ID
- Date of Purchase
- Date of Installation
- Name and address of place purchased
- Manufacturer
- Model Number
- AFUE/EF
- Size of Equipment
- Installation Cost
- Rebate amount

Reporting

As part of the Annual Reporting process, PGW will provide regular reports of the programs impacts. Deemed savings will be calculated using the values established in the TRM, and formulas will be updated as the TRM changes. Only rebates for which payment has been issued will impact saving amounts. Figures showing the pipeline of applications as well as the number of rejected applications will be provided along with realized costs. PGW may also report additional information on characteristics of customers, contractors, and efficiency measure details. Findings from on-site inspections may be presented in impact evaluations although the results will be primarily used in the program's process evaluations.

Evaluation

In line with evaluation activities performed in the past for the CWP and planned for the ELIRP, the program will undergo an in depth process evaluation every two years. Pursuant to an RFP process, PGW will seek an independent evaluator to perform the

biennial process evaluation. As part of the initial program development, PGW will work with the evaluator to establish the methodology and goals of the process evaluation. Initial objectives include:

- Verifying energy savings and associated costs
- Assessing market attitudes towards the program, including contractors, customers, and efficient equipment suppliers
- Measuring the effectiveness of current program design, marketing, and service delivery

The first process evaluation for the program is scheduled for FY 2013.

Programs Launching in FY 2012 to FY 2015

This section provides information on programs in the DSM Portfolio that will launch services in FY 2012 through FY 2015. A vital part of the successful implementation of a portfolio of DSM programs comes from understanding how the next steps fit within the full lifespan of the portfolio. The DSM Portfolio has been carefully built to provide a comprehensive collection of energy efficiency services to PGW's customers while fitting within the guidelines provided in the Settlement. The additional details in this section are particularly important due to the number of material changes between plan filings.

During FY 2011, PGW will undergo detailed program design for the Commercial and Industrial Retrofit Program provide the final plans as part of the FY 2012 Implementation Plan, to be submitted to stakeholders in April of 2011. The remaining three programs will have plans filed in FY 2012, for launch in FY 2013.

A. Commercial and Industrial Retrofit Program

i) Program Description

The Commercial and Industrial Retrofit Program (CIRP) is a comprehensive retrofit program designed to provide technical assistance and financial incentives to multi-family buildings, businesses, and industrial facilities. The program will promote the installation of a wide array of cost-effective energy-saving technologies.

This CIRP will seek to convince facility managers, department heads, and financial officers to conduct audits of their facilities and identify cost-effective energy saving retrofit opportunities. The initial phase of the program will specifically target energy efficiency opportunities in multi-family buildings. As the program ramps, up additional commercial and industrial customer classes will be targeted.

Through an implementation CSP(s), PGW will provide technical support and financial assistance for customers engaged in comprehensive audits and retrofits of their facilities. The company will work closely with customers throughout the retrofit process: from identifying cost-effective opportunities in the initial audit to installation and commissioning. In order to promote the most comprehensive projects and lower the risk to ratepayers, the Company will offer a custom incentive package based on payback buy-down and customer cash flow. Each customized incentive offer will be structured to provide the customer with immediate positive cash flow by "buying down" the installed cost of the project down to two years. PGW will also contract with financial services institutions to provide three-year loans, which will lead to debt service payments lower than annual gas bill savings. In addition to gas savings, the cost-effectiveness and financial analysis of projects will include electric and other resource savings where applicable.

Potential measures covered by the program include high-efficiency furnaces, space heating boilers, water heaters, HVAC and process controls, shell improvements such as cavity insulation and air-sealing, pool heaters, cooking equipment, process boilers, and process optimization.

In order to provide customers with the highest possible level of service and reduce duplication of efforts, PGW will explore avenues of coordination with similar programs that provide assistance and incentives for electric measures, as well as options to secure financing from banks and credit unions.

ii) Costs, Benefits, and Impacts

Table 12. Projected FY 2011 – FY 2015 Impacts for the Commercial and Industrial Retrofit Program

	FY 2011 - FY 2015
PARTICIPATION	
Customers with Installations	1,540
COSTS	
Total Budget ($2009)	$ 1,760,347
BENEFITS	
Cummulative Net Annual Gas Savings (BBtu)	69.9
Cumulative Net Lifetime Gas Savings (BBtu)	1,048.7
Weighted Lifetime (years)	15.0
COST-EFFECTIVENESS (2009$)	
Total Resource PV of Benefits	$ 3,897,063
Total Resource PV of Costs	$ 2,884,844
Total Resource PV of Net Benefits	$ 1,012,219
Total Resource BCR	1.35

iii) Planning and Implementation Timeline

The Commercial and Industrial Retrofit program will be the third program launched under PGW's DSM Portfolio. The bulk of program design activities will occur during FY 2011 and detailed plans will be filed as part of the FY 2012 Implementation Plan. The program is expected to launch at the end of September 2011, which is the beginning of FY 2012.

Task	Time Period
Develop detailed program designs, ex-ante savings calculation protocols, inspection and verification protocols, and develop evaluation study research agenda	October 24, 2010 to Jan 2, 2011
Identify and work with lending institutions to construct a range of services for providing nonrecourse loans with varying terms.	November 21, 2010 to February 20, 2011
Issue RFP(s) and contract with lending institution(s) for financial services relating to the program.	February 20, 2011 to August 7, 2011

Task	Time Period
Develop implementation CSP(s) scope of work	January 2, 2011 to January 30, 2011
File plan as part of "Annual FY 2012 Implementation Plan"	***April 30, 2011***
Issue RFP for implementation CSP(s)	June 4, 2011 to May 21, 2011
Secure implementation CSP(s)	July 2, 2011 to August 27, 2011
Pre-launch planning, training, and infrastructure development between PGW, CSP(s), and market actors	August 28, 2011 to September 29, 2011
Launch Program	***September 30, 2011***

B. Premium Efficiency Commercial/Industrial Equipment Program

i) Program Description

The Premium Efficiency Commercial/Industrial Equipment Program (PECIEP) will promote the selection of commercial and industrial efficient gas heating and process equipment at the time of new installation or scheduled replacement and ultimately aims transform the market to shift towards high-efficiency options. The program has similar goals to the PEHEP but targets the nonresidential marketplace instead of the residential sized equipment sector. The Company will use experience garnered from running the PEHEP to roll out new rebates for nonresidential high efficiency equipment.

