

		month results. Thereafter reports are due April 1. Annual reports shall contain results by month and cumulative 12-month reports.	
Chapter 69 General Orders, Policy Statements and Guidelines on Fixed Utilities			
69.6(x)	Routine program management monitoring progress reports	Reports to monitor CAP administration should be prepared at "regular intervals." The regulation does not state the reports should be submitted to the PUC.	PGW CRP manager receives and prepares regular management and progress reports to monitor the program.
69.10(ii)	Process and Impact evaluation	The first due 8/1/04. Thereafter, the CRP evaluation is due at no more than 6-year intervals.	BCS notes that the restructuring filings in mid-2002 will establish the filing schedule for the evaluation at Chapter 62.6.
69.10(ii)(A)	A one-time process evaluation	Following the expansion of a CAP or subsequent to a substantial revision of an existing CAP or an alternate program design, the evaluation should be undertaken during the middle of the second year.	BCS notes that PGW's CRP will be approved in PGW's restructuring filing and it is not likely that the Commission will require a Process evaluation soon after that. This evaluation might serve as the Process evaluation, as it is being completed close to the restructuring filing.

Figure 34. §56, 58, 62, 69 Filing Requirements

VI. CARES

The Evaluation Team recommends that PGW strengthen its Customer Assistance Referral and Evaluation Services (CARES) component of Universal Service to provide clear designation and accountability for these services.

A. History of CARES

Historically, special payment programs for "payment-troubled" customers sprung from a changing economy in Pennsylvania in the mid to late 1980's. The demise of the manufacturing and steel industry gave rise to the "new poor", a term used to characterize former middle class working men and women who were thrown into a regional economy which offered little but minimum wage jobs and welfare assistance. In Southwest Pennsylvania, a region that was hit especially hard by mill closures, it has been estimated that for every manufacturing/steel job that was lost in the mid-1980's, there were seven other jobs lost as a spin-off effect in the local economy. This meant the lay-off and permanent plant/mill closures for tens of thousands of workers in the region. Utility CARES programs are an indication of increased awareness and sensitivity to the needs of the new poor, the under-employed, the low-skilled minimum wage worker, and seniors and disabled persons on fixed incomes. The utility CARES programs have traditionally responded to the needs of a changing community with customers experiencing hardship in difficult economic times.

In the Pittsburgh region coalitions were built between utilities and social service advocates to address the needs of those affected by the depressed economy. It became increasingly clear that the new poor would not quickly find a remedy for the new economic situations in which they found themselves. These were unique situations where persons could no longer be rationalized or profiled as the "dead-beat" customer. Among the symptoms were mounting utility arrearages and terminations, severe income deficits when compared to basic monthly living expenses, mortgage foreclosures, automobile repossession, family disruption and increased emotional stress and depression.

It was out of this great regional, economic need that CARES programs emerged. Utilities understood their commitment to a fair and compassionate approach to address "special needs" customers. This was a unique opportunity to offer services that were traditionally not in the realm of utility services. The Pennsylvania Public Utility Commission took a proactive position in "strong advisement" directives to regulated utilities, particular to CARES and its implementation.

Early CARES programs varied in the way in which utilities designed and implemented this service. Some utilities were in the unique position to hire and use the services of professional social workers, and entire utility "in-house" CARES departments were created. Other utilities contracted with traditional Community Based Organizations (CBO's) that offered the services of case-managers who made referrals to customers in a

“total case management” approach. But a strong thread that wove itself throughout the program design was that the PA PUC “strongly endorsed” the guidelines that these services “should not be done by company employees who perform responsibilities related to billing, credit or collections.”⁵¹ In other words, the CARES programs are to stand apart from traditional credit and collections and instead be administered by social service personnel within the utility or contracted (out-sourced) to the community advocacy sector.

As communities in Pennsylvania “stabilized” economically, there still existed a large segment of the population that subsisted in an entrenched, low-wage, service sector economy that replaced the higher-paying manufacturing jobs. This situation led to a chronic regional demographic of reduced job structures and lower and pay scales. The CARES programs evolved over time and the service is typically offered to customers who are experiencing the loss of income due to an injury, illness, death of a primary wage earner, those waiting for SSI or disability, customers experiencing marital or family problems, those with high medical bills, and loss of a job or unemployment benefits.

In the early 1990's, utilities recognized the need to provide long-term remediation and relief for payment-troubled, chronically low-income, delinquent customers with mounting arrearages. Hence, the PUC provided regulatory guidelines for the implementation of Customer Assistance Programs. However, in many life situations, CARES is still the program that provides appropriate short-term assistance to customers with temporary, special needs. Utilities can custom-design the CARES program based on the individual needs of the customer and the company, as well as on the demographic profile of the community. In special cases, for example, utilities may offer temporary CARES services to customers who have a negative ability to pay with incomes over the 200% FPL “special needs” threshold.

The backbone of CARES services are the referrals to community services and assistance that can leverage low monthly income and provide more available income for necessities, even utility bill payment. For example, if a customer can receive a food voucher at a local food pantry worth \$50 per month, that may make an additional \$50 available for utility payment each month. The goal is to find resources that assist customers in order to maximize their ability to pay their utility bill. Energy Assistance, Utility Hardship Grants and Fuel Funds also serve as vital supplements to customer payments. Energy Conservation in the form of energy education and weatherization is a key component in the CARES referral. Weatherization and energy education can give customers increased comfort in their homes while using less energy, thus lowering the utility bills.

Utilities have had the autonomy to structure a CARES program that may or may not decrease monthly payments for customers who cannot pay the full amount of their utility bill. CARES services may include a home visit, although not necessary or

⁵¹ PA PUC Secretarial Letter M-840403, John G. Alford, May 31, 1985.

effective in all cases,⁵² a “customer-friendly walk-thru” energy audit, energy education, budget counseling, energy assistance and fuel hardship fund grants, and referrals to social service agencies that are specific to the customers’ needs or that provide “leverage” sources for bill payment:

B. Pennsylvania’s Policy Advisement on CARES Programs

CARES programs have historically been categorized under the “policy umbrella” of “strong advisement” with much flexibility in design, rather than the stricter interpretation of the Pennsylvania Code, Title 52, which mandates Universal Service Programs. However, the Universal Services Policy Statements since utility restructuring include the implementation of CARES programs. Provisions under Title 52, §62.1(A), Statement of purpose and policy, “mandate that the Commission ensure Universal Service and energy conservation policies, activities and services...”⁵³ of which CARES is included. In the same Subchapter A, the definition of CARES is as follows:⁵⁴

CARES—Customer Assistance and Referral Evaluation Services—A Program that provides a cost-effective service that helps selected, payment-troubled customers maximize their ability to pay utility bills. A CARES program provides a casework approach to help customers secure energy assistance funds and other needed services

Specific Universal Service plans, including CARES, are to be submitted to the Commission for approval by each NGDC every 3 years beginning in February 28, 2002.⁵⁵ As noted in the prior section of this report, PGW will file a restructuring plan in mid-2002.

⁵² Janice Hummel, PA PUC, BCS, paraphrase from quote of August 22, 2001.

⁵³ PA PUC § 52 Code, Chapter 62. Natural Gas Supply Customer Choice, Subchapter A. Universal Service and Energy Conservation Reporting Requirements, §52.62.1, Statement of purpose policy.

⁵⁴ Ibid., §52.62.2. Definitions.

⁵⁵ Ibid., §52.62.4, (b), (1)-(11) Universal service and energy conservation plans, and §52.62.5, Annual residential collection and Universal Service and energy conservation program reporting requirements.

The Commission released four recommendations in a Secretarial Letter dated November 30, 1992 that provide guidelines for a CARES program.

The Commission recommends the following guidelines for a CARES program:

Utilities should continue to operate and develop their CARES programs as recommended.

Utilities should communicate annually with the BCS on the status of their CARES program.

Utilities which currently require senior citizen status to be eligible for CARES should expand eligibility criteria so as to include special needs low-income payment troubled customers who have extenuating circumstances.

Utilities should include, *inter alia*, the following seven elements in a CARES program:

- Staff training in communication skills.
- Staff training regarding the program design of CARES.
- Home visitation, one at a minimum, and preparation of an energy audit in most cases for CARES recipients.
- Intensive tracking and referral services for CARES participants.
- Maintenance of confidential files for CARES participants.
- Expansion and maintenance of the customer service network.
- Inclusion as one of the job description criteria for a CARES representative, a social services background or a combination of experiences and education that includes listening and communication skills and a compassionate and caring attitude towards the needs of the
- low-income utility customers.⁵⁶

⁵⁶ Authority for CARES resides at the level of a Secretarial Letter, rather than (as for other compliance requirements) in the Pennsylvania Code. PA PUC Secretarial Letter, John G. Alford, Secretary, November 30, 1992.

C. Toward an Effective CARES Program for PGW

The following descriptions of CARES programs present three levels of effort. PGW customer services and district office representatives currently provide referrals to various agencies, in a level of effort termed below as "Quick Fix". This level of effort is given all customers who indicate the need for help during their interactions with PGW. The Evaluation Team recommends that PGW move immediately toward incorporating the "Intermediate Case Management Approach" into the CRP. This includes designating a CARES representative assigned to provide personal case management. The Evaluation Team further recommends designing a CARES program that includes all three levels of effort described below and including it in the CAP Design Plan that will be filed during the restructuring proceedings in mid-2002. All three levels of effort include the "Quick-Fix Approach," the "Intermediate Case Management Approach," and the "In-depth Case Management Approach." A comprehensive CARES program depends on establishing the capability to provide all three levels.

1. The "Quick-Fix" Approach

A "quick-fix" is accomplished by the customer service representative while on the phone or talking with the customer in person at the district offices. The success of this approach depends on adequate training and comprehensive understanding of the available energy assistance programs and social service referrals that exist. It is vital that the PGW representatives have the skills to match the customer's need with the correct referral. Generally, the "Quick-Fix" requires minimal on-going support of CARES representatives.

2. The Intermediate Case-Manager Approach

The intermediate approach requires initial and follow-up supportive phone calls by a designated CARES representative or case-manager. The customer demonstrates that he/she can clearly and easily follow-through with energy assistance and other recommended social service referrals without the need of a caseworker physically present in the home. Periodic phone contact is maintained to give encouragement and address issues as they are presented. Other agencies and supportive services can be called in to access the home as needed. The CARES representative should actively communicate with and coordinate services with outside agencies, such as Area Office on Aging Services, Home-Health Care, Meals on Wheels, etc., to offer the customer comprehensive referrals and assistance.

3. The In-Depth Case-Manager Approach

The in-depth approach gives homebound, critically ill customers, frail seniors or those with limited mental ability, the support and needed observation required by a home

visit. A CRP CARES representative or case-manager conducts the home visit.⁵⁷ The home visit should include (but not be limited to) providing the following:

- Budget counseling
- Case-management assessment
- Energy education and referral to weatherization
- Referrals to Energy Assistance and Hardship Funds
- Referrals to appropriate social service agencies
- Follow-up education and print materials that clearly explain CRP objectives, expectations and lists contact phone numbers.
- Periodic phone contact and monitoring of payment history and referral follow-through, with additional home visits as needed.
- The continued involvement of other agencies that provide supportive services and home care, such as Office on Aging, Meals on Wheels, Visiting Nurses Assoc., mental health counseling, etc.

D. Coordination and Training

For a CARES program to be effective and successful, it is essential to utilize the coordination efforts of a designated CARES manager or representative. One such person should be identified within PGW's Universal Service structure (currently CRP and CWP). This person may or may not also be the designated CARES case-manager.

It is crucial that thorough training and education regarding the CARES program be provided to all customer service representatives, district office representatives, meter readers, field personnel including repairmen and CWP contractors who access customer's homes, and other out-sourced contractors within CWP and CRP. This training should include communication and sensitivity skills, observational skills and CARES program design, implementation and objectives.

An effective program depends on the sensitivity of trained PGW representatives who can discern the difference between a phone call that involves supportive empathy and a quick referral, and one that requires more comprehensive involvement from a CARES caseworker with on-going personal contact.

PGW should be proactive in forming new partnerships and strengthening existing partnerships with community agencies. This includes on-going communication,

⁵⁷ PGW currently provides some support for homebound visits.

providing basic information about CARES, and promoting CARES (along with CRP) to community-based organizations, social service providers, aging services, government groups and faith-based organizations. In addition to contact with social service agencies, the CARES program can be promoted to customers through outreach in bill inserts, by utility phone “on-hold” messages and within the CRP script that PGW district office and phone representatives use.

The Evaluation Team recommends that PGW strengthen its Customer Assistance Referral and Evaluation Services (CARES) component of Universal Service to provide a staffing assignment with clear designation and accountability for these services.

VII. REDUCING COSTS

There are two areas in which net program costs may be reduced.

A. Reducing Administrative Costs

- Although the Welfare database will not provide information on a household's poverty level, it can be used to certify that the household is on welfare. PGW should consider whether or not it is reasonable to accept this type of information as equivalent to provision of actual household size, income, and expense information when performing recertifications. Although since welfare reform many households in poverty have been removed from the welfare rolls, this semi-automated database check could be used to ease recertifications for perhaps 30% to 60% of households. The use of this system does require explicit management decision to treat knowledge that a family is on welfare as if it provided the Federal Poverty Level of the household. We do not recommend using such a procedure for initial certification. However, if recertifications are carried out each year, we recommend that PGW request approval to do each second recertification using the semi-automated approach for those household to which it would apply.
- Given that poverty is increasing for the extent of the current recession, we recommend that PGW request approval to replace yearly recertification with recertification every two years. If before and after recertification records are kept for household for which the semi-automated welfare system is used, information can be collected and evaluated by PGW to insure that moving recertification to every two years is as reliable as yearly recertification.

B. Tightening the Procedure for Collections

A second area for reducing net costs is the process of collection. We recommend that the collection system be tightened. The current system makes use of the following steps:

Day 1 - Currently, PGW issues a residential customer bill which is due in 20 days from the bill date. The 20 day payment period has become standard in the industry, and we do not recommend a change to the initial payment period.

Day 30 - Suppose, however, that the initial bill is not paid. The subsequent monthly bill is then issued 30 days from the date of the initial bill, and includes the amount of the initial bill as a previous period bill amount. It is due 20 days from its date of issue, or a total of 50 days from the date of issue of the first bill.

Day 57 - Suppose that the bill remains unpaid. If the bill is not paid, an initial notice of termination is sent out on day 57, counting from the date of the initial bill.

Day 64 - If the bill remains unpaid and there is not customer contact, PGW attempts to telephone the customer beginning on day 64 (there are three phone attempts).

Day 71 - If no contact is made, a field visit is attempted at day 71.

Day 92 - If there is still no contact or payment, a final suspension notice is mailed on day 92.

Day 102 - If there is still no contact and payment, the customer is removed from CRP on day 102.

Day 103 - If there is still no contact and payment, the procedures for shut-off will take place.

We recommend the following additions and changes:⁵⁸

- (1) Day 25 - Five days after the initial due date of a missing or a partial payment, the computer should be set to automatically mail a "reminder" letter that a payment is needed.⁵⁹ (Customers not in the Universal Service program would not be sent reminders.) This is an additional letter concerning the initial bill. The next bill will, of course, be sent on Day 30,⁶⁰ and will include the past due amount.
- (2) Day 34 - Approximately fourteen days past the initial due date, the computer should be set to automatically generate and send a "Notice of Termination." This notice would specify service termination in ten days.
- (3) Day 41 - Attempt telephone contact (three attempts). In these calls, the consequences of default are explained. This step would substitute for the Day 64 telephone contact currently made.

⁵⁸ This tightened procedure recommended follows the model of Columbia Gas Universal Services. This model only applies to Universal Service (CRP) customers. It would not apply to other households.

⁵⁹ If charges for utility service not been paid in full by the due date stated on the bill or otherwise agreed upon, the account is a delinquent account (unless a payment or settlement agreement has been entered into prior to the due date, timely notice has been filed that the bill is in dispute, or under specified time limits an informal or formal complaint has been filed and is pending before the Commission. Pa. Code, Title 52, §56.2.

⁶⁰ The normal billing period is a billing month. The billing month is defined in Pa. Code, Chapter 56 Standards and Billing Practices for Residential Utility Service, Title 52, §56.2.

- (4) Day 47 plus – If unable to reach the customer by telephone, PGW would dispatch an employee to make a premise visit. At that time a 72 hour shut off notice must be posted. This would substitute for the Day 71 field visit.
- (5) Day 48 plus – If step 4 does not lead to contact with the customer, a 48-hour notice is delivered to the residence and posted.
- (6) Day 50 (plus)⁶¹ Service is terminated 48-hours later, and a Post-Termination notice is left at the residence. This step substitutes for the Day 103 shut off. (The Day 102 removal from CAP does not have a counterpart step in the Evaluation Team recommendation. This removal step would not be performed.)
- (7) Special Consideration: However, PGW customer service may “delay” the account at any step along the way if it finds that the customer has extenuating circumstance, although this should happen infrequently and only in the case of emergencies. Such customers should temporarily come under the administration of PGW’s CARES program (see the CARES section of this report) and should be considered by the CNU. If the final step is reached, and the gas is turned off, the account is “finaled” from CAP within approximately five days from shutoff.

C. Catching Up after being Finaled

If a customer account has been finaled, but the customer catches up on payment within forty-five days, both gas service and CAP status are restored *without penalty*. *In such a case, all records of a removal from CAP are eliminated, and the customer's CAP situation is the same as if a payment problem had never occurred.* If more than forty-five days has passed, the customer terminated for non-payment must follow standard procedures for resumption of service through normal procedures.

D. Winter Moratorium

In winter, customers are not removed from CAP for non-payment. Each month, the CAP bill includes the amount owed from the month before, and each month the customer is asked to catch up the payments. In April, the customer is again asked to catch up. If they make a full payment, including the CAP arrearages, they continue in CAP. If they do not, the collections procedures discussed above begin.

⁶¹ According to Pennsylvania Public Utility Commission Policy, a notice of shut-off is valid for 30 days. If gas is not shut off within this period, a new notice is required.

E. Section Summary

There are two very realistic and practical areas for reducing costs. First, some costs can be reduced by requesting approval for small administrative changes such as seeking approval to recertify every two years instead of every year. Second, the collection procedure currently in place could be significantly tightened to approximate other natural gas company collections procedures in place in Pennsylvania.⁶² While it may seem to some inappropriate to bother payment-troubled households with repeated reminders of impending service termination, or to tighten the payment system, we recommend these steps in the context of the other recommendations in this report because they reflect the actual need for payment.⁶³

⁶² Specifically, the Evaluation Team recommends using Columbia Gas as a model, and that PGW should arrange to meet with Columbia Gas to discuss specifics beyond those indicated in Figure 35. The Evaluator's Recommendation column of the table in Figure 35 is based on the Columbia Gas model, which has produced very good collections experience along with high customer regard. Our recommendation is to adopt this existing model. We recommend a strategy of adoption of an already implemented model that is generally regarded as successful as a means to move quickly towards necessary approval. The Evaluation Team has studied the success of the Columbia model and we believe it to be superior and worthy of adoption.

⁶³ Particularly, if PGW moves towards an optimized PIPP approach consistent with the affordability standards of the Pennsylvania Code, staffs up the Universal Service function, and establishes an active CARES program with some staffing, it seems balanced to tighten the collections procedure for Universal Services households at the same time.

Tightening Collections Procedure						
PGW's Current Tariff Procedures				Evaluator's Recommendation		
Day	Type of Notice	Mode	Tariff	Day	Type of Notice	Mode
1	Bill 1	Mail		1	Bill 1	Mail
20	Due Date			20	Due Date	
30	Bill 2			25	Reminder Notice	Mail
				30	Bill 2	
				34	Notice of Termination	Mail
				41	Telephone Attempts (3)	Phone
				47	Field Visit - 72 Hrs Shut-Off Notice	Field
				48	48 Hour Shut-Off Notice	Field
50	Due Date 2			50	Service Shut-Off	
57	Notice of Termination - Initial	Mail	4.50.11(B)(1)	Note: Special Consideration – PGW Customer Service may 'delay' the account at any point for extenuating circumstances and refer to CARES and CMU.		
64	Telephone Attempts	Phone	4.50.11(B)(2)(3)			
71	Field Visits (only necessary if phone attempts fail)	Field	4.50.11(B)(4)			
92	Final Suspension Notice	Mail	4.50.11(B)(5)			
102	Removal from CRP	System				
103	Second Call Shut Off	Field				

Figure 35: Tightening Collections Procedure

VIII. RESOURCE: NECESSARY STAFFING

The Universal Service function is important to the overall functioning of PGW. It is key to significant revenue recovery efforts and to PGW customer service for low-income customers. Currently the staff consists of the program manger, with arrangements to mobilize significant staff resources in other groups for key work efforts within the yearly program cycle.

In Pennsylvania there is wide variation in the staffing of Universal Service, often depending on the size of the utility and of the low-income population. At the same time, some of the smaller gas utilities have large staffs, while a few of the larger utilities have programs at risk due to inadequate provision of staff resource. The recommendation is for a moderately sized staff, with skill sets appropriate to areas assigned.

There are three types of need in the Universal Service function: Management & Direction, Program, and Analysis. Currently, Program and Analysis functions are supported on an "as needed" basis by other resources within PGW. However, it is not likely that credible program operation and regulatory compliance can be maintained on this basis alone.

The following staff positions are recommended:⁶⁴

Manager/Director

Manager/Director (existing position)

Program

Universal Services Customer Assistance Program Supervisor (1)
Customer Assistance & Hardship Program Staff (2)

CARES Supervisor/MSW (1)
CARES Staff/MSW or BSW (2)

Analysis & Reporting

Senior Quantitative Analyst (1)
Program Research Analyst (2)
Statistical Clerk (1)

⁶⁴ A Manager/Director with a staff of ten is recommended as the minimum adequate to staff the Universal Service functions. A larger staff would be required to fully deliver services. The staff size and mix that is recommended is the minimum required to exercise program control and accountability, and to staff services at a minimum level. For perspective, Universal Service customers are currently about one-tenth of overall gas sales and the market sector is potentially one-third of residential load. The low-income market sector is thus a very important market sector from the perspective of services and the perspective of revenue. It is important to staff it accordingly.

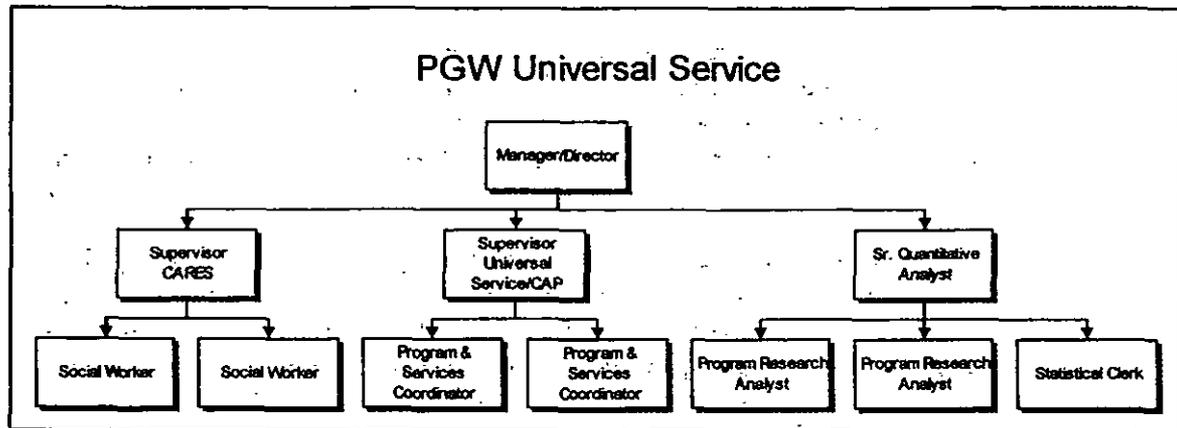


Figure 36: Recommended Staffing Resource

Appendix

IX. APPENDIX A: TITLE 52, CHAPTER 69

Chapter 69 General Orders, Policy Statements and Guidelines on Fixed Utilities

Chapter 69.251 Plain language statement of policy

Chapter 69.264 Scope of CAPS

Chapter 69.265 CAP Design Elements

Chapter Section	Compliance	Comments
Chapter 69.251 Plain language statement of policy		
<p>69.251 Plain language statement of policy</p> <p>(a) General. The Commission recommends that public utilities adopt guidelines for written material provided to residential customers. Each utility shall designate appropriately trained staff persons to serve as liaisons to the BCS regarding this policy statement. Companies shall conduct field tests, use consumer advisory panels or focus groups to prepare plain language materials for Commission review. The BCS will selectively review materials prior to final publication and mailing to residential customers. Items (1) (i)-(vii) and (2) (i)-(iv) follow.</p> <p>(b) Visual guidelines. In addition to written guidelines, the Commission recommends the adoption of visual guidelines. Items (1) – (6) follow.</p>	<p>(69.251)</p> <p>(a) yes</p> <p>(b) yes</p>	<p>(a) PGW normally submits material drafts first to the CRP Advisory Committee, then to PGW's Regulatory Affairs office and finally to the PUC Communications Bureau. That Bureau will review material and submit it to PGW with comments.</p> <p>(b) Visual guidelines are used, such as bold section headings, both upper and lower case letters, and large typeface.</p>

Appendix: PGW's Universal Service Programs

<p>(1) Clear section headings which use bold face, italics, underlining or color to set them apart from the rest of the text.</p> <p>(2) Ink that sharply contrasts with the paper.</p> <p>(3) Spacing and margins which make materials easy to read.</p> <p>(4) The use of both upper and lower case letters.</p> <p>(5) The use of large typeface, at least 8 or 10 point type.</p> <p>(6) Line Length shall contain between 50 and 70 characters.</p> <p>(c) Billing format. Billing formats shall comply with 56.15 and 64.14. The Commission recommends the Company's phone numbers be clearly located on the bill and plain language be used in the billing format.</p> <p>(i) Gas and electric utilities (i) unit price per kWh therm, CCF or MCF used in calculating charges due.</p> <p>(ii) A bar graph displaying comparative energy use indicating whether the amount shown is actual or estimated</p> <p>(iii) Information regarding the average temperature during the periods under comparison.</p> <p>(iv) Technical terms regularly displayed on the bill clearly defined, listed alphabetically and prominently located on the bill.</p>	<p>(c)</p> <p>(i) yes</p> <p>(ii) no</p> <p>(iii) yes</p> <p>(iv) yes</p>	<p>(c) The back of the bills prominently display contact phone numbers.</p> <p>(i) PGW bills do display the unit price per ccf.</p> <p>(ii) PGW bills do not display a bar chart displaying comparative usage.</p> <p>(iii) The average temperature for the current billing period and the same period last year is display.</p> <p>(iv) Technical terms are displayed on the back of the bill, along with.</p>
---	---	---

Appendix: PGW's Universal Service Programs

69.264 Scope of CAPS		
69.264 Scope of CAPS CAPS should be targeted to low income, payment troubled customers. The participation limit should reflect a needs assessment, consideration of the estimated number of low-income households in the service territory, number currently enrolled, resources available, participation rates for assistance programs.	(69.264) yes	The policy defines low-income as a residential customer at or below 150% of poverty. PGW programs are designed for low-income households by this definition. Discounted payment options are offered to those at or below 135% of poverty. Undiscounted options are offered customers 136%-150% of poverty.
Chapter 69.265 CAP Design Elements		
69.265 (1) Program Funding: (i) Payments from CAP Participants (ii) LIHEAP grants (iii) Operations & maintenance expense reductions (iv) Universal Service funding mechanism for EDC : : :	(1) yes (i) yes (ii) yes (iii) yes (iv) NGDC	Program funding is obtained through CRP participant payments, LIHEAP cash and LIHEAP Crisis payments. In a letter from Janice Hummel, BCS to David Eppel, CAE Energy Association of Pennsylvania, Attachment 3 describes CAP Costs and Potential CAP savings categories ⁶⁵ . While we know the costs & have tools to work with low income program costs, it is difficult to track down the costs. We have shown that similar programs are cost effective ⁶⁶ and assume that

⁶⁵ Letter of Janice Hummel, Bureau of Consumer Services to David O. Eppel, Vice President-Regulatory Affairs, Energy Association of Pennsylvania, with attachments, May 24, 2001.

⁶⁶ See footnote 25, Equitable Gas.

Appendix: PGW's Universal Service Programs

<p>[No corresponding section in Chapter 69]]</p>	<p>(PGW requirement)</p>	<p>option selected or required" (4.50.4(A)) This applies only to the discounted CRP billing options. The exception is the \$30 minimum payment where it can exceed 12% of income. (B)(C) This evaluation is examining the percent of income under item (B) gas heating, and (C) combined gas heating and electric non-heating.</p> <p>HGPA recommends elimination of the 5% down payment of the arrearage at enrollment. This area is not specifically dealt with in the CAP design guidelines, but requirement of a payment as a condition for participation in a CAP is not in step with the current philosophy of CAP programs.</p>
<p>(3) Control Features: (i) Minimum Payments (A) Gas heating account should be at least \$18-\$25/month</p>	<p>(3) partial (A) yes</p>	<p>(A) Minimum monthly is \$30. The regulation states "at least \$18-\$25 per month." With the wording "at least" PGW is in compliance. However, while in compliance with the minimum payment provision, a minimum bill of \$30 monthly represents 8% of an income of \$375/month. HGPA recommends reducing the minimum monthly payment to \$18/month for customers in the range of 0-50% of the Federal Poverty Level.</p>
<p>(ii) Non-basic services that increase billing and don't reduce bills</p>	<p>(ii) partial</p>	<p>(ii) Non-CRP repair charges are listed</p>

Appendix: PGW's Universal Service Programs

<p>are not allowable.</p> <p>(iii) Consumption Limits should be set at percentage of participant's historical average usage. A level of 110% is recommended. Adjustments in consumption should be made for extreme weather conditions through the use of weather normalization techniques.</p> <p>(iv) High Usage treatment. Utilities should target for special treatment those participants who historically use high amounts of energy.</p> <p>(v) Maximum CAP credits: (A) Annual maximum CAP credits per gas heating participant should not exceed \$840</p> <p>(vi) Exemptions. Utility may exempt household from control feature if one or more following conditions exists:</p> <p>(A) Household experienced addition of family member (B) A member of the household experienced a serious illness (C) Energy consumption was beyond household's ability to control (D) Household is located in housing that is or has been condemned or has housing code violations that negatively affect energy consumption. (E) Energy consumption estimates have been based on</p>	<p>(iii) yes-modified</p> <p>(iv) yes</p> <p>(v) (A) no</p> <p>(vi) yes</p>	<p>separately in the billing and do increase the amount due. The amount due is accumulated as a loan and is not due until recertification, when the amount is billed over 10 months. CAP credits are not used to pay for non-basic services. Collection action cannot be taken for non-payment of non-CRP charges.</p> <p>(iii) Excess Usage Charge is levied based on usage in excess of Property Based Class average, and not individual's historic average usage.</p> <p>(iv) Contractors provide treatment through LIURP. High use customers are targeted and selected for LIURP annually from current lists of high users.</p> <p>(v) (A) PGW does not utilize a maximum CAP credit.</p> <p>(vi) PGW procedures allow the customer service representative to exercise "good common sense" when evaluating all requests for exceptions. The CRP Exceptions procedure describes examples of reasons to grant or deny exceptions. These could broadly include items listed under (vi)(A-E) although item (B) is the only item specifically discussed. The procedure provides specific</p>
--	---	---

Appendix: PGW's Universal Service Programs

<p>consumption of a previous tenant.</p>		<p>direction while allowing the representative the latitude to exercise common sense. Denial of CRP Exception and CRP Exception Granted Forms are used to specifically document actions taken.</p>
<p>(4) Eligibility criteria: The CAP applicant should meet the following criteria for eligibility:</p> <p>(i) Status as a utility ratepayer or new service is verified</p> <p>(ii) Household income is verified at or below 150% of the Federal Poverty income guidelines</p> <p>(iii) The applicant is a low income, payment troubled customer. When determining if a CAP applicant is payment troubled, a utility should select one of the following four options to prioritize the enrollment of eligible, payment troubled customers</p> <p style="padding-left: 40px;">(A) A household whose housing and utility costs exceed 45% of the household's total income. Housing and utility costs are defined as rent or mortgage/taxes and gas, electric, water, oil, telephone and sewage.</p> <p style="padding-left: 40px;">(B) A household who has \$100 or less disposable income after subtracting all household expenses from all household income</p> <p style="padding-left: 40px;">(C) A household who has an arrearage. The utility may define the amount of the arrearage.</p> <p style="padding-left: 40px;">(D) A household who has received a termination notice or who has failed to maintain one payment arrangement.</p>	<p>(4) partial</p> <p>(i) yes</p> <p>(ii) yes</p> <p>(iii) partial</p>	<p>(i) Status is verified upon application.</p> <p>(ii) Income is verified at or below 150% of the Federal Poverty income guidelines during enrollment.</p> <p>(iii) PGW establishes the applicant is low income. PGW doesn't utilize the payment-troubled definition as an additional qualifying criterion. Most CRP customers are payment troubled with an arrearage. Many remain on CRP whose arrears have been paid off by using CRISIS grants. Customers are allowed to stay in CRP with no pre-program arrearage.</p>

Appendix: PGW's Universal Service Programs

<p>(5) Appeal process: The utility should establish the following appeal process for program denials.</p>	<p>(5) yes, in the sense that this area is currently governed by a MOU which establishes interim procedures, until final procedures are determined; however this area does not currently match specific requirements</p>	<p>(5) PGW and PUC have signed an MOU that pertains specifically to PGW customer service practices and Chapter 56 regulations referenced in §69.265(5). The PUC expects PGW to come into compliance with Chapter 56 "some time in the future." In the meantime, the MOU offers interim procedural agreements until the Tariff is brought into line with Chapter 56. HGPA recommends PGW work with the PUC toward modification of the Tariff and comply with procedures The Tariff Section 5 describes the procedures for the Inquiry, Review, Dispute and Appeal Process. This section notes definitions used in Code 52, Chapter 56 will be used in that Section. Section 5 does not provide the same degree of detail described in Chapter 56.151 and 56.152 and 56.161-56.165 particularly regarding Utility Reports. The Tariff Section 5.1.D and Chapter 56 are in agreement regarding the requirement to attempt a payment arrangement on the disputed bill. However the Tariff allows the termination process to continue if an agreement cannot be made.</p>
<p>(i) If the CAP applicant is not satisfied with the utility's initial eligibility determination, the utility should use utility company dispute procedures in 56.151 and 56.152 (general rule; contents of</p>	<p>(i) no</p>	<p>(i) Denial of CRP eligibility is not specifically noted in Tariff Section 5. Tariff Section 5.4.B.2 states Tariff requirements may be</p>

Appendix: PGW's Universal Service Programs

<p>utility company report)</p> <p>(ii) The CAP applicant may appeal the denial of eligibility to the BCS in accordance with 56.161-56.165 (informal complaint procedures)</p>	<p>(ii) no</p>	<p>waived if the "customer is a participant or a potential participant in the [CRP] and has indication by his/her actions a desire to comply with the Program's Responsibilities."</p> <p>(ii) Appeal of the denial of CRP eligibility is not specifically noted in Tariff Section 5. Section 5.2 pertains to Appeal of PGW Decision to BCS.</p>
<p>(6) Administration: If feasible, the utility should include nonprofit community based organization in the operation of the CAP. The utility should incorporate the following components into the CAP administration.</p> <p>(i) Outreach. Outreach may be conducted by nonprofit community based organizations and should be targeted to low income payment troubled customers. The utility should make automatic referrals to CAP when a low-income customer calls to make payment arrangements.</p> <p>(ii) Intake and verification. Income verification may be completed through a certification process that is satisfactory to the utility or certification through a government agency. Intake may also be conducted by those organizations and should include verification</p>	<p>(6) partial</p> <p>(i) yes</p> <p>(ii) yes</p>	<p>PGW does not use community-based organizations for the various aspects of CAP administration. The regulation states "if feasible". PGW has chosen to utilize company employees in each of its six district offices to administer the program.</p> <p>(i) Outreach: PGW does not have a pro-active outreach (don't pay an outside vendor for outreach services). Many agencies distribute information about CRP to clients.</p> <p>The following items (ii) through (x) are functions that are handled within PGW six district offices.</p> <p>(ii) Intake & verification takes into account the items (A) – (E).</p>

Appendix: PGW's Universal Service Programs

<p>of the following</p> <ul style="list-style-type: none"> (A) Identification of CAP Applicant (B) The annual household income (C) The family size (D) The ratepayer status (E) The class of service—heating or non-heating <p>(iii) Calculation of payment. Calculation of the monthly CAP amount should be the responsibility of the utility. The utility may develop a payment chart so that the assisting community based organizations may determine payment amounts during the interview</p> <p>(iv) Explanation of CAPS. A complete and thorough explanation of the CAP components should be provided to participants</p> <p>(v) Application for LIHEAP grants. An application for LIHEAP grants, to the extent that it is available, should be completed during the interview.</p> <p>(vi) Consumer education and referral. CAP consumer education programs should include information on benefits and responsibilities of CAP participation and the importance of energy conservation. Referrals to other appropriate support services should also be a part of consumer education</p> <p>(vii) Account monitoring. Account monitoring should include both payment and energy consumption monitoring.</p>	<p>(iii) yes</p> <p>(iv) yes</p> <p>(v) yes</p> <p>(vi) yes</p> <p>(vii) yes</p>	<p>(iii) Calculation of payment procedures were developed by PGW and are embedded within the BCCS program representatives use during intake.</p> <p>(iv) Explanation of CAPS is conducted with visual aids that representatives use.</p> <p>(v) Application for LIHEAP is completed at the time of intake if the LIHEAP season is open.</p> <p>(vi) Consumer education & referral is offered during intake. Customers receive explanations of CRP, their bill, and are given conservation literature and referrals.</p> <p>(vii) Account monitoring is done on a reactive rather than proactive basis. Accounts of customers who call with questions are reviewed individually. This includes consumption and payment monitoring. Monthly CRP reports of the full population are generated and reviewed.</p>
---	--	--

Appendix: PGW's Universal Service Programs

<p>(viii) Annual reapplication. An annual process that reestablishes a participant's eligibility for CAP benefits should be required.</p> <p>(ix) Arrearage forgiveness. Arrearage forgiveness should occur over a 2 to 3 year period contingent upon receipt of regular monthly payments by the CAP participant</p> <p>(x) Routine program management progress reports. Progress reports that may be used to monitor CAP administration should be prepared at regular intervals. These reports should include basic information related to the number of participants, payment and account status.</p>	<p>(viii) yes</p> <p>(ix) no</p> <p>(x) yes</p>	<p>(viii) Annual reapplication begins with letters mailed to customers due for recertification. The customer can mail information (if eligible for mail recerts) or come into any of the 8 district offices.</p> <p>(ix) Arrearage forgiveness is described in the Tariff. However, it was not implemented as described. The described procedure would not be in compliance, as it does not occur over a 2 to 3 year period. A one-time arrearage forgiveness procedure has been developed and will be implemented that will ensure PGW applies the already amortized regulatory asses to the customer accounts. The longer-term arrearage forgiveness policy is under review within PGW and within this evaluation.</p> <p>(x) Detailed program management progress reports are generated monthly.</p>
<p>(7) Default provisions: The failure of a participant to comply with one of the following should result in dismissal from CAP participation.</p>	<p>(7) partial</p>	<p>(7) PGW does not currently dismiss participants from their program. The program described in the 11/93 Order & Resolution and the current Tariff includes default</p>

Appendix: PGW's Universal Service Programs

<p>(i) Failure to make payments will result in the utility returning the participant to the regular collection cycle and may lead to termination of service. By returning the customer to the regular collection cycle, the utility does not need to enter into a new payment arrangement but may begin the termination process. At a minimum, the utility should inform the participant of the consequences of defaulting from CAP. To avoid termination of service, the CAP participant must pay the amount set forth in the termination notice prior to the scheduled termination date. The amount should generally be no more than two CAP bills.</p>	<p>(i) yes, different definitions</p>	<p>provisions. The Tariff describes default in 4.50.9.</p> <p>(i) The participant is in 'default' after falling behind by two <u>full</u> CRP payments. If the participant has made a partial payment, they are not two <u>full</u> payments behind and therefore not in default. Recent computer problems have prevented PGW from removing customers who are in default. The collections procedure can commence when payments are 2 full payments past due. If the payments are not caught up within the 45-day notifications process, the CRP agreement is 'broken'. Any payment, including partial payments, made within the 45 days reinstates the customer to active CRP status.</p>
<p>(ii) Failure to abide by established consumption limits.</p>	<p>(ii) no</p>	<p>(ii) PGW levies an excess usage charge based on Property Based Class Averages, but does not establish consumption limits per se. If the customer uses more than the Class Average, they are billed an excess usage charge based on the standard gas rate. Customers will not be removed for exceeding consumption 'limits'. PGW also offers a \$40 Conservation Credit Adjustment at recertification if the customer has met 5 criteria, including no billing for excess usage.</p>
<p>(iii) Failure to allow access or to provide customer meter readings in 4 consecutive months.</p>	<p>(iii) yes</p>	

Appendix: PGW's Universal Service Programs

<p>(iv) Failure to report changes in income or family size</p>	<p>(iv) yes</p>	<p>(iii) Participants are required to install AMR devices to enable monthly readings. About 90% of CRP participants currently have AMR devices.</p>
<p>(v) Failure to accept budget counseling, weatherization/usage reduction, or consumer education services.</p>	<p>(v) no</p>	<p>(iv) The recertification process requires reporting of changes in income and family size.</p>
<p>(vi) Failure to annually verify eligibility.</p>	<p>(vi) yes</p>	<p>(v) PGW does not provide budget counseling. Customers are not removed for refusing LIURP. Contractors provide lists of refused and ineligible to PGW.</p>
<p>(8) Reinstatement policy: A customer may be reinstated into CAP at the utility's discretion.</p>	<p>(8) yes</p>	<p>(vi) Participant is required to certify annually by bringing current documentation to one of the 8 district offices and meeting with a Representative. Failure to recertify will place the customer in Suspended status.</p>
<p>(9) Coordination of energy assistance benefits: In a CAP, the utility should include the following to coordinate a participant's energy assistance benefits between it and other utilities.</p>	<p>(9) partial</p>	<p>PGW will reinstate the customer 12 months after dismissal.</p>
<p>(i) A LIHEAP grant should be designated by the participant to the utility sponsoring the CAP.</p>	<p>(i) yes</p>	<p>(i) PGW requires the customer to assign the LIHEAP cash grant to them; otherwise PGW assesses a LIHEAP makeup charge. PGW</p>

Appendix: PGW's Universal Service Programs

<p>(ii) A LIHEAP or other energy assistance grant may not be substituted for a participant's monthly payment. If the utility determines that a participant's minimum payment exceeds 17% of the household's income, additional energy assistance grants may be used to reduce the amount of the participant's monthly payment. The participant is still responsible for making the remainder of the regular monthly payment.</p> <p>(iii) The LIHEAP grant should be applied to reduce the amount of CAP credit</p> <p>(iv) A utility may impose a penalty on a CAP participant who is eligible for LIHEAP benefits but who fails to apply for those benefits. A utility should use their option carefully and the penalty should not exceed the amount of an average LIHEAP cash benefit. If a customer applies for a LIHEAP benefit but directs it to another utility or energy provider, the CAP provider should not assess a penalty.</p>	<p>(ii) partial</p> <p>(iii) yes</p> <p>(iv) yes</p>	<p>requires the customer to apply for CRISIS if eligible.</p> <p>(ii) PGW does not apply LIHEAP or other assistance grants against the monthly payment. PGW does not use grants to reduce monthly payments over 17% of income. PGW Tariff (and BCCS system) limits payments to 12% of income.</p> <p>(iii) LIHEAP cash grant is applied toward the CAP credit, that is, it is applied to the CRP GCR offsetting the cost of the CRP discount. CRISIS is applied first to current arrears then to frozen arrears if funds are in excess of current arrears.</p> <p>(iv) PGW levies a LIHEAP makeup charge in the amount of the average LIHEAP grant when the customer does not direct the LIHEAP grant to PGW. The customer who is assessed a makeup charge when they (1) were denied LIHEAP, or (2) assigned it to another utility can inform PGW and the makeup charge will be rescinded. Otherwise, PGW assesses the make-up charge.</p>
<p>(10) Evaluation: The utility should thoroughly and objectively evaluate its CAP in accordance with the following unless modified</p>		<p>Chapter 54.76 applies to EDC. Chapter 62.6 is the NGDC equivalent. The evaluation</p>

Appendix: PGW's Universal Service Programs

<p>in 54.76 (evaluation requirements).</p> <p>(i) Content. The evaluation should include both process and impact components. The process evaluation should focus on whether CAP implementation conforms to the program design and should assess the degree to which the program achieves the continuation of output serve the CAP participants at reasonable cost levels. The impact evaluation should include an analysis of the following.</p> <ul style="list-style-type: none"> (A) Customer payment behavior (B) Energy assistance participation. (C) Energy consumption (D) Administrative costs (E) Program costs <p>(ii) Time frame. Unless otherwise modified from 54.76 the time frame for the evaluation should be as follows:</p> <p>(A) Following the expansion of a CAP or subsequent to a substantial revision of an existing CAP or an alternate program design, a one-time process evaluation completed by an independent third party should be undertaken during the middle of the second year.</p> <p>(B) Program impacts should be evaluated by an independent third party at no more than 6-year intervals and submitted to the Commission.</p>	<p>(i) no evaluation required or conducted yet</p> <p>(ii) no evaluation required or conducted yet</p>	<p>requirements are similar.</p> <p>(i) Process evaluation is not mentioned in 62.6. Impact evaluation is required by this regulation.</p> <p>BCS notes that PGW's CRP will be approved in PGW's restructuring filing and it is not likely that the Commission will require a Process evaluation soon after that. This evaluation may serve as the Process evaluation, as it is being completed close to the restructuring filing.</p> <p>(ii) Chapter 62.6 states the first Impact evaluation due 8/1/04, on a staggered schedule. Subsequent reports shall be presented at no more than 6 year intervals.</p> <p>BCS notes that the restructuring filings in mid-2002 will establish the filing schedule for the evaluation at Chapter 62.6.</p>
---	--	--

Appendix: PGW's Universal Service Programs

(iii) Evaluation plan approval. The utility should submit the impact evaluation plan to the BCS for review and approval.	(iii) no evaluation required or conducted yet	
--	---	--

**Chapter 69
Reports due:**

Chapter 69 Section 6(x): Routine program management progress reports used to monitor CAP administration should be prepared at regular intervals. These reports should include basic information related to the number of participants, payment and account status. The regulation does not state the reports should be submitted to the PUC.