PGW will utilize either existing PEHEP contractors or select additional CSPs to work with equipment manufacturers, distributors, and retailers/vendors to make the high-efficiency equipment available for purchase. Engineers and contractors will be encouraged to recommend or specify the choice of high-efficiency equipment to customers installing gas heating and process equipment. The CSPs will also be responsible for the processing and payment of incentives. As the program administrator, PGW will provide retailer support, broad-based marketing, and will investigate opportunities to coordinate with other programs targeting this market.

The program will focus on providing incentives for natural gas efficiency opportunities in space heating, water heating, cooking, and other industrial processes. This includes high-efficiency furnaces, roof and wall insulation, space heating boilers, water heaters, process boilers, pool heaters, cooking equipment and commercial clothes washers.

Financial incentives designed to cover approximately 80% of the incremental cost of premium-efficiency equipment will be offered to customers to help offset the barriers that the higher cost of the more efficient equipment often poses. Most of these incentives will be offered as simple prescriptive rebates, providing a predetermined incentive per unit. Other measures, like roof insulation, will have a scale based on the installed cost of the measure, with a cap on the total amount a customer is eligible to receive. For more comprehensive and custom projects, customers will be referred to the CIRP.

In addition to referring customers with specific needs to other PGW program, the Company will work with other program administrators to coordinate rebate efforts and avoid duplication of efforts.

ii) Costs, Benefits, and Impacts

Table 13. Projected FY 2011 – FY 2015 Impacts for the Premium Efficiency Commercial/Industrial Equipment Program

	FY 2011 - FY 2015
PARTICIPATION	
Customers with Installations	1,036
COSTS	
Total Budget ($2009)	$ 1,336,948
BENEFITS	
Cummulative Net Annual Gas Savings (BBtu)	23.5
Cumulative Net Lifetime Gas Savings (BBtu)	352.9
Weighted Lifetime (years)	15.0
COST-EFFECTIVENESS (2009$)	
Total Resource PV of Benefits	$ 1,288,043
Total Resource PV of Costs	$ 1,173,210
Total Resource PV of Net Benefits	$ 114,833
Total Resource BCR	1.10

iii) Planning and Implementation Timeline

Beginning in January of 2012, detailed program plans for the PECIEP will be developed in concert with the CIRP to maximize research efforts into the Commercial and Industrial market sector. Plans for the program launch will be included in the Annual FY 2013 Implementation Plan. The program launches in the beginning of November 2012, a few months into FY 2013.

Task	Time Period
Develop detailed program designs, ex-ante savings calculation protocols, inspection and verification protocols, and develop evaluation study research agenda	January 3, 2012 to April 18, 2012
Develop implementation CSP(s) scope of work	April 18, 2012 to May 9, 2012
File plan as part of "Annual FY 2012 Implementation Plan"	***April 30, 2012***
Issue RFP for implementation CSP(s)	June 6, 2012 to July 4, 2012

Task	Time Period
Secure implementation CSP(s)	July 4, 2012 to August 29, 2012
Pre-launch planning, training, and infrastructure development between PGW, CSP(s), and market actors	August 29, 2012 to November 7, 2012
Launch Program	***November 7, 2012***

C. High Efficiency Construction Program

i) Program Description

Through the High Efficiency Construction Program (HECP) PGW will offer technical assistance and financial incentives to residential and commercial customers engaged in new construction, remodeling, and renovation of their buildings. PGW will take a two-pronged approach to market transformation by targeting both end users, building owners and residents, and up stream market actors, like builders, designers, and real estate agents.

The primary function of the program will be to provide support for and financial assistance to those customers involved with new construction, remodeling, and renovation projects. PGW will hire CSPs to supply assistance with engineering and economic assessment of the proposed efficiency options. The program will take a "whole-building" approach, promoting the investigation of interactive effects and working towards more comprehensive packages of energy efficiency measures. CSPs will also work with customers to secure financing and, in some cases, provide direct financial incentives.

Although much of the benefits accrue to the owners and operators of the buildings affected by the program, the key towards accelerating the acceptance of energy-efficient design lies in working with those market actors directly responsible for the design and equipment decisions. Accordingly, the HECP will provide education and training to property developers, property managers, real estate agents, architects, engineers, builders, and contractors.

Financial incentives covering approximately 80% of the incremental cost of high-efficiency equipment will be offered to customers to help offset the barriers that the higher cost of the more efficient equipment often pose. To further promote the program's two-pronged strategy, incentives will cover the costs for comprehensive design assistance from architects and engineers as well as for more traditional measures. Potential measures in the program include high-efficiency furnaces, space heating boilers, water heaters, HVAC controls, insulation and window upgrades.

To improve the comprehensiveness of service delivery and avoid lost-opportunities, PGW will investigate possibilities to coordinate with other programs targeting the new construction market.

ii) Costs, Benefits, and Impacts

Table 14. Projected FY 2011 – FY 2015 Impacts for the High Efficiency Construction Program

	FY 2011 - FY 2015
PARTICIPATION	
Customers with Installations	3,682
COSTS	
Total Budget ($2009)	$ 2,475,642
BENEFITS	
Cummulative Net Annual Gas Savings (BBtu)	55.3
Cumulative Net Lifetime Gas Savings (BBtu)	828.9
Weighted Lifetime (years)	15.0
COST-EFFECTIVENESS (2009$)	
Total Resource PV of Benefits	$ 3,366,516
Total Resource PV of Costs	$ 2,220,887
Total Resource PV of Net Benefits	$ 1,145,628
Total Resource BCR	1.52

iii) Planning and Implementation Timeline

Detailed program design for the program will be completed for the Annual FY 2013 Implementation Plan. Contractors will be selected and services launched at the same time as the PECIEP to ensure that customers will have a larger menu of prescriptive rebates to complement the other incentives offered by HECP.

Task	Time Period
Develop detailed program designs, ex-ante savings calculation protocols, inspection and verification protocols, and develop evaluation study research agenda	January 3, 2012 to April 30, 2012
Develop implementation CSP(s) scope of work	April 30, 2012 to June 6, 2012
File plan as part of "Annual FY 2012 Implementation Plan"	***April 30, 2012***
Issue RFP for implementation CSP(s)	June 6, 2012 to July 4, 2012
Secure implementation CSP(s)	July 4, 2012 to August 29, 2012

Task	Time Period
Pre-launch planning, training, and infrastructure development between PGW, CSP(s), and market actors	August 29, 2012 to November 7, 2012
Launch Program	***November 7, 2012***

D. Comprehensive Residential Heating Retrofit Program

i) Program Description

The Comprehensive Residential Heating Retrofit Program (CRHRP) aims to help residential customers with higher than average gas usage find ways to improve the energy efficiency of their homes. The program targets the 40% of residential customers with the highest annual energy consumption and provides energy services similar to those offered by the ELIRP, excluding the distribution of CFLs.

The program will be open to all one to four unit owner occupied residences. For non-owner occupied homes, explicit approval must be obtained from the landlord before an energy audit may be scheduled.

While the ELIRP provides all energy efficiency services free of charge to customers in the CRP, the CRHRP will require the customer to pay a modest fee for the home energy audit (to be proposed and agreed to as part of the applicable implementation plan). By paying a small fee, customers "buy in" to the project and are encouraged to follow through on the installation of measures identified as cost-effective. The audit will focus on the same measures that the ELIRP targets.

After the initial audit, the CSP, selected through a competitive bidding process by PGW, will work with the customer to determine financing options and establish a basis for customer cash flow. Using these projections, PGW will provide an incentive that buys the project down to a two-year simple payback[4]. The customer will be responsible for purchasing and installing the equipment, after which he or she will apply for the rebate through the CSP. The CSP will process the rebate and provide payment to the customer. A random number of projects will have post-installation inspections performed on them.

PGW and the CSP will determine how to best divide marketing efforts and how to utilize network connections to leverage marketing. Both customers and energy service providers such as contractors and material and equipment suppliers will be covered by the plan.

Coordinating efforts with other programs will be crucial for the success of the CRHRP and providing financing options for customers will be at the top of the list. PGW will seek to work with the Pennsylvania's DEP and the Keystone HELP program, which offers both secured and unsecured, below market rate loans for energy efficiency retrofits to Pennsylvania residents. PGW will work with Keystone HELP to make sure that program requirements align, and that only one energy audit will be required. PGW will also reach out to local banks and credit unions, to put together a range of offers on loans for energy efficiency retrofits. Other programs that PGW will seek out coordination

[4] Please see Appendix I for an example showing the cash flow for a typical project within the CRHRP.

opportunities with include the existing federal Home Performance with ENERGY STAR™ and programs offered by PA's electric utilities under Act 129.

ii) Costs, Benefits, and Impacts

Table 15. Projected FY 2011 – FY 2015 Impacts for the Comprehensive Residential Heating Retrofit Program

	FY 2011 - FY 2015
PARTICIPATION	
Customers with Installations	25,272
COSTS	
Total Budget ($2009)	$ 11,442,801
BENEFITS	
Cummulative Net Annual Gas Savings (BBtu)	409.1
Cumulative Net Lifetime Gas Savings (BBtu)	6,136.4
Weighted Lifetime (years)	15.0
COST-EFFECTIVENESS (2009$)	
Total Resource PV of Benefits	$ 29,941,155
Total Resource PV of Costs	$ 20,275,623
Total Resource PV of Net Benefits	$ 9,665,532
Total Resource BCR	1.48

iii) Planning and Implementation Timeline

In accordance with the settlement agreement, PGW will delay the launch of the CRHRP until the middle of FY 2013. In the lead up to and during plan development, PGW will work closely with the ELIRP's existing CSPs to leverage the recent experience current contractors have had working in the same market. Initial plan details will be included in the Annual FY 2013 Implementation Plan and program services will launch in March of 2013.

Task	Time Period
Develop detailed program designs, ex-ante savings calculation protocols, inspection and verification protocols, and develop evaluation study research agenda	April 4, 2012 to April 30, 2012
Identify and work with lending institutions to construct a range of services for providing nonrecourse loans with varying terms.	May 16, 2012 to July 25, 2012

Task	Time Period
Issue RFP(s) and contract with lending institution(s) for financial services relating to the program.	July 25, 2012 to October 17, 2012
Develop implementation CSP(s) scope of work	August 29, 2012 to October 24, 2012
File plan as part of "Annual FY 2012 Implementation Plan"	***April 30, 2012***
Issue RFP for implementation CSP(s)	October 24, 2012 to November 21, 2012
Secure implementation CSP(s)	November 21, 2012 to January 16, 2013
Pre-launch planning, training, and infrastructure development between PGW, CSP(s), and market actors	January 16, 2013 to March 25, 2013
Launch Program	***March 25, 2013***