Evaluation due:

Chapter 69 Section 10(ii)(A): Following the expansion of a CAP or subsequent to a substantial revision of an existing CAP or an alternate program design, a one-time process evaluation completed by an independent third party should be undertaken during the middle of the second year. PGW's CRP will be approved in PGW's restructuring filing and it is not likely that the Commission will require a Process evaluation soon after that. This should be addressed in the filing however.

Chapter 69 Section 10(ii) and Chapter 62.6: Process and Impact evaluation due 8/1/04. Thereafter, the CRP evaluation is due at no more than 6-year intervals. BCS notes that the restructuring filings in mid-2002 will establish the filing schedule for the evaluation at Chapter 62.6.

X. APPENDIX B, TITLE 52, CHAPTER 62

Chapter 62 Natural Gas Customer Choice

Subchapter A. Universal Service and Energy Conservation Requirements

Subchapter B. Reporting Requirements for Quality of Service Standards and Benchmarks

Selected sections pertaining to PGW required actions

Chapter Section	Compliance	Comments
<p>66 Pa. Code 2203(8) mandates that the Commission ensures universal service and energy conservation policies, activities, and services for residential natural gas customers are appropriately funded. Subchapter 62.1 requires uniform reporting requirements for universal service and energy conservation policies, programs and protections.</p>		<p>62.1 This evaluation is reviewing the data that PGW currently collects in order to determine whether all data elements necessary for the reporting requirements are collected and available.</p>
<p>Subchapter A. Universal Service and Energy Conservation Requirements</p>		
<p>62.4 Universal service and energy conservation plan</p> <p>(a) Plan submission</p> <p>(1) submit an updated plan to the Commission for approval every 3 years beginning 2/28/02.</p> <p>(2) the plan should cover the next 3 calendar years</p> <p>(3) the plan should state how it differs from the previously approved plan</p> <p>(4) the plan should include revision based on</p>	<p>62.4</p> <p>(a) plan not yet submitted</p>	<p>(a) PGW is restructuring and plans to complete the restructuring by July 2002 with implementation by Sept. 2003. The CRP 3-year plan submitted during the restructuring filing should propose a year that reporting can start. BCS prefers reporting begin within the time frame given other NGDC, about 2 years.</p>

Appendix: PGW's Universal Service Programs

<p>analysis of program experiences and evaluation (5) Commission will act within 90 days (6) If the Commission rejects a plan, the NGDC shall submit a revised plan within 45 days unless otherwise stated.</p> <p>(b) Plan contents. The components of universal service will be CAP, CARES, LIURP, Hardship funds and other programs, policies and protections. The Plan should include:</p> <p>(1) a description of program rules for each component (2) eligibility criteria for each component (3) projected needs assessment for each component & explanation of how the component meets the identified needs. (4) projected enrollment levels for each component. (5) program budget for each component. (6) plans to use CBO (7) organizational structure of universal service staff (8) explanation of differences between the filed plan and the approved plan. (9) a description of outreach and intake efforts for each component. (10) an identification of steps used to identify low income customers with arrears and to enroll them in appropriate programs. (11) an identification of the manner in which universal services and energy conservation programs operate in an integrated fashion.</p>	<p>(b) current program contains all but one component</p>	<p>(b) PGW does not have a CARES component but does refer customers to agencies that can provide financial and other assistance. PGW does have a CAP, LIURP and other policies and protections.</p> <p>Items (b) 1 through 11 cannot be addressed here as no Plan has been filed to date. We can expect PGW to include these items in the CRP 3-year plan submitted during the restructuring filing.</p>
---	---	--

Appendix: PGW's Universal Service Programs

<p>62.5 Annual residential collection and universal service and energy conservation reporting requirements</p> <ul style="list-style-type: none"> (1) Collection reporting (2) Program reporting 	<p>(62.5) the first report has not been filed</p>	<p>This evaluation reviewed the data collected and stored within PGW systems. We have determined that initiating computer programming changes to the data subsystems into the General Ledger system will provide pertinent data for the reporting requirements. The current GAAP and FERC accounting in addition to the planned changes to the General Ledger System (that will provide activity based accounting) are needed to achieve the level of detail necessary for the reporting requirements.</p> <p>The CRP 3-year plan submitted during the restructuring filing should propose a year that reporting can start. BCS would like this to start as soon as possible, and no later than 2005.</p> <p>See the attached template for the specific notations for each item in 62.5.</p>
<p>62.6 Evaluation Reporting Requirements</p> <ul style="list-style-type: none"> (a) Each NGDC shall evaluate the universal service and energy conservation programs and report findings and recommendations. (b) The first impact evaluation is due 8/1/04 and subsequently at no more than 6 year intervals. (c) Neither the NGDC nor the Commission shall exercise control over recommendations contained in the evaluation. 	<p>(62.6) no evaluation required or conducted yet</p>	<p>The restructuring filings in mid-2002 will establish the filing schedule for the evaluation at Chapter 62.6; that is, the impact evaluation should not exceed 6 years from the date of the final restructuring order.</p>

Appendix: PGW's Universal Service Programs

Subchapter B. Reporting Requirements for Quality of Service Standards and Benchmarks		
<p>62.33 Reporting Requirements for Quality of Service Benchmarks and Standards.</p> <p>(a) Deadlines</p> <p>(1) The first due 8/1/01, reporting monthly data for the prior six months and six-month averages.</p> <p>(2) The second report is due 2/1/02 containing monthly data for the prior six months, and the twelve-month cumulative average.</p> <p>(3) Thereafter annual reports are due on or before Feb. 1.</p> <p>(b) Recordkeeping. Each NGDC shall report the following to the Commission:</p> <p>(1) Telephone access</p> <p>(2) Billing</p> <p>(3) Meter reading</p> <p>(4) Response to disputes</p>	<p>(62.33) no report completed yet</p>	<p>PGW is not required to submit the first round of reports. The CRP 3-year plan submitted during the restructuring filing should propose a year that reporting can start. BCS prefers reporting begin within the time frame given other NGDC, about 2 years.</p>
<p>62.34 Customer Surveys: each NGDC shall report to the Commission the results of telephone transaction surveys of customers who have had interaction with PGW.</p> <p>(1) Purpose of the transaction surveys are to assess the customer perception regarding the recent transaction.</p> <p>(2) The transaction survey questions shall specifically address the circumstances that generated the recent transactions.</p> <p>(i) credit/collection</p> <p>(ii) billing</p> <p>(iii) reliability and safety</p>	<p>(62.34) no report required yet</p>	<p>PGW currently conducts telephone transaction surveys of customers who have had recent interactions. These are surveys where customers with recent transactions are chosen random, typically including about 400 calls per week. Topics include the range listed in 63.34(2). For example, a recent survey interviewed customers regarding repair services they received.</p> <p>The CRP 3-year plan submitted during the restructuring filing should propose a sampling plan and the year that reporting can start. BCS prefers reporting</p>

Appendix: PGW's Universal Service Programs

<ul style="list-style-type: none"> (iv) service installation and applications (v) service disconnection (vi) other similar interactions (3) Uniform data (4) Timely response (5) Sampling plan (6) Commission approval (7) Timetable (i) the first report is due on or before 10/1/2002 including the first 6 months of the calendar year. (ii) The second report is due 4/1/03 and includes the second 6 months of the calendar year and cumulative 12 month results. (iii) Thereafter reports are due April 1. (iv) Annual reports shall contain results by month as cumulative 12 month reports. 		<p>begin within the time frame given other NGDC, about 2 years.</p>
---	--	---

Chapter 62
Reports due:

62.4 Universal service and energy conservation plan: an updated plan is to be submitted to the Commission for approval every 3 years. The CRP 3-year plan submitted during the restructuring filing mid-2002 should propose a year that reporting can start. BCS prefers reporting begin within the time frame given other NGDC, about 2 years.

62.5 Annual residential collection and universal service and energy conservation reporting requirements including collection reporting and program reporting: The CRP 3-year plan submitted during the restructuring filing should propose a year that reporting can start. BCS would like this to start as soon as possible, and no later than 2005.

62.6 Evaluation Reporting Requirements: The restructuring filings in mid-2002 will establish the filing schedule for the evaluation at Chapter 62.6, that is, the impact evaluation should not exceed 6 years from the date of the final restructuring order.

Appendix: PGW's Universal Service Programs

62.33 Reporting Requirements for Quality of Service Benchmarks and Standards: The CRP 3-year plan submitted during the restructuring filing should propose a year that reporting can start. BCS prefers reporting begin within the time frame given other NGDC, about 2 years.

62.34 Telephone transaction surveys of customers who have had interaction with PGW: The CRP 3-year plan submitted during the restructuring filing should propose a sampling plan and the year that reporting can start. BCS prefers reporting begin within the time frame given other NGDC, about 2 years.

Appendix: PGW's Universal Service Programs

<p>(1) Program expense shall be allotted among ratepayers. The precise method shall be determined in rate proceedings.</p> <p>(2) Recovery of expenses shall be subject to Commission review.</p>	<p>(e) yes, however currently under review</p>	<p>(e) LIURP (CWP) costs are currently recovered in the GCR mechanism. The Office of Trial Staff (OTS) suggested in August 2001 proceedings that the CWP costs be included in the base rate. The Recommended Decision of ALJ Cynthia Fordham is that CWP costs should not be recovered in the GCR and the issue should be deferred until the restructuring proceeding in mid 2002.</p>
<p>58.5 Administrative Costs Not more than 15% of the annual LIURP budget may be spent on administrative costs.</p>	<p>(58.5) no</p>	<p>The PY7 Evaluation reports CWP spending of \$2.2 million and PGW, ECA, & HDMC administrative costs of \$362,712 or 16.5% of the annual budget. The PY9 Evaluation reports CWP spending of \$1,970,010 and total administrative costs of \$327,096 or 16.6% of the annual budget. 15% of a \$2 million annual budget limits total administrative costs to \$300,000.</p>
<p>58.6 Consultation When making major modifications in program design, the utility shall consult with persons or entities with experience in design or administration of usage reduction programs, past recipients of services, social service agencies, community groups, other utilities, conservation contractors etc.</p>	<p>(58.6) yes</p>	<p>PGW utilizes a CRP Advisory Committee. When necessary, a subcommittee called the Conservation Monitoring Committee has convened. This Committee is a cross-section of interested parties. They have been involved with such things as developing cost-effectiveness guidelines for program evaluation, modification of the excess usage procedures, and discussions around adding a second weatherization contractor.</p>
<p>58.7 Integration (a) A utility shall coordinate program service with existing</p>	<p>(58.7) (a) yes</p>	<p>(a) The CWP refers customers to other programs for</p>

Appendix: PGW's Universal Service Programs

<p>resources in the community.</p> <p>(b) Mandatory programs shall be designed to operate in conjunction with consumer services and collection programs and other relevant programs so that those experiencing problems with ability to pay are made aware of programs. Direct assistance in making LIHEAP application is to be provided.</p> <p>(c) Mandatory programs shall be designed to provide services through independent agencies with demonstrated experience and effectiveness.</p>	<p>(b) yes</p> <p>(c) yes</p>	<p>assistance. Services are not coordinated or offered jointly. However, one of the weatherization contractors also administers other assistance programs and there is some internal coordination of services.</p> <p>(b) The CWP is offered to high use customers participating in CRP. CRP is offered to low income customers who cannot pay the GS rate. Those targeted for CWP are high users who are likely but not necessarily experiencing payment problems with their CRP Budget plan. LIHEAP application assistance is given during CRP enrollment.</p> <p>(c) PGW has contracted with two outside contractors, HDMC and ECA, to provide CWP services.</p>
<p>58.8 Tenant eligibility</p> <p>Eligible customers who are tenants shall have equal opportunity to secure services if the landlord gives written permission. The landlord must also agree in writing not to raise the rent or evict the tenant for 12 months after measure installation, if the tenant complies with ongoing obligations as a tenant.</p>	<p>(58.8) yes</p>	<p>Low cost services to tenant's homes that do not change the structure do not require the landlord's prior permission (per local laws). However, installation of roof insulation does require the landlord's permission. The permission form explains the CWP and states the measure is installed free of charge. There are no specifics about rental agreements in the permission form.</p>
<p>58.9 Program announcement</p> <p>(a) The utility shall provide notice as follows:</p> <p>(1) Annually review customer records to identify the eligible population. Provide a targeted mass mailing to each</p>	<p>(58.9) yes, modified</p>	<p>(a)(1) PGW generates a list of high use customers annually (April) and provides the lists to the two weatherization contractors who use the list to further</p>

Appendix: PGW's Universal Service Programs

<p>customer identified to solicit application. A copy of the notice should also be sent to agencies that assist low income customers. Consider public service announcements.</p> <p>(2) If program resources exceed response, the targeted mass mailing shall be followed by personalized letters to identified non-responders.</p> <p>(3) If program resources exceed response, personal contact shall be made.</p> <p>(b) If funding still remains, the utility shall send notice to all residential customers with eligibility rules etc.</p>		<p>prioritize and recruit participants. The contractors contact eligible participants by mail and phone.</p> <p>(a)(2)—(3)(b) Excess funding has not occurred. Contractors recruit participants to meet their goals and funding levels.</p>
<p>58.10 Priority of Program Service</p> <p>(a) Priority shall be determined as follows:</p> <p>(1) Among eligible, those with the largest usage and greatest opportunity for bill reduction relative to the cost of providing services shall be served first. Prioritization factors based on usage include, dwelling size, occupants, service end-uses. Prioritization factors based on bill reduction include utility rate factors.</p> <p>(2) Among those with same standing in (1) those with the greatest arrearage shall be served first. Priority given to customers with largest arrearage relative to income.</p> <p>(3) Among those with same standing in (2) priority is given to those incomes placing them farthest below the maximum eligibility level.</p> <p>(b) These guidelines shall be used to determine the</p>	<p>(58.10)</p> <p>(a) yes, modified</p> <p>(b) yes</p>	<p>PGW generates a list of high use customers annually (April) and provides the lists to the two weatherization contractors who use the list to further prioritize and recruit participants. The list provided by PGW includes additional data that the contractor uses to prioritize and screen customers. This data include, for example, the amount owed, bills behind, LIHEAP funds applied to PGW, payment status.</p>

Appendix: PGW's Universal Service Programs

<p>amount of annual funding to be budgeted.</p> <p>(c) Up to 10% of the annual program budget may be spent on eligible special needs customers defined as those with an arrearage at or below 200% of poverty.</p>	<p>(c) no</p>	<p>(c) The CWP is designed for CRP participants with high use. CRP only extends programs to 150% of Federal Poverty Level. PGW expends the full CWP budget on CRP participants, and therefore does not provide services to customers between 150-200% FPL.</p>
<p>58.11 Energy survey An onsite energy survey shall be performed to determine if measure installation is appropriate. It is appropriate if not already present and performing effectively, and savings result in simple 7-year payback. A 12-year simple payback shall be utilized for side wall insulation, attic insulation, space heating system replacement and water heater replacements when expected lifetime is longer than payback.</p>	<p>(58.11) partial</p>	<p>This program installs primarily low cost measures. The installation contractors conduct an onsite energy survey to assess the home and determine which measures should be installed. Usage data and the conditions at the home are factors considered in measure selection. 7-year and 12-year simple payback is not used to choose measures appropriate for installation. No measures are installed that require major repair first. (For example, if the roof leaks, attic insulation will not be installed until the resident fixes the leak. The roof repair is not made within CWP.) Referrals are made to other assistance agencies. Side wall insulation is rarely installed because it is not effective in the predominant housing type found in the service territory (row houses). Space heating system and water heating system replacements are not done under CWP.</p>
<p>58.12 Incidental repairs Expenditures may include incidental repairs to the dwelling necessary to permit proper installation of measures, or repair to existing measures to make them operate effectively.</p>	<p>(58.12) yes</p>	<p>PY7 and PY9 evaluations show a small number of heater repairs and water heater leak repairs.</p>

Appendix: PGW's Universal Service Programs

<p>58.13 Usage reduction education</p> <p>(a) Applicability. Education services shall be provided to maximize energy savings from installed measures and through behavior modification including water conservation. Education should address bill payment behavior and assistance with LIHEAP application.</p> <p>(b) Funding level. Expenditure for education shall be sufficient to provide services to each customer receiving LIURP services. Education programs with average costs > \$150/customer shall be pilot tested for 1 year and measured for cost effectiveness.</p> <p>(c) Pilot programs. The Commission encourages pilot tests and evaluation of innovative education approaches.</p> <p>(d) Program services. Education should be designed to produce voluntary conservation. Activities shall include but need not be restricted to:</p> <ul style="list-style-type: none"> (1) group presentations providing explanation of measures and objectives. (2) workshops teaching installation of measures. (3) in-home presentations between the contractor and customer that involves participation of the customer. 	<p>(58.13)</p> <p>(a) yes</p> <p>(b) yes, modified</p> <p>(c) yes</p> <p>(d) yes</p>	<p>(a) PY7 and PY9 evaluations state energy education is provided to all participating homes. LIHEAP applications are taken at enrollment. Education includes discussion of the CRP, excess use charge, measures that will be installed, and actions the customer can take to save energy.</p> <p>(b) Education funding is sufficient to provide in-home education at each participant dwelling. PY7 and PY9 evaluations show education costs are not separately tracked. Costs of education were grouped with other low cost measures for an average per house cost of \$224 in PY9 and \$266 in PY7. Education costs and other low cost measures would need separate cost accounting to determine the funding levels allocated to these measures. Separate accounting is not done.</p> <p>(c) PGW has conducted a pilot for providing group workshops. This was not effective.</p> <p>(d) PGW has found in-home presentations to be the most effective means to provide energy education.</p>

Appendix: PGW's Universal Service Programs

<p>58.14 Program measure installation</p> <p>(a) Installation. Based on the energy survey (58.11) measures shall be installed to reduce energy bills, space heating usage, water heating and baseload end uses:</p> <p>(1) Residential space heating measures may include insulation, furnace replacement or efficiency modifications, clock thermostats, infiltration measures designed to reduce air flow, repair or replacement of chimneys and service lines.</p> <p>(2) Residential water heating measures may include installation of water heater control devices, rewiring to permit off peak or time-of-day billing, water heater & pipe insulation, low flow showerheads, faucet restrictors.</p> <p>(3) Residential baseload – not applicable to PGW</p> <p>(b) Quality Control. A utility shall establish effective quality control guidelines and procedures for the installation of measures. When a contractor is utilized the utility shall schedule post-installation inspections and require a warranty covering workmanship.</p> <p>(c) Inter-utility coordination. Customers of gas and electric utilities shall have coordinated provision of comprehensive program services.</p>	<p>(58.14)</p> <p>(a) yes</p> <p>(1) partial</p> <p>(2) yes</p> <p>(b) yes</p> <p>(c) no</p>	<p>(a) The energy survey is used to determine which measures to install. Low cost measures are installed in this program.</p> <p>(1) PY7 and PY9 evaluations list measures installed including attic insulation, clock thermostats, air sealing, radiator bleeding, and radiator reflectors. No sidewall insulation, space heat system replacements or water heat system replacements are installed.</p> <p>(2) PY7 and PY9 evaluations list measures installed including water heater & pipe insulation, low flow showerheads, faucet restrictors, and hot water leak repairs.</p> <p>(b) The contractors supervise and inspect 100% of the installations as a routine procedure while the job is in progress. Post-inspections are conducted by inspectors and quality assurance contractors at 10% of the sites. PGW has, during two years in the past, independently conducted post installation inspections at 4-5% of the participant homes. A warranty covering workmanship is included within current contractor insurance requirements.</p> <p>(c) PGW does not engage in coordinated provision of program services described under (c) (1-6). PGW</p>
--	--	---

Appendix: PGW's Universal Service Programs

<p>(1) A gas utility shall address electricity usage through electric use reduction education, efficient lightbulbs, electric water heater and pipe insulation when equipment is in unheated areas, and low flow showerheads and aerators.</p> <p>(2) An electric utility shall address gas usage through gas use reduction education and gas water heater and pipe insulation when equipment is in unheated areas, and low flow showerheads and aerators.</p> <p>(3) Electric utilities should arrange for bulk purchase of efficient lightbulbs at their own expense and distribute them to the gas utility or gas utility contractors for installation.</p> <p>(4) A utility may absorb the cost of the water heating treatments. A utility may choose to bill the other for services. Inter-utility billing shall be stated in a contract between utilities, specifying costs covered and measures installed.</p> <p>(5) Education costs are not to be included in inter-utility billing.</p> <p>(6) Utilities shall provide training for measure installation (gas utility for electric measures and vice versa) at their own expense for their own contractors.</p> <p>(7) Utilities are not required to track education measures installed or track or report associated usage data.</p>		<p>focuses on providing measures that reduce gas consumption.</p> <p>PGW and PECO are currently exploring a pilot project to collaborate when PECO finds high use customers who are defacto electric heat customers.</p>
<p>58.15 Program Evaluation</p> <p>The utility is responsible for ongoing evaluation. It should include procedures for monitoring results and evaluating program effectiveness. Procedures include:</p> <p>(1) Compiling statistical data (i) number of homes</p>	<p>(58.14)</p> <p>(1) partial</p>	<p>(1) Program Year 7 (9/96—9/97) and PY9 (9/98—</p>

Appendix: PGW's Universal Service Programs

<p>weatherized, (ii) itemized cost of measures installed, (iii) total labor and material cost per home. (iv) housing types weatherized, (v) energy consumption, (vi) recipient demographics, (vii) utility bills and account balances, (viii) recipient utility payments.</p> <p>(2) Evaluating energy savings and load management impacts, changes in customer bills, payment behavior and account balances, overall quality of services, steps taken to improve performance. Annually assess cost-effectiveness of contractors and incorporate into program management decisions.</p> <p>(3) Report evaluation findings to the Commission annually.</p>	<p>(2) partial</p> <p>(3) To be determined</p>	<p>9/99) CWP evaluations compiled statistical data including i) number of homes weatherized, (ii) itemized cost of measures installed, (iii) total labor and material cost per home. (iv) housing types weatherized, (v) energy consumption, (vi) recipient demographics. The evaluations did not include (vii) utility bills and account balances, (viii) recipient utility payments. These items will need to be added to the annual evaluations.</p> <p>(2) The PY7 and PY9 evaluations did not include changes in customer bills, payment behavior and account balances, overall quality of services, steps taken to improve performance.</p> <p>The evaluations did include energy savings and load management impacts, and an assessment of contractor cost-effectiveness. The Philadelphia Gas Commission established the Conservation Monitoring Committee in 1995. The Committee and PGW met to develop cost-effectiveness guidelines. A Sept. 1996 paper issued by the Conservation Monitoring Committee <i>Defining "Cost Effectiveness" for CWP</i>. These guidelines were used to determine cost-effectiveness in the PY7 and PY9 evaluations. These guidelines require review and modification.</p> <p>(3) PGW currently evaluates the CWP about every two years. This schedule will need revision. The CRP 3-year plan submitted during the</p>
---	--	--

Appendix: PGW's Universal Service Programs

		restructuring filing should propose a year that annual evaluations can start.
<p>58.16 Advisory Panels</p> <p>(a) Creation. Create and maintain a Usage Reduction Program Advisory Panel to provide consultation and advice to the company regarding usage reduction services.</p> <p>(b) Membership. Only one member from any organization can serve on the Board at one time. Members may include:</p> <p>(1) Recipients of measures, representatives from social service agency, community groups, agencies or companies administering or installing measures.</p> <p>(2) Representatives from groups or agencies which may be able to offer reasonable advice.</p> <p>(c) Review. The Advisory Panel shall be provided with plans and changes at least 15 days prior to submission of plans to the utility.</p> <p>(d) Creation of additional Advisory panels. A utility may create one or more Advisory panels.</p> <p>(e) Existing Advisory Panels may be used.</p>	<p>(58.16)</p> <p>(a) yes</p> <p>(b) yes</p>	<p>PGW utilizes a CRP Advisory Committee. The Philadelphia Gas Commission established the Conservation Monitoring Committee in as a subcommittee in 1995. When necessary, the subcommittee is convened. This Conservation Monitoring Committee is a cross-section of interested parties. They have been involved with such things as developing cost-effectiveness guidelines for program evaluation, modification of the excess usage procedures, and discussions around adding a second weatherization contractor. The CRP Advisory Committee is an active committee.</p>
<p>58.17 Regulatory review.</p> <p>A utility may not implement a LIURP program or subsequently significantly modify the program without Commission approval.</p>		
<p>58.18 Exemptions.</p> <p>A utility may petition the Commission to exempt its program, alleging special circumstances.</p>		

Chapter 58
Reports due:

58.4 Program Funding. CRP/CWP Program Manager currently submits operating budgets for annual internal review. The CRP 3-year plan submitted during the restructuring filing should propose a year that budget submission to the Commission can start.

58.18 Program Evaluation monitoring program results and effectiveness. PGW currently evaluates the CWP about every two years. This schedule will need revision.

LIURP Codebook. Data must be submitted in April. The CRP 3-year plan submitted during the restructuring filing should propose a year that annual Codebook reporting can start

XII. APPENDIX E: LETTER OF JANICE HUMMELL, BCS TO DAVE EPPLE, ECA

(See following this page.)



**COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
P.O. BOX 3265, HARRISBURG, PA 17105-3265**

May 24, 2001

DAVID O EPPLE, CAE
VICE PRESIDENT – REGULATORY AFFAIRS
ENERGY ASSOCIATION OF PENNSYLVANIA
800 NORTH THIRD STREET
SUITE 301
HARRISBURG PA 17102

Dear Mr. Epple:

Thank you for arranging the meeting with the Bureau of Consumer Services (BCS) and utilities to discuss universal service relating to the following issues: evaluations, needs assessments, and Customer Assistance Program (CAP) costs and savings. BCS appreciates the opportunity to work with the utilities to develop mutually satisfactory guidelines. Based on comments and our discussions at the May 9, 2001, meeting, BCS has finalized and attached the guidelines the for these three universal service issues.

Evaluation Questions. Attachment 1 provides guidelines that utilities should use when developing an evaluation plan. The attachment lists a series of questions that BCS request to be considered in an evaluation. Of course, a utility may always request an evaluator to review additional concerns or issues. However, Attachment 1 shows the core questions that an evaluation should answer.

As a general guideline, BCS recommends that the focus of the evaluation will center on CAPs. We suggest the following ranges for evaluators to focus on the individual program components.

<u>Evaluation Focus</u>	<u>Program Component</u>
50-70%	CAP
5-10%	LIURP (extensive annual reporting already exists)
10-15%	CARES
10-15%	Hardship Funds
5-10%	Integration among program components

As a reminder, the CAP Policy Statement at § 69.265(10)(iii) provides that a utility should submit the evaluation plan to the BCS for review and approval. Finally, the natural gas distribution companies (NGDCs) should confer with BCS before selecting its evaluator as required at § 62.6(a).

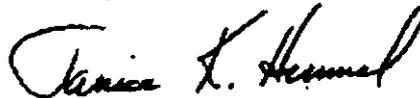
Needs Assessment. Attachment 2 provides guidelines for a needs assessment. Based on our discussions at the meeting, we revised Number 4 – An Estimate of Potentially Payment Troubled, Low-Income Customers. Upon further review, we made an additional revision that removed No. 3 from the equation. Number 3 is a subset of Number 1 and is already included in the equation.

CAP Costs and Potential CAP Savings. Attachment 3 provides a list that represents an agreement between BCS and the utilities of the categories that include legitimate CAP costs and potential CAP savings.

Attachment 4 is a list of universal service managers.

As we discussed, you will send the final guidelines to members of EAP's Customer Service Committee and to the Universal Service Managers. Again, thank you for arranging the May 9 meeting so that we could finalize these issues. If you have any questions, please call me at (717) 783-9088 or email me at hummel@puc.state.pa.us.

Sincerely,



Janice K. Hummel
Bureau of Consumer Services

Appendix: PGW's Universal Service Programs

Attachment 1

Universal Service Evaluation Questions

(Revisions Based on Comments to 10/12/00 "Evaluation Questions" Letter and Discussions at the 5/9/00 BCS/ EAP Meeting)

Impact Evaluation Objectives:

- To determine if a utility's universal service programs meet the goals of universal service.
- To develop standard questions so that utilities evaluate the same measures.
- To comply with Commission orders that direct BCS in collaboration with the EDCs and NGDCs to develop guidelines for evaluation

Universal Service Goals:

- To protect consumers' health and safety by helping low-income customers maintain affordable utility service.
- To provide for affordable utility service by making available payment assistance to low-income customers.
- To help low-income customers conserve energy and reduce residential utility bills.
- To ensure utilities operate universal service and energy conservation programs in a cost-effective and efficient manner.

Universal Service Evaluation Questions:

Is the appropriate population being served? Appropriate population is defined as meeting the specific eligibility criteria as defined by the universal service plan for the program in which the household is enrolled.

What is the customer distribution for each universal service program component by poverty guidelines, 0-50%, 51-100%, 101-150-%, and 151-200%?

Identify barriers to program participation? Examples of barriers include enrollment waiting lists, restrictive eligibility criteria, and burdensome enrollment process.

What is the customer distribution by CAP payment plan? Payment plans are defined at § 69.265(2) of the CAP Policy Statement. Generally, do participants' energy burdens comply with the CAP Policy Statement at section 69.265(2)(i)(A)-(B)? Energy burden is defined as the percentage of household income spent on energy services (electric or natural gas). Determine the number and percentage of customers that are billed a minimum payment.

Identify barriers to program recertification? Examples of barriers include burdensome recertification process and unclear instructions.

What are CAP retention rates? Why do customers leave CAP?

Is there an effective link between participation in CAP and participation in energy assistance programs (LIHEAP, hardship funds, other grants)?

How effective are CAP control features at limiting program costs? CAP control features are defined at § 69.265(3) of the CAP Policy Statement.

How effective is the CAP and LIURP link?

Does CAP participation improve payment behavior? (Number of payments, percentage of bill paid, \$ amount paid) Compare CAP payment behavior to pre-CAP enrollment payment behavior.

Does participation in universal service programs reduce arrearages?

Does participation in universal service programs decrease service terminations?

Does participation in universal service programs decrease collection costs?

How can universal service programs be more cost-effective and efficient?

Appendix: PGW's Universal Service Programs

Attachment 2

Needs Assessment Proposal

(Revisions Based on Comments to 12/6/00 "Net CAP Costs" Letter and Discussions at the BCS/ EAP Meeting held on May 9, 2001)

§ 62.4(b)(3) defines "needs assessment" as including the following:

1. The number of identified low-income customers
2. an estimate of low-income customers,
3. the number of identified payment troubled, low-income customers,
4. an estimate of payment troubled, low-income customers,
5. the number of customers who still need LIURP services and the cost to serve that number, and
6. The enrollment size of CAP to serve all eligible customers.

To complete a needs assessment, determine the following:

1. The number of identified low-income customers
 - Include the followings accounts: all Level 1 and Level 2 customers who have payment agreements, all accounts who have received LIURP, all CAP customers, all accounts that have received LIHEAP or other energy assistance grants, and all accounts whose financial summaries show incomes below 150% of the poverty guidelines. Include accounts that meet the income criteria even if they are not on payment plans. Use a 12-month average.
2. An estimate of low-income customers
 - Use the most recent Census data at the most appropriate level (county, zip code).
3. The number of identified payment troubled, low-income customers (Number 3 is a subset of Number 1)
 - Include all customers whose incomes are below 150% of the poverty guidelines who have payment agreements. Payment troubled is defined at §54.72, §62.2, and § 69.262 as a household that has failed to maintain one or more payment arrangements in a 1-year period. Use a 12-month average.
4. An estimate of potentially payment troubled, low-income customers
 - Subtract Number 1 (number of identified low-income customers) from Number 2 (estimate of low-income customers).

5. The number of customers who still need LIURP services and the cost to serve that number

- Include the number of customers who meet the LIURP eligibility criteria. See Attachment 1 for methodology.
- Estimate the cost to serve the number who are eligible

6. The enrollment size of CAP to serve all eligible customers.

- Consider responses to numbers 1-4 to determine maximum enrollment size

Appendix: PGW's Universal Service Programs

LIURP Needs Assessment

A needs assessment can be done using both Census data and company data. The percentage of households in the appropriate poverty levels is part of the Census data and can be applied to company population data. You may use the Census data at either the county level, zip code level or any other level that is available and useful.

The use of Census data in this manner generally applies to all Universal Service programs and this is where the similarity between the LIURP needs assessment and the needs assessment for all other Universal Service programs ends.

There are two major differences between LIURP and other Universal Service programs. First, LIURP eligibility includes customers between 150% and 200% of Poverty - up to 20% of the annual program budget. Second, payment-troubled is not a condition of receiving LIURP services. It is simply a sorting tool if a further prioritization is needed in the event of a backlog.

A needs assessment for LIURP requires an additional piece of company data, a sort of the company data by customer usage to determine the percent of customers who meet a prescribed minimum usage level. Electric companies should use annual usage of 6,000 kWhs as the minimum required usage level and gas companies, except PECO, should use annual usage of 120 Mcfs as the minimum required usage level. PECO should use 75 Mcfs.

Finally, for all Universal Service programs, customers who have currently and/or previously received services must be subtracted from the projected need. The electric companies may deduct the number of customers served in the past seven years while the gas companies may deduct for the past twelve years.

The following offers a simple methodology for a needs assessment calculation. A narrative explanation of the formula is as follows: County Census data provides the percentage of customers who are in the applicable poverty (income) levels for Universal Service programs. Multiply the company data for county population by the Census percentage in the income levels. Use company data to generalize the entire company population to determine the percent of customers who qualify based on usage criteria. Multiply the number of low-income households, by county, by the percentage of customers who meet the usage requirement. Last, deduct the customers who have already received program services (over the past 7 or 12 years) from this number and the result represents the need.

Census county data

1 = percentage of households between 0% and 150%

2 = percentage of households between 151% and 200%

Company data - by county

3 = Number of customers

4 = number of customers meeting usage requirement
5 = percentage of customers meeting usage requirement = 4/3

Example (This is not based on real data)

County = Allegheny

	Census data	Company data
0% - 150% =	1 = 18%	3 = 100,000
151% - 200% =	2 = 7%	4 = 50,000
		5 = 50%

Company data

0 - 150% = 100,000 x 18% = 18,000 x 50% = 9,000 - number receiving services
151 - 200% = 100,000 x 7% = 7,000 x 50% = 3,500 - number receiving services

Appendix: PGW's Universal Service Programs

Attachment 3

CAP Costs and Potential CAP Savings Categories

(Revisions Based on Comments to 12/6/00 "Net CAP Costs" Letter and Discussions at the 5/9/00 BCS/ EAP Meeting)

CAP Costs

Administrative

- Staffing/Salaries (Contract & utility staff)
- Account monitoring
- Other Fixed overhead costs associated with offices, equipment, computers, information system, etc.
- Outreach
- Intake
- Consumer Education & Conservation
- Training
- Maintaining telephone lines
- Reevaluation or recertification
- Programming costs
- Evaluation costs

CAP credits (difference between the standard billed rate and the CAP billed rate)

Arrearage Forgiveness

**PHILADELPHIA GAS WORKS UNIVERSAL
SERVICE PROGRAMS:**

***A LONG-TERM PERSPECTIVE FOR UNIVERSAL
SERVICES AT PGW***

Prepared for:

Cristina Coltro
Manager, Energy Assistance Program
Customer Affairs
Philadelphia Gas Works
800 W. Montgomery Avenue
Philadelphia, Pennsylvania 19122

Prepared by:

H. Gil Peach, PhD
Howard Reichmuth, PE

June 17, 2002
(Final)

H. Gil Peach & Associates, LLC/Scan America®
16232 NW Oak Hills Drive
Beaverton, Oregon 97006-5242

Scan America® Vision Statement

To be a world leader in developing truthful measurement and useful results; to support development of efficient, ethical, and effective practices, sustained economically, to advance human development.

Scan America® Goals Statement

- Excellence in the integration of knowledge, method, and practice
- Improvement and learning at all levels
- Contextually sound measurement, analysis, and reporting
- Anticipate and meet the needs of our clients
- Awareness of human relevance and of the ethical core of research
- To go further, to find better ways

Scan America® Mission Statement

With extensive experience in North America, Europe, and Asia, together we can provide the full range of management, planning, and evaluation services – wherever and whenever there is a need.

Scan America® Website

www.scanamerica.net

Scan America®

H. Gil Peach & Associates

16232 NW Oak Hills Drive
Beaverton, Oregon 97006-5242, USA
Telephone: (503) 645-0716
Fax: (800) 204-3803

H. Gil Peach, Ph.D.

hgilpeach@scanamerica.net

EIN: 93-1323715

DUNS: 60-279-2954

Scanada Consultants Ltd.