Appendices

A. Table of Avoided Costs

All Avoided Costs Are in Constant 2009 Dollars

Period:	Electric Avoided Costs including losses		Natural Gas Avoided Costs			Other Resource Avoided Costs
	All-Year Energy	Summer GenerationCapacity	NG Base	NG Space Heat	NG DHW	Water
Units:	$/kWh	$/kW-yr	$/MMBtu	$/MMBtu	$/MMBtu	$/gal
2010	0.0602	85.05	5.40	6.38	5.64	$ 0.0100
2011	0.0632	66.60	5.67	6.70	5.93	$ 0.0100
2012	0.0640	53.12	5.72	6.73	5.97	$ 0.0100
2013	0.0641	57.52	5.78	6.74	6.02	$ 0.0100
2014	0.0656	64.00	5.96	6.94	6.20	$ 0.0100
2015	0.0679	64.00	6.21	7.21	6.46	$ 0.0100
2016	0.0705	64.00	6.45	7.47	6.71	$ 0.0100
2017	0.0738	64.00	6.66	7.70	6.92	$ 0.0100
2018	0.0775	64.00	6.84	7.89	7.10	$ 0.0100
2019	0.0813	64.00	7.03	8.09	7.29	$ 0.0100
2020	0.0816	64.00	7.21	8.28	7.47	$ 0.0100
2021	0.0806	64.00	7.38	8.47	7.66	$ 0.0100
2022	0.0826	64.00	7.46	8.56	7.74	$ 0.0100
2023	0.0850	64.00	7.44	8.54	7.72	$ 0.0100
2024	0.0902	64.00	7.48	8.58	7.76	$ 0.0100
2025	0.0947	64.00	7.61	8.72	7.89	$ 0.0100
2026	0.0992	64.00	7.75	8.87	8.03	$ 0.0100
2027	0.1037	64.00	7.95	9.08	8.23	$ 0.0100
2028	0.1077	64.00	8.18	9.34	8.47	$ 0.0100

B. List of Acronyms

Acronym	Meaning
ACEEE	American Council for an Energy Efficient Economy
ARRA	American Recovery and Reinvestment Act
BCR	Benefit-cost ratio
BSRP	Basic System Repair Program
CEE	Consortium for Energy Efficiency
CIRP	Commercial and Industrial Retrofit Program
CRHRP	Comprehensive Residential Heating Retrofit Program
CRP	Customer Responsibility Program
CSP	Conservation Service Provider
CWP	Conservation Works Program
CY	Calendar Year
DEP	Department of Environmental Protection
DSM	Demand-Side Management
ECA	Energy Coordinating Agency
ECRS	Efficiency Cost Recovery Surcharge
ELIRP	Enhanced Low Income Program
FY	Fiscal Year (PGW's fiscal year goes from September 1 to August 31)
GEEG	Green Energy Economics Group, Inc.
HECP	High Efficiency Construction Program
Keystone HELP	Keystone Home Energy Loan Program
NAECP	National Appliance Energy Conservation Act
NDR	Nominal Discount Rate
PA	Pennsylvania
PECIEP	Premium Efficiency Commercial/Industrial Equipment Program
PEHEP	Premium Efficiency Heating Equipment Program
PGW	Philadelphia Gas Works
PHDC	Philadelphia Housing Development Corp.
RDR	Real Discount Rate
TRC	Total Resource Cost
TRM	Technical Reference Manual
USC	Universal Services Charge
WAP	Weatherization Assistance Program

C. Units

Dth = 10 therms
MDth = 10,000 therms
MMDth = 10,000,000 therms

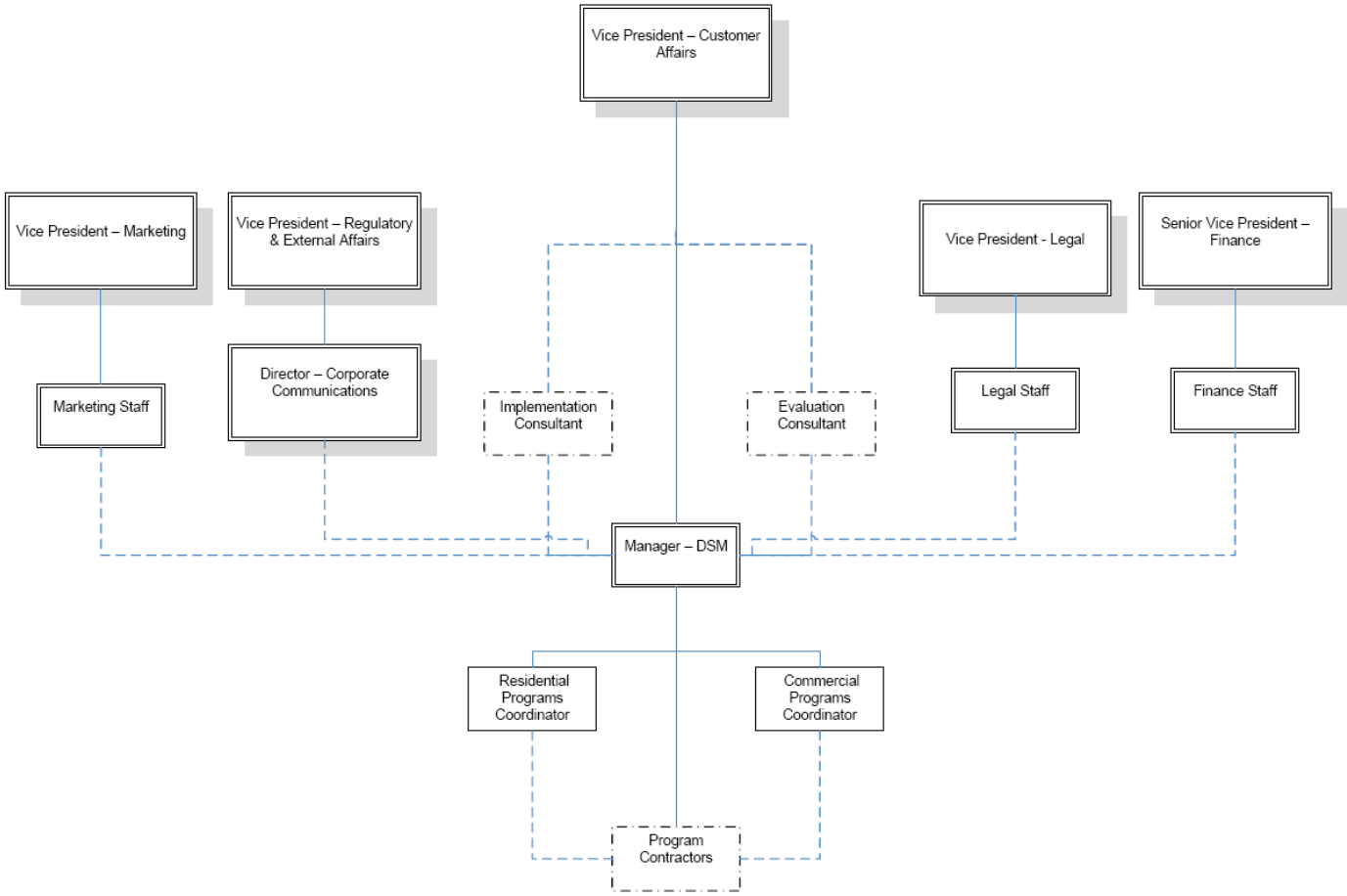
Ccf = 100 cubic feet
Mcf = 1,000 cubic feet
MMcf = 1,000,000 cubic feet
Bcf = 1,000,000,000 cubic feet

MMBtu = 1,000,000 Btu
BBtu = 1,000,000,000 Btu

kW = 1,000 watts
MW = 1,000,000 watts
GW = 1,000,000,000 watts

1 MMBtu = 1 Dth
1 therm = 1 ccf

D. Organization Chart



E. Five-Year Portfolio Projection Tables

PHILADELPHIA GAS WORKS

Five Year Gas Demand-Side Management Plan

FISCAL YEAR BUDGETS

Nominal Dollars	$ 7,980,380	$ 7,980,380	$ 16,102,545	$ 17,282,496	Caps per settlement

Portfolio

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Customer Incentives & Measure Installation Costs	$ 6,333,660	$ 6,298,803	$ 8,398,293	$ 11,847,082	$ 12,780,548	$ 45,658,387
Administration and Management	$ 728,092	$ 720,847	$ 726,651	$ 723,613	$ 738,085	$ 3,637,288
Marketing and Business Development	$ 217,820	$ 212,851	$ 360,489	$ 413,401	$ 403,022	$ 1,607,583
Contractor Costs	$ 662,427	$ 628,864	$ 1,621,393	$ 2,565,659	$ 2,632,589	$ 8,110,931
Inspection and Verification	$ 18,025	$ 32,412	$ 95,370	$ 144,309	$ 155,480	$ 445,595
Evaluation	$ -	$ 79,070	$ 80,652	$ 246,795	$ 419,551	$ 826,067
TOTAL:	**$ 7,960,026**	**$ 7,972,846**	**$ 11,282,848**	**$ 15,940,858**	**$ 17,129,274**	**$ 60,285,852**

Enhanced Low Income Retrofit

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Measure Installation Costs	$ 6,075,550	$ 5,521,740	$ 5,125,685	$ 5,951,467	$ 6,070,496	$ 28,744,938
Administration and Management	$ -	$ -	$ -	$ -	$ -	$ -
Marketing and Business Development	$ -	$ -	$ -	$ -	$ -	$ -
Contractor Costs	$ 568,815	$ 516,966	$ 479,886	$ 557,198	$ 568,342	$ 2,691,207
Inspection and Verification	$ 10,305	$ 9,365	$ 8,694	$ 10,094	$ 10,296	$ 48,754
Evaluation	$ -	$ 79,070	$ -	$ 82,265	$ 83,910	$ 245,245
TOTAL:	**$ 6,654,670**	**$ 6,127,142**	**$ 5,614,264**	**$ 6,601,024**	**$ 6,733,045**	**$ 31,730,145**
Total with allocated portfolio-wide costs	$ 7,333,784	$ 6,744,181	$ 6,031,447	$ 6,951,270	$ 7,109,943	

Premium Efficiency Heating Equipment

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Customer Incentives	$ 258,110	$ 698,071	$ 1,102,632	$ 1,245,039	$ 1,269,939	$ 4,573,791
Administration and Management	$ -	$ -	$ -	$ -	$ -	$ -
Marketing and Business Development	$ 103,360	$ 79,070	$ 80,652	$ 82,265	$ 83,910	$ 429,257
Contractor Costs	$ 77,520	$ 79,070	$ 80,652	$ 82,265	$ 55,940	$ 375,447
Inspection and Verification	$ 7,721	$ 20,881	$ 32,982	$ 37,242	$ 37,986	$ 136,811
Evaluation	$ -	$ -	$ 80,652	$ -	$ 83,910	$ 164,562
TOTAL:	**$ 446,711**	**$ 877,092**	**$ 1,377,570**	**$ 1,446,810**	**$ 1,531,686**	**$ 5,679,869**

Commercial and Industrial Retrofit

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Customer Incentives	$ -	$ 78,992	$ 253,225	$ 352,213	$ 359,257	$ 1,043,687
Administration and Management	$ -	$ -	$ -	$ -	$ -	$ -
Marketing and Business Development	$ 34,453	$ 52,714	$ 53,768	$ 54,843	$ 55,940	$ 251,718
Contractor Costs	$ 16,092	$ 32,827	$ 167,420	$ 170,769	$ 116,123	$ 503,231
Inspection and Verification	$ -	$ 2,166	$ 10,231	$ 14,231	$ 14,515	$ 41,143
Evaluation	$ -	$ -	$ -	$ 82,265	$ -	$ 82,265
TOTAL:	**$ 50,545**	**$ 166,699**	**$ 484,644**	**$ 674,320**	**$ 545,835**	**$ 1,922,044**