1446 Birchwood Drive
Mississauga, Ontario L5J 1T2, Canada
Telephone: (905) 403-9835

C. Eric Bonnyman, M.Sc.

scanada@sypatico.net

ÅF Energiekonsult AB

Division Head, Energy & Environment
Box 8133
SE-104 20 Stockholm, Sweden
Telephone: +46-8 657 13 89

Agneta Persson, M.Sc.

agneta.persson@enel.af.se

**PHILADELPHIA GAS WORKS UNIVERSAL SERVICE
PROGRAMS:**

***A LONG-TERM PERSPECTIVE FOR UNIVERSAL SERVICES
AT PGW***

CONTENTS

I.	<i>Executive Summary</i> _____	<i>1</i>
II.	<i>A Long Term Perspective</i> _____	<i>3</i>
III.	<i>Long Term Situation Analysis for Universal Services</i> _____	<i>4</i>
IV.	<i>Alternative Low-Income Rate Models</i> _____	<i>7</i>
A.	<i>Sector Maps</i> _____	<i>8</i>
B.	<i>Compliance Maps</i> _____	<i>8</i>
C.	<i>The PIPP Reference Case</i> _____	<i>9</i>
D.	<i>The “Delta CAP Discount” Metric</i> _____	<i>10</i>
E.	<i>The CAP-Rate & PIPP Approaches: Pluses & Minuses</i> _____	<i>11</i>
F.	<i>PGW CAP-Rate</i> _____	<i>13</i>
V.	<i>The Role Of Conservation and Usage Reduction</i> _____	<i>18</i>

FIGURES

<i>Figure 1: Unemployment is Increasing.</i> _____	<i>5</i>
<i>Figure 2: Annual Natural Gas Consumption by CRP Participants.</i> _____	<i>7</i>
<i>Figure 3: Steps in Optimization for the PIPP Approach.</i> _____	<i>9</i>
<i>Figure 4: Delta CAP Discount</i> _____	<i>10</i>
<i>Figure 5: The Optimized PIPP Reference Case</i> _____	<i>11</i>
<i>Figure 6: PIPP & CAP-Rate Approaches</i> _____	<i>13</i>
<i>Figure 7: CRP Customers Modeled at GS Full Rate – No Income Limits; No CAP)</i> _____	<i>14</i>
<i>Figure 8: CAP-Rate with only the 101-150% Group Compliant.</i> _____	<i>14</i>
<i>Figure 9: CAP-Rate with Compliance for 51-150% of Poverty.</i> _____	<i>15</i>
<i>Figure 10: The Optimized CAP-Rate Approach – Final Compliance Model.</i> _____	<i>16</i>
<i>Figure 11: The Optimized PIPP Reference Case (Identical to Figure 5)</i> _____	<i>16</i>
<i>Figure 12: Comparison of CAP-Rate and PIPP Approaches.</i> _____	<i>17</i>

A LONG-TERM PERSPECTIVE FOR UNIVERSAL SERVICES AT PHILADELPHIA GAS WORKS

I. EXECUTIVE SUMMARY

This is the third of three reports focused on aligning the Philadelphia Gas Works Universal Services policy and operating program with the policy, program specifications, and reporting requirements of the Pennsylvania Public Utility Commission for Universal Service programs.¹ The third report provides a long-term perspective on Universal Services at the Philadelphia Gas works.

There are two findings in this report.

- (1) Universal Services is a fixed requirement that cannot be shifted off from the Philadelphia Gas Works. Every indication is that the Universal Services market segments will grow. For these two reasons, the Philadelphia Gas Works should focus on strategic planning to meet the needs of this increasingly important and growing market segment.**

The Philadelphia Gas Works Universal Service programs are a key component of the economic security of the City of Philadelphia. At least 30% of persons in Philadelphia, or approximately 183,699 families are at or below 150% of the Federal Poverty Level.² Approximately 10% of residential customers (about 58,000 – 62,000) are currently participants in the Customer Responsibility Program (CRP). The number of Universal Services customers could easily increase to 90,000 participants in the course of the current national economic recession.³ For the next few years, participation will be bracketed by these estimates. Both need and participation will increase long-term.

Although it has been elsewhere suggested that the Philadelphia Gas Works appeal to the City administration to transfer the cost of its Universal Service Customer Responsibility Program (CRP) and the cost of the Universal Service Conservation Works

¹ The first report, *Current Strengths: Philadelphia Gas Works Universal Service* identified the inherent strengths and other building blocks that PGW can bring to bear on operating a successful Universal services program. The second report, *Philadelphia Gas Works Universal Service Programs: Pathways to Compliance*, provides an economical pathway to bring programs into compliance with Pennsylvania Public Utility Commission requirements.

² *Philadelphia Gas Works Universal Service Programs: Pathways to Compliance*, Pp. 9-10. These estimates are based on 1990 Census information, and so somewhat are conservative estimates.

³ *Philadelphia Gas Works Universal Service Programs: Pathways to Compliance*, P. 11. Note that a determined campaign to enroll all eligible customers would result in about 180,000 participants.

Program (CWP) to the City general fund,⁴ such an appeal would not be realistic. Universal Service Programs are mandates of the Pennsylvania Public Utility Commission and apply to all regulated companies (municipal and investor-owned distribution utilities) above a certain size.⁵

- (2) The CAP-Rate Program Design option, though attractive in some respects, is not optimal for the Philadelphia Gas Works Universal Services Programs. For the Philadelphia Gas Works, an optimized Percentage of Income Payment Plan (PIPP) is financially superior. For this reason, an optimized PIPP approach developed from the existing Customer Responsibility Program should be the design for the long-term.⁶**

This report is focused on program design for the long-term. Specifically, it presents the “pluses and minuses” of moving from an optimized Percentage of Income Payment Plan (PIPP) to a tariff (CAP-Rate) format for Universal Services, looking toward the long-term. Studies elsewhere have shown that the CAP-Rate option for Universal Service programs tends to have a lower administrative cost than a comparable PIPP customer assistance program.⁷ However, the current study suggests that administrative savings would be small, primarily because new thinking allows for application of semi-automated tools used for certification and recertification equally to both CAP-Rate and PIPP approaches. At the same time, as shown in the analysis, a CAP-Rate entails substantial additional costs in under-billing. These additional costs are inherent in a CAP-Rate approach and should be into account for strategic planning. The bottom line is that potential administrative costs savings are too small to offset the much larger loss from under-billing using the CAP-Rate format.

- The premise of any CAP program (whether a percentage of bill program, a percentage of income payment program, a CAP-Rate, or an experimental form as approved by the Pennsylvania Public Utility Commission) is the presentation of

⁴ Barrington-Wellesley Group, Inc., A Stratified Management and Operations Audit of Philadelphia Gas Works for the Pennsylvania Public Utilities Commission. New London, New Hampshire, January 2001, Recommendation No. 17, P. VIII-42.

⁵ Thus, contrary to the assertion that Universal Service costs should be transferred to the City in order to facilitate PGW competition with other companies subsequent to Pennsylvania deregulation, Universal Service is a business cost to all regulated distribution companies in Pennsylvania. PGW is a member of this set of companies. Both the material necessity of Universal Service programs and the Pennsylvania mandate for Universal Service programs would be in place whether PGW were a municipal or an investor-owned utility.

⁶ The program recommendation of the second report for economical short-term compliance is also recommended as superior to the CAP-Rate approach for the Philadelphia Gas Works for the long-term.

⁷ The “CAP-Rate” is an additional residential tariff with special conditions and requirements. The cost tends to be lower because there is less direct involvement with customers.

affordable bills to customers. If the bill is inherently not affordable, the program is not an adequate Universal Service program.⁸

- In considering the “plusses and minuses” of the CAP-Rate, the overall recommendation in this report is for the Philadelphia Gas Works is to retain and optimize the current Percentage of Income Payment Plan (PIPP) approach.⁹ However, the necessary information is developed to enable realistic consideration of the CAP-Rate approach.

II. A LONG TERM PERSPECTIVE

This third and final report by HGPA, LLC is intended to take a broader view of universal service programs and the Philadelphia Gas Works (PGW) than was used in the first two reports. The first report outlines some of the special strengths of PGW as a municipal utility to engage in services to the City. The second report, “*Pathways to Compliance*,” put forth immediate issues and recommendations for bringing PGW Universal Service programs into compliance with Pennsylvania Public Utility Commission oversight with the minimum impact on PGW costs and minimum changes to operations.¹⁰ This report provides a long-term perspective on Universal Services at PGW.

In a long-term perspective (perhaps as short as three years and as long as eight), PGW can be expected to experience sharp changes in the key drivers of program costs:

- Wholesale gas prices,
- Changes in usage due to weather and economic activity, and
- Changes in the universal service eligible population.

Of these, this long-term perspective takes into account the impending need to expand participation due to changes in the economy and the eligible service population.

Clearly, this Universal Service oriented analysis also takes place in a much broader context. PGW currently operates as a municipal utility, yet it is periodically

⁸ Operationally, this is tested by compliance with the affordability criteria of the Pennsylvania Code.

⁹ While further developing the PIPP approach along the lines presented in *Philadelphia Gas Works Universal Service Programs: Pathways to Compliance*, the second report in this series.

¹⁰ These compliance pathways are necessarily minimum impact paths since PGW is involved in significant restructuring associated with PUC oversight; in the near term, it may be most expedient not to introduce significant programmatic changes.

evaluated as to its value if it were sold (became a local unit of a large investor owned utility).

However, it is also important to recognize that times of major restructuring are often the best (or only) times to introduce major programmatic changes. This long-term view attempts to go beyond the expedient path and to look for the opportunities revealed by an alternative low income rated design, the CAP-Rate approach.

This long-term perspective proceeds in three parts:

- A longer term situation analysis for universal services
- An examination of CAP rate based alternative low income rate structures
- An examination of the role of conservation and usage reduction

III. LONG TERM SITUATION ANALYSIS FOR UNIVERSAL SERVICES.

Low-income programs are a permanent and significant portion of PGW retail sales. The best way to manage the attendant financial impacts is to plan a balanced and sustained slate of low-income programs.

Fundamental to any broad view of Universal Service programs is the issue of their permanence. Are these Universal Service programs here to stay or are they an emergency response? LIHEAP with its one year funding and crisis language creates the impression that low-income need is temporary, yet it has been a big player for ten years. Furthermore, in the view of the recent economic downturn, a realistic recognition of the permanence and increasing effects of poverty, as well as the incorporation of a well designed and well managed Universal Service Program becomes a significant requirement of an effective business model.

Over the course of the last 8 years the Philadelphia Office of the Controller has consistently tracked Philadelphia unemployment at a rate 2% above the national average.¹¹ To date, the recent economic downturn has increased the national unemployment rate by 50% and even the most conservative projections yield an additional increase of 50% before recovery begins. Within the past 12 months national unemployment has increased from approximately 4% to about 5.8%.¹² It is becoming increasingly likely, based on international economic developments in Argentina and Japan that this recession will continue well into 2003 with national unemployment rates

¹¹Saidel, Jonathan A, City Controller, Office of the City Controller, City of Philadelphia, 2001 *Mid-Year Economic and Financial Report*, P. 13.

¹² US Bureau of Labor Statistics.

double those currently projected. Additionally, the current recession has hurt the region especially hard in the airlines, manufacturing, hotel, and restaurant sectors. It is likely that Philadelphia will continue to experience protracted economic difficulties as families attempt to keep their finances balanced during the regional recovery cycle. Over the

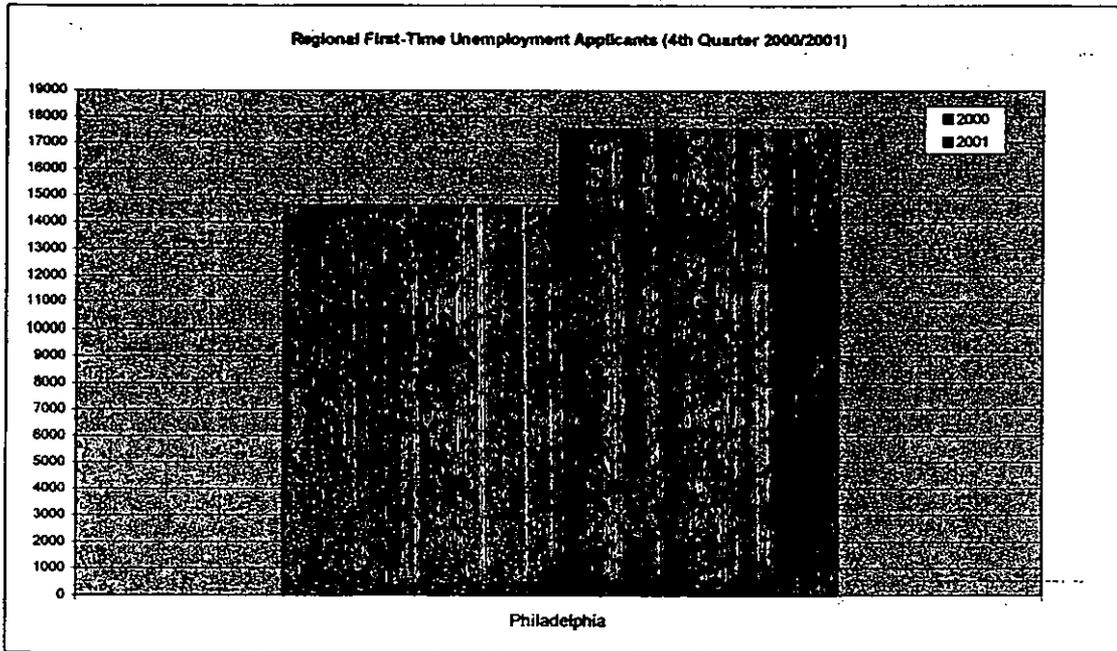


Figure 1: Unemployment is Increasing.

fourth quarter of 2001 there were an additional 3,000 first-time applicants for unemployment benefits in the city of Philadelphia over the same quarter in the year 2000. At this rate the additional burden on the current Universal Service Program may increase substantially during the year 2002.

Clearly, low-income ratepayers are a long-term reality that must be taken into account and it is most likely that the size of low-income programs will increase. Currently, low-income program participants constitute about 10% of PGW gas sales, but as we indicated the needs assessment in our earlier work "pathways to compliance", the program population could reasonably increase from 55,000 to 90,000 if economic or other conditions drew all eligible low-income customers to the CRP programs. With such an increase in population of poverty level ratepayers, PGW could reasonably see 20-25% of its gas sales to the low-income sector. For practical purposes low-income customers could constitute a major market segment comparable in importance to the commercial or industrial market segments. Recognizing that low-income programs are large and could become larger, requires a more careful consideration of the rate impact and recovery mechanisms of these programs.

Up to now, the current rate impact model for the CRP program, and most universal service programs, follows the CAP discount model. In the management audit (exhibit VIII-17), CRP rate impacts of the order of \$.03-.06/ccf were estimated in this fashion. This model leads to recovery from rates of the difference between the general service rate and the CAP rate (net of LIHEAP receipts). This model is intended to be an incentive to the utility because from a recovery standpoint, the utility is essentially selling all of its low-income gas at the tariff rate. For the current program, this model has served well and it leads to a better recovery rate than through the defaults and arrearages that would stand in its place.

However in the case where the low-income sector becomes a significant fraction of sales, then the aggregate CAP discount would be a large (over \$100 million/yr) and volatile number, a veritable "loose cannon" from a fiscal planning standpoint.

A more stable formulation of CAP impact readily follows from the fundamental directive for CAP program cost recovery in section 2203(6) of the Act. This statute provides that the Commission "*shall establish for each natural gas distribution company an appropriate non-by-passable, competitively neutral cost-recovery mechanism which is designed to recover fully the natural gas distribution company's universal service and energy conservation costs over the life of these programs.*"

If PGW is to be prepared for an increase in low-income participants then the CAP discount approximation should be put aside for internal program planning and explicit program costs should be tracked and used in determining rates.¹³ Ultimately, the costs of low-income programs are assigned to PGW ratepayers. There are three fundamental ways to lower these costs:

- 1) Increase the recovery ratio for low income customers.
- 2) Lower program overhead costs.
- 3) Lower unnecessary energy usage by low income program participants.

These objectives can be achieved by a balanced, sustained, and well managed package of low-income programs. In this connection, the Philadelphia Gas Works should articulate a well considered low-income strategy.

¹³ PGW 2001 rates increased and thereby increased CAP discount by \$20,000,000. This change was due neither to change in gas commodity cost nor to change in actual program costs. While either system of recovery works, program planning will be simplified by recognizing program costs as driven by factors actual within program control or otherwise driven by program features. Whichever system of recovery is used, there is a definite need to follow a method internally that keeps actual program costs separate from apparent fluctuations (for example, the \$20,000,000) that are not caused by the program.

IV. ALTERNATIVE LOW-INCOME RATE MODELS

A CAP-Rate approach is a difficult match to PGW's space heating dominated population. This problem is indicated in a graph of the sorted energy use distribution of CRP customers (Figure 2).¹⁴ Probably the most striking feature of the energy use distribution in this figure is the nearly vertical jump in the upper right of the graph, and located at the "0.8" mark on the horizontal axis. This "jump" means that consumption of natural gas by the upper 20% of program participants (by use) increases abruptly. The highest usage 20% of the low-income population will generally exceed the income guidelines unless the CAP rates are set so low that the low-income billings are several million dollars less than the current CRP program. In other words, adoption of a CAP-Rate approach to Universal Service for the Philadelphia Gas Works is likely to result in substantial under-billing.¹⁵ This relationship, which reflects the predominance of gas heat in the City, becomes evident in the sector maps presented in this section.

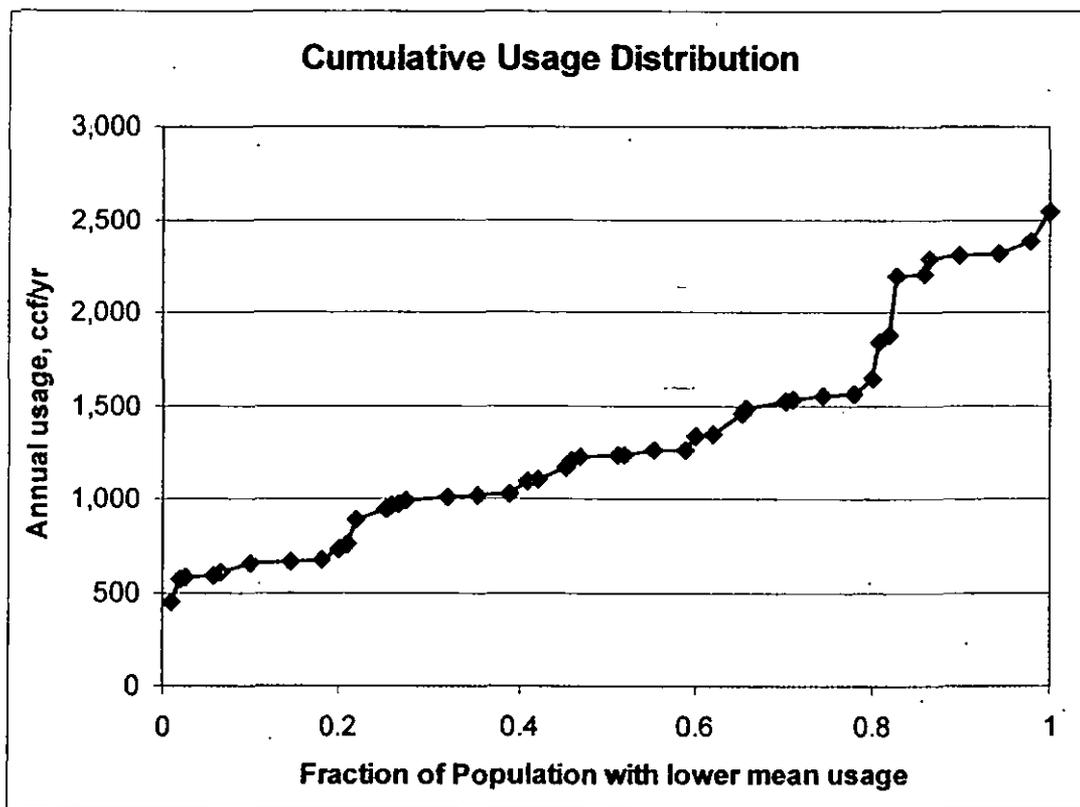


Figure 2: Annual Natural Gas Consumption by CRP Participants.

¹⁴ Figure 2 reproduces Figure 14 in *Philadelphia Gas Works Universal Service Programs: Pathways to Compliance*, the second report in this series.

¹⁵ From an economic perspective, this means a CAP-Rate approach would have an inherently high amount of free-ridership in comparison to a similar percentage of income payment program (PIPP) approach.

A. Sector Maps

To review the program participants over the whole range of population variation of income and of energy use, the Evaluation Team used the Reichmuth Sector Map®, a proprietary HGPA Customer Assistance Program design tool (CAP design tool). The Reichmuth Sector Map® program produces a set of maps and associated summary graphs. Each of the individual maps in the set organizes the whole Customer Assistance Program population into a grid. One axis of each map (the horizontal or “x-axis”) represents income level; the vertical (or “y-axis”) of each map represents energy usage. When the program population is organized in this manner, patterns in program indicators, such as energy burden (expressed as energy bill as percent of income) become quite evident.¹⁶

The Sector Map combines the variation contained within both the customer income distribution and the customer energy consumption distribution into an *accurately proportioned display where equal areas represent equal numbers of participants*. In the set of specialized Sector Maps, *each square of each map grid represents about 100 participants* in the Customer Responsibility Program. Each square *accurately portrays the income and usage of the participants* represented in the square.¹⁷ In this way, the Sector Maps fully reflect the range of customer income diversity and range of diversity in energy use.¹⁸

B. Compliance Maps

A compliance map is a type of sector map. For the compliance maps in this report, the red area contains customers for whom CRP is *out of compliance* with bill

¹⁶ Sector maps in this report are based on actual Philadelphia Gas Works Customer Responsibility Program data. The initial Sector Map was prepared by extracting data for all current Customer Responsibility Program customers. After the data cleaning and selection steps, the data available for analysis represents 54,162 CRP participants for the calendar year 2000 for each of whom there are at least 10 months of energy consumption data on record. This study set was then partitioned into many subsets by poverty level, income level and usage level.

¹⁷ Where used to develop Percentage of Income Payment Plan (PIPP) results, the Sector Maps have been designed to take into account month to month variation in the effect of the 12% rule on the combination of the CRP PIPP amount plus the excess usage charge. Although each Sector Map reflects the average month, this usage driven and weather related variation has been taken into account. Because the form of the CRP is percentage of income payment (PIPP), it is possible to use an average month approach. The monthly payment is determined by income. This means that the Sector Map axes for “Fraction of Federal Poverty Level” (horizontal) and “Usage/Mean Usage” (vertical) represent yearly values although the bill amounts are expressed as monthly values.

¹⁸ For further detail on the sector maps, see *Philadelphia Gas Works Universal Service Programs: Pathways to Compliance*, the second report in this series.

affordability guidelines of the Pennsylvania Code, CAP design elements.¹⁹ The blue area contains customers for whom CRP is in compliance with the affordability guidelines. For this report, all sector maps presented are compliance maps. Each displays relative energy use (actual usage divided by the population mean usage) on the vertical axis, and customer income expressed as a percentage of the Federal Poverty Level on the horizontal axis.

C. The PIPP Reference Case

For the purposes of this study, the most useful reference case for purposes of comparison is given by the final step of program optimization of the second report in this series (reproduced as Figure 3, below). In that report, the current Customer Responsibility Program (CRP) was brought into compliance with the affordability standards of the Pennsylvania Code in a series of six steps using a Percentage of Income Payment Plan (PIPP) approach. The costs of these adjustments were partially offset by adjusting percentage of income payment amounts within the limits determined by the Pennsylvania Code standards (Step 5 of Figure 3, below). The PIPP Reference Case was developed in six steps. The compliance map corresponding to the PIPP Reference Case (Step 6) is shown in Figure 5. This is the map for the optimized PIPP Reference Case.

WORKSHEET							
Delta CAP Discount - Calculations for Second PGW Report							
Step	Incremental Change	Current Plan (N = 82,886)			High End Plan (N = 90,000)		
		CAP Discount	Delta	Delta (%)	CAP Discount	Delta	Delta (%)
Step 0	Model Current Program	\$40,236,823	0	0.00%	\$67,586,017	0	0.00%
Step 1	Replace Budget Plus by extending PIPP. Also, implement the BCS Payment Plan.	\$40,077,492	169,331	0.40	\$67,368,004	\$228,013	0.40
Step 2	Step 2: Adjust Maximum Percent of Income Limit from 12% to 8% for 0-50% of FPL and to 10% for 51-150% FPL	\$43,040,410	(2,803,587)	(6.97)	\$61,598,474	(\$4,012,457)	(6.97)
Step 3	Adjust Minimum Bill for 0-50% to \$18.	\$43,804,096	(3,567,272)	(8.87)	\$62,691,461	(\$5,105,434)	(8.87)
Step 4	Assign to CARES	Case by case review and negotiation - not costed in model.					
Step 5	(Cost Offset) 3-Tier Rate Structure - Raise 0-50% FPL Rate from 7.36% to 8% of Income; 51-100% to 9%; 101-150% to 10%.	\$39,961,414	276,409	0.68	\$67,191,908	394,109	0.68
Step 6	Remove Excess Usage Charge	\$41,224,607	(\$987,784)	(2.45)	\$68,999,768	(1,413,751)	(2.46)

Figure 3: Steps in Optimization for the PIPP Approach.

¹⁹ Pa. Code, Title 52, §69.245(2)(i)(B).

D. The "Delta CAP Discount" Metric

The numerical indicator for dollar impact is the *difference* between CAP discount amounts of two contrasted program designs (the "ΔCAP discount") *with the GS Rate and the GCR held constant.*²⁰ In this analysis the Customer Responsibility Program Discount is defined as the GS revenue that would have been due minus the CRP revenue actually billed. The change in CAP discount is used to contrast and optimize designs. Note also in this definition of the Discount that no LIHEAP payments are included, and the payment rate is assumed at 100%. These exclusions are for convenience, to allow a focus on the basic components of the program billing design with the LIHEAP collection effort considered equal between the reference case and the alternatives.²¹ In Figure 3, models are developed for two different Universal Service population assumptions, 62,885 and 90,000. These estimates bracket the likely size of the program in the next few years. Although the CAP Discount and ΔCAP Discount vary with the size of the program population, the Delta (%) CAP Discount is constant across different population projections. The Delta (%) CAP Discount is the net CAP Discount for the alternative design divided by the net CAP discount for the original design (that is, the Step 0 design in Figure 3).²² The Delta (%) CAP Discount for the optimized PIPP approach (Step 6 in Figure 3) is a negative 2.46%.

Calculation of "Bottom-Up" ΔCAP Discount (Billing Basis)

$$\text{CAP Discount}_1 = \text{GS Revenue Billed}_1 - \text{CAP Revenue Billed}_1$$

$$\text{CAP Discount}_2 = \text{GS Revenue Billed}_2 - \text{CAP Revenue Billed}_2$$

$$\Delta\text{CAP Discount} = (\text{CAP Discount}_1 - \text{CAP Discount}_2)$$

Figure 4: Delta CAP Discount

²⁰ A number of different metrics could be used with equivalence. The metric "ΔCAP discount with constant GS Rate and constant GCR" is simple and straightforward.

²¹ Compliance with the Pennsylvania Code CAP design elements is, in any case, separate from the objective of maximizing LIHEAP grant assignments.

²² The dollar values should not be taken as absolute, but as indicative numbers for use in planning and projections.

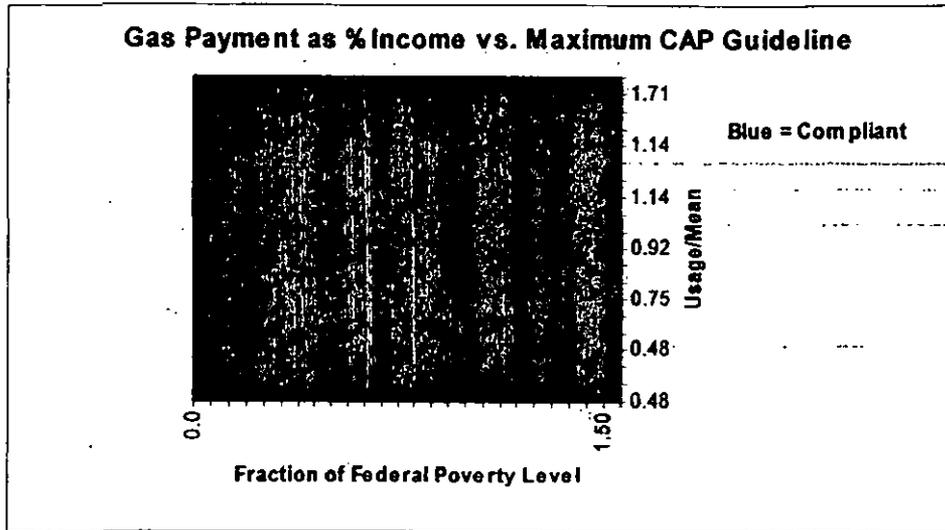


Figure 5: The Optimized PIPP Reference Case

The optimized PIPP Reference Case (Figure 5) is the relevant comparison target for a step of stepwise iterations using the CAP-Rate approach. This approach is developed following a brief look at the “pluses and minuses” of the two approaches.

E. The CAP-Rate & PIPP Approaches: Pluses & Minuses

Based on early studies at the innovation of the CAP-Rate approach, A CAP-Rate approach was thought to offer substantial cost-savings over a Percentage of Income Payment Plan (PIPP), since it appeared easier to administer. Since a CAP-Rate takes the form of a tariff, it is similar to any other residential energy rate and it may be administered – at least in part – as a rate. Thus, it does exhibit some ease in administration. However, based on current knowledge administrative cost savings in comparison to a PIPP approach should not be assumed. Administrative savings identified in early CAP-Rate programs were, in part, due to the introduction of semi-automated tools for verification and re-verification of household eligibility. Yet, at some point in their operation both approaches (CAP-Rate and PIPP) require the development of information on the poverty level of households.²³ The PIPP approach requires exact

²³ Semi-automated tools for verification and re-verification of eligibility do not enter into the comparison between PIPP and CAP-Rate approaches. Since both approaches require poverty level information (that is, total household, number of persons in the household, and the current Federal Poverty Level administrative classification), both may use newer semi-automated tools such as the welfare database to an equal degree. The new tools do not actually provide the poverty level or the required inputs for determining the Federal Poverty Level of a household. They can only be used in conjunction with certain administrative determinations to accept results as equivalent to the desired results necessary for certification. Coupled with an administrative definition, they can be used to certify or recertify if a poverty level is initially known.

information because the poverty level and the customer income determine a tailored energy bill for each household. The CAP-Rate approach, however, also requires information on poverty level to insure the customer is placed into the correct rate tier of the CAP-Rate approach. In the case of the CAP-Rate approach, less exact information might be required depending on the specific rate design. But to be fully auditable the actual poverty level on which the CAP-Rate assignment was based would also be required. The PIPP approach requires exact information to tailor energy bills; the CAP-Rate approach also requires this information for evaluation and/or audit purposes.

The primary problem with a CAP-Rate approach has to do with the assignment of customers to broad tiers. With two or three rate tiers (for example, 0-50%; 51-100%; and 101-150% of the Federal Poverty Level there is inherently substantial free-ridership in the CAP-Rate approach compared with the PIPP approach that may more than offset any administrative savings.

Additionally, administrative savings that might be obtained by closing some customer service offices or restricting their hours would be illusory paper savings, but not savings in fact. LIHEAP is a substantial component of PGW residential revenues, and the remarkable success of PGW in obtaining LIHEAP funds rests on its customer office service concept. LIHEAP funds would drop dramatically if customer offices were closed or if hours were scaled back.

There is also a non-quantitative factor that should be taken into account in planning strategically for serving low-income customers. We are at the end of an era of utility deregulation and free market thinking. With the prospect of a long-term war economy in the context of continuing deflationary recession in the North and South America and developing malaise in world markets, a utility that has a strong network of customer service offices and a strong tradition of direct customer service will have a significant advantage, and will be best able to contribute to the integrity of the City in difficult times.²⁴

²⁴ Anyone with twenty or more years of experience in gas or electric utilities, or who has studied the history of energy industries will recognize the existence of a history of strong oscillations between market orientation and service orientation, between eras that strongly emphasize energy conservation and public accountability and eras that strongly emphasize promoting energy use, sales, expansion, mergers, and accountability to the values of private capital. Although Pennsylvania is not California, public perception of "charge what the market will bear" excesses in California's failed deregulation experiment and the recent collapse and bankruptcy of a major energy company known in the industry for intense aggression, predatory tactics, and questionable social ethics probably indicates another change in the basic cycle of energy industry orientation in the United States. At the same time, the need to pull together in the face of national commitment to sustained war and serious economic problems will require a socially aware and socially cooperative cycle to insure solidarity. The Philadelphia Gas Works is part of the essential infrastructure that underwrites the vitality of the City and of the nation. This reality requires a different kind of thinking than might have been appropriate during the high days of early deregulation. For a well developed picture on cycles or eras with strikingly different themes of market values vs. community service values, see Hirsh, Robert F., *Power Loss, The Origins of Deregulation and Restructuring in the American Electric Utility System*. Cambridge & London: MIT Press, 1999. Cycles of thought in establishing eras or paradigms for the gas and electric industries are related to each other, but different. The years immediately ahead are probably more like the 1930's than like the late 1920's or late 1990s.

Two Approaches: Pluses & Minuses		
	PIPP Approach	CAP-Rate Approach
Administrative Cost	Possibly high, however use of customer offices and coordination with City and CBOs may offset incremental costs of the PIPP approach.	Possibly Low; however early CAP-Rate savings studies cannot be used as examples. Same cost-savings methods can be used in the PIPP approach.
Free-Ridership	Low to Negligible	High to Very High; likely to offset any administrative savings of the CAP-Rate approach.

Figure 6: PIPP & CAP-Rate Approaches

F. PGW CAP-Rate

Development of a CAP-Rate for the Philadelphia Gas Works begins from a theoretical zero point that contains no Universal Service programs. The CAP-Rate is developed in sequential steps for three rate tiers that correspond to the affordability standards of the Pennsylvania Code. These are 0-50%; 51%-100%, and 101%-150% of the Federal Poverty Level. To begin (the “zero point”), the CAP Rate for each of the three tiers is set equal to “1”, that is, to 100% of the standard residential rate (Figure 7, CRP Customers Modeled at Full Rate).

As shown in Figure 7, at the standard GS rate, there is a blue region at the lower left of the graph that contains the set of CRP customers who can meet the affordability criteria of the Pennsylvania Code, primarily due to very low energy use. These approximately 7,200 customers are at the bottom of the usage distribution and tend towards the upper end of the low-income range. All are in the 51%-150% poverty range; none are in the 0-50% poverty range.²⁵

²⁵ This is not a unique feature of the CAP-Rate approach. In a PIPP approach, there would also be a small number of customers (relative to the size of the program) able to pay at the regular residential rate.

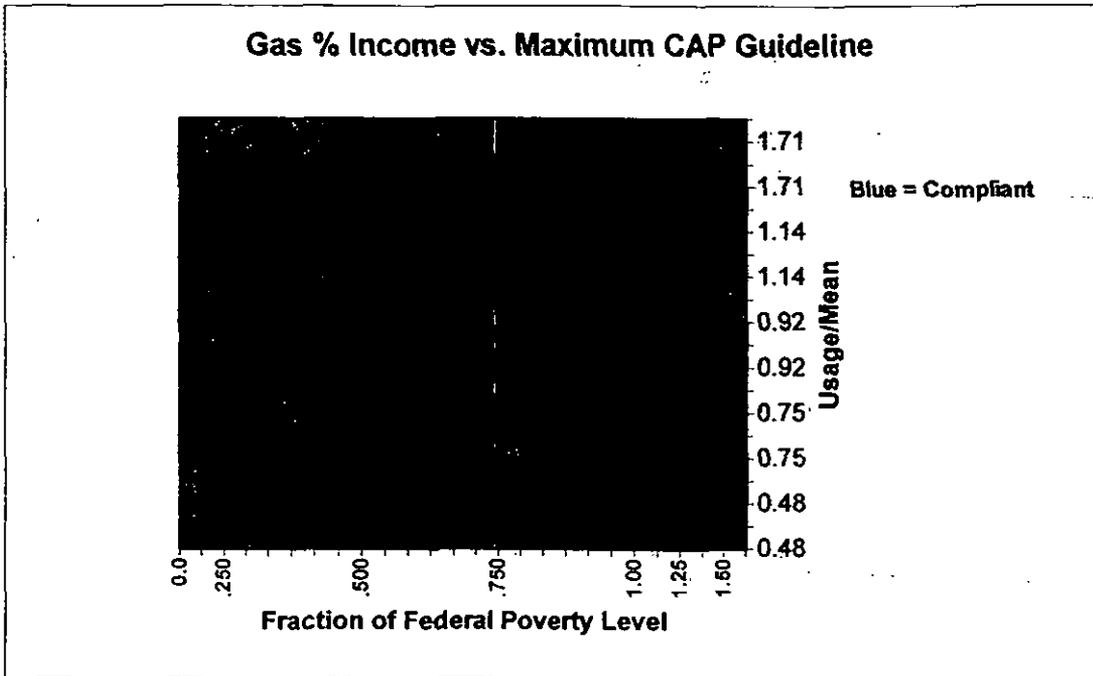


Figure 7: CRP Customers Modeled at GS Full Rate – No Income Limits; No CAP)

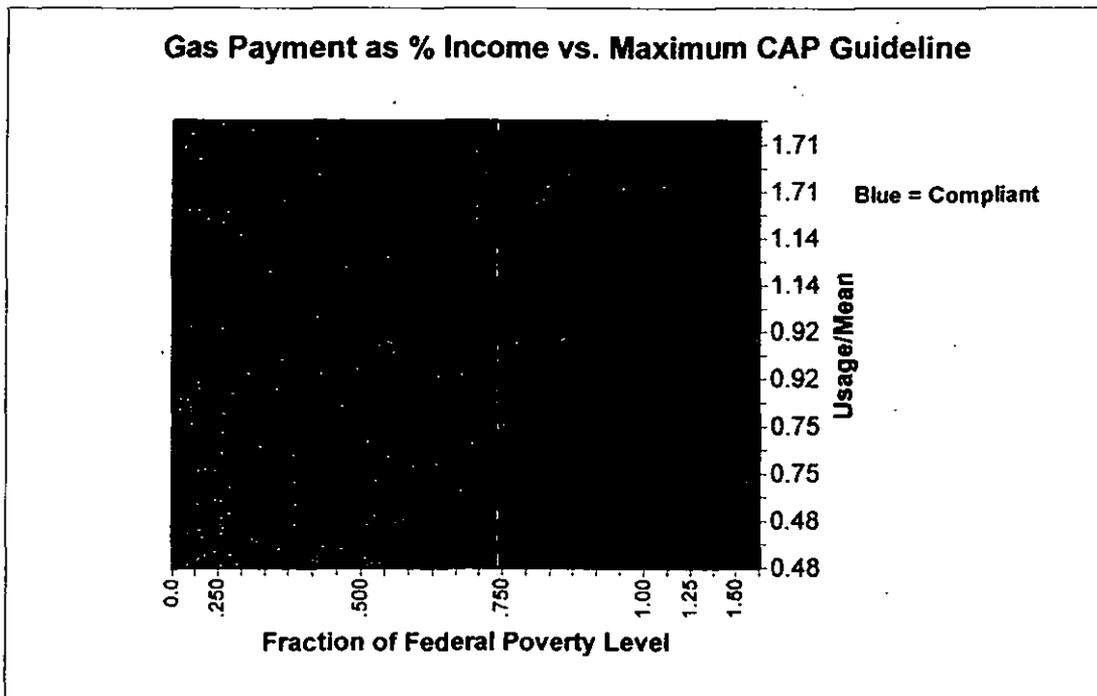


Figure 8: CAP-Rate with only the 101-150% Group Compliant.

Full compliance for the 101-150% of Federal Poverty Level households is shown in Figure 8. This figure was developed by means of a stepwise reduction of the CAP-Rate bill to full compliance for the 101-150% group. This was achieved at the point at which billing for the 101-150% group decreased to 44% of the standard residential rate.

Similar stepwise progressions were developed to reach compliance for households from 51-100% of the Federal Poverty Level (Figure 9), and for households from 0-50% of the Federal Poverty Level (Figure 10). In Figure 9, the CAP-Rate is 29% of standard residential rates for customers from 51-100% of the Federal Poverty Level, and 44% for households from 101-150% of the FPL.