Premium Efficiency Commercial/Industrial Equipment

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Customer Incentives	$ -	$ -	$ 91,161	$ 328,262	$ 431,109	$ 850,532
Administration and Management	$ -	$ -	$ -	$ -	$ -	$ -
Marketing and Business Development	$ -	$ -	$ 53,768	$ 82,265	$ 83,910	$ 219,943
Contractor Costs	$ -	$ -	$ 107,536	$ 109,686	$ 74,587	$ 291,809
Inspection and Verification	$ -	$ -	$ 3,069	$ 11,053	$ 14,515	$ 28,637
On-site Technical Assessment	$ -	$ -	$ -	$ -	$ -	$ -
Evaluation	$ -	$ -	$ -	$ 82,265	$ -	$ 82,265
TOTAL:	**$ -**	**$ -**	**$ 255,534**	**$ 613,531**	**$ 604,121**	**$ 1,473,186**

PHILADELPHIA GAS WORKS
Five Year Gas Demand-Side Management Plan
FISCAL YEAR BUDGETS

High-Efficiency Construction

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Customer Incentives	$ -	$ -	$ 298,953	$ 762,331	$ 933,093	$ 1,994,378
Administration and Management	$ -	$ -	$ -	$ -	$ -	$ -
Marketing and Business Development	$ -	$ -	$ 35,845	$ 54,843	$ 55,940	$ 146,629
Contractor Costs	$ -	$ -	$ 91,379	$ 186,413	$ 126,761	$ 404,554
Inspection and Verification	$ -	$ -	$ 15,230	$ 38,836	$ 47,535	$ 101,601
Evaluation	$ -	$ -	$ -	$ -	$ 83,910	$ 83,910
TOTAL:	**$ -**	**$ -**	**$ 441,408**	**$ 1,042,424**	**$ 1,247,240**	**$ 2,731,072**

Comprehensive Residential Heating Retrofit

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Customer Incentives	$ -	$ -	$ 1,526,637	$ 3,207,770	$ 3,716,653	$ 8,451,061
Administration and Management	$ -	$ -	$ -	$ -	$ -	$ -
Marketing and Business Development	$ -	$ -	$ 53,768	$ 54,843	$ 37,293	$ 145,904
Contractor Costs	$ -	$ -	$ 694,521	$ 1,459,327	$ 1,690,836	$ 3,844,683
Inspection and Verification	$ -	$ -	$ 25,164	$ 32,854	$ 30,631	$ 88,649
Evaluation	$ -	$ -	$ -	$ -	$ 83,910	$ 83,910
TOTAL:	**$ -**	**$ -**	**$ 2,300,090**	**$ 4,754,794**	**$ 5,559,324**	**$ 12,614,207**

Portfolio-wide Costs

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2011 - FY 2015
Customer Incentives	$ -	$ -	$ -	$ -	$ -	$ -
Administration and Management	$ 728,092	$ 720,847	$ 726,651	$ 723,613	$ 738,085	$ 3,637,288
Marketing and Business Development	$ 80,007	$ 81,067	$ 82,688	$ 84,342	$ 86,029	$ 414,132
Contractor Costs	$ -	$ -	$ -	$ -	$ -	$ -
Inspection and Verification	$ -	$ -	$ -	$ -	$ -	$ -
Evaluation	$ -	$ -	$ -	$ -	$ 83,910	$ 83,910
TOTAL:	**$ 808,099**	**$ 801,914**	**$ 809,339**	**$ 807,954**	**$ 908,024**	**$ 4,135,330**

F. Projected Job Creation

The following table presents the range of employment-impact projects for the proposed PGW programs, using a range of jobs created per trillion BTU saved. The job figures presented here do not include the additional jobs created from the electric savings resulting from PGW's programs. Please see PGW's Five Year Demand Side Management Plan for a discussion of the research that lead to the assumptions of jobs created per TBtu.

	JOB CREATION IMPACTS OF GAS EFFICIENCY PORTFOLIO		
	30 Jobs/TBtu	**40 Jobs/TBtu**	**50 Jobs/TBtu**
RESIDENTIAL PROGRAMS			
2011	88	117	146
2012	64	86	107
2013	147	195	244
2014	175	234	292
2015	117	156	195
TOTAL	**591**	**788**	**984**
NON-RESIDENTIAL PROGRAMS			
2011	1	1	2
2012	2	3	4
2013	18	24	30
2014	27	37	46
2015	18	24	30
TOTAL	**67**	**89**	**112**
TOTAL PORTFOLIO			
2011	89	118	148
2012	67	89	111
2013	165	219	274
2014	203	270	338
2015	135	180	225
TOTAL	**658**	**877**	**1096**

G. Quantitative Reporting Fields

Portfolio Cost-Effectiveness

To report on portfolio and program cost-effectiveness, PGW will utilize the Total Resource Cost (TRC) test. PGW will also employ the Gas System test to report on gas avoided costs compared to portfolio expenditures supported by gas ratepayers. Results will be provided for the portfolio, residential sector, commercial and industrial sector, and individual programs. Portfolio costs not directly assigned to a program will be assigned to the "Portfolio-Wide Costs" category.

Portfolio Cost-effectiveness includes:

Total Resource PV Benefits: The present value of total resource benefits

Total Resource PV Costs: The present value of total resource costs, including costs incurred by PGW and program participants

Total Resource PV Net Benefits: The difference between the present value of total resource benefits and total resource costs

Total Resource B/C Ratio: The ratio of the present value of total resource benefits to Total Resource costs

Gas Energy System PV Benefits: The present value of total gas system benefits

Gas Energy System PV Costs: The present value of costs incurred by the gas system (e.g. PGW)

Gas Energy System PV Net Benefits: The difference between the present value of gas energy system benefits and gas energy system costs

Gas Energy System B/C Ratio: The ratio of the present value of gas energy system benefits to gas energy system costs

Portfolio Savings

The Portfolio Savings table shows natural gas savings over applicable time periods. Results will be provided for the portfolio, residential sector, commercial and industrial sector, and individual programs. All results will be in Billion British Thermal Units (BBtu) unless otherwise stated.

Portfolio Savings include:

Net Annual Gas Savings: Estimated annual savings for measures installed in the reporting period. Does not included line losses.

Net Lifetime Gas Savings: The lifetime estimated gas savings for measures installed and verified during the reporting period. Does not include line losses.

Please see the "Portfolio Savings" tab of the "Sample Reporting Templates" file for an example table.

Portfolio Budgets

Portfolio budgets are presented two ways. The first way shows summary budgets for the following:

Programs: Summaries for each program

Sectors: The sectors include, Residential, Commercial and Industrial, and Portfolio-Wide Costs. Any portfolio costs not allocated to a specific program will be allocated to the "Portfolio-Wide Costs" sector.

Utility Costs: The sum of all program and portfolio-wide costs.

Participant Costs: Costs for projects incurred by participants, separate from those costs incurred by the utility. Includes loan amounts

Total Costs: The sum of the Utility costs and Participant Costs.

The second way shows portfolio-level budgets broken into detailed categories. The following budget categories will be included:

Customer Incentives: Incentive payments to customers and/or trade allies, excluding direct installation costs.

Marketing and Business Development: Costs associated directly with the marketing and business development activities of the program.

Contractor Costs: Non-incentive payments to third-party contractors, including direct installation.

Inspection and Verification: Payments to utility staff or contractors for performing analyses, audits, inspections, and verifications. Also includes costs for energy ratings.

On-site Technical Assessment: Costs incurred from in-depth onsite potential studies.

Evaluation: Evaluation costs, excluding tracking and reporting expenses.

Administration and Management: Any costs incurred by the utility not directly attributed to Marketing and Business Development, Contractor Costs, Inspection and Verification, on-site Technical Assessment, and Evaluation.

Portfolio Non-Gas Benefits

The Portfolio Non-Gas Benefits tables show electricity savings, emission reductions, and water savings over applicable time periods. Results will be provided for the portfolio, residential sector, commercial and industrial sector, and individual programs.

The following electricity savings figures will be reported:

Net Annual Electric Savings (MWh): Estimated annual electric savings for measures installed in the reporting period. Does not include line losses.

Net Lifetime Electric Savings (MWh): The lifetime estimated electric savings for measures installed and verified during the reporting period. Does not include line losses.

Net Annual Electric Peak Demand Savings (kW): Estimated impact of a measure on the peak electric usage day. Since measures are installed throughout the year, does not reflect kW avoided on peak day of the reporting year.

PGW will report on the reductions in carbon dioxide (CO_2) emissions due to portfolio activity. The following figures will be presented in short tons and reductions due to gas savings will be reported separately from reductions due to electric savings.

Annual CO_2 Reductions: Estimated reductions in CO_2 derived from net annual energy savings, such as natural gas or electricity, due to measures installed over the reporting period.

Lifetime CO_2 Reductions: Estimated reductions in CO_2 derived from net lifetime energy savings, such as natural gas or electricity, due to measures installed over the reporting period.

PGW will report on the water savings due to portfolio activity. The following figures will be presented in gallons.

Annual Water Savings: Estimated annual water savings for measures installed in the reporting period.

Lifetime Water Savings: The lifetime estimated water savings for measures installed and verified during the reporting period.

Program Impacts

At the program level, four different categories of impacts will be reported. They include participation, costs, benefits, and activity by end-use.

Figures in the participation category include:

Pending Participants: Number of customers who requested service who are still waiting to receive it as of the end of the reporting period.

Analyses/Audits with Not Installs: Number of customers who had analyses or audits completed during the reporting period, but who have not yet had verified installations by the end of the reporting period.

Analyses/Audits: Number of customers who had analyses or audits completed over the reporting period.

Customers with Installations: Number of customers with verified installations in the reporting period.

The costs category has the same breakout as those used in the Portfolio Budgets.

The benefits category includes:

Net Annual BBtu: Estimated annual gas savings for measures installed and verified during the reporting period.

Net Lifetime BBtu: The lifetime estimated gas savings for measures installed and verified during the reporting period. Estimated annualized savings times the estimated life of the measure.

Peak Day BBtu: Estimated impact of measure on peak day. Since measures are installed throughout the year, does not reflect BBtu avoided on peak day of the reporting year.

Annualized BBtu: Total BBtu saved divided by the total participants.

Weighted Lifetime (Years): Average lifetime, in years, of measures in the program weighted by savings.

A limited breakdown of activity by end-use will be provided. The report may include annualized savings, peak savings, number of customers with installations, and weighted lifetimes for individual end-uses.

H. Qualitative Reporting in the Annual Fiscal Year Report

PGW will provide an annual report that includes a narrative of the past fiscal year's program activity to accompany the quantitative results. The following sections detail the information that may be included as a qualitative evaluation of PGW's annual results.

Executive Summary

Introduction: A short description of the portfolio and highlights of portfolio-level results achieved in the previous fiscal year.

Summary of Results: An overview of the results achieved for different customer sectors over the previous fiscal year. The sectors covered in this section may include, but are not limited to, Low Income, Residential excluding Low-Income, and Commercial and Industrial Sector.

Other Activity: This section includes a summary of any activity that was not attributable to a specific program or sector. This may include internal staffing level changes, portfolio-wide collaboration and marketing activities, and software upgrades.