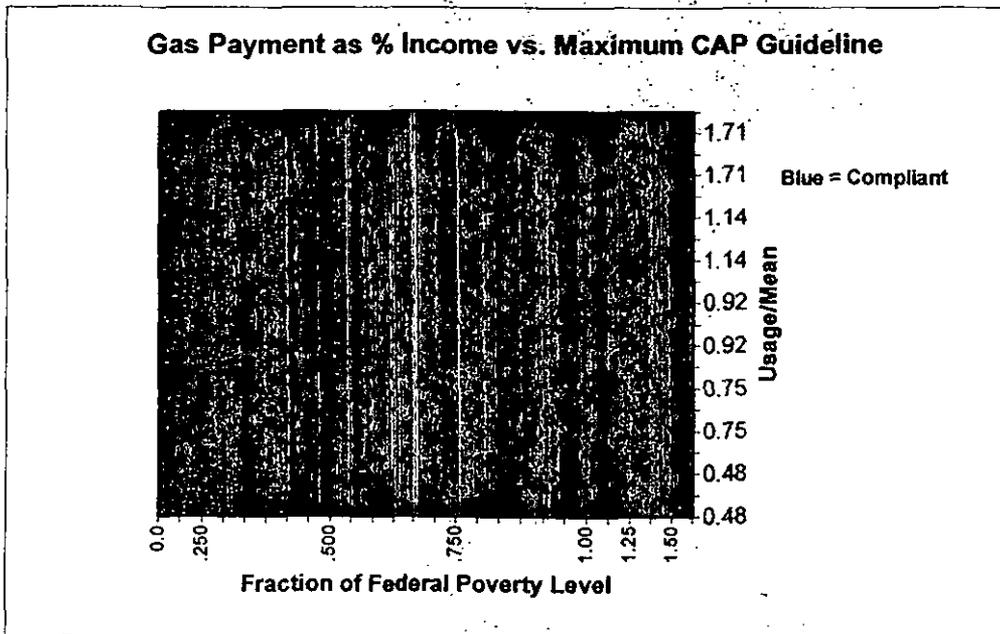


Figure 9: CAP-Rate with Compliance for 51-150% of Poverty.

These rates for 51%-100% and for 101%-150% of FPL households (Figure 9) are carried over for Figure 10, and the rate for customers from 0-50% of the FPL is set at 12% of the standard residential rate. Additionally, the minimum payment for customers from 0-50% of the Federal Poverty Level is reduced from \$30.00 to \$18.00. Note that at the upper left of Figure 10 a residual set of (highest use, lowest income) customers is left outside of compliance with the affordability criteria. These customers would be served by CARES and specially negotiated rates through the CNU.²⁶

²⁶ This is true, also, of the Optimized PIPP Reference Case for the narrow band of extremely low-income customers (Figure 5, narrow red band at the left).

Figure 10 is the CAP-Rate approach result equivalent to the optimized PIPP Reference Case (Figure 11; same as Figure 5). The comparison is expressed quantitatively in Figure 12.

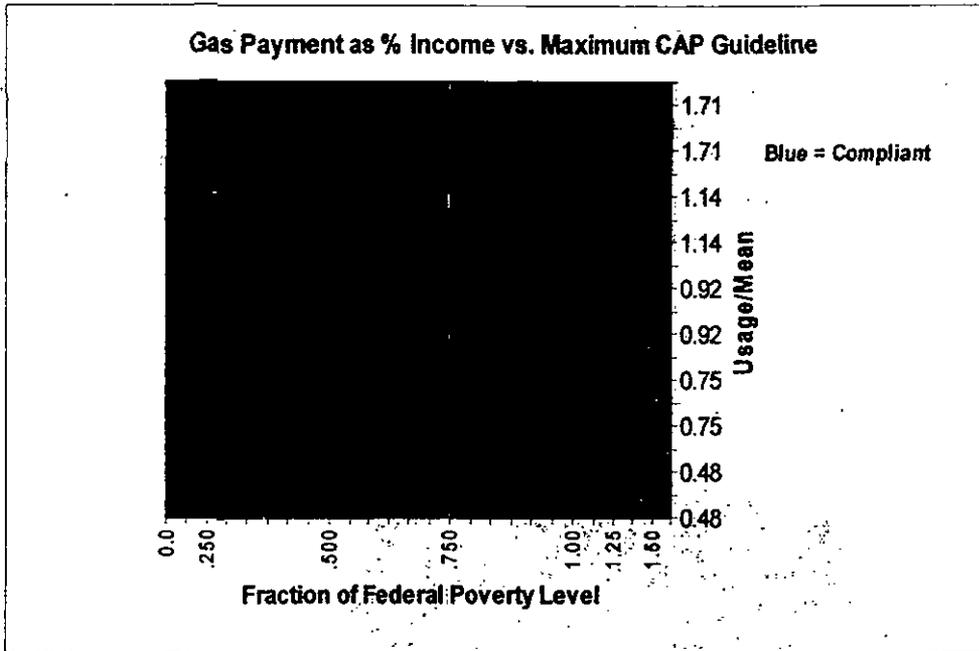


Figure 10: The Optimized CAP-Rate Approach – Final Compliance Model.

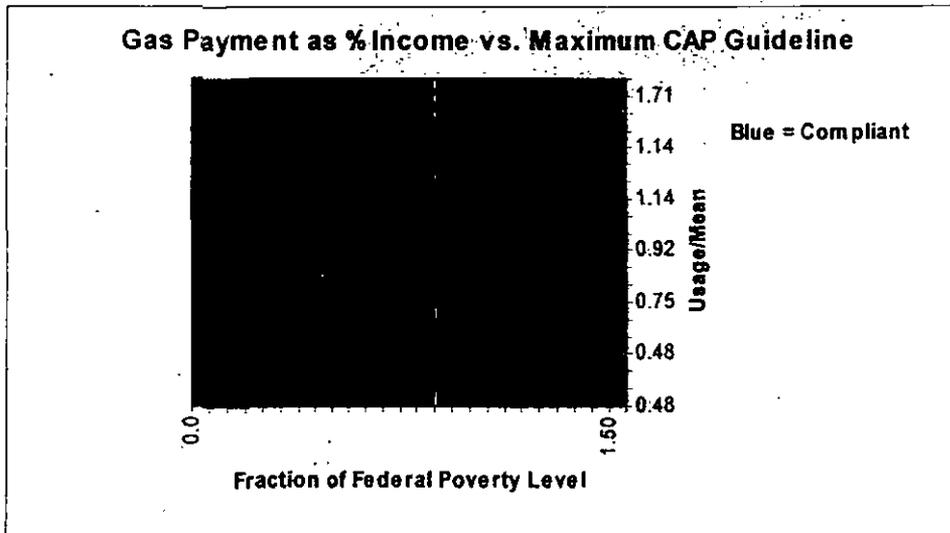


Figure 11: The Optimized PIPP Reference Case (Identical to Figure 5)

WORKSHEET Delta CAP Discount -- Calculations for Third PGW Report							
Row	Program Model	Current Plan (N = 62,865)			High End Plan (N = 90,000)		
		CAP Discount	Delta	Delta (%)	CAP Discount	Delta	Delta (%)
1	Model Current CRP Program	\$40,236,823	0	0.00%	\$57,586,017	0	0.00%
2	CAP-Rate approach, final compliance model (three-tier rate structure, based on income)	\$63,282,704	(23,045,881)	(57.28)	\$90,569,057	(\$32,983,040)	(57.28)
3	PIPP approach, final compliance model, (three tier Percentage of Income structure)	\$41,224,607	(\$987,784)	(2.45)	\$58,999,768	(1,413,751)	(2.46)

Note: The CAP-Rate approach developed in this report results in billing at 12% of the standard residential rate for households from 0-50% of the Federal Poverty Level, at 29% for households at 51-100% of the Federal Poverty Level, and at 44% for households at 101-150% of the Federal Poverty Level. The PIPP approach, developed in the second report in this series, requires payment at 7.35% of income for households from 0-50% of the Federal Poverty Level, at 8.75% of income for households from 51-100% of the Federal Poverty Level, and at 9.5% for households from 101-150% of the Federal Poverty Level.

Figure 12: Comparison of CAP-Rate and PIPP Approaches.

As demonstrated in Figure 12, a CAP-Rate approach masks significant under-billing (free-ridership). Of the two optimized models, the PIPP approach can be tuned for compliance to Pennsylvania Public Utility Commission affordability standards at very little net cost to the Philadelphia Gas Works in comparison to the current CRP program. A CAP-Rate approach by PGW would cost approximately almost 55% more to run on an ongoing basis because it would result in significant under-billing (free-ridership) compared with the optimized PIPP.

A CAP-Rate approach could be adjusted to approximate the advantages of a PIPP approach if the number of tiers was increased from three to a total of ten or twenty, and other design controls could be introduced to moderate some of the CAP-Rate costs. However, there seems to be little point in such an exercise unless there is some additional (or external) reason to desire a rate-form rather than a PIPP-type program. In any event, from an operational perspective a CAP-Rate approach with multiple tiers would not offer any meaningful cost savings over a three-tiered PIPP on the administrative side. Savings of an optimized PIPP over an optimized CAP-Rate from avoiding under-billing are approximately \$350.77 per household in the program for either the current program size or the high-end program size estimate. Also, as noted earlier, the Philadelphia Gas Works has been very successful in achieving LIHEAP grants (approximately \$30,000,000 for the year 2000-01 heating season) and based on our observations in the Company the success in this area relies in large part on the Customer Service Centers, and on established patterns of coordination among the Customer Service Centers, City agencies, and Community-Based Organizations. Perhaps somewhat above one-quarter

and less than one-half of this success might be achieved if there were no Customer Service Centers.²⁷

More exact costing will need to be worked out by PGW using its own methods. However, the ballpark estimate we can provide in this study is that optimizing the PIPP approach (utilizing the customer service centers, and not cutting back on the number of centers or their services or hours) are offset by approximately \$350.77 per CAP (CRP) household in avoided costs due to under-billing from the CAP-Rate alternative and about \$14,000,000 or \$237.69 per customer (at the current program size) in achieved LIHEAP funds, or a total of about \$588.46 per household (at the current program size). On the other hand, based on experience elsewhere, net administrative savings of a CAP-Rate approach over a PIPP approach are less than \$100 per household.²⁸

V. THE ROLE OF CONSERVATION AND USAGE REDUCTION

A third aspect of a broader view is the interaction of a sustained conservation program such as the Conservation Works Program (CWP) with the CAP program. The energy savings from a sustained conservation program are cumulative, and can reduce the wholesale cost of gas associated with the high usage portion of the low-income participants. These gas savings are effectively being purchased for less than the commodity cost of gas and are a hedge against future gas cost increases.

The CWP program treats about 3,000 to 4,000 CRP customers annually. The latest evaluation of the CWP program showed savings of the order of 130 ccf/yr at an average cost of \$530. These savings accrue from a variety of physical measures with differing lifetimes. But assuming a mean lifetime of 7 yrs, leads to a levelized cost of savings of about \$.60/ccf (\$.02/kWH) towards annual savings of the order of 450,000 ccf/yr.

Compared to the general weatherization experience among other gas and electric utilities, both the magnitude and cost of these savings evidence *very good* performance. Equivalent savings at twice the cost would be considered a viable program. However, these savings with a levelized cost of about \$.60/ccf have been judged in some prior evaluations as "not cost effective." The most recent evaluation judges these savings as cost effective. It is possible that in earlier years, with much lower gas commodity costs these savings were not cost effective from the perspective of the utility (utility cost test)

²⁷ This is an optimistic estimate. Actual results could be much less, and would involve new direct costs. In addition, use of the Customer Service Centers inherently generates substantial multiples of customer relations and customer service results even though the specific cause of an interaction is related to the Customer Responsibility Program.

²⁸ Note that this estimate overstates savings of the CAP-Rate approach for PGW because early CAP-Rate projects included savings due to semi-automation of certification and recertification. However, these administrative and technology factors are not included in the current study because they can be made to apply equally to reducing the administrative cost of a CAP-Rate approach or of an optimized PIPP approach.

C. Coltro

Exhibit CC-3

Michael Blasknik's Impact
Evaluation of Philadelphia
Gas Works' Conservation
Works Program, Program
Year 10

**Impact Evaluation of
Philadelphia Gas Works' Conservation Works Program
Program Year 10**

**A Report To
Philadelphia Gas Works**

**Prepared By:
Michael Blasnik
Blasnik & Associates**

Final Report – December 31, 2001

Contents

I. Executive Summary	4
Program Treatment Approaches	4
Evaluation Approach	5
Findings	5
Program Measure Performance	6
Contractor Performance	6
Conclusions	6
II. Program Description and Evaluation Approach	7
A. Program Description – Program Year 10	7
Recruiting Customers: Targeting High Use	8
Program Production, Treatments, and Costs	8
B. Participant Characteristics	10
C. Participation in Other Programs	10
D. Evaluation Approach	11
Data Collection	11
III. Findings	13
Overall Savings Results	13
A. Energy Savings – A Closer Look	15
Characteristics of High and Low Savers	15
Savings and Measures Performed	16
Savings and Pre-Treatment Usage	17
Savings and Participation in Other Programs	18
Savings and House Size	19
Savings by Neighborhood	19
Statistical Analysis of Factors Associated with Savings	19
Statistical Analysis of Measure Savings	20
B. Sample Representativeness	21
IV. Cost Effectiveness	22
A. Program Costs, Benefits, and Assumptions	22
B. Cost Effectiveness Results	22
Cost-Effectiveness of Program Measures	23
C. Comparison to Other Low Income Weatherization Programs	24
D. Other Program Impacts	24
V. Conclusions and Recommendations	26
VI. Study Limitations	27
Gas Savings	27
Cost Effectiveness	27
Overall	27
Appendix	A-1
Gas Savings and Usage: Detail Statistics	A-1

List of Figures

Figure 1. Job Completions by month	9
Figure 2. Distribution of pre-treatment weather-normalized gas usage	14
Figure 3. Distribution of Percent Gross Savings	15
Figure 4. Average Savings by Pre-Treatment Usage Bin	17

List of Tables

Table 1. CWP Impact Summary	5
Table 2. Measure Installation Rates & Program Costs	9
Table 3. Participant Housing & Demographic Characteristics	10
Table 4. Gas Usage & Savings Results	13
Table 5. Characteristics of High and Low Savers	16
Table 6. Gas Usage & Gross Savings for Key Measure Groups (ccf/yr.)	16
Table 7. Gas Savings and Proportion of Houses by Usage Level: PY 10 vs. PY 9	18
Table 8. Participation in Other Programs: Gas Usage & Savings	18
Table 9. Gas Usage & Savings Results by House Size (ccf/yr)	19
Table 10. Gas Usage & Savings Results by Neighborhood (ccf/yr)	19
Table 11. Incremental Measure Savings Estimates	20
Table 12. Characteristics of Sample vs. Attrition Group	21
Table 13. Cost Benefit Analysis	23
Table 14. Estimated Cost-Effectiveness of Selected Measures	23
Table 15. CWP Year 10 Compared to Earlier Years and Other Programs	24
Table 16. Gas Savings Details	A-1
Table 17. Pre-Treatment Gas Usage Details	A-2
Table 18. Comparison Group Weighted Savings Analysis	A-3

ACKNOWLEDGEMENTS

This evaluation would not have been possible without the work of people at PGW and their contractors. In particular, the author would like to thank Cristina Coltro from PGW for overseeing the entire evaluation process and putting together all of the raw data from PGW; Daniel Paul, Rudy Tolbert, and Liz Robinson from the Energy Coordinating Agency of Philadelphia and John Augustino at Honeywell DMC for providing data, answering questions as they arose, and providing feedback on the draft report.

I. EXECUTIVE SUMMARY

Philadelphia Gas Works' Conservation Works Program (CWP) is designed to provide cost-effective energy savings to PGW's low income customers who participate in the Customer Responsibility Program (CRP) – a special payment plan for low-income customers. CWP is intended to reduce the overall long-term costs of CRP.

CWP began in 1990 and was operated by the Energy Coordinating Agency of Philadelphia (ECA) for the first six program years. Program impact evaluations from the first six years found moderate savings (122 ccf/yr in PY5, 216 ccf in PY4) that compared fairly well to other low-income weatherization efforts. However, the program was declared not cost-effective and alternative designs were pursued. Starting with program year 7, which began in September 1996, the program was redesigned and a second contractor, Honeywell DMC (HDMC), was added. Both contractors have pursued a lower cost program approach designed to install only the most cost effective measures. An evaluation of PY 7 found that ECA averaged 187 ccf/yr in savings at a cost of \$501 per unit and HDMC averaged 131 ccf/yr savings at a cost of \$386 per unit. The savings per dollar spent were the highest among all program evaluations with which this evaluator is familiar. The PY 9 evaluation found somewhat lower savings: 167 ccf/yr at a cost of \$499 per unit for ECA and 102 ccf/yr at a cost of \$555 per unit for HDMC. Although these savings still compare favorably with other low income weatherization efforts, the program was considered only marginally cost-effective due to PGW's rigorous cost benefit analysis assumptions. Since PY 7, the program has continued with some occasional interruptions but the annual budget has remained approximately \$2 million. This report provides an evaluation of the energy saving impacts from program year 10.

Program Treatment Approaches

As in prior years, the contractors intended to target high use households for program treatments in PY 10. However, the list of referrals from PGW was not provided until nine months into the program year, forcing the contractors to work from old lists where many of the best prospects had already been served. Treatments were completed on 4087 houses during the year -- 2031 houses by ECA and 2056 houses by HDMC. The main program treatments were:

- energy education and basic health and safety checks were provided to all houses;
- some basic low-cost and maintenance measures were provided to all houses as needed (e.g., filter replacements, radiator bleeding, radiator reflectors, water heat wraps, low flow faucet aerators and showerheads, hot water leak repairs, etc.);
- set back thermostats with intensive education were installed in about 60% of all houses;
- roof insulation was installed in about 10% of HDMC jobs and 22% of ECA jobs, focussing on those believed to have sound roofs and needing insulation; and,
- blower-door guided air sealing was performed in a separate site visit for about 3% of ECA jobs and 43% of HDMC jobs. HDMC often provided some air sealing work during the first site visit.

Both contractors employed a "low-cost" treatment approach with limited installation of typical "major" weatherization measures such as insulation. Instead, the program focussed on low cost and education based measures, such as clock thermostats, and only provided major measures in the cases considered the

most cost-effective. Compared to PY 9, the installations included more air sealing by HDMC, less air sealing by ECA, slightly less insulation by HDMC and more insulation by ECA. The average measure costs per completed house were \$428 for ECA and \$429 for HDMC. Administrative costs were also low, averaging \$64 per completed unit for ECA and \$57 for HDMC, leading to total contractor costs averaging \$492 per ECA job and \$486 per HDMC job. Total program costs averaged about \$10 per job higher than these figures if one allocates PGW's spending on program oversight and evaluation on a per job basis.

Evaluation Approach

The primary evaluation objectives were to: (1) assess the energy savings provided by the program, (2) explore the relative performance of the two primary contractors, (3) examine the savings by measure, and (4) assess cost-effectiveness. The evaluation did not involve quantifying many potential non-energy program impacts such as: bill payment behavior, CRP operating costs, health and safety benefits, comfort improvements, environmental impacts, and housing stock improvements.

The evaluation involved collecting, formatting, cleaning and matching several databases provided by PGW, ECA, and HDMC. Gas savings were evaluated using a standard pre/post analysis of weather-normalized monthly usage data. Savings were also calculated for a comparison group, composed of houses treated in the last five months of PY 11.

Findings

Table 1 summarizes the energy savings and cost-effectiveness of CWP.

TABLE 1. CWP IMPACT SUMMARY

Group	Energy Savings (ccf/yr)				Cost Effectiveness		
	Pre Use	Gross Savings	Net Save	% Save	Value of Savings	Program Costs	Benefit/Cost Ratio
ECA (n=1364)	1213	105	137	11.3%	\$640	\$502	1.28
HDMC (n=1456)	1424	104	122	8.6%	\$624	\$496	1.26
Total (n=2820)	1322	105	129	9.8%	\$632	\$499	1.27

Notes: Savings were valued as the present value of PGW's avoided costs for the gas saved. Future savings were discounted to present value using a 5.9% discount rate. Program costs include all spending by contractors plus PGW's program management costs.

As in prior years, the figures in the table show significant energy savings per dollar spent. Compared to PY 9, ECA's net savings declined by 30 ccf/yr while HDMC's increased by 20 ccf/yr. ECA's savings were reduced due to a lack of targeting of high use households – the average pre-treatment usage of houses treated by ECA declined from 1675 ccf/yr in PY 9 to just 1213 ccf/yr for PY 10. HDMC managed to maintain better high use targeting but still showed a decline in pre-treatment usage from 1566 ccf/yr in PY 9 to 1424 ccf/yr in PY 10. A closer analysis of savings revealed that both contractors actually produced substantially better savings than they did in PY 9 for houses with comparable usage, but the decline in the proportion of high use participants led to ECA's reduced savings and limited the improvement in HDMC's savings. PGW's substantial delay in providing a list of eligible customers to the contractors was a key factor in the lower usage for PY 10 participants.

The table shows that both contractors' work was cost-effective when using standard assumptions and calculations based on Pennsylvania Public Utility Commission guidelines. In past years, cost effectiveness was assessed using a range of more pessimistic assumptions concerning measure life and savings degradation. Applying this old approach to the PY 10 results yields benefit cost ratios that vary from 0.81 to 1.18 for HDMC and 0.78 to 1.31 for ECA. The limited data from prior evaluations on actual

savings persistence have shown mixed results. Further research may be needed to assess measure life and savings degradation in future years.

CWP may also provide several other benefits which were not assessed in this study. Some of these benefits include: electricity savings for participants due to reduced heating system run time and reduced cooling loads from insulation and air sealing measures; reduced emission of pollutants from burning gas; local economic benefits from the labor intensive nature of weatherization; improvement and preservation of affordable housing; and potential reduced social and health costs associated with utility service terminations. The impact of CWP on participant payment behavior was not assessed due to substantial problems with PGW's billing system during the analysis period.

Program Measure Performance

We statistically disaggregated savings into the major measures of roof insulation, thermostats, air sealing, and "Core Treatment" (which includes savings from education, and a variety of generally low-cost measures). This analysis found that the highest savings are produced by HDMC's roof insulation work -- averaging 184 ccf/yr in savings. These savings represent an increase from PY 9 and are consistent with technical expectations. It appears that ECA saved substantially less from insulation, averaging just 62 ccf/yr. These lower savings could be due to the quality of the installation and/or treatment decision making, exacerbated by the lower pre-treatment usage of the participants. ECA achieved much larger savings than HDMC from thermostats (82 vs. 27 ccf/yr), consistent with prior evaluation findings. Air sealing savings were estimated at 65 ccf/yr primarily based on HDMC's work since ECA rarely performed air sealing. These savings are consistent with HDMC's PY 9 savings. "Other" savings averaged 45 ccf/yr for ECA and 51 ccf/yr for HDMC. These values represent an increase for HDMC (from 29 ccf/yr) and a small decrease for ECA (from 54 ccf/yr). Given the sharp decline in pre-treatment usage for ECA's houses, these changes may both be considered performance improvements.

Contractor Performance

The evaluation found that ECA is achieving slightly higher savings than HDMC at a slightly higher cost, resulting in a similar level of cost-effectiveness. In prior evaluations, ECA saved substantially more gas than HDMC in virtually every respect because of their better targeting of high use households and higher savings from thermostats. ECA still produced greater savings for houses of a given usage level and produced greater savings from thermostats, but their inability to target high use households in PY 10 substantially eroded their performance advantage.

Conclusions

Overall, CWP is still producing solid energy savings at a modest cost. Savings improved for both contractors at any given level of pre-treatment usage, but pre-treatment usage levels declined due to delays in receiving a recruitment list. The net result was lower savings for ECA and a smaller improvement in HDMC's savings than might otherwise have occurred. It appears that PY 10 is a small "bump in the road" toward achieving greater and more cost effective energy savings as high use targeting resumed fully in PY 11. The program still faces issues concerning work quality -- particularly ECA's insulation work -- and treatment decisions (i.e., the low proportion of houses receiving major measures)

II. PROGRAM DESCRIPTION AND EVALUATION APPROACH

Philadelphia Gas Works' Conservation Works Program (CWP) is designed to provide cost-effective energy savings to PGW's low income customers who participate in the Customer Responsibility Program (CRP). CRP is a payment plan which allows low-income customers to maintain gas service if they pay a fixed percentage of their income for service. Penalties are added if consumption is above certain thresholds. CWP is intended to reduce the overall long-term costs of operating CRP.

CWP began in 1990 and, for the first six program years, was operated by the Energy Coordinating Agency of Philadelphia (ECA). Several impact evaluations of this first program approach were performed, the last for program year 5¹. That study found average net savings of 122 ccf/yr at an average cost per customer of \$757 in treatments and \$471 in administration. The savings analysis appeared questionable, especially due to an unusually large comparison group adjustment. Nevertheless, the program was deemed to be not cost-effective and alternative designs were pursued.

Beginning in program year (PY) 7, which began in September 1996, the program was put out to bid and provided potential contractors with some flexibility in program design. Two program contractors were selected: ECA and Honeywell DMC (HDMC). Both bidders designed a lower cost program approach which focussed on providing energy education, thermostats, and some basic low-cost measures to many houses and providing more extensive air sealing and roof insulation work in only some targeted houses. An evaluation² of PY 7 found that program cost-effectiveness improved dramatically. Savings were higher than most parties expected. However, the net savings results were based on relatively small samples and the program targeting and design were shifting during the course of the year. The evaluation of PY 9³ found slightly lower net savings than PY 7 and indicated that ECA performed substantially better than HDMC. One of the key issues in the PY 10 evaluation is whether the findings from PY 9 continued in terms of overall cost effectiveness, measure savings, and contractor performance. Program changes for PY 10 based on the PY 9 evaluation were limited due to the inevitable delay between the end of a program year and the availability of evaluation results. However, the PY 9 findings did affect the allocation of program resources between contractors for Program Year 11.

A. Program Description – Program Year 10

The program design in PY 10 was substantially the same as in PY 9 for both contractors. The key program elements were:

- all houses would receive energy education and basic health and safety checks, with ECA putting a greater emphasis on intensive energy education as a program treatment;
- all houses would receive a "core treatment" including basic low-cost and maintenance measures as needed (e.g., filter replacements, radiator bleeding, radiator reflectors, water heat wraps, low flow faucet aerators and showerheads, hot water leak repairs);

¹ "Evaluation of Philadelphia Gas Works Conservation Works Program Year 5", Wirtshafter Associates, 1996.

² "PGW Conservation Works Program: Preliminary Impact Evaluation Year 7", M Blasnik & Associates, 1998.

³ "Impact Evaluation of PGW's Conservation Works Program: Program Year 9", M. Blasnik & Associates, 2000.

- most houses would receive set back thermostats with intensive education. A unique approach was taken in many houses where the temperature would be re-set to a base level, established by the customer, every few hours and, in some cases, incorporate a high limit. ECA pursued a more aggressive set back strategy and did not provide participants with instructions for permanently overriding the programmed set points;
- roof insulation was installed by subcontractors in houses which were believed to have sound roofs and needed insulation; and,
- blower-door guided air sealing was performed in a separate site visit for houses where it was deemed worthwhile, with HDMC providing air sealing to nearly half of all houses while ECA performed virtually no air sealing. Some minor air sealing occurred for many houses as part of the core treatment during the initial site visit.

The installation frequencies of major measures shifted some from PY 9 to PY 10. HDMC provided fewer thermostats (from 63% in PY 9 to 52% in PY 10) and less insulation (from 15% to 10%), but increased air sealing work (from 36% to 43%). ECA almost eliminated air sealing (from 12% to 3%), increased insulation work a little (from 18% to 22%) and decreased thermostats slightly (from 72% to 69%).

Recruiting Customers: Targeting High Use

The start of the program year, scheduled for September 1999, was delayed due to financial and logistical problems at PGW. Large scale production did not begin until January 2000. One of the key design elements of CWP is to target high use customers because they provide the greatest opportunities for cost-effective savings. The late program start and MIS problems at PGW delayed the creation of the customer recruitment list until May 2000, just four months before the program year ended. Until that time, the contractors relied upon old lists from PY 9 which they had received in October 1998. The old lists contained a total of about 24,000 customers, but nearly 4,000 of these customers were served in PY 9. The remaining customers included many who were not high users and/or were difficult to enroll in the program. The lack of new leads caused both contractors to relax their targeting and apparently led ECA to abandon targeting for part of the year. The May 2000 recruitment list contained approximately 17,000 customers for each contractor and targeting could begin again. In addition to this delay, the task of targeting high users increases in difficulty each year as the program serves more of the original target population and is forced to rely more on new enrollments to CRP.

Program Production, Treatments, and Costs

Figure 1 shows the monthly job completions of HDMC and ECA over the course of program year 10.

Number of Houses Completed by month

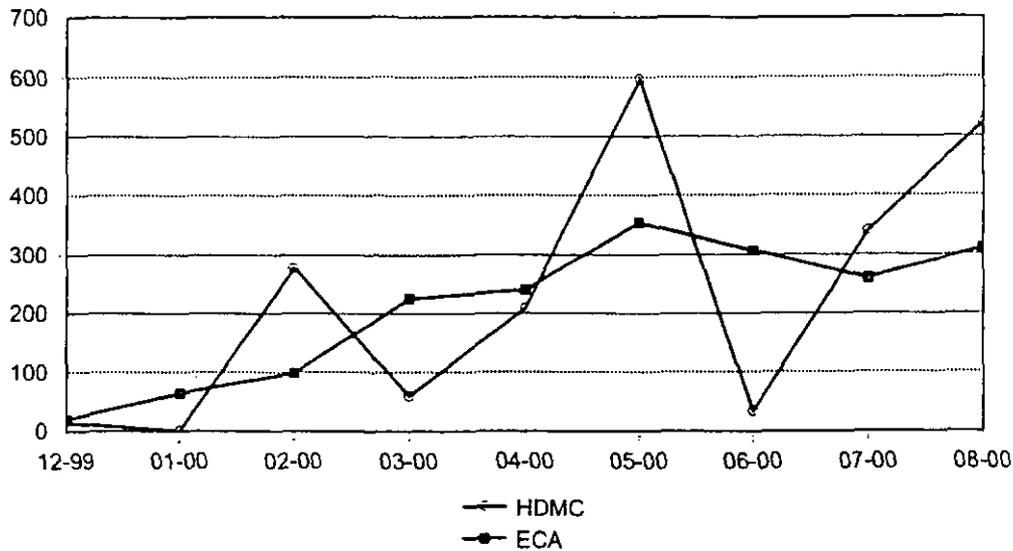


Figure 1. Job Completions by month

Both contractors began slowly due to delays in the program launch and the need to ramp up production after a hiatus. ECA production grew steadily and then leveled off in the last few months. HDMC's production varied widely. Overall, program treatments were completed in 4087 houses during PY10 -- 2031 houses by ECA and 2056 houses by HDMC. Table 2 summarizes the measure installation rates and costs for all houses treated by the two contractors during PY 10.

TABLE 2. MEASURE INSTALLATION RATES & PROGRAM COSTS

	ECA	HDMC	All
# of Participants	2031	2056	4087
Measure Installation Rates			
Thermostats	69%	52%	74%
Air Sealing	3%	43%	24%
Roof Insulation	22%	10%	16%
Program Costs			
Insulation Costs	\$ 136	\$ 67	\$ 100
Thermostat Costs	\$ 51	\$ 30	\$ 40
Air Sealing Costs	\$ 6	\$ 93	\$ 51
Core Treatment, Education & Other Costs	\$ 235	\$ 239	\$ 238
Total Measure Costs	\$ 428	\$ 429	\$ 429
Contractor Administration	\$ 64	\$ 57	\$ 60
PGW Administration	\$ 10	\$ 10	\$ 10
Total Program Cost	\$ 502	\$ 496	\$ 499
Notes: A house was considered to have received insulation if insulation costs exceeded \$100. Air sealing was considered done if air sealing costs exceeded \$50.			

The table shows that ECA performed considerably less air sealing than HDMC, but insulated many more roofs and installed more thermostats. Overall, the contractors spent about the same per house treated. Contractor and PGW administrative costs were calculated by taking the total administrative fees for the year and dividing by the number of completed units.

B. Participant Characteristics

Table 3 summarizes basic housing, demographic, gas usage, and payment information for program year 10 participants and the target list of CRP customers provided to the contractors in May 2000. Most information is based on PGW records from CRP intake interviews.

TABLE 3. PARTICIPANT HOUSING & DEMOGRAPHIC CHARACTERISTICS

Characteristic	ECA	HDMC	All Participants	Potential Population
House Size				
2 story 2 bedroom	18%	14%	16%	16%
2 story, 3 bedroom	64%	66%	65%	65%
2 story 4+ bedroom	7%	9%	8%	7%
3 story 2-3 bedroom	5%	3%	4%	4%
3 story, 4+ bedroom	6%	9%	8%	7%
Demographics				
Renter	16%	15%	16%	19%
Female-headed Household	86%	84%	85%	
Median Income	\$6876	\$6768	\$6816	
Median % of Poverty	67%	68%	67%	
Household size	2.5	2.3	2.4	2.65
Senior Household	12%	26%	19%	11%
Gas Usage and Limit				
Total 12 month Usage	1004	1263	1179	1271
Gas Usage Limit (ccf/yr)	1150	1178	1169	1155
* CRP population data for gas usage and usage limit are from PY 9 population data, PY 10 data were not available.				

The vast majority of participants lived in brick rowhouses that dominate Philadelphia's housing stock. Nearly 90% of these houses had two stories with two, three, or four bedrooms. The "typical" participant household is female-headed, has 2 or 3 occupants, lives in a three bedroom two story row house and has an annual income of about \$6800. Overall, the CWP participants appear quite similar to the typical CRP customer with the exception that HDMC treated a greater proportion of senior households.

C. Participation in Other Programs

One of the concerns identified in evaluating program impacts was potential participation in other energy or housing programs by participants. The program contractors referred participants into other programs as needed for services such as:

- heating system repair or replacement (provided by the "heater hotline", operated by ECA);
- roof repair and other structural repairs (from the Basic Systems Repair Program -- BSRP -- operated by PHDC);
- weatherization by the federally-funded Weatherization Assistance Program (WAP -- operated by PHDC with ECA acting as a subcontractor); and,
- water conservation (from the Philadelphia Water Department program operated by ECA).

ECA provides many of these and other services to low income clients. ECA provided data on participation in these other program for their CWP clients. Overall, 38% of ECA's PY 10 clients were served by other programs (primarily a water conservation program), but fewer than 1% were served by WAP, the only other major weatherization program.

In prior evaluations, we excluded all CWP participants from the energy savings analysis if they were identified as participating in WAP or the heater hotline to avoid taking credit for savings produced by other programs. The decision to exclude these cases was not clear cut because increasing CRP customer participation in these other programs may provide a benefit to CRP to the extent that these programs provide gas savings at no cost to PGW. In this evaluation, the decision was further clouded because the data from ECA did not include HDMC's clients, making any adjustments potentially unfair with respect to contractor performance comparisons. We therefore decided to examine the difference in savings from participation in other programs but not exclude cases from the analysis based on this participation.

D. Evaluation Approach

The primary evaluation objectives were to (1) assess the energy savings provided by the program, (2) explore the relative performance of the two primary contractors, (3) examine the savings by measure, and (4) assess cost-effectiveness. The evaluation did not involve quantifying many potential non-energy program impacts such as: bill payment behavior, CRP operating costs, health and safety benefits, comfort impacts, environmental emission reductions, and housing stock improvements and preservation.

The overall approach to assessing energy savings was to utilize the industry standard Princeton Scorekeeping Method (PRISM™) to weather-normalize the gas usage data for the participants and for a comparison group drawn from later participants. PRISM provides estimates of the weather-adjusted annual energy consumption of a house based on monthly usage data and daily outdoor temperature data.

We evaluated gas savings using a standard pre/post analysis of PRISM results where gross savings for each house are calculated as the difference in the normalized annual consumption between the pre and post treatment periods. We performed this analysis for all participants which had sufficient data. In order to estimate the net savings achieved by the program, a comparison group is needed to reflect changes in usage which may have occurred without the program.

We created a comparison group using CWP participants from PY 11 that were treated from April through August 2001. Their usage data were analyzed by creating a pseudo-treatment date one year prior to actual participation, excluding any consumption data from after treatments actually began. The net savings were calculated as the gross savings for participants minus the change in usage found for the comparison group.

Data Collection

The evaluation involved collecting, formatting, cleaning and matching several databases provided by PGW, ECA, and HDMC. PGW provided databases of the CWP target population, monthly gas usage histories, and acted as the conduit for ECA and HDMC's program databases. The contractor tracking system databases were used to identify the participants, the treatments performed, the program costs, and the timing of program treatments. Daily temperature data were obtained from the National Climatic Data Center and the National Weather Service.

Several complications were encountered in the data collection and matching process. ECA's tracking system extract did not provide information on which program year each participant was assigned to, so it was estimated from the latest work completion date. This approach added to a discrepancy in ECA's unit counts for each program year. The dates in ECA's tracking system indicated 1878 completions in PY 10 (vs. 2031 "official" completions) and 2287 completions in PY 11 (vs. 2186 "official" completions). Another complication arose from differing account numbers in the tracking systems and PGW's usage files. Some of the tracking system data included account numbers from PGW's old system but the usage

data files included new account numbers. Account matching was further complicated by the nature of the new account numbers – they represent people, not houses. Therefore, a usage history for one account could actually span across moves, including data from a different house that wasn't treated. Additional data on premise identifiers were provided by PGW, but it still proved difficult to be certain that the premise served by a contractor was the same premise as that represented by the usage data. Tedious cross checking was needed to ensure "clean" usage histories and to eliminate cases where multiple premises were included in the same account history.

III. FINDINGS

The tracking system contained data on 3933 participants from PY 10 and 1790 potential comparison group houses (participants from PY 11 who were treated after March 2001). We were able to match 3415 participants and 1705 comparison group cases to PGW usage data. For participants, there were sufficient data for pre and post PRISM analysis for 92% of the matched accounts. About 10% of these cases were removed from the analysis because they either had poor PRISM fits, had an insufficient amount of data for a reliable analysis, or showed an extreme change in usage⁴. This screening left a sample of 2820 cases for the overall participant savings analysis (72% of the tracking system population).

The comparison group analysis followed the same screening criteria, but subtracted one year from the treatment dates for all cases treated after March 2000. The screening led to 34% total attrition for the comparison group – 1117 out of 1790 potential cases were usable in the analysis.

Overall Savings Results

Table 4 summarizes the overall results from the usage analysis. The table shows that CWP participants experienced significant net energy savings equal to about 12% of pre-treatment heating usage on average.

TABLE 4. GAS USAGE & SAVINGS RESULTS

	# Units	Usage (ccf/yr)		Savings (ccf/yr)		% Net Savings	
		Pre	Post	Gross	Net	% Total	% Heat
Participants							
ECA Participants	1364	1213	1108	105 (=8)	137 (=11)	11.3%	14.7%
HDMC participants	1456	1424	1319	104 (=10)	122 (=14)	8.6%	10.7%
All Participants	2820	1322	1217	105 (=9)	129 (=13)	9.8%	12.5%
Comparison Group							
Raw	1117	1735	1730	6 (=13)		% Gross Savings	
Weighted - All	1117	1346	1370	-25 (=11)		0.3%	0.4%
Weighted - ECA	1117	1249	1281	-32 (=9)		-1.8%	-2.3%
Weighted - HDMC	1117	1436	1454	-18 (=10)		-2.5%	-3.2%
						-1.2%	-1.5%

Notes: ± figures are 90% confidence intervals on the mean savings. Net savings are calculated using the appropriately weighted comparison group results.

* The comparison group pre-usage was substantially higher than the participants so a weighted stratified analysis was employed for each contractor and overall based on 5 bins of pre-treatment usage to give greater weight to cases with lower usage to better match the participant groups. See appendix Table 18 for details.

⁴ PRISM results were considered unreliable if the relative uncertainty in normalized usage (CV(NAC)%) was $\geq 20\%$, or the fit of the usage to weather was poor (regression r-squared ≤ 70), or heating or baseload usage estimates were negative, or the uncertainty in the heating load or balance point temperature estimates was infinite, or the balance point temperature estimate was less than 40, or if the normalized annual consumption estimate was less than 300 ccf/yr. Cases were also eliminated if the PRISM data spanned fewer than 210 days or fewer than 2000 HDD63, or if the change in total usage was greater than 65% or the change in heating or baseload components was more than 100%.

The savings are quite high given the low-cost program approach. However, there are many differences from the PY 9 results. ECA's net savings are 30 ccf/yr lower than the PY 9 results while HDMC's savings are 20 ccf/yr higher. The average pre-treatment usage of houses treated by ECA dropped by 28% from PY 9 to PY 10 (from 1675 ccf/yr to 1213 ccf/yr) – ECA went from very effective targeting of high users to essentially average usage customers. For HDMC, although pre-treatment usage is a little lower than in PY 9 (1424 ccf/yr vs. 1566 ccf/yr), their net savings are 20 ccf/yr higher, but still slightly lower than ECA's.

One aspect of the net savings analysis worth noting was the difference in pre-treatment usage between the participant and comparison groups. The delay in generation of a recruitment list in PY 10 led to the inclusion of many lower usage customers, but the situation was apparently rectified by the time the comparison group participated in PY 11 revealed by the very high usage among the comparison group. However, the net savings analysis relies on the comparison group being similar to the participants. To address this difference in usage, we stratified the participant and comparison groups based on pre-treatment usage and weighted the results of the comparison group to reflect usage levels of the participants (see appendix Table 18 for details). We used separate weighting for ECA and HDMC because of the large differences in pre-treatment usage between the contractors. This weighting led to a fairly large comparison group adjustment, especially for ECA. The adjustment reflects the average change in the usage that would have been expected for the participants if they hadn't participated and the size and direction illustrates "regression to the mean" – low users in the comparison group tended to increase consumption while high users tended to decrease consumption.

The mean pre-treatment weather-normalized annual gas usage was 1213 ccf for ECA and 1424 ccf for HDMC. Figure 2 shows the distribution of pre-treatment usage levels for each contractor.

% of Houses

The figure shows that ECA treated more low usage houses than HDMC. One third of the houses treated by ECA in PY10 used less than 1000 ccf/yr and 59% used less than 1200 ccf/yr. In PY 9, only 9% of ECA-treated houses used less than 1200 ccf/yr. This dramatic change affected ECA's savings. Houses using less than 1200 ccf/yr comprised 40% of HDMC's participants (vs. 31% in PY 9).