Program Narratives

Program Overview: A brief status update and overview of program activity for the report year. This section will also highlight any noteworthy accomplishments in collaboration, service delivery, or any other areas not covered by the quantitative reports.

Program Activities: A more detailed description of program activities. This section will describe program impacts including customers served, program costs, and deemed savings. Additional sub-sections will report on marketing, evaluation, and any other activity (such as contractor training) done through the program in the report year.

Discussion of Results: This section includes two pieces. The first is a discussion of the variance, both positive and negative, from stated goals for participation, costs, and savings. The second piece is a table that that identifies barriers to success identified over the previous program year on one side and strategies for overcoming these barriers on the other side. PGW will examine barriers to success in areas such as program delivery, contractor performance, and customer adoption.

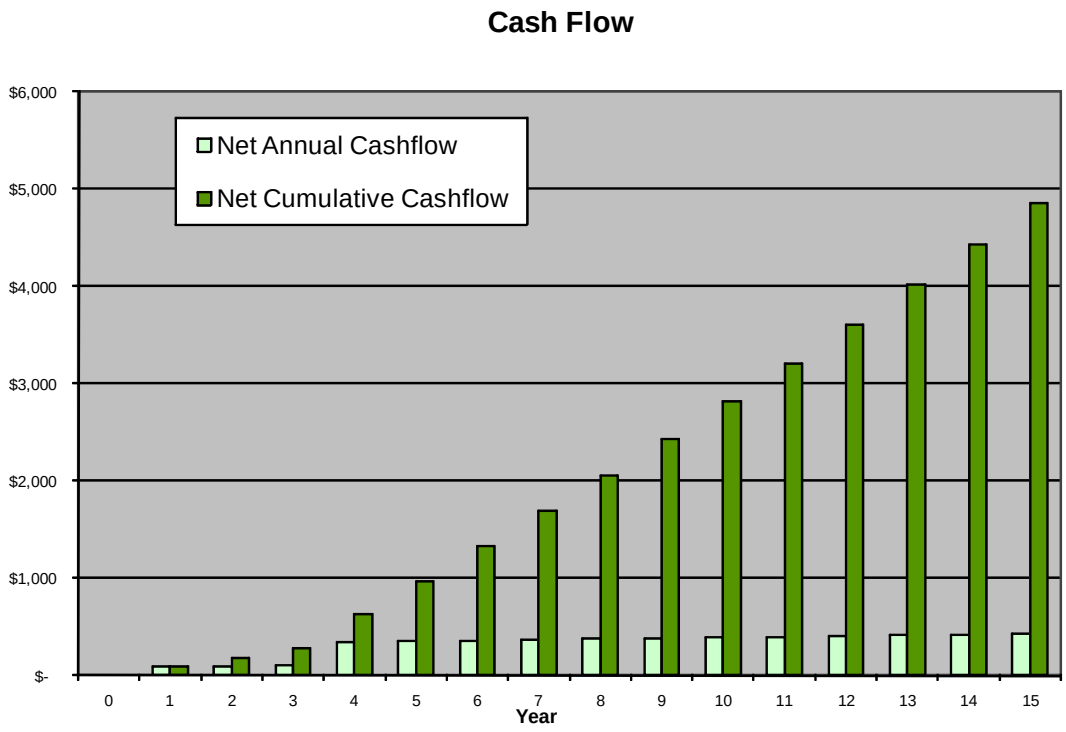
I. CRHRP Customer Cash Flow Example

The following example represents the cash flow scenario for a typical CRHRP project.

The customer is presented a project that will cost a total of $910. In this case, PGW will offer an incentive of $267, leaving $643 for the customer to contribute toward the investment. The original investment of $643 is two years' worth of expected bill savings make the simple payback for the project of two years as well. Savings continue for another 15 years. In conjunction with the financial incentive offer, PGW will help the customer access financing for three years through a source such as Keystone HELP. At an interest rate of 6%, the annual payments on the loan total $235. As shown in the table below, the customer puts no money down, and enjoys a net positive cash flow of $87, more than a third of the annual cost of servicing the loan.

Year	Annual Payments (Principal & Interest)	Annual Electric Savings	Annual Natural Gas Savings/ (Costs)	Net Annual Cashflow	Net Cumulative Cashflow
0				**$ -**	**$ -**
1	$ (235)	$ 17	$ 305	**$ 87**	**$ 87**
2	$ (235)	$ 17	$ 311	**$ 93**	**$ 179**
3	$ (235)	$ 17	$ 317	**$ 100**	**$ 279**
4	0	$ 18	$ 323	**$ 341**	**$ 620**
5	0	$ 18	$ 330	**$ 348**	**$ 968**
6	0	$ 18	$ 336	**$ 355**	**$ 1,322**
7	0	$ 19	$ 343	**$ 362**	**$ 1,684**
8	0	$ 19	$ 350	**$ 369**	**$ 2,053**
9	0	$ 20	$ 357	**$ 376**	**$ 2,430**
10	0	$ 20	$ 364	**$ 384**	**$ 2,814**
11	0	$ 20	$ 371	**$ 392**	**$ 3,205**
12	0	$ 21	$ 379	**$ 399**	**$ 3,605**
13	0	$ 21	$ 386	**$ 407**	**$ 4,012**
14	0	$ 22	$ 394	**$ 416**	**$ 4,428**
15	0	$ 22	$ 402	**$ 424**	**$ 4,851**

The following figure is a graphical representation of the customer's cash flow over the lifetime of the installed measures.


Cash Flow
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$-
Net Annual Cashflow
Net Cumulative Cashflow
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Year

J. Form Contract

Attached is an example of the contract form PGW will utilize for demand side management contractors. This attachment has been provided only as an example and may not reflect the final form/terms of agreement reached with a third party(ies). PGW reserves the right to modify the agreement, as needed and in its sole discretion.