Figure 3 shows the distribution of percent savings (% of total usage) by contractor. The figure shows that ECA achieved higher percentage savings across the distribution, showing fewer large negative savers and more moderately high savers (10% to 30%).

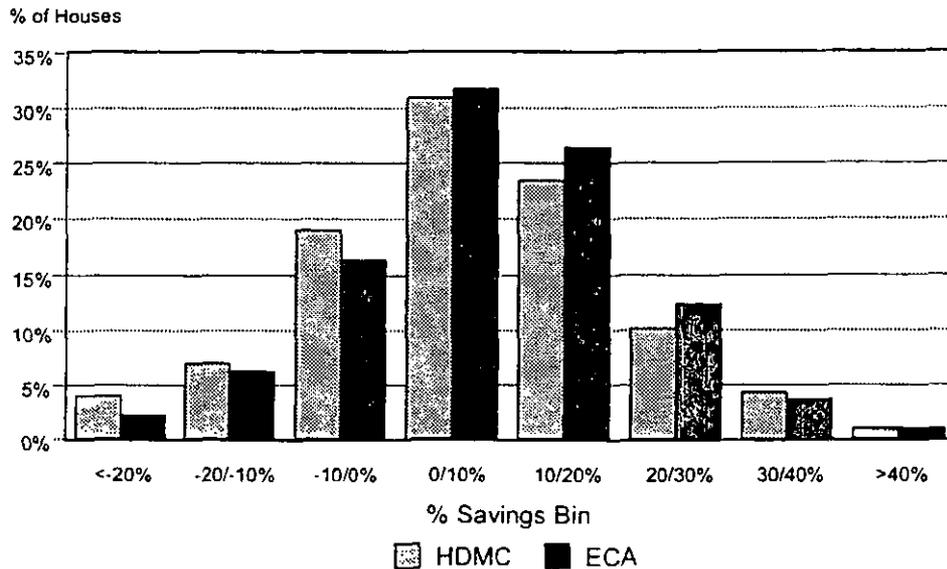


Figure 3. Distribution of Percent Gross Savings

We explored the gross savings results in more detail to examine patterns in usage and savings and assess measure and contractor performance.

A. Energy Savings – A Closer Look

One of the evaluation objectives was to assess patterns in usage and savings to provide insight into the causes of high or low savings. This assessment was performed through statistical summaries of usage, savings and participant characteristics for numerous groups of interest, as well as statistical modeling of factors related to savings. The appendix includes more detailed statistical summaries of the savings and usage break-outs.

Characteristics of High and Low Savers

Table 5 summarizes some characteristics of high and low saving participants. High savers are defined as the top quartile of savings (the highest 25% of savers, savings greater than 200 ccf/yr) and low savers are defined as the bottom quartile (savings less than negative 10 ccf/yr). The table shows mostly expected results – high savers had much higher pre-treatment usage and had more money spent on treatments, especially roof insulation, than low savers. High savers were much more likely to receive thermostats and, for HDMC, more likely to receive air sealing. HDMC houses had a wider disparity in spending between high and low savers than ECA. Participation in other programs was about the same for high and low savers.

TABLE 5. CHARACTERISTICS OF HIGH AND LOW SAVERS

Characteristics	High Savers		Low Savers	
	ECA	HDMC	ECA	HDMC
# Houses	326	379	305	400
Pre-Usage (ccf/yr.)	1507	1743	1191	1335
Savings (ccf/yr.)	346	391	-105	-139
Savings % (of total)	23%	22%	-9%	-10%
Treatments				
Roof Insulation	37%	27%	17%	5%
Thermostat	85%	60%	57%	45%
Air Sealing	5%	67%	4%	37%
Measure Costs	\$563	\$648	\$406	\$356
Served by Other Program	44%	n/a	41%	n/a
House Characteristics				
3 Story House	14%	15%	12%	10%

Savings and Measures Performed

Table 6 shows gross gas savings broken out for groups of participants based on the measures which they received.

TABLE 6. GAS USAGE & GROSS SAVINGS FOR KEY MEASURE GROUPS (CCF/YR.)

Measure Group	ECA				HDMC			
	#Units	Pre-Use	Savings	% Save	#Units	Pre-Use	Savings	% Save
Roof Insulated	320	1247	154	12.3%	164	1728	295	17.1%
Roof Not Insulated	1044	1203	90	7.5%	1292	1385	80	5.8%
Thermostat (with education)	943	1218	130	10.7%	775	1399	125	8.9%
No Thermostat	421	1202	49	4.1%	681	1451	81	5.6%
Air Sealed	42	1336	139	10.4%	683	1534	162	10.6%
Not Air Sealed	1322	1209	104	8.6%	773	1326	53	4.0%
Core Treatment & Education Only	324	1191	41	3.5%	424	1363	36	2.7%
Major Measure Combinations:								
Core Treatment, Education &...								
Tstat (No Roof, No Seal)	689	1203	112	9.3%	332	1256	68	5.4%
Roof (No Tstat, No Seal)	83	1202	74	6.2%	9	-	-	-
Seal (No Tstat, No Roof)	13	-	-	-	191	1550	120	7.8%
Seal & Tstat (No Roof)	18	-	-	-	345	1444	123	8.5%
Roof & Tstat (No Seal)	226	1259	182	14.5%	8	-	-	-
Roof & Seal (No Tstat)	1	-	-	-	57	1732	273	15.8%
Roof & Seal & Tstat	10	-	-	-	90	1723	331	19.2%

Notes: Differences between groups only show an association, not necessarily cause and effect. Results not shown for groups with fewer than 20 cases.

The table shows that, as expected, savings are higher for houses that received the major measures of insulation, thermostats, and air sealing. Simple group savings comparisons imply that HDMC achieved higher savings from insulation and air sealing, but ECA achieved higher savings from thermostats. HDMC houses also had larger differences in pre-treatment usage between those receiving insulation and air sealing compared to those not receiving these measures, implying a more targeted approach to the treatments. Despite HDMC's apparently better targeting of high users and better savings from insulation and air sealing treatments, their overall average savings were limited by their higher proportion of houses receiving no major measures, their lower savings in houses receiving thermostats as the only major measure, and their lower use of roof insulation compared to ECA.

It is tempting to directly attribute the differences in savings between measure groups to the measures that define them. This reasoning can be erroneous because other factors may also vary between the groups. Weatherization programs are not designed experiments where treatments are randomly assigned. Instead, houses are treated based on opportunity and most factors of interest are interrelated. For example, houses which get roof insulation may differ from houses which don't in terms of the condition of the house or the likelihood that they received other major measures. The higher savings in these houses may be due in part to these other factors. In other words, differences in group savings should not be interpreted as indicating cause and effect, but only associations. More sophisticated analysis approaches are needed to examine these interrelationships in an attempt to estimate specific effects.

Savings and Pre-Treatment Usage

The gas usage before treatment is typically the dominant factor in predicting savings -- you can't save energy that you don't use and measures are most effective in inefficient buildings. This relationship for CWP is shown in Figure 4.

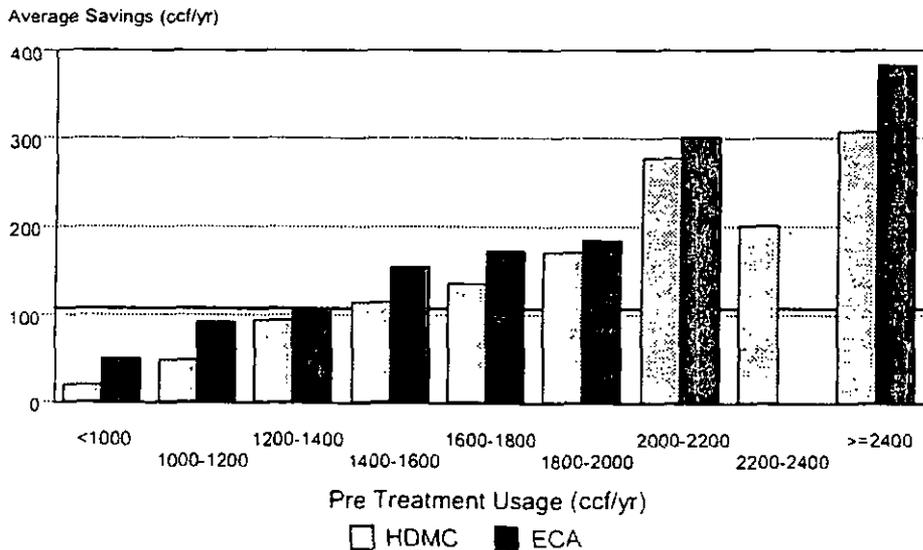


Figure 4. Average Savings by Pre-Treatment Usage Bin

As in prior years, savings increased with pre-treatment usage and were below the overall average (shown with a line at 105 ccf/yr) for usage bins below 1400 ccf/yr. ECA produced higher savings than HDMC for the same level of pre-treatment usage for all bins (one ECA bin is excluded because it contained just 11 houses).

Given the clear relationship between pre-treatment usage and savings and the decline in pre-treatment usage from PY 9 to PY 10, average savings might decline even if the quality of the contractors' work improved. This possibility was explored by comparing the average savings (as a percent of pre-treatment usage) by usage level for the two program years for each contractor. The results of that analysis are shown in Table 7.

TABLE 7. GAS SAVINGS AND PROPORTION OF HOUSES BY USAGE LEVEL: PY 10 VS. PY 9

Usage Level	ECA				HDMC			
	Savings (% of pre)		Proportion of Houses		Savings (% of pre)		Proportion of Houses	
	PY 10	PY 9	PY 10	PY 9	PY 10	PY 9	PY 10	PY 9
<1000 ccf/yr	6%	1%	33%	2%	2%	-3%	19%	15%
1000/1200	8%	6%	26%	7%	4%	0%	21%	16%
1200/1400	8%	7%	17%	22%	7%	1%	17%	17%
1400/1600	10%	6%	9%	23%	8%	7%	14%	13%
1600/1800	10%	8%	6%	16%	8%	5%	10%	10%
1800/2000	10%	10%	4%	11%	9%	6%	6%	8%
2000/2200	15%	8%	2%	6%	13%	5%	4%	6%
2200/2400	8%	8%	1%	4%	9%	7%	3%	5%
>=2400	13%	10%	3%	7%	11%	6%	6%	10%

The table shows that both contractors achieved higher savings in every usage bin in PY 10 compared to PY 9. In other words, when working in houses with comparable pre-treatment usage, the contractors are achieving greater savings than they did in PY 9. The improvements are especially large for the lowest and highest usage bins. The table also shows the proportion of houses in each usage bin for the two years, showing the extreme change in the proportion of low users treated by ECA.

Savings and Participation in Other Programs

ECA provided data on participation in other low-income housing, energy, and water programs for households they served through CWP. Overall, 38% of ECA's PY 10 participants received services from one or more other programs, but fewer than 1% were served by WAP, the only other major weatherization effort. Table 8 shows the usage and savings for houses served by other programs compared to those receiving CWP only.

TABLE 8. PARTICIPATION IN OTHER PROGRAMS: GAS USAGE & SAVINGS

Served by Other Programs	ECA Only			
	# Units	Pre-Use	Savings	% Save
No: CWP Only	840	1148	99	8.6%
Yes: Served by Other Programs	524	1317	115	8.7%

The houses served by other programs tended to have higher pre-treatment usage and absolute savings and about the same percent savings as houses served only by CWP. It is not clear whether the higher savings among these houses is due to participation in these other programs or whether it may be due to their higher pre-treatment usage. If these houses were excluded from the analysis it would reduce ECA's gross

savings by 6 ccf/yr, but would also reduce the average pre-treatment usage, leading to no change in percent savings.

Savings and House Size

Table 9 shows the average usage and savings by house size. The percentage savings tend to be a little larger in the smaller houses. ECA tended to do better than HDMC in the larger 2 story houses and the larger 3 story houses.

TABLE 9. GAS USAGE & SAVINGS RESULTS BY HOUSE SIZE (CCF/YR)

House Size	ECA				HDMC			
	# Units	Pre-Use	Savings	% Save	# Units	Pre-Use	Savings	% Save
2 story 2 bedroom	214	995	75	7.5%	181	1122	66	5.9%
2 story, 3 bedroom	778	1178	105	8.9%	887	1366	110	8.0%
2 story 4+ bedroom	89	1577	148	9.4%	106	1676	88	5.3%
All 2 Story	1155	1183	102	8.7%	1216	1351	102	7.6%
3 story 2-3 bedroom	48	1365	96	7.1%	37	1845	147	8.0%
3 story, 4 bedroom	39	1679	111	6.6%	30	1822	147	8.1%
3 story, 5+ bedroom	32	2068	225	10.9%	79	2348	157	6.7%
All 3 Story	132	1644	133	8.1%	159	2115	144	6.8%

Note: Small samples for the 3 story categories create relatively large uncertainties.

Savings by Neighborhood

In prior evaluations, savings varied by neighborhood, reflecting differences in housing stock or other factors. In PY 10, neighborhood differences are generally small. ECA did worst in the River area (where they did best in PY 9). HDMC did the worst in South Philadelphia and Olney/Far North neighborhoods.

TABLE 10. GAS USAGE & SAVINGS RESULTS BY NEIGHBORHOOD (CCF/YR)

Neighborhood	ECA				HDMC			
	# Units	Pre-Use	Savings	% Save	# Units	Pre-Use	Savings	% Save
North	314	1284	114	8.9%	432	1502	104	6.9%
West	323	1291	114	8.8%	375	1531	117	7.6%
North West	126	1209	117	9.6%	145	1426	123	8.6%
South West	71	1178	103	8.8%	25	1336	173	12.9%
River	175	1127	83	7.3%	196	1209	107	8.9%
South	182	1106	92	8.3%	170	1285	65	5.1%
Olney / Far North	178	1157	101	8.7%	113	1362	77	5.7%

Neighborhoods were defined based on zip codes (all beginning with 191) as follows: North=21,22,23,30,32,33,40 West=04,31,39,43,51 NorthWest=29,38,44,50 SouthWest=42,53 River=24,25,34,37 South=12,45,46,47,48 Olney/Far North=20,26,41, and all other

Statistical Analysis of Factors Associated with Savings

We examined the relationships between gas savings, usage, treatments, housing characteristics, and demographics using regression analysis. Regression analysis is a statistical technique which seeks to

“explain” the variations in a variable of interest (e.g., gas savings) based on a set of “explanatory” variables (e.g., treatments performed, prior usage, demographic factors). The analysis attempts to sort out the multiple relationships between factors of interest and estimate the separate impacts of each. The goals in this application included estimating savings from individual measures and identifying other factors which influence savings.

A combination of standard, robust, and two stage least squares regression techniques and graphical analysis methods were employed in the analysis. The results were examined using formal and graphical diagnostics. While we pursued the analysis and developed conclusions based on a combination of careful statistics and a grounding in weatherization program operations and measure performance, the results of this analysis cannot be considered unassailable. Firm conclusions about cause and effect are difficult to make due to data quality issues; strong correlations between explanatory variables; the large proportion of savings variability left unexplained; and, most importantly, the potential that unobserved factors may play a significant role in explaining usage and savings. Because of these concerns, we have focused on presenting results that appear sound from both a statistical and building science perspective.

Statistical Analysis of Measure Savings

To estimate the incremental savings for specific measures, we modeled the PRISM savings as a function of the major program treatments. We restricted the analysis to homes with a higher level of PRISM reliability (standard error of NAC less than 7%). In prior year evaluations, savings from the major measures were found to differ between ECA and HDMC and so separate interaction variables were included to estimate these effects. For PY 10, ECA’s rare use of air sealing made separate estimates by contractor for this measure unreliable and the savings estimates for it was largely indicative of HDMC’s savings. The results from this analysis are summarized in Table 11.

TABLE 11. INCREMENTAL MEASURE SAVINGS ESTIMATES

Measure	Savings (ccf/yr.)	
	ECA	HDMC
Roof Insulation	62	184
Thermostat	82	27
Air Sealing	65*	65
Core Treatment, Education, & Other	45	51

Notes: Savings estimates from regression model of saving with variables: roof insulation, thermostat, air sealing, ECA job, and treated each as indicator variables; insulation and thermostat were also interacted with ECA. Model was estimated using 2589 participants and 961 comparison group cases with PRISM CV(NAC)<7%.
* Air sealing savings are largely indicative of HDMC performance since the measure was rarely used by ECA.

Roof insulation savings are estimated at 184 ccf for HDMC and just 62 ccf for ECA. In PY 9 both contractors were estimated to save 112 ccf. It appears that HDMC improved the quality of its insulation work and is achieving savings consistent with the potential for this measure (about 200 ccf). ECA’s insulation savings may have declined because of lower installation quality and/or because of the much lower pre-treatment usage in PY 10 houses. As in prior evaluations, ECA is estimated to save considerably more from thermostats than HDMC – 82 ccf/yr vs. 27 ccf/yr. The HDMC savings are nearly identical to the PY 9 estimate of 28 ccf/yr, while ECA’s savings are somewhat lower than their PY 9 estimate of 111 ccf/yr. The estimated 29 ccf/yr decline in ECA’s thermostat savings may be fully explained by the large reduction in pre-treatment usage. The estimated savings from air sealing are

dominated by HDMC's work since ECA had performed air sealing very rarely. The savings are comparable to the PY 9 result of 70 ccf for HDMC and the PY 7 result of 70 ccf for both contractors.

The savings from "Core Treatment, Education, & Other" were estimated to be about the same for the two contractors. In PY 9, these savings were estimated at 54 ccf/yr for ECA and 29 ccf/yr for HDMC. The improvement in HDMC's savings is encouraging, while the small decline in ECA's estimated savings may be consistent with comparable or even improved performance given the considerably lower in pre-treatment usage.

In addition to estimating measure savings, we examined a number of demographic and housing characteristics to assess relationships with savings. We analyzed these factors by incorporating them into the measure savings model to assess whether savings differences are explained by factors other than the treatments. No factors stood out as providing much explanatory power in this analysis.

B. Sample Representativeness

The average savings for the houses in the analysis sample may not represent the average savings for all houses treated. Attrition from the data collection and cleaning process has left a sample which differs in some ways from the larger participant population. Table 12 compares the savings analysis sample with the attrition group (houses not in the sample) on several key factors.

TABLE 12. CHARACTERISTICS OF SAMPLE VS. ATTRITION GROUP

Characteristic	ECA		HDMC	
	Sample	Attrition	Sample	Attrition
# Units	1364	514	1456	599
Pre-Use (median ccf/yr)	1126	1215	1301	1430
Roof Insulated	23%	19%	11%	8%
Thermostat	69%	70%	53%	50%
Air Sealed	3%	2%	47%	35%
Total Measure Cost	\$450	\$410	\$447	\$374

Note: Pre-usage for the attrition groups are based on 155 ECA and 250 HDMC houses with PRISM results for the pre-treatment period.

The houses included in the analysis were a little more likely to receive insulation, were more likely to receive HDMC air sealing, and overall had about 10% more spent on treatment by ECA and 20% more spent on treatments than HDMC. However, the analysis houses had about 10% lower pre-treatment usage than the attrition group. We used regression analysis to estimate the impacts of these differences on the likely overall program savings. This analysis found that, even without accounting for pre-treatment usage differences which would reduce the impact, overall program savings would only be about 3-4 ccf/yr lower if savings were available for the attrition group and included in the analysis.

IV. COST EFFECTIVENESS

The ultimate purpose of an impact evaluation is to assess whether the program was a worthwhile expenditure of resources and to suggest methods for improving its cost-effectiveness. Standard cost-benefit analysis is inevitably limited by the relative ease of quantifying program costs compared to the great difficulty in fully and accurately quantifying all benefits, particularly for low-income programs.

Most government-sponsored low-income program evaluations value energy savings from the participants' perspective, using retail rates. For utility programs, savings have been valued at retail rates in some jurisdictions and on an avoided cost basis in others. The rationale for the avoided cost approach is that if it is cheaper to give the gas away at marginal avoided costs than to save it, then it is more cost-effective to give it away. This issue was examined by a group of stakeholders for CWP in 1996 (the Conservation Monitoring Committee of the Philadelphia Gas Commission) and a document concerning cost-effectiveness analysis was produced (Defining "Cost Effectiveness" For CWP). That document adopted the avoided cost approach, including both commodity and demand costs, and also recognized the value of the program on reducing payment shortfalls from CRP participants. The document also suggested using short measure life estimates and savings degradation factors to reflect a belief that many of the treated houses may deteriorate or even become abandoned over time. The approach outlined in that document was the basis for all prior evaluations of CWP. During the past year, PGW became fully regulated by the Pennsylvania Public Utility Commission, so PGW used PY 9 evaluation results to re-calculate cost-effectiveness in compliance with PUC requirements. Therefore, PA PUC guidelines were used in this evaluation to assess cost effectiveness, based on the inputs and assumptions PGW employed in the PY 9 calculations.

A. Program Costs, Benefits, and Assumptions

CWP costs were calculated including all contractor spending plus PGW's costs including allocated program management. The only program benefit considered is the avoided cost of the gas saved. Avoided cost figures were provided by PGW based on their latest regulatory filings. For commodity costs, we used 46¢/ccf in 2000/2001 followed by figures of approximately 40¢ for all future years. For years 2007 and beyond, PGW has no official projections and so we assumed constant costs thereafter.

In calculating the present value of the energy savings benefits over the life of the measures, we needed an estimate of the life of the measures and an appropriate discount rate. PGW used a 15 year measure life for thermostat and education savings and a 25 year measure life for insulation, air sealing, and other measures. A discount rate of 5.9% was used to calculate present values.

B. Cost Effectiveness Results

The present value of the energy impacts were compared to the program costs and summarized as a benefit-cost ratio. A ratio greater than 1 indicates that the value of the quantified program impacts is greater than the costs. The main results of this analysis are shown in Table 13.

TABLE 13. COST BENEFIT ANALYSIS

	Overall	ECA	HDMC
Aggregate:			
Utility Savings (pv avoided costs)	\$2,582,686	\$1,300,035	\$1,282,652
Utility Cost	\$2,039,267	\$1,019,567	\$1,019,700
Net Utility Benefit	\$563,419	\$290,468	\$272,952
Benefit/Cost Ratio	1.27	1.28	1.26
Per Participant:			
Utility Savings (pv avoided costs)	\$632	\$640	\$624
Utility Cost	\$499	\$502	\$496
Net Utility Benefit	\$133	\$138	\$128
"Old" Approach: shorter measure life, savings degrade, demand and payment benefits			
Benefit/Cost Ratio	0.98	0.94	1.01

The table shows that the program was cost-effective from a utility perspective with benefits exceeding costs by 28%. The two contractors achieved comparable levels of cost effectiveness. The table also shows the results from one scenario calculated using the old approach. In that approach, savings from "hardware" measures (e.g., insulation, air sealing) were assumed to last 15 years degrading by 5% per year, while education and thermostat savings were assumed to last 7 years degrading by 10% per year. Another difference is that the old approach included values for gas demand savings and payment impacts. The net effect of these differences is a marginally not cost-effective program. In comparison to prior years, ECA's work became less cost-effective while HDMC's became substantially more cost-effective.

In any analysis, the program would appear more cost-effective if one included the value of other program benefits such as impacts on the environment, the local economy, and participant electricity usage.

Cost-Effectiveness of Program Measures

Table 14 summarizes the cost-effectiveness of specific measures based on the measure savings estimates and costs. For HDMC, all three major measures were cost effective with roof insulation providing the largest net benefits. For ECA, thermostats were very cost effective while roof insulation apparently was not cost-effective. ECA's air sealing results are suspect because few cases received this measure and the savings estimate is largely representative of HDMC's work.

TABLE 14. ESTIMATED COST-EFFECTIVENESS OF SELECTED MEASURES

Measure	Gas Savings	Measure Life	Savings (p.v.)	Cost	B/C Ratio
ECA					
Roof Insulation	62	25	\$346	\$618	0.56
Thermostat	82	15	\$347	\$65	5.33
Air Sealing	65	25	\$362	\$146	2.48
Core Treatment, Education, & Other	45	15	\$190	\$248	0.77
HDMC					
Roof Insulation	184	25	\$1,026	\$650	1.58
Thermostat	27	15	\$114	\$57	2.00
Air Sealing	65	25	\$362	\$217	1.67
Core Treatment, Education, & Other	51	15	\$216	\$242	0.89

C. Comparison to Other Low Income Weatherization Programs

In addition to cost-effectiveness, CWP can be assessed in terms of its performance relative to itself in prior years and relative to similar programs operated elsewhere. A review of several other low-income weatherization studies, summarized in Table 15 indicates that CWP compares quite favorably.

TABLE 15. CWP YEAR 10 COMPARED TO EARLIER YEARS AND OTHER PROGRAMS

Program	# units	Savings (ccf/yr)	Cost (\$/unit)	\$ Cost per ccf/yr saved	% Savings
CWP PY 10:					
Net Analysis: CWP PY 10 – ECA	1364	137	\$523	3.82	11.3%
Net Analysis: CWP PY 10 – HDMC	1456	122	\$515	4.22	8.6%
CWP PY 9:					
Net Analysis: CWP PY 9 – ECA	1160	167	\$499	2.99	10.0%
Net Analysis: CWP PY 9 – HDMC	1261	102	\$555	5.44	6.5%
CWP Prior Years:					
Net Analysis: CWP PY 7 – ECA	79	187	\$530	2.83	10.1%
Net Analysis: CWP PY 7 – HDMC	58	131	\$423	3.23	10.7%
CWP PY 5 Gross	446	359	\$1218	3.39	18.8%
CWP PY 5 Net (unusual comparison group)	446	122	\$1218	9.98	6.4%
CWP PY 4		216	\$1266	5.86	12.4%
Other Programs:					
Columbia Gas (PA) – LIURP 1995	269	524	\$3164	6.04	28.3%
Minnesota M200 Pilot 1988	128	243	\$1571	6.47	17.7%
Louisville Gas & Electric 1995	457	186	\$1355	7.28	12.3%
Ohio HWAP 1994 – single family	2209	324	\$2375	7.33	23.2%
Ohio HWAP 1989 – s.f. site built	660	296	\$2329	7.87	18.9%
Nebraska WAP 1994	37	250	\$2105	8.42	22.8%
National WAP 1989 - mod. climate	4796	182	\$1550	8.52	12.4%
Iowa WAP 1993	637	242	\$2119	8.76	17.9%
Vermont WAP 1993/4	66	245	\$2467	10.07	20.0%
Note: Most WAP programs do not report all costs, particularly State office costs or training costs (except Vermont and Ohio). Costs of other programs have not been adjusted for inflation. National WAP study sample size is entire nation, not just moderate climate zone, but the savings listed are for moderate climate zone.					

CWP continues to produce more first year savings per dollar spent than any other program examined. However, this comparison may not be entirely fair since most of the other programs are higher cost full treatment efforts with major measures that are expected to last 20 years. Most of the other programs are government-funded and are not allowed to target high users to the same extent as CWP and also expend considerable program resources addressing health and safety problems (replacing heating systems with cracked heat exchangers, etc.). CWP addresses such problems through referrals to government-funded programs. Nevertheless, the CWP results are quite impressive.

D. Other Program Impacts

Beyond the impacts included in the cost-effectiveness analysis, CWP may provide other benefits to the participants, utilities, ratepayers, and society at large. The following list briefly mentions some of these

potential benefits of effective weatherization programs which have been cited, and occasionally quantified, in other studies⁵:

- electricity savings in gas heated houses due to reduced furnace run time and reduced air conditioning loads from attic insulation and air sealing work (approximately 150 kWh/yr would be a reasonable guess for CWP's impacts, saving participants about \$20/yr);
- water savings from leak repair work (savings averaging 6% of water use worth \$18/yr were found from CWP work in a study of ECA's TEAM REACH project);
- reduced emission of pollutants such as SO_x, NO_x, and greenhouse gases due to reduced burning of gas;
- local employment and other economic benefits due to the greater labor intensity of energy efficiency compared to energy supply;
- preservation and improvement of the low-income housing stock;
- reduced risk of fires precipitated by lack of utility service (from use of space heaters, unconventional heating sources, candles) or caused by unsafe heating and water heating equipment;
- reduced risk of illness or death caused by faulty combustion equipment or lack of heat, particularly for the most susceptible groups such as seniors, small children, and people with existing illnesses or disabilities;
- reduced social costs associated with low income households living without utility service such as: temporary moves and overcrowding, potential homelessness, and time spent by client and/or social service agencies getting service restored;
- improved comfort for participants, expanded usable living space, and associated health benefits (although the thermostat-related complaints reported by PGW imply that this program may not be improving participant comfort);
- reduced gas emergency service calls due to safety checks; and,
- reduced potential for gas explosions due to safety problems.

This list of potential benefits is undoubtedly incomplete but captures some of the factors which may otherwise be neglected when assessing program value. The existence of these benefits from CWP is unknown and remains unquantified. Some of these benefits may not be applicable to the low cost approach employed in CWP's design. However, some of these benefits (e.g., electric, water, environmental, economic) undoubtedly exist and their exclusion from the cost-effectiveness analysis values them at zero, by default. This fact should be considered when examining cost-benefit results.

⁵ For an overview of many of these issues and studies, see *Finding Methods to Estimate Social Benefits of Low-Income Energy Efficiency Programs*, L.M. Megdal and M. Piper, in proceedings of 1994 ACEEE Summer Study on Energy Efficiency in Buildings, pp. 1.119-1.131, ACEEE, 1994

V. CONCLUSIONS AND RECOMMENDATIONS

In Program Year 10, CWP continued to produce solid energy savings given its very modest cost. Both contractors' work was hampered by a significant delay in receiving customer recruitment lists from PGW. This delay led ECA to essentially stop targeting high use customers, creating a sharp drop in the cost-effectiveness of their work. HDMC managed to maintain some level of targeting and made significant strides in improving energy savings and cost effectiveness compared to prior years. Both contractors are producing more savings than in prior years for houses at any given level of pre-treatment usage. These findings underscore the critical role that targeting high use households plays in CWP's cost-effectiveness. Since targeting by both contractors resumed in PY 11, one could expect savings and cost-effectiveness to improve dramatically.

In addition to the targeting issue, CWP still faces the issue of what level of treatments to provide. Unlike most weatherization programs, CWP's cost-effectiveness does not suffer much from resources wasted on unnecessary work. Instead, the larger issue for CWP is whether worthwhile savings opportunities are being missed by the minimal levels of treatment provided to most houses. Program energy savings only reduce participants' usage by about 10% on average. The vast majority of houses treated by ECA do not receive any major building shell measures such as insulation or air sealing. The decision process used to select insulation and air sealing work by both contractors should be reviewed. Although the program may be cost-effective, if major measures are not provided to most houses, there is little chance of having a major impact on gas usage.

In terms of program treatments, ECA's insulation work does not appear to be producing savings near expectations. Quality control procedures should be reviewed and approaches developed to improve the savings from this key measure. Insulation and air sealing work by HDMC are producing solid savings that are fairly close to expectations, but may still have room for improvement. ECA performed virtually no air sealing and therefore the savings from that work are difficult to estimate and largely immaterial. ECA continues to produce excellent savings from thermostats. These savings declined somewhat from previous years, most likely due to the lower pre-treatment usage of participants. HDMC appears to be achieving better savings from core treatments than in the past, actually slightly larger than ECA.

VI. STUDY LIMITATIONS

This evaluation, like virtually all weatherization program evaluations, was designed to estimate the impacts of an on-going program, not an experimental pilot. The lack of a true experimental design – random assignment of treatments to cases – coupled with the shifting nature of the program design and targeting, the changing environment in which the participants and program operates, and the typically non-random pattern of sample attrition, create the potential for biased results. We have attempted to assess these potential biases and control for them in several ways. The following caveats should be considered in interpreting the study results.

Gas Savings

The net gas savings results are believed to be fairly reliable indicators of the savings achieved by the program and the relative performance of the contractors. The analysis of patterns in savings including estimates of measure-specific savings are believed to be useful indicators of factors associated with savings, but have considerable uncertainty, particularly for values based on smaller samples. Specifically, the estimate for ECA's air sealing savings is not considered reliable. In addition, the analysis groups had a high variability in usage which may have led to some anomalous results and inconsistent patterns. In addition, savings results may have been slightly affected by supplemental heat usage and undetected participation in other housing or energy programs.

Cost Effectiveness

The reliability of the assumptions underscoring the cost effectiveness analysis should be reviewed. Measure lifetime assumptions have increased compared to prior years (but are more consistent with typical practice) and savings are now assumed to persist (unlike the degradation assumed in prior years). In addition, no benefits are counted for demand reductions or payment behavior improvements. It may be worth pursuing evaluation research to help assess these assumptions. In addition, the potential value of other non-energy benefits from the program may also be worth considering to get a full picture of program cost-effectiveness.

Overall

Although some of the specific findings have considerable uncertainty for the reasons described above, the major findings of this study and overall program cost-effectiveness estimates are unlikely to be affected materially by any of these issues, except perhaps the valuation of other non-energy benefits. The main energy savings figures are reasonably reliable and the impact of the potential biases identified are expected to be fairly small, particularly with regard to the overall cost benefit analysis results.

APPENDIX

Gas Savings and Usage: Detail Statistics

The following tables provide more detailed statistical information about gas savings and usage for many of the key break-out groups in the analysis. Each row of each table identifies the specific group of interest, the number of cases in the group (N), the average (mean) of the variable of interest (savings or pre-use), the standard deviation, the 90% confidence interval on the mean, and the following points of the distribution: minimum, 10th percentile, 25th percentile, 50th percentile (the median), 75th percentile, 90th percentile, and maximum value. The mean values are the source for many of the tables in the main body of the report.

TABLE 16. GAS SAVINGS DETAILS

Category	Level	Contractor	N	Mean	StdDev	+/-90%ci	Min	10%	25%	Median	75%	90%	Max
AJL		HDMC	1456	104	233	10 -957	-136	-24	84	205	387	1462	
All		ECA	1364	105	180	8 -567	-92	0	84	193	330	1297	
Comparison Group	unweighted		1117	5	223	11 -1297	-245	-104	14	124	247	849	
Pre-Use: Bins 200	<1000	HDMC	283	19	131	13 -508	-149	-51	35	99	167	325	
	1000'1200	HDMC	303	49	150	14 -548	-131	-33	48	147	224	629	
	1200'1400	HDMC	254	93	173	18 -629	-113	-4	93	198	318	536	
	1400'1600	HDMC	198	115	231	27 -957	-206	-4	133	251	421	591	
	1600'1800	HDMC	143	135	243	34 -601	-123	-9	111	305	422	826	
	1800'2000	HDMC	92	171	251	43 -396	-147	10	163	337	504	999	
	2000'2200	HDMC	51	278	294	69 -542	-91	109	286	488	638	795	
	2200'2400	HDMC	42	201	320	83 -391	-198	-71	196	465	608	821	
	>=2400	HDMC	90	308	445	78 -725	-187	26	246	499	1003	1462	
	<1000	ECA	452	50	108	8 -337	-97	-8	56	115	176	404	
	1000'1200	ECA	349	91	154	14 -567	-85	-3	89	181	274	664	
	1200'1400	ECA	237	103	173	19 -567	-92	-5	95	213	327	549	
	1400'1600	ECA	127	154	186	27 -213	-97	35	126	272	393	625	
	1600'1800	ECA	80	173	204	38 -345	-57	34	152	351	419	681	
	1800'2000	ECA	51	185	238	56 -303	-101	0	200	333	418	872	
	2000'2200	ECA	22	303	214	79 -253	56	236	335	415	524	687	
	2200'2400	ECA	11	177	306	167 -443	-294	-9	301	370	422	520	
	>=2400	ECA	35	383	394	113 -356	-127	-19	415	722	828	1297	
Pre-Use: Bins 600	<1200	HDMC	586	34	142	10 -548	-139	-42	39	120	204	629	
	1200'1800	HDMC	595	110	212	14 -957	-125	-4	106	220	386	826	
	>=1800	HDMC	275	240	346	34 -725	-164	17	216	428	703	1462	
	<1200	ECA	801	67	131	8 -567	-91	-5	67	141	223	664	
	1200'1800	ECA	444	130	185	14 -567	-83	8	112	250	378	681	
	>=1800	ECA	119	264	304	46 -443	-113	23	301	418	687	1297	
House Counts	2 story 2 bedroom	HDMC	181	66	177	22 -396	-149	-36	57	162	298	669	
	2 story 3 bedroom	HDMC	887	110	228	13 -957	-116	-13	87	203	371	1462	
	2 story 4+ bedroom	HDMC	106	88	220	35 -500	-195	-76	76	239	410	532	
	3 story 4 bedroom	HDMC	30	147	166	52 -85	-5	23	101	216	375	565	
	3 story 5+ bedroom	HDMC	79	157	311	58 -391	-218	-62	109	326	618	1313	
	2 story 2 bedroom	ECA	214	75	142	16 -567	-54	3	69	141	242	771	
	2 story 3 bedroom	ECA	778	105	173	10 -567	-101	-2	85	199	333	817	
	2 story 4+ bedroom	ECA	89	148	218	38 -443	-90	29	127	250	460	1028	
	3 story 4 bedroom	ECA	39	111	229	62 -347	-143	-36	86	234	427	828	
	3 story 5+ bedroom	ECA	32	225	329	98 -169	-94	-5	147	375	559	1297	
House Stories	2 story	HDMC	1216	102	221	10 -957	-131	-23	83	200	371	1462	
	3 story	HDMC	159	144	301	40 -725	-164	-6	109	295	529	1313	
	2 story	ECA	1155	102	172	8 -567	-90	2	84	188	328	1028	
	3 story	ECA	132	133	250	36 -347	-125	-34	88	247	422	1297	
Neighborhood	North	HDMC	432	104	237	19 -725	-133	-19	81	212	365	1462	
	NorthWest	HDMC	145	123	243	33 -601	-125	-31	110	251	415	1033	
	Oincy	HDMC	69	107	248	50 -438	-133	-27	86	219	370	1313	

	South	HDMC	170	65	179	23	-629	-131	-18	61	152	276	826
	SouthWest	HDMC	25	173	299	102	-218	-153	-9	98	239	731	765
	West	HDMC	375	117	251	21	-957	-152	-25	93	237	410	1231
	River	HDMC	196	107	214	25	-542	-125	-9	95	196	378	1065
	Other	HDMC	44	31	192	49	-458	-155	-76	27	115	232	553
	North	ECA	314	114	200	19	-567	-74	-1	77	213	357	1297
	NorthWest	ECA	126	117	174	26	-443	-78	15	108	194	340	771
	Olney	ECA	101	111	183	30	-253	-119	4	73	213	355	575
	South	ECA	182	92	127	16	-220	-47	19	83	152	240	817
	SouthWest	ECA	71	103	185	37	-394	-127	-5	103	243	318	681
	West	ECA	323	114	194	18	-567	-83	-2	87	216	370	872
	River	ECA	170	83	175	22	-345	-140	-30	80	176	310	687
	Other	ECA	77	88	157	30	-376	-88	-11	82	160	310	625
Insulation	Not Insulated	HDMC	1292	80	214	10	-957	-146	-30	71	174	314	1462
	Insulated	HDMC	164	295	286	37	-438	-32	115	303	448	616	1269
	Not Insulated	ECA	1044	90	177	9	-567	-107	-8	73	168	301	1297
	Insulated	ECA	320	154	184	17	-310	-54	26	130	269	399	817
Thermostat	No Tstat	HDMC	681	81	235	15	-614	-164	-40	56	173	355	1462
	Tstat	HDMC	775	125	230	14	-957	-109	-5	107	223	400	1269
	No Tstat	ECA	421	49	159	13	-567	-134	-32	40	128	211	1297
	Tstat	ECA	943	130	184	10	-567	-66	23	104	233	359	1028
Air Sealing	Not Air Sealed	HDMC	773	53	199	12	-957	-155	-40	47	145	255	1033
	Air Sealed	HDMC	683	162	255	16	-629	-121	6	134	290	451	1462
	Not Air Sealed	ECA	1322	104	179	8	-567	-92	0	84	189	330	1297
	Air Sealed	ECA	42	139	224	58	-345	-65	-19	100	295	393	843
Treatments	No Major	HDMC	424	36	187	15	-614	-164	-52	25	125	235	890
	Tstat Only	HDMC	332	68	205	19	-957	-133	-30	71	159	267	1033
	Seal Only	HDMC	191	120	271	32	-542	-162	-47	98	229	404	1462
	Tstat & Seal	HDMC	345	123	207	18	-629	-90	1	111	217	377	1113
	Insul Only	HDMC	9	109	238	148	-207	-207	-12	101	223	488	488
	Insul & Tstat	HDMC	8	252	323	216	-438	-438	147	311	492	553	553
	Insul & Seal	HDMC	57	273	306	68	-291	-48	51	284	438	606	1231
	Insul & Seal & Tstat	HDMC	90	331	269	47	-410	20	174	342	459	702	1269
	No Major	ECA	324	41	155	14	-567	-136	-31	37	111	183	1297
	Tstat Only	ECA	689	112	179	11	-567	-85	12	89	199	330	1028
	Seal Only	ECA	13	67	271	134	-345	-135	-50	-19	148	559	585
	Tstat & Seal	ECA	18	170	215	88	-65	-52	55	113	234	393	843
	Insul Only	ECA	83	74	152	28	-310	-110	-25	56	193	286	435
	Insul & Tstat	ECA	226	182	187	21	-285	-34	54	152	311	432	817
Insul & Seal	ECA	1	236			236	236	236	236	236	236	236	
Insul & Seal & Tstat	ECA	10	166	179	104	-195	-95	45	245	314	327	340	

TABLE 17. PRE-TREATMENT GAS USAGE DETAILS

Category	Level	Contractor	N	Mean	StdDev	-10%	0%	10%	25%	Median	75%	90%	Max
All		HDMC	1364	1213	442	20	450	769	942	1126	1378	1747	4334
All		ECA	1456	1424	552	24	328	862	1068	1301	1662	2126	5124
Comparison Group	unweighted		1117	1735	571	28	580	1137	1344	1608	2033	2473	4351
House Size	2 story 2 bedroom	HDMC	181	1122	413	51	328	714	851	1034	1286	1688	2989
	2 story 3 bedroom	HDMC	887	1366	413	23	499	906	1107	1293	1574	1889	3477
	2 story 4+ bedroom	HDMC	106	1676	408	66	893	1240	1419	1615	1863	2242	2946
	3 story 4 bedroom	HDMC	30	1822	600	186	895	1019	1375	1756	2277	2787	2998
	3 story 5+ bedroom	HDMC	79	2348	757	142	1116	1518	1838	2296	2666	3466	5124
	2 story 2 bedroom	ECA	214	995	262	30	491	686	819	958	1114	1290	2682
	2 story 3 bedroom	ECA	778	1178	333	20	450	831	960	1124	1310	1613	2782
	2 story 4+ bedroom	ECA	89	1577	417	73	676	1171	1323	1489	1761	2035	2957
	3 story 4 bedroom	ECA	39	1679	532	144	1003	1247	1381	1549	1705	2420	3965
	3 story 5+ bedroom	ECA	32	2068	708	212	728	1277	1662	1969	2376	3067	4334
House Stories	2 story	HDMC	1216	1351	436	21	328	862	1057	1282	1588	1911	3477
	3 story	HDMC	159	2115	810	106	629	1126	1502	1997	2597	3057	5124
	2 story	ECA	1155	1183	375	18	450	788	947	1115	1333	1655	3759
	3 story	ECA	132	1644	643	93	654	960	1226	1540	1908	2420	4334
Neighborhood	North	HDMC	432	1502	592	47	547	911	1067	1376	1784	2268	4503
	NorthWest	HDMC	145	1426	463	64	618	895	1147	1357	1617	2039	2963
	Olney	HDMC	69	1380	607	122	593	816	1112	1250	1503	1979	5124
	South	HDMC	170	1285	545	69	516	770	926	1141	1489	1963	3753
	SouthWest	HDMC	25	1336	588	201	328	704	965	1188	1540	2126	2824
	West	HDMC	375	1531	539	46	411	998	1167	1414	1727	2315	3795
	River	HDMC	196	1209	398	47	489	762	945	1152	1384	1694	2666
	Other	HDMC	44	1335	645	163	522	649	856	1296	1639	1797	3941
	North	ECA	314	1284	495	46	450	852	968	1166	1452	1820	3965
	NorthWest	ECA	126	1209	381	56	491	856	959	1090	1348	1810	2682
Olney	ECA	101	1224	402	66	606	780	908	1195	1387	1742	2749	

	South	ECA	182	1106	417	51	544	690	864	1046	1231	1542	4334
	SouthWest	ECA	71	1178	322	64	654	825	1006	1129	1337	1520	2449
	West	ECA	323	1291	486	45	473	790	1005	1193	1484	1859	3759
	River	ECA	170	1127	334	42	533	719	900	1084	1323	1618	2299
	Other	ECA	77	1069	411	78	540	673	799	962	1222	1602	2718
Insulation	Not Insulated	HDMC	1292	1385	554	25	328	851	1030	1254	1603	2081	5124
	Insulated	HDMC	164	1728	428	55	929	1258	1415	1667	1966	2326	3020
	Not Insulated	ECA	1044	1203	442	23	473	744	921	1113	1375	1740	3965
	Insulated	ECA	320	1247	440	41	450	855	978	1153	1381	1766	4334
Thermostat	No Tstat	HDMC	681	1451	592	37	411	895	1068	1311	1690	2210	5124
	Tstat	HDMC	775	1399	513	30	328	851	1071	1295	1639	2097	4194
	No Tstat	ECA	421	1202	426	34	584	804	950	1119	1357	1670	4334
	Tstat	ECA	943	1218	449	24	450	752	936	1129	1395	1769	3965
Air Sealing	Not Air Sealed	HDMC	773	1326	584	35	328	771	924	1174	1575	2115	4503
	Air Sealed	HDMC	683	1534	490	31	681	1076	1199	1423	1747	2129	5124
	Not Air Sealed	ECA	1322	1209	441	20	450	766	938	1122	1373	1736	4334
	Air Sealed	ECA	42	1336	456	118	633	882	1059	1224	1530	1845	3137
Treatments	No Major	HDMC	424	1363	592	47	411	803	981	1201	1578	2134	4503
	Tstat Only	HDMC	332	1256	573	52	328	736	862	1107	1495	1974	4194
	Seal Only	HDMC	191	1550	596	71	681	1022	1167	1392	1727	2274	5124
	Tstat & Seal	HDMC	345	1444	416	37	745	1055	1169	1345	1614	1998	3941
	Insul Only	HDMC	9	1721	302	187	1254	1254	1530	1668	1939	2159	2159
	Insul & Tstat	HDMC	8	1772	325	218	1300	1300	1533	1769	1994	2280	2280
	Insul & Seal	HDMC	57	1732	454	101	929	1225	1419	1703	1967	2435	2969
	Insul & Seal & Tstat	HDMC	90	1723	434	76	1047	1259	1377	1637	1956	2358	3020
	No Major	ECA	324	1191	409	38	584	774	938	1108	1355	1670	3177
	Tstat Only	ECA	689	1203	455	29	473	728	915	1111	1372	1766	3965
	Seal Only	ECA	13	1398	413	204	819	882	1125	1330	1662	1972	2173
	Tstat & Seal	ECA	18	1291	532	218	769	877	1007	1184	1416	1807	3137
	Insul Only	ECA	83	1202	480	88	625	890	974	1093	1284	1528	4334
	Insul & Tstat	ECA	226	1259	427	47	450	849	977	1173	1416	1769	3759
	Insul & Seal	ECA	1	2007			2007	2007	2007	2007	2007	2007	2007
	Insul & Seal & Tstat	ECA	10	1267	348	202	633	882	1148	1203	1316	1827	1845

TABLE 18. COMPARISON GROUP WEIGHTED SAVINGS ANALYSIS

Usage Level	Proportion of Houses			Comparison Group Savings		
	Compare	ECA	HDMC	Raw	Weighted ECA	Weighted HDMC
<900	2%	21%	13%	-30	-6	-4
900/1200	11%	38%	28%	-65	-25	-18
1200/1500	28%	22%	25%	-24	-5	-6
1500/1800	22%	10%	15%	-2	0	0
>=1800	37%	9%	19%	55	5	10
Total	100%	100%	100%	5	-32	-18

Notes: "Weighted" columns are calculated as comparison group raw ccf savings for usage bin multiplied by proportion of houses in that usage bin for the contractor. The sum of the resulting weighted savings values across bins provides the overall weighted estimate of comparison group savings for that contractor

Exhibit SCD/CC-4

C. Coltro

Exhibit CC-4

Gil Peach's Universal
Services Evaluation:

The Senior Citizen Discount
Program

Philadelphia Gas Works Universal Service Programs: The Senior Citizen Discount

Prepared for:

Cristina Coltro
Manager, Energy Assistance Program
Customer Affairs
Philadelphia Gas Works
800 W. Montgomery Avenue
Philadelphia, Pennsylvania 19122

Prepared by:

H. Gil Peach, PhD. H. Gil Peach & Associates, LLC
Howard Reichmuth, PE
Gunilla Eitrem, M.S., ÅF Energiekonsult AB
Anne West, B.S., West and Company Research, LLC

CONFIDENTIAL DRAFT

March 20, 2002

H. Gil Peach & Associates, LLC/Scan America®
16232 NW Oak Hills Drive
Beaverton, Oregon 97006-5242

Scan America® Vision Statement

To be a world leader in developing truthful measurement and useful results; to support development of efficient, ethical, and effective practices, sustained economically, to advance human development.

Scan America® Goals Statement

- Excellence in the integration of knowledge, method, and practice
- Improvement and learning at all levels
- Contextually sound measurement, analysis, and reporting
- Anticipate and meet the needs of our clients
- Awareness of human relevance and of the ethical core of research
- To go further, to find better ways

Scan America® Mission Statement

With extensive experience in North America, Europe, and Asia, together we can provide the full range of management, planning, and evaluation services – wherever and whenever there is a need.

Scan America® Website

www.scanamerica.net

Scan America®

H. Gil Peach & Associates
16232 NW Oak Hills Drive
Beaverton, Oregon 97006-5242, USA
Telephone: (503) 645-0716
Fax: (800) 204-3803

H. Gil Peach, Ph.D.
hgilpeach@scanamerica.net

Scanada Consultants Ltd.
1446 Birchwood Drive
Mississauga, Ontario L5J 1T2, Canada
Telephone: (905) 403-9835

C. Eric Bonnyman, M.Sc.
scanada@sypatico.net

ÅF Energiekonsult AB
Division Head, Energy & Environment
Box 8133
SE-104 20 Stockholm, Sweden
Telephone: +46-8 657 13 89

Agneta Persson, M.Sc.
agneta.persson@af.se

*Philadelphia Gas Works Universal Service
Programs: The Senior Citizen Discount*

CONTENTS

<u>I.</u>	<u>Executive Summary</u>	1
A.	<u>Background to the Program</u>	1
B.	<u>Options Considered</u>	2
C.	<u>Findings</u>	2
D.	<u>Recommendation</u>	2
<u>II.</u>	<u>The Senior Citizen Rate: A Time to Develop Options</u>	3
A.	<u>The Senior Citizen Program</u>	3
B.	<u>Initial Authorization</u>	3
C.	<u>Need for Recommendation</u>	6
<u>III.</u>	<u>The Demographic Issue</u>	6
A.	<u>The Boomer Bulge</u>	6
B.	<u>The Life Span Trend</u>	7
C.	<u>The Shrinking City</u>	8
D.	<u>The Tide of Globalization</u>	8
E.	<u>Analysis</u>	10
<u>IV.</u>	<u>The Audit Issue</u>	12
A.	<u>The Audit Recommendation</u>	12
B.	<u>The PGW Response</u>	13
C.	<u>Commission Direction</u>	13
D.	<u>Reasons & Grounds Supporting Audit Recommendation</u>	14
E.	<u>Analysis of Audit Reasons and Grounds</u>	14
<u>V.</u>	<u>The Public Utility Commission Reasonableness Issue</u>	17
<u>VI.</u>	<u>The Issue of Differential Life Expectancy</u>	18
<u>VII.</u>	<u>OPTION 1: Continue the Senior Citizens Program "As Is"</u>	19
A.	<u>General Aspects</u>	19
B.	<u>Advantages</u>	19
C.	<u>Disadvantages</u>	20
D.	<u>Cost Bin Profile</u>	20
<u>VIII.</u>	<u>Option 2: Implement A Means Tested Program</u>	21
A.	<u>General Aspects</u>	21

B.	<u>Advantages</u>	21
C.	<u>Disadvantages</u>	21
D.	<u>Cost Bin Profile</u>	22
IX.	<u>Option 3, Phase Out of The Senior Citizen Program</u>	24
A.	<u>General Aspects</u>	24
B.	<u>Advantages</u>	25
C.	<u>Disadvantages</u>	25
D.	<u>Cost Bin Profile</u>	25
X.	<u>Comparisons</u>	26
XI.	<u>Final Comments & Recommendations</u>	28

FIGURES

<u>Figure 1: City Grants Authority for Senior Citizen Rate</u>	4
<u>Figure 2: Senior Citizen Discount (from PGW Website)</u>	5
<u>Figure 3: PGW Customer Brochure</u>	5
<u>Figure 4: State Grants Authority for Continuation of Program for Current Participants</u>	5
<u>Figure 5: State Reserves Power to Provide Program for New Participants</u>	6
<u>Figure 6: Philadelphia Age Composition 1990 - 2020</u>	11
<u>Figure 7: Calculation of 65+ as Percent of Total Philadelphia Population</u>	11
<u>Figure 8: Best Philadelphia Projections</u>	12
<u>Figure 9: Text of Audit Recommendation to Eliminate Senior Program</u>	13
<u>Figure 10: Rejection of Audit Recommendation VIII-16</u>	13
<u>Figure 11: Directive to Prepare Options</u>	13
<u>Figure 12: The Principle of Reasonableness</u>	17
<u>Figure 13: Universal Service Defined in Terms of Economic Need or Emergency</u>	18
<u>Figure 14: Option 1. Continue "As Is" for Current and New Participants</u>	21
<u>Figure 15: Option 2a -- Means Test at 100% FPL for All Participants</u>	22
<u>Figure 16: Option 2b -- Means Test at 150% FPL for All Participants</u>	23
<u>Figure 17: Option 2c -- Means Test at 200% FPL All Participants</u>	23
<u>Figure 18: Option 2d -- Means Test at Median Income for All Participants</u>	23
<u>Figure 19: Option 4a -- Means Test at 100% FPL for New Participants</u>	23
<u>Figure 20: Option 4b -- Means Test at 150% FPL for New Participants</u>	24
<u>Figure 21: Option 4c -- Means Test at 200% FPL for New Participants</u>	24
<u>Figure 22: Option 4d -- Means Test at Median Income for New Participants</u>	24
<u>Figure 23: Option 3: Slow Phase Out using Mortality (Grandfather as of Effective Date of Order)</u>	26
<u>Figure 24: Option 3b - Five Year Phase Out</u>	26
<u>Figure 25: Number of Participants Comparison</u>	26
<u>Figure 26: Rate Impact Comparison</u>	27
<u>Figure 27: Annual Discount Comparison</u>	27

Philadelphia Gas Works Universal Service: The Senior Citizen Discount

I. EXECUTIVE SUMMARY

This report is limited to analysis of the Philadelphia Gas Works (PGW) Senior Citizen Discount. Why a study of the Senior Citizen Discount? There are at least four primary reasons why a brief but focused report is timely. (1) Under provisions of the Natural Gas Choice and Competition Act, the City *must* secure approval of the Pennsylvania Public Utility Commission to continue or modify the Senior Citizen Program for *new* participants beyond the effective date of the final restructuring order. (2) Second, the "baby boomer" generation is approaching age 65 and other concerns have been raised regarding the changing age composition of the City. These concerns require review in the light of demographic projections. (3) Third, there are serious equity concerns regarding the Senior Citizen Program. These concerns have to do both with the criterion of reasonableness, and with racial equity. (4) Fourth, there is an explicit recommendation from the Pennsylvania Public Utility Commission audit of the Philadelphia Gas Works to discontinue the Senior Citizen Discount and the Philadelphia Gas Works has been directed by the Pennsylvania Public Utility Commission to prepare options for the City to address (Figure 11).

A. Background to the Program

In 1972, the City of Philadelphia and the Philadelphia Facilities Management Corporation established a provision for a Senior Citizen Rate in the fundamental enabling agreement for the management and operation of the Philadelphia Gas Works. The Senior Citizens rate discount was approved on December 14, 1973 (Bill No. 1021) pursuant to an ordinance of the City Council. PGW's Senior Citizen program was instituted immediately following the passage of the bill. In general, the program offers a 20% discount for participants. Eligibility is established by application, and requires residence in the City, responsibility for direct payment for service in one's own name, and an age of 65 years or above.

Recovery of the cost of the discount is accomplished through the GCR and base rate.

In addition to the need to periodically review programs, this context for this analysis is set by two developments. First, population projections for the United States indicate a substantial growth in the proportion of the population aged 65 and older as the "baby boomer" generation becomes older. Second, a recommendation of a recent audit of the Philadelphia Gas Works for the Pennsylvania Public Utility Commission recommended elimination of the Senior Citizens Program and its replacement by a program based on economic need (a means tested program rather than a universal program approach).

B. Options Considered

This study contrasts three options:

- (1) Continue the Senior Citizens Program, "as is."
- (2) Continue, but modify the Senior Citizens Program by introducing a means test: (a) Means test old and new participants. (b) Means test only new participants, with current participants "grandfathered" under the initial program.
- (3) Phase out the program (continue old participants under the initial program, but do not accept new participants). This is the "default" option, the option that will occur if no action is taken.

Under the provisions of the Natural Gas Choice and Competition Act, authority for any program design that involves accepting new participants following the final order in the restructuring hearings resides in the Pennsylvania Public Utility Commission (Option 1; Option 2). The City, however, retains independent authority to continue the current program for *current* participants only (Option 3) or to modify the program, consistent with Commission standards and guidelines for current participants (Option 3).¹

C. Findings

Projection of City demographics, with correction for the 2000 Census results, indicates that the projected increase in the proportion of Senior Citizens in relation to the total population of the City will not occur until about 2015, so there is no immediate need to implement a program change. In addition, due to the demographic make-up of the City, the size of this increase is likely to be smaller and more manageable than for the US as a whole, the State of Pennsylvania, or the outer counties. Looking out to 2020, the changing age composition of the City is not a practical or cogent reason for changing the Senior Citizen Program.

However, on considerations of fairness, reasonableness, and practicality the continuation of the Senior Citizen Program would require means testing, for material reasons detailed in this study.

D. Recommendation

The recommendation of this study is for the Philadelphia Gas Works to present options to the City, and to sponsor the auditors' recommendation to eliminate the Senior Citizen Program and replace it by a program with means testing. Specifically, we recommend replacement for those in most economic need by the Customer Responsibility Program. Grounds for this recommendation are detailed throughout this report.

¹ The City may, for example, independently introduce a means test for *current* participants.

II. THE SENIOR CITIZEN RATE: A TIME TO DEVELOP OPTIONS

Provisions of the Natural Gas Choice and Competition Act require the City to secure the approval of the Pennsylvania Public Utility Commission to continue or modify the Senior Citizen Program for *new* participants. Further, the Pennsylvania Public Utility Commission has directed the Philadelphia Gas Works to prepare options for the City to address (Figure 11). The Philadelphia Gas Works will develop options. This study for the Philadelphia Gas Works by H. Gil Peach & Associates, LLC/Scan America® is in support of this process. Three options are developed:

- (1) Continue the Senior Citizens Program. "as is."
- (2) Continue, but modify the Senior Citizens Program by introducing a means test: (a) Means test old and new participants. (b) Means test only new participants, with current participants "grandfathered" under the initial program.
- (3) Phase out the program (continue old participants under the initial program, but do not accept new participants). This is the "default" option, the option that will occur if no action is taken.

Thus, it is necessary for the Philadelphia Gas Works to develop a recommendation for the future of the Senior Citizen Program, in concert with Pennsylvania Public Utility Commission policies and standards, and City policy. The "default option" is Option 3, the automatic phase out of the program.

A. The Senior Citizen Program

Although the program is referred to as a "senior citizens rate" in the grant of authority (Figure 1), it is now often referred to as the "senior citizens program" or the "senior citizen discount" in PGW customer communications. The current text from the PGW website listing for the program (Figure 2), and the current PGW brochure available from neighborhood service centers (Figure 3) refer to the program as the "senior citizen discount."²

B. Initial Authorization

In 1972, the City of Philadelphia and the Philadelphia Facilities Management Corporation established a provision for a Senior Citizen Rate in the fundamental enabling agreement for the management and operation of the Philadelphia Gas Works (Figure 1). The Senior Citizens rate discount was approved on December 14, 1973 (Bill No. 1021) pursuant to an ordinance of the

² The Mayor's Commission on Services to the Aging lists the program as "Energy Assistance" on its web page.

City Council. PGW's Senior Citizen program was instituted immediately following the passage of the bill. The program has been in effect for approximately thirty years.

Senior Citizen Rate

The Gas Commission is authorized to establish rates for gas users authorizing a reduction in gas rates, in the amount of 20% of charges for non-heating and heating purposes to his residence, for any individual 65 years of age or older, residing in the City of Philadelphia, who directly makes payment to the operator of the Gas Works for gas services at his residence. In order to qualify for any rate reduction a person must first apply to the Philadelphia Gas Works for a rate reduction at least thirty days before the next scheduled meter reading. The reduction shall then take effect at the start of the succeeding billing period.

Figure 1: City Grants Authority for Senior Citizen Rate.

When regulatory oversight of the Philadelphia Gas Works shifted from the City Gas Commission to the Pennsylvania Public Utility Commission, the Natural Gas Choice and Competition Act, explicit provision was made for current participants in the Senior Citizen Program to continue under the terms of the initial tariff (Figure 4). Continuation and modification of the program for current participants is thus completely within the authority of the City. In addition, the Natural Gas Choice and Competition Act provides that the Pennsylvania Public Utility Commission may approve a Senior Citizen Program for a City natural gas distribution operation, but that it is not required to do so for new participants (Figure 5).

20% Senior Citizen Discount

PGW's Senior Citizen Discount Rate is 20% for all residential customers or applicants who are age 65 or older. Income is not a factor in eligibility.

To qualify, applicants must:

- Provide legal proof of age and residence.
- Be the customer of record.
- Provide proof of Social Security Number.
- Apply for the discount at a PGW Customer Service Center

Figure 2: Senior Citizen Discount (from PGW Website).

enable PGW to quickly locate your account and verify that you are a customer of record

FIRST BILLING AT THE SENIOR CITIZEN DISCOUNT
At the time application is made, a PGW representative will explain the effective date of your Senior Citizen Discount which is based on your normal billing date

WHAT TO DO IF YOU MOVE TO ANOTHER ADDRESS
If you move to a new address, you don't have to lose your Senior Citizen Discount. However, you must apply in person at a PGW Neighborhood Office to continue to receive the Senior Citizen Discount. When you do apply, you'll need:

- a. Proof of residency at your new address
- b. Personal identification, such as driver's license, etc.

FOR FURTHER INFORMATION...
about eligibility or required proofs for this special rate, please call 215-1000 or write to PGW Customer Relations Department, Correspondence Section, P.O. Box 3500 Philadelphia PA 19122

PHILADELPHIA GAS WORKS 

Philadelphia Gas Works
CONSUMER INFORMATION

PGW'S SENIOR CITIZEN DISCOUNT

If you are a senior citizen and use natural gas in Philadelphia, you may be eligible for PGW's Senior Citizen Discount. Here's how to apply.

PGW'S SENIOR CITIZEN DISCOUNT

A discount of up to 20% of the monthly gas bill is available to qualified senior citizens

TO BE ELIGIBLE...
a PGW customer must:

- be 65 years of age or older;
- reside in the City of Philadelphia
- directly make payment to the Philadelphia Gas Works for gas service in his or her name

TO APPLY...
you must make application in person at a PGW Neighborhood Office, and take with you the following documents:

- Proof of age, such as:
 - a. Birth certificate
 - b. Baptismal certificate
 - c. Passport
 - d. Census Record
 - e. Other legal proof of age (Drivers licenses or other proofs of this nature are not acceptable. If you have no acceptable proof of age you could contact the Social and Economic Statistics Administration
- Proof of your residential address such as:
 - a. A deed
 - b. Tax receipts
 - c. A lease
 - d. A rent book
 - e. Other acceptable identification proving residential address
- Personal identification showing address, such as:
 - a. A driver's license
 - b. A voter's certificate of registration
 - c. A wage and tax statement issued by your employer (W2 form)
 - d. U.S. Information Return Form 1099 issued by banks and corporations showing interest and/or dividends
 - e. Other acceptable personal identification showing address
- Your Social Security card or another document showing your Social Security number, such as:
 - a. A W2 form or U.S. Information Return Form 1099 (see item directly above)
 - b. A U.S. Savings Bond issued after October 1, 1973
- Your most current gas bill. This will

CONTINUED ON NEXT PAGE

Figure 3: PGW Customer Brochure

Individual ratepayers who, as of the date of the initial tariff of a city natural gas distribution operation becomes effective pursuant to subsection (d), are properly receiving discounted gas rates pursuant to the terms of a program specifically designed to provide assistance to senior citizens contained in the prior tariff shall be entitled to continue to receive such discount under the terms of the prior tariff unless and until the program is modified by ordinance of the governing body of the city, in which event such individuals shall be entitled to receive only the discount provided under the terms of the modified program, as it may be further modified by ordinance from time to time thereafter.

Source: Natural Gas Choice and Competition Act, 66 Pa. C.S.A., §2212 City Natural Gas Distribution Operations, Part (r) Senior citizens, §2.

Figure 4: State Grants Authority for Continuation of Program for Current Participants.

(1) The commission may approve a program designed to provide discounted rates for natural gas distribution and supply services to senior citizens residing in the service territory of a city natural gas distribution operation provided that such rates and the terms of such program are just and reasonable.

(3) Nothing in this title shall require the commission to approve the continuation of the program identified in paragraph (2) in whole or part for any person other than an individual identified in paragraph (2).

Source: Natural Gas Choice and Competition Act, 66 Pa. C.S.A., §2212 City Natural Gas Distribution Operations, Part (r) Senior citizens. ¶1, ¶3.

Figure 5: State Reserves Power to Provide Program for New Participants.

C. Need for Recommendation

Thus, it is timely that the Philadelphia Gas Works consider a recommendation to the City, in concert with the policies and standards of the Pennsylvania Public Utility Commission, as to the constitution of the Senior Citizen Program. In summary, the City retains the authority to continue the current program (or to modify it) for current participants. However, continuation (or modification) of the Senior Citizen Program for new participants will require approval of the Pennsylvania Public Utility Commission.

This study develops information and recommendations for the Philadelphia Gas Works to consider in formulating a policy recommendation to the City and the State Commission.

III. THE DEMOGRAPHIC ISSUE

The demographic issue is, at root, an economic concern having to do with the age composition of the city. There are four trends that influence the proportion of persons 65+ in the City of Philadelphia. Two have to do with the increase in number and percentage of Senior Citizens: these are the "boomer bulge" and the long-term trend of gradual increase in life expectancy. The others are the trend for movement of population out of the City, and federal policy that supports globalization. All four, together, may influence the age composition of the City, over time.

A. The Boomer Bulge

First, there is the change in the age composition of the United States due to the post World War II baby boom. For the US, the demographic bulge of "baby boomers" will have a dramatic effect on the proportion of persons 65+. In 2010, boomers will be aged 46 to 64.³ Beginning in 2011, boomers will have a marked effect on the ratio of dependent elderly persons to persons of working age.⁴ A set of ratios, termed the "Support Ratios" or the "Dependency Ratios" indicate the relative burden of young and old persons on persons of working age. The "Youth Support Ratio" is projected by the US Bureau of the Census to be almost constant between 1990 (49.2) and 2050 (48.7). The "Elderly Support Ratio" is projected to increase from 21.3 in 1990 to 38.2 in 2050.⁵ However, this ratio somewhat understates the burden because it does not account for increasing intensity of support required as the "oldest old" portion of the Senior Citizen population increases.⁶

B. The Life Span Trend

There is a long-term trend of increasing life expectancy of "First World" populations. The boomer bulge is expected to arrive in the context of a general aging of the population, typical of nations having "first world" economies. For the United States, the percentage of persons 65+ was 4.1% in 1900, 8.1% in 1950, and 12.5% in 1990.⁷ The effect of the boomers, considered along with this background trend is a projected increase in this percentage for the US to 13.3% in 2010 and to 15.7% in 2020.⁸ For Pennsylvania, one of a few states with the largest percentage of Seniors, the percentage 65+ in 1980 was 12.9%. By 1990, the percentage had

³ U.S. Bureau of the Census, Current Population Reports, Special Studies, P23-190, *65+ in the United States*. Washington, D.C.: U.S. Government Printing Office, 1996, P. 2-7.

⁴ It is understood that the dependency ratios are inexact, and that, for example, many persons under the age of 20 or over the age of 65 are engaged in productive work in the economy. The ratios do, however, provide a fair approximation of the size of the change in dependency that may be expected.

⁵ *Ibid.*, Table 2-20, P. 2-23.

⁶ The US Bureau of the Census categorizes the Senior population as "Young Old" (65 to 74), "Aged" (75 to 84), and "Oldest Old" (85+). *Ibid.* P. 1-1.

⁷ *Ibid.*, Table 2.1, P. 2-3.

⁸ *Ibid.*, Table 5-3, P. 5-4.

increased to 15.3%.⁹ In 2000, the percentage was 15.6%.¹⁰ In 2010 it is projected to be 15.3% and in 2020, 18.2%.¹¹

C. The Shrinking City

A third trend that could influence the age composition of the City is Philadelphia's continuing loss of population. Philadelphia's population in 1980 was 1,688,210 and in 1990 the population was 1,585,577.¹² In 2000, the population was 1,517,550.¹³ The peak population in Philadelphia occurred in 1950.¹⁴ Putting the three trends together, it would be reasonable to assume that Philadelphia might be losing in terms of overall and working age population and gaining in Senior population. The Office of the City Controller has noted a loss in working age population as a "singular feature" of the recent past.¹⁵

D. The Tide of Globalization

The Office of the City Controller foresees diminished employment opportunities in Philadelphia relative to the US as a whole in coming years, and that this may have an effect on the age distribution of the City.¹⁶ To express this somewhat more directly than does the Office of the City Controller, Cities have "job structures" that can be considered as the set of jobs or

⁹ *Ibid.*, Table 5-3, P. 5-4.

¹⁰ U.S. Census Bureau, Quickfacts, 2000 Census, <http://quickfacts.census.gov/qfd/states/42/420101.html>. This 2000 Census figure of 15.6% is identical to the 15.6% projected in the tabled data projections in U.S. Bureau of the Census, Current Population Reports, Special Studies, P23-190, *65+ in the United States*, Washington, D.C.: U.S. Government Printing Office, 1996, Table 5-3, P. 5.4.

¹¹ U.S. Bureau of the Census, Current Population Reports, Special Studies, P23-190, *65+ in the United States*, Washington, D.C.: U.S. Government Printing Office, 1996, Table 5-3, P. 5.4

¹² U.S. Bureau of the Census, *County and City Data Book: 1994*, Washington, D.C.: U.S. Government Printing Office, 1994, Table C Cities – Area and Population, P. 806.

¹³ U.S. Bureau of the Census, State and County Quickfacts, Philadelphia County, Pennsylvania, <http://quickfacts.census.gov/qfd/states/42/42101.html>.

¹⁴ Ginsberg, Thomas, "Remaking Philadelphia: As Population Drops, Planners Think Small," Knight Ridder, *The Washington Post*, Sunday, February 4, 2001, P. A20.

¹⁵ Office of the City Controller, *Philadelphia: A New Urban Direction*, Philadelphia: Saint Joseph's University Press, 1999, P. 25.

¹⁶ *Ibid.*, P.25.

economic niches available to residents at any point in time.¹⁷ Over time, the composition of a City's job structure shifts. In many ways, due to changes in the national political economy - driven by globalization - Philadelphia is becoming a secondary city and its job structure is more and more that of a secondary city.

In theory, globalization eliminates barriers to the free movement of capital, enabling business to abandon higher labor cost and higher tax areas and shift production to lower cost areas anywhere in the world. On the plus side, the benefit is the potential for deflation of prices for all types of goods. This has been experienced over the last several years and is part of a structural deflation of the world economy. On the minus side, the price of globalization is a loss of jobs in advanced areas with high social overheads (such as Philadelphia). Also on the minus side is the weakening of social regulation, and a diminution in the potential for assessment of corporate contributions to common social overhead costs (such as funding City government and social programs). Globalization results in the centralization of capital. This occurs through associated systematic acquisitions and mergers - the concrete steps that centralize capital in the emerging new global economy. Thus, local and regional economic assets become owned by multi-state and multi-national enterprises headquartered in distant cities. Over time, this means the loss of executive level and higher level analytic jobs from cities that are becoming secondary (Philadelphia; Portland) or tertiary (Baltimore) to a decreasing number of primary cities (New York, Chicago, London).¹⁸ These changes *create* poverty,¹⁹ and more generally weaken the ability of most classes of labor in secondary cities to maintain income and quality of life expectations in the ways in which families have become accustomed. To the extent that employment opportunities in Philadelphia continue to diminish relative to opportunities in primary cities, younger workers may seek employment. At the same time, as local or regional corporations are purchased or merged into larger entities headquartered in distant cities, higher ranking jobs will disappear from Philadelphia and higher ranking workers may either be downsized or they may follow corporate promotional opportunities to headquarters cities. Such changes would tend to lower the working age population of Philadelphia relative to the proportion 65+.

¹⁷ Think of the job structure of the City at a particular point in time as if it were a listing from a staffing budget for a City agency or a corporation, with a line item for each position with certain positions filled and others unfilled and with turnover. For the job structure of a City, the main difference from an agency or a corporate structure is that the line items on the list are largely functions of socioeconomic forces and policy choices in the national political economy and the global political economy. The City is like a beach, the socioeconomic forces, such as those associated with globalization, are the ocean tides. Discussion of "Job Structure" and globalization follows from the work of economist David Gordon. Gordon, David M., *Fat and Mean, The Corporate Squeeze of Working Americans and the Myth of Managerial "Downsizing"*. New York: The Free Press, Martin Kessler Books, 1996. Gordon, David M., *Theories of Poverty and Underemployment*. Lexington, Massachusetts, Toronto, London: D.C. Heath and Company, 1972.

¹⁸ On the centralization of capital and implications for jobs, see Hymer, Stephen. *The Multinational Corporation*. Cambridge & New York: Cambridge University Press, 1979.

¹⁹ On the creation of poverty as an artifact of business and federal policy, see Goode, Judith and Jeff Maskovsky. *The New Poverty: Studies*. New York & London: New York University Press.

However, to anticipate the analysis below, with all of these real changes Philadelphia actually exhibits a relative balance compared to the US as a whole and in comparison to the State of Pennsylvania.

E. Analysis

The Pennsylvania Data Center is the repository of data used in official analysis within the State of Pennsylvania. The Center has prepared detailed projections of age composition of counties from 1990 to 2020 (Figure 6).²⁰ Using this data, the proportion of the Philadelphia population 65+ can be calculated (Figure 7). However, we use the 2000 Census result to modify the results of Figure 7. In Figure 8, the 2000 Census result replaces the estimate for the year 2000. Then each succeeding estimate is developed using the year on year ratio established in Figure 7, but applied to each new estimate generated in succession (Figure 8).

The results (Figure 8) show that the ability to carry the Senior Citizen Discount as measured by the proportion of the Philadelphia population 65+ actually eases slightly through 2015, and returns to the level of 1990 in 2020. Thus, the demographic relation for the City is in approximate balance until 2020, and does not represent a major change from the status quo in considering the near future plans for the Senior Citizen Program.

²⁰ Pennsylvania Data Center. *Detailed County Projections 1990 to 2020*. Middletown, Pennsylvania: August 1998. P. 176.

PHILADELPHIA COUNTY: PENN DATA CENTER						
Age Group	1990	2000	2005	2010	2015	2020
Total	1,579,583	1,511,074	1,491,116	1,473,330	1,460,800	1,451,337
0-4	118,907	113,998	106,783	104,462	107,065	110,534
5-9	103,054	119,346	107,972	101,285	99,165	101,673
10-14	99,457	103,161	113,495	102,868	96,626	94,645
15-19	107,051	102,582	109,983	120,139	109,715	103,560
20-24	135,815	109,846	106,984	114,442	124,909	114,040
25-29	141,773	98,860	98,660	95,899	102,613	112,130
30-34	133,440	106,241	89,850	89,787	87,317	93,367
35-39	114,911	109,828	97,183	82,449	82,457	80,202
40-44	98,054	108,916	103,319	91,670	77,953	77,995
45-49	77,783	99,946	103,812	98,502	87,526	74,553
50-54	68,769	86,524	94,553	98,198	93,159	82,880
55-59	68,353	68,503	82,009	89,636	93,098	88,353
60-64	73,692	58,824	62,975	75,409	82,405	85,619
65-69	74,604	54,478	52,388	56,221	67,329	73,615
70-74	62,474	54,010	46,334	44,737	48,096	57,650
75-79	49,090	49,055	43,294	37,356	36,210	39,049
80-84	30,169	35,178	35,916	31,932	27,674	26,972
85+	22,187	31,778	35,606	38,338	37,483	34,500

Source: The Pennsylvania State Data Center, *Detailed Population Projections: Pennsylvania 1990 to 2020*. Middletown, Pennsylvania: August 1998, P. 176.

Figure 6: Philadelphia Age Composition 1990 - 2020.

PHILADELPHIA COUNTY (CALCULATION TABLE) - USING PDC DATA						
Age Group	1990	2000	2005	2010	2015	2020
Total	1,579,583	1,511,074	1,491,116	1,473,330	1,460,800	1,451,337
65+	238,524	224,499	213,538	208,584	216,792	231,786
20-64	912,590	847,488	839,345	835,992	831,437	809,139
Senior Dep. Ratio	26.1%	26.5%	25.4%	25.0%	26.1%	28.6%
Under 20	428,469	439,087	438,233	428,754	412,571	410,412
Child Dep. Ratio	47.0%	51.8%	52.2%	51.3%	49.6%	50.7%
Overall Dep. Ratio	73.1%	78.3%	77.7%	76.2%	75.7%	79.4%
65+ as % of Total	15.1%	14.9%	14.3%	14.2%	14.8%	16.0%

Figure 7: Calculation of 65+ as Percent of Total Philadelphia Population

PROJECTION USING PDC CORRECTED BY 1990 & 2000 CENSUS RESULTS							
Age Group	1990 Census	2000 Census	Ratio (to PDC)	2005	2010	2015	2020
Total	1,585,577	1,517,550	1.004	1,497,506	1,479,644	1,467,061	1,457,557
65+	241,007	213,975	0.953	203,528	198,806	206,629	220,920
% of Total	15.2%	14.1%		13.6%	13.4%	14.1%	15.2%

Figure 8: Best Philadelphia Projections

The reason Philadelphia will not have a problem in this area in comparison to the State (and the outer counties) is that it has different basic demographics. In spite of the boomer bulge, the general aging of the population, the shrinking of the City, and globalization, Philadelphia will show stability in this area until at least 2020.²¹

IV. THE AUDIT ISSUE

In conjunction with the shift of regulatory authority over the Philadelphia Gas Works from the City to the State of Pennsylvania, the Pennsylvania Public Utility Commission chartered an independent audit of the Gas Works. The audit was detailed and extensive, covering all functional areas of the Gas Works. The audit resulted in seventy-six recommendations. Among these is recommendation regarding the Senior Citizen Program.

A. The Audit Recommendation

Following review of the Senior Citizen Assistance Program, the auditor offered the following recommendation (Figure 9):²²

16. Eliminate the Senior Citizens Assistance Program and base any future bill reductions on an assessment of need. Elimination of the senior citizen assistance program could save PGW \$13.5 million per year based on the program's cost for 1999 (Refer to Conclusion 30).

²¹ An alternate projection by the Office of the Controller may be used to calculate the 65+ portion of the City population at 14.5% in 2015 (in contrast to the 14.1% in Figure 8). An alternate projection from the Delaware Valley Regional Planning Commission would indicate 14.7% in 2015, 15.6% in 2020. When adjusted using the 2000 Census results, these become 13.4% and 14.3% (in contrast to 14.1% and 15.2% in Figure 8). Each of these projections indicates that Philadelphia will experience only minor fluctuation through 2020. Office of the City Controller, *Philadelphia: A New Urban Direction*. Philadelphia: Saint Joseph's University Press, 1999, Table 1.8 - Philadelphia Population Forecast by Age (in thousands), P. 26; Delaware Valley Regional Planning Commission, forecast, 1997, "Elderly Population 1970 to 2025, Philadelphia Elderly," table provided by DVRPC, March 11, 2002.

²² Barrington-Wellesley Group, Inc., *A Stratified Management and Operations Audit of Philadelphia Gas Works*. New London, New Hampshire: Barrington-Wellesley Group, Inc., January 2001, P. VIII-42.

Figure 9: Text of Audit Recommendation to Eliminate Senior Program.

B. The PGW Response

The Philadelphia Gas Works accepted in full or in part seventy-three of the seventy-six audit recommendations. However, with regard to the recommendation for eliminating the Senior Citizen Program and replacing it with a needs-based program, PGW found it necessary to reject the recommendation, both because the auditor's stated economic basis was incorrect for a municipal utility and because the Senior Citizen Program was instituted by the City Council (Figure 10).²³

Figure 10: Rejection of Audit Recommendation VIII-16.

This recommendation is beyond PGW's legal authority to implement as it requires action by Philadelphia City Council. Moreover, PGW is constrained by the Natural Gas Act. In addition, the savings stated are inaccurate as the gas portion of the discount is recovered through the GCR and, as such, is billed to other customers. The Base Rate portion of the discount is also recovered through the base rates of other customers. Therefore, elimination of the discount will redistribute costs but will not result in any savings.

C. Commission Direction

In its letter notifying the Philadelphia Gas Works of receipt of the Implementation Plan, the Commission recognized "...that the City of Philadelphia, in its capacity as the 'owner' of PGW, would most likely make ultimate decisions on these matters." However, the Commission directed the Philadelphia Gas Works to prepare options for the City to address (Figure 11).²⁴

Figure 11: Directive to Prepare Options.

With regard to the elimination of the senior citizen discount, PGW is directed to prepare options for the City to address.

²³ Philadelphia Gas Works Implementation Plan for the Stratified Management and Operations Audit, March 2001, document transmitted to Thomas Sheets, Manager, Management Audit Division, Bureau of Audits, Pennsylvania Public Utility Commission by Thomas E. Knudsen, Philadelphia Gas Works, March 22, 2001.

²⁴ Letter of James J. McNulty, Secretary, Pennsylvania Public Utility Commission to Thomas Knudsen, Chief Financial Officer, Philadelphia Gas Works regarding the Stratified Management and Operations Audit of Philadelphia Gas Works (D-99M038 – to be closed).

D. Reasons & Grounds Supporting Audit Recommendation

To motivate the recommendation for discontinuance of the Senior Citizen Program, the audit report states the following reasons and grounds:

- (1) The participation levels for 1997, 1998, and 1999 were 93,583, 91,934, and 90,355. However, only 5.2%, 5.5%, and 6.0%, respectively were also participants in the Philadelphia Gas Works Customer Responsibility Program.
- (2) The auditor's calculation of cost to customers for the Senior Program is \$0.28, \$0.28, and \$0.26/MCF for the respective years.
- (3) Ability to pay is not a factor in qualifying for the Senior Discount. This means that wealthy Senior Citizens are subsidized by families who already have to contend with relatively high gas rates.
- (4) The Senior Program requires that staff ensure the participating customer remains the primary customer and remains alive. This requires periodic death certificate matches.
- (5) There are stories of some customers continuing to receive the Senior Discount long after the death of the Senior Citizen on record as directly responsible for the account.
- (6) Social programs will place the Company at a competitive disadvantage under deregulation.
- (7) Social programs should be a City expense rather than an expense of the distribution utility.
- (8) The cost savings to the Philadelphia Gas Works would be on the order of \$13.5 million per year based on the program's cost in 1999.

E. Analysis of Audit Reasons and Grounds

Reason Nos. 1, 2, and 3, considered together, are relevant and forceful. Due to trends outside the control of the City and City residents, higher ranking jobs are shifting disproportionately to other cities, while Philadelphia experiences the sustained negative effects of mergers and downsizing.²⁵ As well, the City is experiencing the cumulative impact of devolution of federal social welfare programs.²⁶ At the same time, income inequality is growing rampantly so that, for example, the poorest quintile of the City by income lost 54.2% of *real*

²⁵ Office of the Controller, City of Philadelphia, *1998 City of Philadelphia Economic Outlook*. Office of the Controller: Philadelphia, April 1998, Pp. 16-19.

²⁶ Office of the Controller, City of Philadelphia, *1996 Mid-Year Economic and Financial Report*. Office of the Controller: Philadelphia, January 22, 1996, Chapter 2, Pp. 11-13. Office of the Controller, City of Philadelphia, *1998 City of Philadelphia Economic Outlook*. Office of the Controller: Philadelphia, April 1998, Pp. 20-21.

income from 1986 to 1994, the middle three quintiles lost 24.5%, and the richest quintile lost 6.4%.²⁷

To put this directly, if all families were in roughly the same economic condition, then the Senior Discount could be looked at as merely a transfer of funds in time from younger workers to older former workers. The basic structure would be fair since everyone ages and most of those who pay the cost of the discount will eventually receive the discount. In this way, the Senior Citizen Discount would not be a transfer between classes, or even between parts of the same class, but a "transfer in time."

However, it is increasingly important over the next twenty years that poor and middle class families not be asked to provide monthly subsidy to that portion of Senior Citizens who are not in economic need. To put this another way, although the Senior Citizens Program as currently design may be reasonable in the abstract, current material economic conditions and economic trends require fairness to be defined in terms of meeting economic need, rather than in terms of age alone. *Although age can be an important factor in itself, and may be honored, in the material and specific historical context within the City, and with the economic projections for the next twenty years,*²⁸ *a program incorporating subsidization by middle class and poor families of that portion of Senior Citizens who are not in economic need appears neither wise nor fair.*

Reason No. 4, the need to fund and carryout a periodic check of records, is a necessary program reality. The cost is likely not high compared with other ongoing administrative tasks, and the task has been performed for many years. Also, a verification system can be creatively designed to minimize effort. Still, a periodic matching of death certificates is a separate administrative task, requiring time and effort. It is a reason, but it should not be assigned much force.

Reason No. 5 (stories of maintaining a discounted account long after the death of the person to whom the discount was legitimately assigned) sounds like an urban legend. However, it is a program reality for which periodic checks (see above) are required. As with any other quality control procedure, there will be an error rate, and some of these stories will be true. However, this reason should not carry much force.

Reasons No. 6 ("social programs put PGW at a competitive disadvantage") and No. 7 ("social programs should be a direct City expense") similarly fail to directly and fully take into account the role of a municipal utility, and of the nature of the distribution utility in the Pennsylvania regulatory context. First, since the Philadelphia Gas Works is owned by the City, the City may find it expedient to use the Philadelphia Gas Works as an instrumentality for carrying out City responsibilities. Second, in Pennsylvania, Universal Service programs are the responsibility of utilities, whether municipal or investor-owned; they are a part of doing business

²⁷ Office of the Controller, City of Philadelphia, *1997 Mid-Year Economic and Financial Report*. Office of the Controller: Philadelphia, March 1997. Table 7.1. P. 67; Pp. 64-68.

²⁸ For the relevant projections and characterization of the economic trends and potentials of the coming decades, see Office of the City Controller, *Philadelphia: A New Urban Direction*. Philadelphia: Saint Joseph's University Press, 1999.

and providing service to all customers. The key distinction is between a Commission mandated program (like the Customer Responsibility Program) and a program the Commission would classify as voluntary. Looking forward, any program approved by the Pennsylvania Public Utility Commission and defined as a modality of Universal Service will be funded with a non-bypassable charge so that the distribution utility will not be placed at a competitive disadvantage. At the same time, however, it is correct that a voluntary program will be outside the current Universal Service provisions of the Pennsylvania Code and could put the Philadelphia Gas Works at a disadvantage in a hypothesized fully competitive market.

Reason No. 8 initially may seem a sound reason, since it is conveyed in language that would seem to indicate that the Philadelphia Gas Works could "free up" and return \$13.5 million of "freed up" funds to its bottom line by terminating the Senior Citizen Program. However, it is necessary to recognize that when auditors make this type of recommendation, they are following a typical specialized language and style associated with the world of audits, and when they move language that is appropriate to capitalist businesses to municipal companies, the application may be inappropriate. From a material evaluation perspective, it is more adequate to express this reason in terms that more realistically take into account the municipal nature of the Philadelphia Gas Works and the practical environment (especially regulatory provisions) within which the Philadelphia Gas Works operates.²⁹ Specifically, it is true that the Senior Citizen Program is reflected as a specific item in the Company's accounting system, and that the cost of this item is recovered through the Gas Cost Rate (GCR) and the Base Rate. Thus, in an abstract audit sense \$13.5 million per year of cost savings is available. But this would be a paper savings, not an actual savings in the material world. The manifestation of the Senior Citizen Program in the accounting system is more adequately understood as simply a "bin"; a place to "collect costs" in a *cost allocation* sense rather than as a material cost to the Philadelphia Gas Works. When the Senior Citizen Program is in effect, some costs are allocated and reflected in the Senior Citizen Program cost "bin," while costs for residential customers not in the Senior Citizen Program are allocated and collected in other bins (along with the 80% of Senior Citizen cost that is not discounted). All of these binned costs are recovered through the GCR and/or the Base Rate. If the Senior Citizen Program were not in effect, the Senior Citizen cost bin would disappear, but the costs now allocated to this bin would simply be allocated to the other bins. With or without the program, full cost recovery through the GCR and Base Rate would proceed. Thus, the form of expression of Reason No. 8 could be misleading.

It is better to view the cost of the Senior Citizen Program as a *cost to families*; that is, a customer cost involving the allocation of costs among categories of customers. *In the material economy of the City, that is how the cost is experienced.* It is an additional amount per MCF paid each month by most families, and a reduced amount per MCF paid each month by participants in the Senior Citizen program. For the Philadelphia Gas Works, it is essentially an accounting transaction and the Philadelphia Gas Works should be indifferent from a cost perspective as to whether recovery is from either set of cost bins. In either case, the total dollars

²⁹ Pomerantz, Felix. *The Successful Audit*. Homewood Illinois: Business One Irwin, 1992, P. 40.

to be recovered is essentially identical, and there is no meaningful cost savings to the Philadelphia Gas Works from discontinuing the Senior Citizen Program.³⁰

In summary, Reasons 1, 2, and 3 provide key support to the audit recommendation, and are sufficient. Reasons 4, 5, 6, and 7 provide some support to the audit recommendation, but are not, as a set, highly persuasive. Reason 8 is not relevant to the audit recommendation.

V. THE PUBLIC UTILITY COMMISSION REASONABLENESS ISSUE

The Pennsylvania Public Utility Commission has the authority to grant continuation or modification of the Senior Citizen Program, *provided that such rates and the terms of such program are just and reasonable* (Figure 5). This principle reasonableness is more fully stated in Figure 12.³¹ The Commission may not make an unreasonable discrimination within a class.

No public utility shall, as to rates, make or grant any unreasonable preference or advantage to any person, corporation, or municipal corporation, or subject any person, corporation, or municipal corporation to any unreasonable prejudice or disadvantage. No public utility shall establish or maintain any unreasonable difference as to rates, either as between localities or as between classes of services....

Figure 12: The Principle of Reasonableness.

Reasonableness of rates is an administrative question for the Public Utility Commission to decide.³² A person may be given a rate preference as long as it is not unreasonable.³³ Structural situations in which there is demonstrated economic need may provide grounds for consideration in rate design. The Commission determined affordability is a consideration in designing rates. has permitted economic development rates for business customers and special rates and payment

³⁰ The discussion of cost allocation regarding Reason No. 8 follows the method of Kaplan, Robert S. and Robin Cooper. *Cost & Effect, Using Integrated Cost Systems to Drive Profitability and Performance*. Boston: Harvard Business School Press, 1998.

³¹ 66 Pa CS §501(a) Section 1304.

³² *Mobile Fone of Northeastern Pa., Inc. v. PA PUC*. 78 Commonwealth Ct. 336, 467 A.2d 902 (1983).

³³ *Rosemary Mill v. Commonwealth of PA*. PA PUC. 67 PA Commonwealth CT., 597, 44 A.2d 1100.

plans for low-income customers.³⁴ Also, different rates can be charged for different services as long as the differences are reasonable.³⁵

However, while Pennsylvania has a well developed and consistent history of making manifest the definition of reasonableness in relation to affordability in the development and codification of Universal Service programs, all such programs are needs-based (Figure 13).³⁶ Similarly, economic development (job-creation) programs have a consistent economic needs-related definition. However, we find no ground available in the record of the Pennsylvania Public Utility Commission for age in itself as a criterion of reasonableness.

“Universal service and energy conservation.” Policies, practices and services that help residential low-income retail gas customers and other residential retail gas customers experiencing temporary emergencies, as defined by the commission, to maintain natural gas supply and distribution services. The term includes retail gas customer assistance programs, termination of service protections and consumer protection policies and services that help residential low-income customers and other residential customers experiencing temporary emergencies to reduce or manage energy consumption in a cost-effective manner, such as the low-income usage reduction programs and consumer education.

Figure 13: Universal Service Defined in Terms of Economic Need or Emergency.

There being no precedent for age alone as a criterion of reasonableness, and the Commission having established to the contrary a consistent record of including affordability and economic development as reasonable considerations to be taken into account in rate design; and, further, there being no question of different services involved with the Senior Citizen Program, we find a likelihood very near zero that a non means based Senior Program is approvable. In the State of Pennsylvania, such a proposal would, with virtual certainty, be classified as entailing unreasonably discrimination because it would require, to put it directly, subsidization of those without economic need by the poor. The Commission's principle of reasonableness, as operatively and consistently defined, would not permit approval.

VI. THE ISSUE OF DIFFERENTIAL LIFE EXPECTANCY

³⁴ PA PUC v. PECO, 54 PA PUC 220, 241, 37 Pur 4th 381, 403 (1980); PECO v. PA PUC, 79-Commonwealth Ct. 445, 470 A.2d 654 (1984).

³⁵ Philadelphia Suburban Transportation Co. v. PA PUC et al., 3 PA Commonwealth Court, 184, 281 A.2d 179 (1971).

³⁶ Natural Gas Choice and Competition Act, §2202 Definitions, 1999, June 22, P.L. 122, §3, effective July 1, 1999.

There is one other issue that bears on the design of the rate. It was alluded to at the end of the demographics section where it was stated that the reason Philadelphia will not have a problem in this [age composition] area in comparison to the State (and the outer counties) is that it has different basic demographics. In this section, we look at this problem directly: the problem is that life expectancy at birth in the United States is different for different racial groups.

Life expectancy at birth is defined as the average number of years a person would live given the age-specific mortality rates of a specified year or period. In 1991 the life expectancy of White males in the US was 72.9 years; of White females 79.6 years. In that same year the life expectancy for Black males in the US was 64.6 years and for Black females it was 73.8 years.³⁷ These life expectancies would mean that, considered collectively, *on average*, the benefit to Black males born in 1991 from the Senior Citizen would be zero, the benefit to Black Females would be about nine years of discount, to White males it would be approximately eight years of discounted rate, and to White females about fifteen years at the discounted rate.³⁸ Philadelphia is about half Black and half White, so on the face of it, and however good the intention of the original provision of the Senior Citizen Discount for honoring age in itself, the form of the discount is inherently discriminatory. Further, there is within social science some presumption that adequate income in childhood, adolescence, and working years may be reasonably related to longevity. If this presumption is correct, then a program that transfers funds from poor families to those Senior Citizens without economic need each month through natural gas bills would be socially regressive, that is, inimical to the principle of fairness.

VII. OPTION 1: CONTINUE THE SENIOR CITIZENS PROGRAM "AS IS"

A. General Aspects

This section discusses the effects if the current program is continued and operated as it currently is. It will also demonstrate the impact of the program on the company and on its ratepayers.

B. Advantages

- The cost of administration of the program is low since it covers all Senior Citizens households and does not carry any individual means testing.
- The system is stable and predictable and easy to understand for the customers.
- Every Senior Citizen could anticipate the gas costs as part of their personal budgets, which is of importance for various personal investments in housing, heating system etc.

³⁷ U.S. Bureau of the Census. Current Population Reports, Special Studies, P23-190, *65+ in the United States*. Washington, D.C.: U.S. Government Printing Office, 1996. Table 3-1, P. 3-1.

³⁸ Of course, some persons from each group show special longevity and would be exceptions in terms of this analysis of the average person.

- As the system is well established, a number of other entities in the City, for example, real estate developers, building constructors and other heating providers, may have come to expect the continuity of the Senior Citizen Discount and plan their continuing actions accordingly.

C. Disadvantages

- As income or need is not a basis for the assistance in the Senior Citizen Program, wealthy citizens over 65 years of age will benefit from this program and the expense of poor and middle income families, through their monthly payments of their natural gas bills.
- The Senior Citizen Assistance Program places some administrative burden on PGW to implement a system to check whether the customer is still the primary customer or that the person is still living. This is a minor burden, but it is a required activity.
- The aggregate discount will increase if the number of Senior Citizens increases over time. Accordingly it will be more costly for other customers to purchase gas from PGW. This will not be a significant factor through 2020.
- The Philadelphia Gas Works may experience a need to substantially increase its Universal Service Program in the current economy, especially if federal war spending is curtailed. It may be better to curtail the Senior Citizen Program in order to provide space to pick up these potentially increasing Universal Service costs, should it become necessary to do so.
- If the general aim of PGW's Universal Service Program is to reach the poorest households in the society, the most adequate group might not be the senior citizens in general. Apparently, only about six percent of the senior citizens' households in 1999 were below the Federal Poverty line, as evidenced by participation in the Customer Responsibility Program.

D. Cost Bin Profile

The financial profile of Option 1 (Continue "as is") is shown in Figure 14. As shown in this figure, the aggregate discount remains in the neighbourhood of \$19 million to \$20 million dollars through 2020, based on population projections.

Option 1: Continue "As Is"	(1) Program continues as is for current participants.					
	(2) New participants are accepted; program continues as is for new participants.					
	(3) Revenue impact is based on total sales of:					
	60,000,000	MCF/Year				
Year	Program	Aggregate Discount	GCR Discount	GCR/MCF	Base Discount	Base/MCF
2002	82,000	\$17,296,227	\$8,821,076	\$0.15	\$8,475,151	\$0.14
2005	79,550	\$12,928,462	\$6,593,516	\$0.11	\$6,334,946	\$0.11
2010	77,704	\$13,026,440	\$6,643,484	\$0.11	\$6,382,955	\$0.11
2015	80,762	\$13,890,062	\$7,083,932	\$0.12	\$6,806,130	\$0.11
2020	86,348	\$14,850,741	\$7,573,878	\$0.13	\$7,276,863	\$0.12

Figure 14: Option 1, Continue "As Is" for Current and New Participants.

VIII. OPTION 2: IMPLEMENT A MEANS TESTED PROGRAM

In this section the switch to a means tested program in place of the current Senior Citizen Assistance Program is discussed. Four levels of means-tested of current and future participants are being considered: 100 percent of the Federal Poverty Level, 150 percent of Federal Poverty Level, 200 percent and below, and median income. Full means testing of current and new participants is shown in Figures 2a through 2d. Testing of only new participants is shown in Figures 4a through 4d.³⁹

A. General Aspects

This section addresses introduction of a means tested program for current and future Senior Citizens. The number of Senior Citizens to be covered by the different poverty levels will determine the size and costs of the program.

B. Advantages

- If the main objective of the PGW Universal Service Program is to reach the poorest households in Philadelphia, means testing of Senior Citizens will help better target the poorest customers.
- The administration of the Senior Citizens Assistance Program might be aligned with the existing means test-based CRP program. No specific administration of a means tested Senior Citizen Assistance Program will therefore be needed, and there will be no appreciable additional cost for means-testing.
- Poor Senior Citizens could benefit a lot from a means tested program since their discount on the gas rates might increase compared to the current system.

C. Disadvantages

³⁹ The numbering sequence, Options 4a through 4d, was chosen to keep this set of Option 2 variants within the same patterning as Options 2a through 2d.

- Introduction of a means tested program might lead to higher administration costs compared to today since testing of individual households needs to take place. This depends, for example, on the number of potential participants and whether the administration of the program can be linked to administration of the Customer Responsibility Program.
- Suspension of the general Senior Assistance Program could lead to good-will losses for PGW among current participants as well as the population and actors in Philadelphia at large (children to senior citizens, housing constructors etc.).
- Senior Citizens with income above the different Federal Poverty Line levels will automatically loose since their gas bills will increase overnight.
- The number of unpaid bills might increase as well as the arrears. Current customers have adapted their household budgets to the prevailing system and might no be ready to pay larger bills. This will lead to lost income for PGW and higher administration costs in trying to retrieve the unpaid bills.
- Risk for gas-related accidents could increase due to worse maintenance and damage on property, caused by the lower number of participants in the program.
- Insurance costs for individual households as well as for PGW could increase due to the above mentioned causes.
- Housing constructors/investors/customers might choose other heating alternatives.

D. Cost Bin Profile

There are four cost profiles for this option. Under Option 2, the program continues with *both current and new participants* subject to a means test. Profiles for 100%, 150% and 200% of the Federal Poverty Level and for median income are shown in Figures 15-18, respectively.

Option 2a: Means Test All @ 100% FPL	(1) Program continues; current participants are means tested (<100% of FPL). (2) New participants are accepted; the means test is applied to all new participants. (3) Revenue impact is based on total sales of:					
	60,000,000	MCF/Year				
Year	Program	Aggregate Discount	GCR Discount	GCR/MCF	Base Discount	Base/MCF
2002	16,646	\$3,511,134	\$1,790,678	\$0.03	\$1,720,456	\$0.03
2005	16,149	\$2,624,478	\$1,338,484	\$0.02	\$1,285,994	\$0.02
2010	15,774	\$2,644,367	\$1,348,627	\$0.02	\$1,295,740	\$0.02
2015	16,395	\$2,819,683	\$1,438,038	\$0.02	\$1,381,644	\$0.02
2020	17,529	\$3,014,700	\$1,537,457	\$0.03	\$1,477,203	\$0.02

Figure 15: Option 2a -- Means Test at 100% FPL for All Participants.

Option 2b: Means Test All @ 150% FPL	(1) Program continues; current participants are means tested (<150% of FPL).					
	(2) New participants are accepted; the means test is applied to all new participants.					
	(3) Revenue impact is based on total sales of:					
	60,000,000	MCF/Year				
Year	Program	Aggregate Discount	GCR Discount	GCR/MCF	Base Discount	Base/MCF
2002	24,600	\$5,188,868	\$2,646,323	\$0.04	\$2,542,545	\$0.04
2005	23,865	\$3,878,539	\$1,978,055	\$0.03	\$1,900,484	\$0.03
2010	23,311	\$3,907,932	\$1,993,045	\$0.03	\$1,914,887	\$0.03
2015	24,229	\$4,167,019	\$2,125,179	\$0.04	\$2,041,839	\$0.03
2020	25,904	\$4,455,222	\$2,272,163	\$0.04	\$2,183,059	\$0.04

Figure 16: Option 2b -- Means Test at 150% FPL for All Participants.

Option 2c: Means Test All @ 200% FPL	(1) Program continues; current participants are means tested (<200% of FPL).					
	(2) New participants are accepted; the means test is applied to all new participants.					
	(3) Revenue impact is based on total sales of:					
	60,000,000	MCF/Year				
Year	Program Population	Aggregate Discount	GCR Discount Component	GCR/MCF	Base Discount Component	Base/MCF
2002	32,800	\$6,918,491	\$3,528,430	\$0.06	\$3,390,061	\$0.06
2005	31,820	\$5,171,385	\$2,637,406	\$0.04	\$2,533,979	\$0.04
2010	31,082	\$5,210,576	\$2,657,394	\$0.04	\$2,553,182	\$0.04
2015	32,305	\$5,556,025	\$2,833,573	\$0.05	\$2,722,452	\$0.05
2020	34,539	\$5,940,297	\$3,029,551	\$0.05	\$2,910,745	\$0.05

Figure 17: Option 2c -- Means Test at 200% FPL All Participants.

Option 2d: Means Test All @ Median Income	(1) Program continues but current participants are means tested (<median income).					
	(2) New participants are accepted; the means test is applied to all new participants.					
	(3) Revenue impact is based on total sales of:					
	60,000,000	MCF/Year				
Year	Program Population	Aggregate Discount	GCR Discount Component	GCR/MCF	Base Discount Component	Base/MCF
2002	41,000	\$8,648,114	\$4,410,538	\$0.07	\$4,237,576	\$0.07
2005	39,775	\$6,464,231	\$3,296,758	\$0.05	\$3,167,473	\$0.05
2010	38,852	\$6,513,220	\$3,321,742	\$0.06	\$3,191,478	\$0.05
2015	40,381	\$6,945,031	\$3,541,965	\$0.06	\$3,403,065	\$0.06
2020	43,174	\$7,425,371	\$3,786,939	\$0.06	\$3,638,432	\$0.06

Figure 18: Option 2d -- Means Test at Median Income for All Participants.

Option 4a: Means Test New at 100% FPL	(1) Program continues for current participants (grandfathered).					
	(2) New participants are means tested (<100% of the Federal Poverty Level).					
	(3) Revenue impact is calculated based on estimated sales of:					
	60,000,000	MCF/YEAR				
Year	Program	Aggregate Discount	GCR Discount	GCR/MCF	Base Discount	MCF/YEAR
2002	82,000	\$17,296,227	\$8,821,076	\$0.15	\$8,475,151	\$0.14
2005	69,620	\$11,314,716	\$5,770,505	\$0.10	\$5,544,211	\$0.09
2010	50,775	\$8,511,983	\$4,341,111	\$0.07	\$4,170,872	\$0.07
2015	36,226	\$6,230,320	\$3,177,463	\$0.05	\$3,052,857	\$0.05
2020	26,736	\$4,598,198	\$2,345,081	\$0.04	\$2,253,117	\$0.04

Figure 19: Option 4a -- Means Test at 100% FPL for New Participants.

Option 4b: Means Test New at 150% FPL	(1) Program continues for current participants (grandfathered). (2) New participants are means tested (<150% of the Federal Poverty Level). (3) Revenue impact is calculated based on estimated sales of:					
	60,000,000	MCF/YEAR				
Year	Program Population	Aggregate Discount	GCR Discount Component	GCR/MCF	Base Discount Component	MCF/YEAR
2002	82,000	\$17,296,227	\$8,821,076	\$0.15	\$8,475,151	\$0.14
2005	70,829	\$11,511,119	\$5,870,671	\$0.10	\$5,640,448	\$0.09
2010	54,053	\$9,061,421	\$4,621,325	\$0.08	\$4,440,096	\$0.07
2015	41,646	\$7,162,560	\$3,652,905	\$0.06	\$3,509,654	\$0.06
2020	33,991	\$5,845,999	\$2,981,459	\$0.05	\$2,864,539	\$0.05

Figure 20: Option 4b -- Means Test at 150% FPL for New Participants.

Option 4c: Means Test New at 200% FPL	(1) Program continues for current participants (grandfathered). (2) New participants are means tested (<200% of the Federal Poverty Level). (3) Revenue impact is calculated based on estimated sales of:					
	60,000,000	MCF/YEAR				
Year	Program Population	Aggregate Discount	GCR Discount Component	GCR/MCF	Base Discount Component	MCF/YEAR
2002	82,000	\$17,296,227	\$8,821,076	\$0.15	\$8,475,151	\$0.14
2005	72,075	\$11,713,597	\$5,973,934	\$0.10	\$5,739,662	\$0.10
2010	57,431	\$9,627,852	\$4,910,205	\$0.08	\$4,717,648	\$0.08
2015	47,234	\$8,123,631	\$4,143,052	\$0.07	\$3,980,579	\$0.07
2020	41,470	\$7,132,390	\$3,637,519	\$0.06	\$3,494,871	\$0.06

Figure 21: Option 4c -- Means Test at 200% FPL for New Participants.

Option 4d: Means Test New at Median	(1) Program continues for current participants (grandfathered). (2) New participants are means tested (<median income). (3) Revenue impact is calculated based on estimated sales of:					
	60,000,000	MCF/YEAR				
Year	Program Population	Aggregate Discount	GCR Discount Component	GCR/MCF	Base Discount Component	MCF/YEAR
2002	82,000	\$17,296,227	\$8,821,076	\$0.15	\$8,475,151	\$0.14
2005	73,321	\$11,916,074	\$6,077,198	\$0.10	\$5,838,876	\$0.10
2010	60,810	\$10,194,284	\$5,199,085	\$0.09	\$4,995,199	\$0.08
2015	52,822	\$9,084,703	\$4,633,199	\$0.08	\$4,451,505	\$0.07
2020	48,950	\$8,418,782	\$4,293,579	\$0.07	\$4,125,203	\$0.07

Figure 22: Option 4d -- Means Test at Median Income for New Participants.

IX. OPTION 3, PHASE OUT OF THE SENIOR CITIZEN PROGRAM

This section discusses what happens if the current Senior Citizens Assistance Program is phased out according to population mortality (Option 3a). In the case modelled, old participants as of the effective date of the final restructuring order may remain in the program, but no future entry is allowed. Also, an alternative five-year phase out is projected (Option 3b).

A. General Aspects

This will represent a change in a thirty-year Senior Citizens Program that may have become built into expectations of Senior Citizens, and other groups in the City.

B. Advantages

- Administration costs for PGW will theoretically decrease, but not noticeably: that is, not at a practical level that would show on the Gas Works' bottom line.
- The gas bills for non-senior citizens will gradually decrease since the costs to be covered for the Senior Citizens Assistance Program will decrease over the years due to mortality. Or, alternatively, over a five-year phase out.
- The inequity of poor and middle class families subsidizing the portion of Senior Citizens who are not in need will gradually cease to exist (or relatively quickly, if a five-year phase out).

C. Disadvantages

- Senior Citizens to-be, who have counted on to be part of the program, may be surprised to find that it is now closed to them.
- Poor Senior Citizens eligible for the Customer Responsibility Program but who choose not to be part of that program will find their alternative bill higher than if the Senior Citizen Program were continued.
- Closing program entry will discriminate between senior citizens who are part of the program and those who cannot enter into it. The cut-off date will be very decisive for the costs of the customers' future gas bills, and may be perceived to be inequitable to customers who have paid for others in the program over the past thirty years, and find that they are not now eligible in turn.
- PGW will need to explain the phasing out and might lose good will.
- It is possible that other heating providers might gain market share since more PGW senior citizen customers will bear the full cost of gas heating, and therefore will look for other heating alternatives.

D. Cost Bin Profile

Option 3a: Slow Phase Out	(1) Program phased out; no new participants are permitted to enter. (2) Program continues for current participants (grandfathered). (3) Revenue impact is calculated based on estimated sales of:					
	60,000,000	MCF/Year				
Year	Program	Aggregate Discount	GCR Discount	GCR/MCF	Base Discount	MCF/YEAR
2002	82,000	\$17,296,227	\$8,821,076	\$0.15	\$8,475,151	\$0.14
2005	67,091	\$10,903,686	\$5,560,880	\$0.09	\$5,342,806	\$0.09
2010	43,916	\$7,362,127	\$3,754,685	\$0.06	\$3,607,442	\$0.06
2015	24,882	\$4,279,344	\$2,182,466	\$0.04	\$2,096,879	\$0.03
2020	11,552	\$1,986,823	\$1,013,280	\$0.02	\$973,543	\$0.02

Figure 23: Option 3: Slow Phase Out using Mortality (Grandfather as of Effective Date of Order).

Option 3b: Five-Year Phase Out	(1) Program continues for current participants (grandfathered). (2) Program discount of 20% is phased out over five years: 4%/yr (3) Revenue impact is calculated based on estimated sales of:					
	60,000,000	MCF/YEAR				
Year	Program Population	Aggregate Discount	GCR Discount Component	GCR/MCF	Base Discount Component	MCF/YEAR
2002	82,000	\$17,296,227	\$8,821,076	\$0.15	\$8,475,151	\$0.14
2003	76,695	\$12,941,729	\$6,600,282	\$0.11	\$6,341,447	\$0.11
2004	71,732	\$9,078,299	\$4,629,933	\$0.08	\$4,448,367	\$0.07
2005	67,091	\$4,361,475	\$2,224,352	\$0.04	\$2,137,123	\$0.04
2006	62,751	\$2,039,644	\$1,040,218	\$0.02	\$999,425	\$0.02

Figure 24: Option 3b - Five Year Phase Out.

As shown in Figure 23, the phase out will continue beyond 2020 if it is accomplished via population mortality, or (Figure 24) by the end of 2006 for a five-year planned phase out.

X. COMPARISONS

The options are compared as to size of the participant population (Figure 25), rate impact (Figure 26), and size of the annual discount (Figure 27).⁴⁰

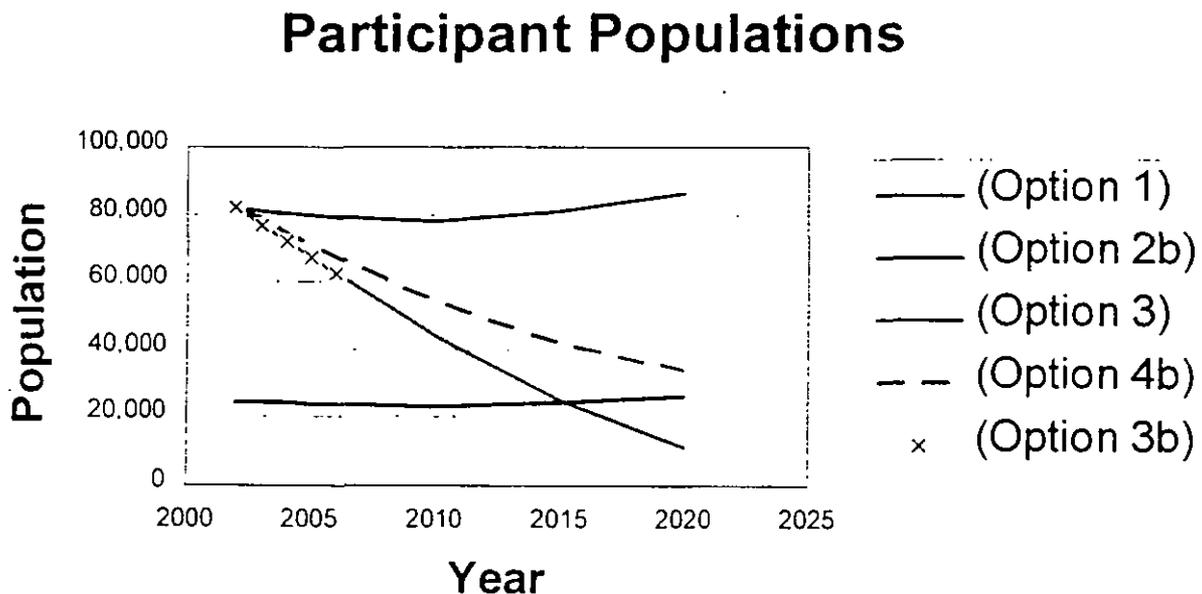


Figure 25: Number of Participants Comparison.

⁴⁰ Options 2b & 4b (both 150% FPL) stand in for Options 2a-2d and Options 4a-4d.

Rate Impact Perspective

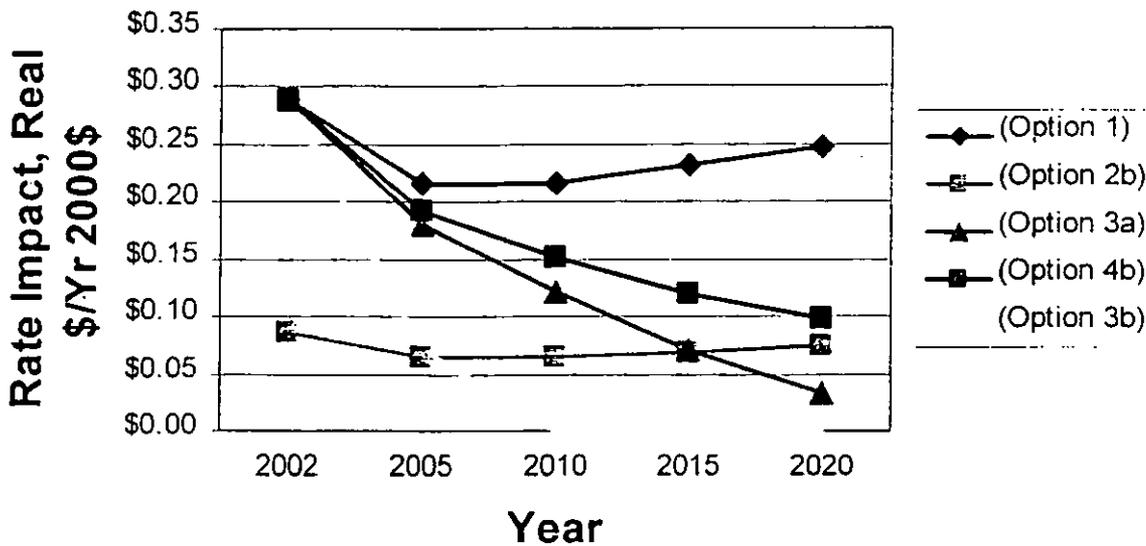


Figure 26: Rate Impact Comparison.

Annual Discount

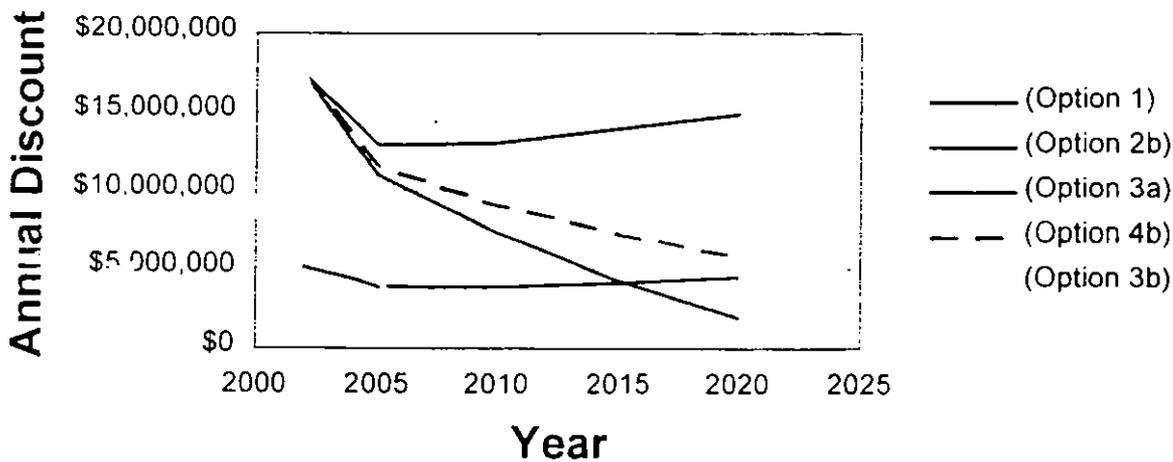


Figure 27: Annual Discount Comparison.

XI. FINAL COMMENTS & RECOMMENDATIONS

The ultimate decision on which system/option to choose will depend on a number of basic factors, many of which are of political nature. The fundamental decision involves the relative importance of socio-economic factors versus age:

- Should Senior Citizens be given special treatment as a group or will the need of senior citizens be assessed according to income/wealth and poverty status;

It also involves serious concerns regarding equity and fairness.

Our recommendation is that, on balance, and although other choices do also retain some good aspects, the auditor's recommendation should be implemented:

Study Recommendation No. 1

We recommend that the Philadelphia Gas Works present options to the City, and sponsor consideration of the phase out of the Senior Citizen Program, to be replaced in the case of

In the current economic context and in the light material facts presented in this report, and especially in light of the evolving job structure of the City and the Controller's forecast, it seems prudent and strategic to make each dollar committed to a social service work harder.

Eliminating the Senior Citizen Program will allow a fuller focus on the Customer Responsibility Program, will insure that funds are not transferred from the poor and middle class to that portion of the Senior Citizen population who are not in economic need, while providing for those portions of the Senior Citizen population that are most in need, and eliminate serious racial disparity in who pays and who benefits. Also, elimination of the Senior Citizen Program and replacement by the Customer Responsibility Program would be consistent with the regulatory record and the criterion of reasonableness established by the State of Pennsylvania. Finally, we estimate that the chance of securing approval of the Pennsylvania Public Utility Commission for a Universal Service type of program not grounded in economic need and involving transfer payment from the poor and middle class to persons who are not in economic need is virtually zero.

Further, we recommend an administrative phase out rather than a phase out according to mortality.

Study Recommendation No. 2

Implement a five-year planned phase out.

Given the current economic context of the nation, and the prospect of economic uncertainty ahead, we recommend a complete phase out, with a gradually reduced discount over the next five years, rather than linking of phase out to mortality. If it is decided to phase out the program, an administrative phase out according to a five year plan, reducing the discount each year will be smoother and more easily manageable than the alternative.

Again, the perspective is to make dollars work harder for the public welfare of the City, although there are other positive values that might tend toward a longer phase out.

R-00049157

DOCUMENT

DOCKETED
JUL 13 2004

PGW EXHIBIT CP-1

7/6/04 Phila X

RECEIVED

2004 JUL 11 PM 10:26

SECRETARY'S BUREAU

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Re: Petition of Philadelphia Gas Works for	:	Docket Nos.	P-00042090
Waiver of Public Utility Commission	:		R-00049157
Customer Service Rules	:		M-00021612
	:		P-00032061

**PETITION OF PHILADELPHIA GAS WORKS FOR LIMITED
WAIVER OR MODIFICATION OF PUC
CHAPTER 56 RULES AND ADMINISTRATIVE INTERPRETATIONS**

Pursuant to 66 Pa. C.S. § 2212(c) and (h)(1) and 52 Pa. Code § 5.43, Philadelphia Gas Works (“PGW”) hereby submits this Petition to the Pennsylvania Public Utility Commission (“PUC”) for waiver or modification of certain customer billing and collection regulations set forth generally in 52 Pa. Code Chapter 56 as well as certain administrative interpretations of those rules, as fully detailed below. This Petition is in specific response to the PUC’s Order, entered June 2, 2004 in which PGW was invited to file, within 30 days, a petition for modification or waiver of Chapter 56 provisions.

This Petition is a companion to PGW’s petition for implementation of a Cash Receipts Reconciliation Clause (“CRRC”) necessitated by PGW’s current dire financial circumstances and the need to put in place immediately the CRRC and the Chapter 56 waivers to permit PGW to improve its collections and cash receipts above the historic levels achieved pursuant to existing rules. If in the next few months PGW is not given authority to put in place steps that will result in a material improvement in its collections and cash working capital, the bond rating agencies have indicated that PGW’s bond rating will be reduced to “junk” status. There is no dispute that, for PGW, losing its investment grade bond rating would be a disaster for the Company, its employees and, most of all, its customers, dramatically increasing PGW’s cost of

service at the least, and, at worst, threatening the Company's ability to make the capital improvements necessary to continue to provide safe, reliable and adequate service.

After the 2002 proceeding in which this Commission found that PGW's financial situation was so precarious that a \$36 million extraordinary rate increase request was justified, PGW was on the road to financial recovery when it was devastated by record high natural gas prices which occurred during successively cold winters. While these unprecedented wholesale natural gas prices were passed on to PGW customers through PGW's purchased gas cost adjustment mechanism (GCR), the increases created huge additional cash working capital requirements and uncollectibles for the Company and resulted in huge reductions in PGW's collections rate. Historically, PGW collects approximately 92% of its billings. But the skyrocketing natural gas rates resulted in more and more customers paying less and less of their bill – in FY 2003 PGW's collections level was just 86.5%, robbing it of more than \$40 million of working capital in FY 2003 alone.

PGW's strategy for improving its financial performance and maintaining its bond rating had two principal elements.¹ First, it filed a petition with this Commission to establish a "back-stop" or hedge mechanism (the Cash Receipts Reconciliation Clause) to assure potential bondholders and the rating agencies that even if PGW's collections initiative did not achieve success the Company's revenues would still reflect historic levels by charging remaining customers an amount to make up for the difference. The result would be that PGW's rates would

¹ PGW also undertook to reduce expenses and to find additional revenue sources. However, very little of PGW's \$800 million annual cost of service is discretionary and the additional cash working capital needs were so large that cost reductions were not adequate to solve the problem. See, CRRC Record, PGW St. CRRC-5 and Exh. TEK-4.

reflect an overall non-collection percentage of 7.616% – the same allowance for uncollectibles authorized by the PUC in PGW’s last litigated rate proceeding.

The second prong of that effort was to institute an unprecedented “Collections Initiative,” which instituted a “full court press” to improve its collections results. That effort, which included shifting employees to collections-related activities and adding overtime hours, engaging an outside consultant and instituting various systems and software tools, were designed not only to move its results back up to historic levels, but to produce a dramatic improvement over and above such historic levels. It was PGW’s hope that these two steps together would be productive and would provide sufficient assurance to the financial community that PGW would be able to have sufficient cash to be able to pay its bills when due, allow it to issue additional long term debt this fall and maintain its investment grade bond rating.

However, in the face of these efforts – and despite the City of Philadelphia’s unprecedented step of announcing the grant back for up to five years of the statutorily mandated, \$18 million City fee, in April, Standard and Poor’s downgraded PGW’s bonds to the lowest investment grade – BBB.² Most concerning, and despite PGW’s various efforts, Standard and

² See Standard and Poor’s statement at PGW St. CRRC-5, Exh. TEK-1. Fitch’s also downgraded PGW to just above junk status and announced that it has placed PGW on Credit Watch pending review of progress made during the summer. PGW St. CRRC-5, Exh. TEK-2. On June 8, Moody’s placed PGW’s bonds on its Watchlist and made statements similar to those of S&P saying that “PGW has faced a significant cash flow crunch due to slowed payment by customers of record high gas bills. While PGW has demonstrated that management is focused in the problems and the current marginal cash position allows for business to continue to operate further improvement to PGW’s liquidity are required to maintain the current rating level.” The review will take place within the next 90 days. Moody’s Investors Service Global Credit Research Rating Update – PGW (June 8, 2004)
www.moody.com/moodys/cust/research/genoa/report/rating%20Update8062.

Poors stated emphatically that the “[r]ating will be lowered further if PGW’s financial profile weakens over the near term and collections rates and cash margins do not improve materially.”³

PGW’s current Collections Initiative appears to have resulted in improvements in collections from the prior year – but, as S&P has indicated, this is not enough. In order to experience a “material improvement” in its collections, i.e., well beyond historic levels, PGW recently concluded that existing PUC customer billing, termination and collection rules must be modified. While the rules may be adequate in the abstract, many of them do not provide adequate collection tools, in some instances; others are out-of-date, and in some cases prevent effective collections efforts considering PGW’s special circumstances. Therefore, the rules must be modified if the Company is to have any realistic opportunity to meet the rating agency demands for significant cash improvement. The sheer volume of customer transactions all but make any application of some rules an academic exercise. PGW’s ability to administer and process the potential shutting off of 133,000 customers post-April 1 has resulted in thousands of customers continuing to receive service without paying timely if at all and costing the utility tens of millions of dollars!

While PGW was conducting informal discussions with various parties concerning the potential for such modifications, the PUC, on June 2, 2004 entered an Order directing that, if PGW believed that existing rules impeded its ability to achieve satisfactory collection levels, it should file a petition for Chapter 56 waiver within 30 days. Accordingly, PGW is requesting a set of specific and limited waivers and modifications of Chapter 56 rules, and is further seeking to establish clear interpretations of those rules. PGW’s list is estimated to produce approximately \$30 million in additional cash annually if implemented sufficiently before the

³ PGW St. CRRC-5, Exh. TEK-1.

beginning of the winter heating season. PGW is also vigorously attempting to increase state support for low income customers through revisions to LIHEAP rules and program funding.

If these modifications are implemented PGW believes that there is a reasonable chance that they will produce the “material” improvement in cash receipts and collections demanded by S&P. Most importantly, however, if the CRRC is not authorized by the PUC, it is crucial that the PUC take alternative action to assure the financial community that PGW will be able to achieve and maintain the cash working capital and collections improvement and obtain the financial results necessary for PGW, in the framework of this summer and fall’s efforts, to maintain its bond rating. PGW has no investors. With escalating gas costs, maintaining a 92% collection factor does not advance the Company’s position. At best, the Company treads water, with marginal levels of cash flows for FY 2004, when one-time deferrals are not considered.⁴ PGW must collect above this historic level to show progress.

It is for this reason that PGW is requesting (via a separate motion) that the Commission consider PGW’s requested Chapter 56 modifications at the same time that it rules on PGW’s request to implement a CRRC. The PUC can and must act immediately in order to allow PGW to utilize these tools as soon as possible so that they can achieve their maximum effect. Because each of these requests are matters of policy and all the factual issues are already on the record of the CRRC proceeding, the Commission does not need to delay the process for additional hearings or an ALJ recommended decision.⁵

⁴ See CRRC Record, PGW MB at 21-24.

⁵ Should the Commission seek factual support for the effectiveness of such changes to the rules as they apply to PGW, the appropriate mechanism would be to conduct a review of the impact of these changes during or at the end of a two year “pilot” period.

The specific Chapter 56 modifications and waivers, which are set forth in summary below and in detail in Appendix "A" to this Petition, were selected because they will each result in improvement in PGW's collections or reduce the cost or time associated with such collections while at the same time "adequately balancing consumer protection rights with PGW's financial integrity."⁶ Not only would the specific changes assist in PGW's collections effort, but such action by the PUC would help send the message that customers have a responsibility to pay and that the Commission will not condone tactics which have been characterized by the media as "gaming" the collections rules.

Many of the changes are easily justified. For example, permitting PGW to terminate service on Fridays is perfectly reasonable at this time, considering the fact that PGW can be open for payments 6 days a week and the ability of customers to pay their bills via credit card or by making bank withdrawals on Saturdays or via ATMs. If permitted, it would increase PGW cash collections by an estimated \$2.5 million. Other changes are clearly warranted under PGW's dire circumstances. For example, merely requiring all new customers to pay a set deposit of twice their anticipated monthly bill (set at \$250 for heating customers) before obtaining service would increase PGW collections by some \$7.6 million.

In each instance, PGW is requesting the modification principally to give it a chance to extricate itself from its current financial crisis and in recognition of the size and scope of PGW's unique collections challenges. For example, on an ongoing basis, fully one half of its residential customer – 250,000 accounts – do not pay on time and have to be dealt with by some aspect of

⁶ *Investigation into Financial & Collection Issues Regarding PGW, P-00042090/R-00049157, M-00021612/P-00032061.*

PGW's collections operation on a regular basis. Moreover, PGW had 133,000 residential customers who were eligible to receive termination notices as of April 1, 2004.⁷

The PUC can monitor and review these proposed modifications to assure that they do not unreasonably cause harm to customers. PGW proposes that these modifications be authorized as a pilot for an initial two year period. They can also be monitored and reviewed by the PUC for effectiveness during that time. In further support of this Petition, PGW states as follows:

Organization

The Petition is organized as follows. After a discussion of the background and the need for the requested Chapter 56 waivers, the specific waiver requests and their justification are summarized.

PGW then explains that, as a matter of policy and discretion, its Petition can be reviewed and accepted by the PUC without evidentiary hearings. Finally, the Petition explains the procedure PGW is proposing to resolve this matter and the requested relief.

Attached to the Petition is a verified statement of Randall Gyory, PGW Vice President of Customer Affairs which sets forth each PGW request for waiver or modification in detail, a calculation of the value of the modification to PGW's collections and/or cash working capital, and an explanation of why customer rights are not adversely affected.

Appendix B sets forth the specific sections of Chapter 56 that are proposed to be modified as well as the modifications proposed.

Background

1. As fully explained and documented on the record of the CRRC Petition, as a result of dramatic increases in natural gas prices, PGW, still recovering from a financial crisis

⁷ PGW St. CRRC-5 at 4, 16; Tr. at 355 and 367.

which forced it in early 2002 to seek an extraordinary rate increase in order to stave off a cash shortfall and bond downgrade, once again has found itself faced with yet another cash working capital shortfall. As PGW's gas rates have climbed, to reflect spiraling wholesale natural gas prices, the Company's cash receipts, as a percentage of billings have spiraled downward. Correspondingly, its uncollectible expense has reached new highs.

2. Rather than file a base rate proceeding which would not result in timely relief and would potentially raise rates by an estimated \$70-90 million on a permanent basis, on March 1, 2004, PGW filed to establish a CRRC, an automatic adjustment clause mechanism designed to true-up PGW's receipts versus its billings so that its total revenue collected would equal its historic level of uncollectibles – 92.38% of billings.

3. The Petition explained PGW's need to implement such a clause as follows:

In the last 18 months, PGW has experienced a dramatic increase in the relative level of customer non-payments. While historically, PGW's collections percentage has averaged 92%, most recently its cash collections rate has been under 87% (86.5%) This drop off can be associated with historically high natural gas rates, a return to colder than normal weather and a customer base whose household and business income levels continue to drop, making it increasingly difficult for those customers to absorb such increases. For example, natural gas prices have more than doubled since 1999, with no return to historic levels predicted.

As a Cash Flow regulated company, PGW receives 100% of its cash working capital from its customers and the rates it charges to them. The cash collection shortfalls that PGW is experiencing is robbing PGW of cash working capital that is crucial if it is to avoid financial crisis which, in turn, would harm PGW's customers. . . . In order for the Company to be able to survive its precarious financial position and access to capital markets, permitting it to continue its capital improvement plan and to pay its obligations when due, PGW must find a way to respond to the effects of

persistently high natural gas prices on its uncollectibles and to increase the percentage of actual cash receipts to billings.⁸

4. PGW's worst-case, original projection of the additional revenues that would be recovered through the CRRC, to be charged to all firm customers, was \$47 million, based on an assumed 89% cash collections rate for FY 2004 (September 1, 2003 through August 31, 2004).⁹

5. In addition to requesting the CRRC, PGW undertook a massive and unprecedented Collections Initiative designed to increase its collections activities in every area by, among other things, directing more resources than ever before to collections and publicizing the Company's need and commitment to collect every possible dollar.¹⁰ While PGW was concerned that the historic relationship of high gas costs and low collections percentages¹¹ would make it difficult to achieve a material improvement, it nonetheless made every effort to reverse this trend. At the close of the CRRC record, PGW was predicting that it was going to be able to increase its collections percentage for FY 2004 to between 91 and 93%.¹² At 93%, PGW would charge virtually nothing through the CRRC; at 91% it would charge about \$18.7 million to customers on a going forward basis.¹³

6. As explained by PGW witnesses, however, regardless of whether the CRRC would actually charge customers, the mechanism is needed to assure the financial community

⁸ *Petition of Philadelphia Gas Works to Establish a Cash Receipts Reconciliation Clause*, P-00042909 at 1-2.

⁹ *Id.* at 13.

¹⁰ *See*, PGW St. CRRC-3.

¹¹ PGW St. CRRC-4 at 2.

¹² *See*, PGW St. CRRC-1 at 2.

¹³ PGW CRRC MB at 28-29; Tr. 364.

that PGW, at a minimum, would be able to collect at its historical level of collections on a going forward basis. In this respect, it would act as a hedge or a backstop.¹⁴

7. After PGW filed its CRRC Petition, PGW received telling evidence of the serious financial crisis in which it found itself. On April 9, 2004, Standard & Poors lowered its rating on PGW senior revenue bonds to BBB- the lowest investment grade rating.¹⁵ S&P cited “weakened liquidity position and declining credit measures fueled by collection rates that deteriorated appreciably in the last year.”¹⁶ It commented further in summarizing PGW’s current situation:

PGW’s unrestricted cash reserves are currently below \$1 million, representing less than one day’s cash. Cash flow from operations which takes into account PGW’s low collection rates, is generally insufficient to cover the utility’s fixed charges in high gas price years. Throughout the year, its \$80 million commercial paper program is often fully drawn. . . . To deal with the current liquidity strain, PGW has entered into gas storage deferral contracts, is seeking cash receipts – related relief from the [PA PUC] and has requested annual payment forgiveness from the City of Philadelphia for the next five years. The lowered rating assumes that PGW will obtain annual payment forgiveness from the City even though such payment forgiveness is still subject to Commission approval.¹⁷

The S&P statement in its “outlook” stated the following:

¹⁴ As Mr. Bogdonavage explained during the hearing, “I think . . . more importantly [the CRRC] would be [a] signal out to the financial community that PGW, just as the weather normalization clause that was provided by the PUC, granted PGW basically an insurance policy that on a warmer winter PGW’s margins would not be eroded. This CRRC would have the same impact. We would at least be able to guarantee to the financial community, we would be able to attain our historic collection revenue. That would mitigate the risk to perspective bond holders.” CRRC Record Tr. at 316.

¹⁵ PGW St. CRRC-5, Exh. TEK-1.

¹⁶ *Id.* at 1.

¹⁷ *Id.*

Ratings will be lowered further if PGW's financial profile weakens over the near term and collection rates and cash margins do not improve materially. Additionally, any of the following events could have a negative ratings implications: if access to short term borrowing is restricted, if suppliers place additional liquidity demands on PGW, or certain support from the City is not forthcoming.¹⁸

After S&P Fitch followed suit, stating that:

The City Administration has reviewed PGW's current financial status and has agreed to significant steps to assist the Company in attempting to extricate itself from its cash crisis. It has agreed to grant back its \$18 million City payment for five years and it deferred the payment of the \$45 million City loan for two years. The Company has executed an expanded "forward purchase" of natural gas to provide it with reduced cash working capital requirements in the fall. None of these positive steps were sufficient to stave off the current downgrades.¹⁹

8. Importantly, and as the rating agency public statements made clear, the downgrades and the threat of further downgrades to junk bond status were made despite the knowledge that PGW had requested the CRRC mechanism and had initiated a Collections Initiative that was projected to put collections back to historic levels.²⁰ More troubling, the downgrade came in the face of the promise by the City of Philadelphia to forgive or to otherwise not require the transfer of PGW's legally mandated \$18 million payment in lieu of taxes for a five year period and to defer a \$45 million working capital line of credit loan for two additional years that had been awarded to PGW by the City and which was initially scheduled to be repaid in 2004.²¹ The clear signal was that PGW had to find additional means of improving its financial

¹⁸ *Id.* at 2 (emphasis added).

¹⁹ PGW St. CRRC-5, Exh. TEK-2.

²⁰ PGW St. CRRC-5, Exh. TEK-1.

²¹ *Id.*

situation in the very near term in order to avoid the costs and other problems associated with junk bond status.

9. As PGW has explained on the record in the CRRC proceeding, the consequences of the downgrade to junk bond status would be devastating for the Company. A junk bond rating would seriously threaten the ability of PGW to raise long term debt in sufficient quantity necessary to completely fund its ongoing construction program.²² The construction program is specifically focused on maintaining the safety of PGW's gas distribution system as well as its reliability, and includes many projects that are designed to allow PGW to continue to provide maintenance in the most efficient manner possible. Even if PGW were able to continue to issue bonds at the same level and amount, the cost increase will be enormous. In the last several years, the issuance cost of securities has increased from 2.2% to 8.7%.²³ If a downgrade to junk bond status occurred, PGW would not be able to get insurance which would further threaten the ability to issue the bonds and would raise the cost many fold if new debt was able to be issued.²⁴

10. As indicated, even before S&P issued its bond downgrade and threatened further negative actions, PGW had undertaken a massive "Collections Initiative" designed to combat historic trends of decreased collection levels when natural gas rates have increased and to improve PGW's collections to at least its historic, 92% level and above.²⁵ PGW explained on the record of the CRRC proceeding the varied and ongoing efforts that PGW has initiated to improve every aspect of its collections practices. All of the steps were initiated in conjunction with

²² See PGW St. CRRC-5 at 8.

²³ See PGW St. CRRC-5 at 8.

²⁴ *Id.*

²⁵ PGW St. CRRC-3.

PGW's consultants, Accenture, who have extensive experience assisting utilities in collections operations and practices.²⁶

11. As the above recitation indicates, the rating agencies have made clear that PGW must show a material improvement in its cash working capital and collections in the very near term in order to stave off a further downgrade. PGW believes that there are two critical dates. First, PGW is in the midst of preparing to issue an additional long term bond in August, and the rating agencies will be examining PGW's performance and/or the tools available to improve performance during the time of this issuance. Second, PGW is scheduled for an annual review by S&P which would be formally announced in February 2005. That review will be based on information gathered in the few months prior to that date.²⁷ Moody's has indicated that it will take action within the next 90 days.

12. PGW has taken extraordinary steps to increase the success of its collection efforts within the traditional rules and parameters. Its Collections Initiative has included increases in overtime to permit additional collections, new efforts to provide reminder calls to customers who fall behind in their bill after a bill is overdue less than 30 days, and the implementation of an electronic information transfer process so that PGW now reports to the credit bureaus the payment status of every customer. Other steps include: filing liens on past due accounts and filing collections actions in court against commercial customers, including landlords.

13. Notwithstanding all of these efforts, PGW's current results show that, while it has improved in comparison to FY 2003, its FY 2004 results will likely produce collections and uncollectible levels that are close to its historic experience – 91-92%. This has nothing to do

²⁶ PGW St. CRRC-3 at 3.

²⁷ Tr. 391.

with “adopting” Chapter 56 procedures on September 1, 2003 – just the opposite is true; PGW has been living with rules very similar to Chapter 56 for years. The extraordinary achievement, considering the combined impact on customers of the high gas prices and the cold weather, is due entirely to PGW’s unprecedented Collections Initiative, undertaken in consultation with the nationally renowned consultant Accenture, in which almost one-third of the Company is now engaged. However, there are no assurances or promises that its recent improved performance will continue. Indeed, PGW historically has seen a drop-off in its level of collections in the summer months. If repeated, that pattern would result in PGW achieving a lower level of success. The present 12 month rolling average of collections is approximately 90.1%.

Need For Chapter 56 Waivers

14. As explained above, PGW needs to demonstrate to rating agencies and the financial community that it has put in place in the very short term a set of tools which will permit it to materially increase its cash working capital and collections. There are two ways in which this issue must be addressed – customers must make agreements such that customers can demonstrate intent prior to the winter, and then PGW must make sure that they keep paying on those agreements and during the winter because it needs the cash to pay its bills. If customers fail to pay in winter and build a large arrearage, it will be very difficult for them to catch up and enter a payment agreement that is reasonable for them and for PGW once the winter moratorium ends.

15. The timing of the requested relief is also vital. Because PGW collects a huge percent (75%) of its total revenue in the winter months, starting in December, any revenue enhancements must be in place early in the fall in order to have any effect on the Company. Moreover, revisions to current customer billing and collection rules, have to be put in place as soon as possible in order to permit PGW to implement the revisions. PGW needs approximately

six to eight weeks lead time in which to implement the package of Chapter 56 revisions here requested.

16. The key part of the additional tools to assure adequate cash working capital is PGW's requested CRRC. The CRRC is designed to act as a backstop or a hedge to insure that PGW, at the very least, will reach an historic cash collection in uncollectible levels. While PGW's unprecedented Collections Initiative is currently on track to return PGW's cash receipts to historic levels, the CRRC nonetheless is crucially important to assure the financial community that PGW at least has this necessary base line of cash, or a floor, on which to rely.

But, the Standard and Poors' statements make it clear that more is absolutely necessary. In addition to implementing the CRRC, and especially if the Commission declines to grant the CRRC, the only viable way in which to materially increase working capital and collections beyond historic levels is to institute a series of revisions and modifications to existing customer billing and collections rules designed to assure that all PGW customers who can pay do so, and give PGW assurances that it will be able to increase materially its collections and cash working capital beyond historic levels. The package of revisions and modifications being proposed by PGW has been estimated to have the potential of producing close to \$30 million of additional cash working capital for the Company, on an annual basis, without adding new burdens to remaining customers. If implemented in time, PGW should be able to realize a significant portion of this revenue in the remaining five months prior to the moratorium while also sending an important signal to both the investment community and to customers who might have tried to delay or avoid payment in the past.

17. It should be obvious that, short of extraordinary rate relief, there is no other way the Company can increase its cash in this time frame and in a way that will send a clear signal to

the rating agencies that PGW has a reasonable chance at increased collections, not only for the upcoming months, but in future years as well.²⁸ The CRRC and this request for revised collection rules to increase cash collections is far better than increasing the rates of all customers on a permanent basis.

18. In large part, the modifications and waivers requested would alter rules that have been in place and that PGW has been following for many years, and not specifically the result of adherence to Chapter 56 rules and procedures. PGW's pre-PUC customer service rules, while not identical to those in Chapter 56, were closely modeled on Chapter 56 and the Company started to adhere to most of the remaining Chapter 56 requirements several years ago as part of a "Memorandum of Understanding" that was entered into with the Commission in 2000.²⁹ For this reason, it cannot be argued reasonably that PGW simply needs to "live with" Chapter 56 requirements for a longer period. In a few instances, however, PGW is requesting a modification or specific waiver of interpretations of Chapter 56 rules that are generally applied to utilities by the PUC's Bureau of Consumer Services.

19. In all cases, PGW's requests for modification and waiver are focused on PGW alone. PGW, in this filing, is not making any statement or representation about the general adequacy or reasonableness of Chapter 56 requirements or BCS interpretations of those requirements as applied to any other public utility. PGW's request is being made specifically because of two factors: first, as discussed above, its current financial crisis requires

²⁸ As indicated above, prior to filing the CRRC, PGW considered the filing of a base rate proceeding, but rejected this course because of the massive permanent rate increase that customers would have to try to deal with and the fact that higher permanent base rates would simply make it even more difficult for many of PGW's customers to pay what they owed. CRRC Record, Tr. at 357.

²⁹ See, Memorandum of Understanding Between Pa. PUC and PGW.

extraordinary measures including the modification or waiver of certain rules to facilitate or increase the chances that it will collect over and above historical levels. The in-house efforts are designed to bring PGW's collections activities to the highest level of performance when compared to best practices in the industry. Second, the size and scope of PGW's payment-troubled customer problem means that its historic collections levels will never be able to be improved without modest waivers and revisions of some rules. The record of the CRRC proceeding demonstrates why this is the case. PGW witness Gil Peach testified persuasively that PGW's existing collections issues resulted principally from the combination of very high natural gas bills together with declining real income and increased poverty levels in the City of Philadelphia.³⁰ Supporting Dr. Peach's conclusions are the following: 1) Some 250,00 PGW customers are payment troubled on a regular basis.³¹ 2) 133,000 customers were eligible to receive notices as of April 1st this year because they were in arrears on their natural gas bills.³² This represented some \$137.5 million in "unprotected" accounts receivable. Because of the sheer volume of the problem, PGW will not be able to complete the collections process for these 133,000 customers (i.e., either receive full payment, enter into a payment agreement or terminate service) until late June. 3) Of the 133,000, just 5% were associated with family incomes of \$40,000 or more. 45,000 accounts in this category and \$36 million in arrearage were associated with customers with incomes of between \$30,000 and \$40,000, and the rest, over 80,000 accounts representing \$95 million in arrears were associated with customer accounts whose

³⁰ See PGW St. CRRC-4, (Revised) at 7-10, 11.

³¹ CRRC Record PGW St. CRRC-5 at 4; Tr. at 367.

³² See PGW St. CRRC-5 at 16.

family incomes were below \$30,000 a year.³³ 4) In part because of these facts, fully 91% of all payment arrangements are broken by PGW customers within 1 year. PGW asserts that this data requires the conclusion that achieving substantially increased collection levels will require the modification of existing rules, as well as extraordinary steps above and beyond those that have already been utilized or which are authorized by existing rules on a case by case basis.

Specific Waiver Requests

20. Set forth below is a summary of the waiver requests and revisions to Chapter 56 and current PUC/BCS policy that PGW seeks. In addition to the summary below, PGW is attaching Appendix "A," a detailed narrative which explains each of the waiver requests, a summary of the justification, explanation of the derivation of the value that PGW projects or estimates, and the PUC regulations that PGW believes are affected.

21. PGW has compiled a set of nine modifications to existing Chapter 56 requirements or BCS interpretations thereof which, if adopted, would provide PGW with reasonable assurances that it will be able to increase its collections and cash flow in the short term. Just as important, establishing these changes will send a clear signal to the rating agencies and the financial community that PGW has been given the tools to improve its collection performance in a material way. Finally, a PUC action approving the CRRC and/or approving the collection rule revisions proposed below will send a clear signal that the PUC is supportive of the Company's attempts to improve materially its collections percentages in a clear and focused way.

Significantly, waivers and rules modifications proposed herein may be implemented while nonetheless providing reasonable and adequate consumer protections (i.e., in most

³³ *Id.*

instances, the revisions merely reduce the ability of non-paying higher income customers to continue to receive service without making payments on their arrearage). In no case is PGW proposing to limit the current payment rights of Level One or Level Two customers. Other changes (i.e., requiring positive identification) are designed to directly address customer "payment avoidance techniques" which affect no consumer rights. Allowing Friday shut-offs merely changes antiquated procedures. Finally, certain of the changes (allowing terminations procedures to extend more than 30 days, requiring a set deposit for all customers and permitting PGW slightly more time to restore service) are a minimal and justified intrusion in light of PGW's financial circumstances.

22. For each of the modifications, PGW has calculated the additional cash (or cost savings) that it estimates from the change. PGW is not basing its waiver requests on these specific quantifications. Rather, it is providing these projections as a general indication of the additional collections that could occur if the modifications are adopted. Whatever the exact actual number, it is clear that the package of changes will positively impact PGW's collections results and the Commission should make its policy decision to grant the Petition based on that undeniable understanding.

23. A summary of the specific requested revisions are as follows.

(a) Permit PGW to require payment of full balance and related charges to restore Level Three and Four customers who have been shut off for non-payment. Estimated value: \$4.2 million. This proposed revision recognizes that fully 91% of the payment arrangement agreements entered into by customers were broken within twelve months. By focusing on higher income level customers, and insisting on the payment of the full balance of any outstanding arrearage prior to restoring service, the Company will break through the existing circle of customers entering into payment arrangements, breaking the payment arrangements and

either entering new payment arrangement or continuing to receive service from PGW for months afterward either because of delays in termination or the winter moratorium.³⁴

This provision will not affect Level One and Level Two customers. Level Three and Four customers may file a complaint with the PUC if the customer believes that the bill is in error. Moreover, PGW will closely coordinate with City and State social services to assure that any such customer will have access to all available services.

(b) Waive the winter moratorium shut-off ban for Level Three and Four customers. Estimated value: \$1 million. This proposed change would provide PGW with clear initial authorization to terminate customers who run up large arrearages and then continue to receive service because of winter moratorium requirements. By focusing only on higher income customers, the requested modification adequately balances consumer protections with the need to both increase collections and to send a signal to customers that the moratorium cannot be used as a shield to avoid paying their gas bill. While Chapter 56 has a set of procedures that would permit winter shut-off on a case-by-case basis, those rules are extremely cumbersome considering the huge number of customers with which PGW must deal. As indicated above, fully half of PGW's customers are payment troubled or behind in their payment in some respect. Almost a quarter of all residential customers – 133,000 – were in arrears and subject to termination notices as of April 1 of this year. A rule that requires a case-by-case process to reverse the winter moratorium simply cannot work for a company with the size of the problem that PGW is experiencing.³⁵

Again, customers who indicate an inability to make the necessary payments to reinstate service will have the option of utilizing to State and local social services, just as home heating oil or propane customers would be.

³⁴ Gyory Appendix, ¶ 11(A).

³⁵ *Id.* at ¶ 11(B).

(c) Require a flat turn-on deposit required for all new/restored customers and refuse service until deposit is paid in full. Estimated value: \$7.6 million. PGW requests that the PUC permit a flat set deposit for all customers that start service. The deposit would be set at twice the average monthly bill (approximately \$125). For heating customers, the deposit would be \$250.00, and for non-heating customers the deposit would be \$100.00. Commercial customers would be required to pay twice the projected average monthly bill. CRP customers would not be affected by this rule change.³⁶ This one item would produce a tremendous savings to PGW because it would provide security and a potential source of revenue to off-set non-payments in the face of thousands of non-payers. Requiring a deposit before service is provided is a standard business practice used in a host of areas such as residential and commercial leasing. Again, while some utilities have used short hand methods of determining customers who pose credit risks, such as credit scoring, PGW's volume of customers who are potential credit risks make any kind of individual credit analysis costly and burdensome. Additionally, PGW has not yet installed the systems and software necessary to evaluate credit scoring as a means of identifying customers who should be subject to a deposit and would not be able to begin to implement a credit scoring pilot any sooner than the second quarter of 2005. A flat deposit requirement avoids these types of problems.³⁷

(d) Require all applicants to establish positive identification and require applicants who are identified as previously residing at that location be held responsible for any previous arrearage during the time they resided there. PGW's proposal in this area is to utilize recent systems software advances to check the identification of new customers as well as their previous addresses. If the check determines the new applicant has previously resided at the address for which service is being requested, PGW would demand the payment of any outstanding

³⁶ *Id.* at ¶ 11(C).

³⁷ PGW is not physically capable, at present, to make such an interrogation; it is installing the software necessary to do so and was planning a trial in 2005.

arrears from that address during the time for which the database indicated the new applicant had lived at that address. This approach would assist PGW in eliminating the “name game,” where customers run up huge balances and then after being shut-off re-apply for service in the name of some other person in the household. PGW does not believe that requiring all customers applying for service to include on the application the names of all adult members of the household is an effective method of combating this problem because of the sheer volume of applications and the inability to verify the accuracy of the information.³⁸ Since PGW’s need is to immediately increase collection percentages, this is the best approach at this time to combat “name game” fraud. Applying for service in the name of someone else in the household merely to avoid a large balance cannot be justified under any circumstances. However, if in the extremely unlikely event that a customer legitimately has taken over the service from someone in the household for which they had no responsibility, or if the information from the data base is incorrect, the customer would have a right to file a complaint with the PUC.

(e) Allow only one payment arrangement for each customer with a changed circumstance of income level being the only basis permitted for an additional payment arrangement. For upper level income customers (Level Four), after a broken payment arrangement, the customer would be required to pay the outstanding balance in full. The payment arrangement for Level Four customers would be restricted to a maximum timeline of twelve months and a minimum payment amount of \$100.00.³⁹ PGW’s proposal is not dramatically different than

³⁸ Gyory Appendix at ¶ 11(D).

³⁹ For other levels PGW proposes the following. Level Three: one payment arrangement minimal payment arrangement of \$100.00 over a maximum timeline of 24 months; if the payment arrangement is broken the customer will have one opportunity to “cure” the payment arrangement; Level Two customers would be offered one payment arrangement with a minimal payment of \$40.00 per month. If the payment arrangement is broken the customer would be required to cure the payment arrangement, there would be no limit on the number of times the Level Two customer could cure the payment arrangement. As

the current PUC policy as articulated in the *Frayne* decision,⁴⁰ except that a hard and fast rule for changed circumstances would be established. Such a bright line rule is justified because 91% of PGW payment agreements are broken within twelve months. PGW is dealing with a huge number of potential payment agreements and/or customer contacts: 133,000 at the present time, and the number of payment arrangements that each customer entered into on average is almost two. Only by limiting the number of payment agreements in a specific way will PGW have any hope of substantially increasing its collections. The rule is justified because of the large volume of PGW broken payment agreements and PGW's need to increase collections, in order to produce the cash working capital to survive. Customers are adequately protected because PGW is not removing a customer's ability to avoid termination by agreeing to a payment agreement, or (for upper income customers) by paying their bill in full, despite the customer's failure to live up to his/her obligation to pay for the service they have received.⁴¹

(f) Allow Friday shut-offs. Estimated value: \$2.5 million.⁴² The Friday shut-off rule⁴³ was established at a time when banks were not open on weekends and there were no ATMs. In today's environment, PGW's customers have multiple channels available to pay their bills on Fridays and Saturdays, and indeed even on a seven day basis. PGW will stay open on Saturday and be available to restore service on Saturday as well. No other business of which PGW is aware in the Philadelphia area is limited to just a few days on which it can terminate service for non-payment.

similar arrangement would exist for Level One customers except the minimal payment arrangement would be \$15.00.

⁴⁰ *Mary Frayne v. PECO Energy Company*, Docket No. C-20029005, Opinion and Order (Dec. 23, 2003).

⁴¹ Gyory Appendix at ¶ 11(E).

⁴² *Id.* at ¶ 11(F).

⁴³ 52 Pa. Code § 56.82.

(g) Eliminate 48 hour notice periods. Estimated value: \$1 million. This proposal would allow PGW to eliminate one of the several steps now required before termination is possible. This proposal would reduce from two to one, the number of on-site service visits that is required before service can be turned off. Currently, the termination process is relatively long and costly. Simply eliminating the need to make an additional visit to a customer's home, and to allow termination upon one visit, will help PGW reduce its costs by a minimum of \$1 million per year. PGW would still provide the standard 10 day notice and 72 hour phone call that are currently required by Chapter 56.⁴⁴

(h) Waive the 30 day maximum period to complete a termination (during non CWIP period). Estimated Value: \$1 million. Currently, BCS requires termination notices to be effectuated within 30 days of the notice; i.e., termination must occur within that period or else the entire process must begin again. Such a requirement cannot be justified in light of PGW's serious cash flow needs and the high cost of engaging in the termination process for PGW. In lieu of a 30 day period, PGW proposes that it be provided an additional 30 days (60 days) so that it will not have to continually re-start the termination process. Allowing the termination process to proceed to completion not only saves PGW money, but also eliminates the perception that PGW is not serious about termination.⁴⁵

(i) Permit PGW up to seven days to restore service in "dig up" situations and three days in non-dig up situations during non-CWIP periods (April 1 through November 30). Estimated Value: N/A. The current rule, that once a customer takes the necessary steps to restore service, service must be uniformly restored within 24 hours imposes impossible requirements on PGW. This is because so many of its restorations require field visits and in many cases physical construction (the digging up of a service line). Moreover, PGW is dealing with tens of thousands of restoration, more than other gas companies. The 24 hour re-

⁴⁴ Gyory Appendix at ¶ 11(G).

⁴⁵ *Id.* at ¶ 11(H).

connection requirement means that PGW must make provisions to ensure that, if and when customers take the required steps, it has the ability to respond almost immediately and re-connect the service. This cuts down drastically on the number of terminations the Company may do. Accordingly, a much more reasonable rule would be to permit PGW a longer period to restore service, up to seven days for physical dig-ups and three days for non-dig-ups. 24 hours should remain the rule whenever service has been terminated and the initial determination of the Commission is that the termination was inappropriate or in violation of PUC or PGW rules. PGW will also prioritize service restorations to give priority to households with seniors or small children.⁴⁶

PGW'S Requests Satisfy Basis For Waiver/Modifications Of PUC Rules As Applied To PGW

24. There should be no dispute that the Commission has the legal authority to grant the waivers and modifications requested by PGW. First, under Section 2212(c) of the Public Utility Code, the Commission "may suspend or waive the application to [PGW] of any provision of this title, including any provision of this chapter other than this section."⁴⁷ Thus, the Commission has the authority to suspend or waive Section 1501's adequacy of service requirements in their entirety. As Chapter 56 of the Commission's regulations are promulgated under and are a further explication of the requirements in Section 1501 of the Code, the Commission clearly has the lesser included authority of waiving, suspending or modifying the collections rules embodied in those regulations.

⁴⁶ *Id.* at ¶ 11(I).

⁴⁷ 66 Pa. C.S. § 2212(c).

25. Second, the Commission has instituted its *Investigation into Financial and Collections Issues Regarding PGW* as an extension of the Company's restructuring proceeding.⁴⁸ In transitioning PGW to gas choice and full compliance with the Public Utility Code and PUC rules and regulations, the Commission is directed, by Section 2212(h)(1) of the Code, to examine the costs and benefits of such compliance.⁴⁹ Further, upon request by PGW, Section 2212(h)(1) empowers the Commission to waive the application to PGW of any of its rules, regulations or orders in the event it determines that the costs of compliance would not be prudent.

26. Accordingly, under Section 2212(h), the Commission has full authority to grant PGW's Petition for Waiver. The cost-benefit determination is one of policy which is within the Commission's expertise.⁵⁰ As set forth in the Petition, the costs of continued adherence to the itemized Chapter 56 collections rules would not be prudent, as it would prove extremely costly by hindering the Company's ability to enhance materially its collections and cash receipts in contravention of the express demands of the bond rating agencies. In the recent past, the Commission determined that a downgrade of PGW's debt below investment grade to junk status would be so costly that it warranted rare and extraordinary relief from the Commission.⁵¹ The same threatened consequence from a lack of near term, material improvement in the Company's

⁴⁸ See June 2, 2004 Order at 4 (consolidating the restructuring docket, Docket No. M-00021612, with this investigation).

⁴⁹ 66 Pa. C.S. § 2212(h)(1).

⁵⁰ *Cohen v. Pa. PUC*, 463 A.2d 1274, 1279 (Pa. Cmwlth. 1983) (PUC has expertise in determining benefits and costs of ratemaking related accounting policies.) The Commission's expertise is judging the costs and benefits of adherence to its own regulations would be no less.

⁵¹ *Petition of Philadelphia Gas Works for Extraordinary Rate Relief Pursuant to 66 Pa. C.S. § 1308(e)*, R-00017034F0002, Opinion and Order (April 12, 2002).

collections and cash receipts would be no less costly, and certainly outweighs any minimal benefit from pure and exact compliance with Chapter 56's collections rules.

27. Finally, Section 5.43 of the Commission's regulations specifically envisions a waiver petition such as that filed by PGW.⁵² PGW has complied with that provision and cited the "appropriate reference [to] the statutory provision" as detailed above.⁵³ Therefore, the Commission undeniably possesses the authority to grant the relief requested by PGW, and should do so for the reasons set forth herein.

Requested Procedure

28. As detailed above, the requested waivers and modifications must be in place and in action by this fall in order for them to send the appropriate signal to the ratemaking agencies and have the needed impact of materially improving the Company's collections and liquidity levels in the near term and before the winter heating season. Accordingly, PGW requests that this Petition for Waiver be broken out from the remaining issues in the Commission's Investigation, and acted on jointly with the CRRC at the Commission's July 8 Public Meeting.

29. On the same date as the filing of this Petition, PGW has filed a separate Motion for Concurrent Disposition which sets forth the need for and appropriateness of concurrent treatment of the Waiver and CRRC Petitions. In order to facilitate such joint consideration, the Company proposes that answers to this Petition be due no later than July 2, 2004, which affords

⁵² 52 Pa. Code § 5.43.

⁵³ *Id.* While Section 56.222 of the Commission's regulations discusses its ability to grant "temporary exemptions in exceptional cases" upon the application of a person or utility, this provision is inapposite to PGW's Petition and is not the basis for the Commission's waiver authority. The section clearly envisions waiver requests in the context of specific customer service scenarios impacting individuals or a limited number of customers, and not a comprehensive modification of the rules for a utility's entire customer base.

the parties 16 days to respond. If the standard 20 day answer period is followed, the parties will still be filing answers prior to the Public Meeting (the due date would be July 6), but the period for Commission consideration of the responses would be more limited.

Requested Relief

For all of the foregoing reasons, PGW requests the Commission to grant the waivers and modifications listed in Appendix "A" to this Petition.

Respectfully submitted,



Daniel Clearfield, Esq.
Wolf, Block, Schorr and Solis-Cohen LLP
212 Locust Street, Suite 300
Harrisburg, PA 17101
(717) 237-7173

Of Counsel:
Gregory Stunder, Esq.
Philadelphia Gas Works
800 West Montgomery Ave
Philadelphia, PA 19122

Date: June 16, 2004

APPENDIX A

APPENDIX A

VERIFIED STATEMENT OF RANDALL GYORY

I, Randall Gyory, hereby states as follows:

1. I am the Vice President -- Customer Affairs of Philadelphia Gas Works.

2. In that capacity I have responsibility for, among other functions, PGW's collections activity and have devoted considerable time during the last year to improve PGW's performance in that area. I have worked with our consultant Accenture whom we hired to lend their substantial expertise in this effort. Relying on its extensive experience on these subjects with utilities around the country, Accenture has participated in the cost/benefit analysis and the verification of these proposals as cost justified.

3. As set forth in the attached Petition, which is true and correct to the best of my knowledge, information and belief, PGW has taken extraordinary steps to improve its collection success within the traditional rules and parameters and in the *face of natural* gas costs that continue to spiral upward. The Collections Initiative has included increases in overtime to permit additional collections, new efforts to provide reminder calls to customers when their bill is overdue by 30 days, the implementation of an electronic data transfer process that now enables PGW to report to the credit bureaus the payment status of every customer, and improved data tracking to monitor progress. Other new steps in the Collections Initiative include the electronic filing of liens on past due accounts, as well as filing collections actions in court against commercial customers and large residential customers, including landlords.

4. PGW's collections have improved as a result of the various changes that have been made in our operations. As of today, PGW's projected cash receipts percentage for

FY 2004 is 92%. The 12 month rolling average, however, is 90.1%. PGW continues to modify and improve the collections initiative within the framework of the Public Utility Commission's rules and regulations.

5. Nevertheless, our experience has been that certain of those rules, or the interpretations of those rules by the PUC's Bureau of Consumer Services, are either out-of-date or inhibit effective collections activity and that changes could be made that would allow us to improve collections without substantial erosion of customer protections.

6. Should the requested waivers be approved by the Commission, implementation of the changes through creation of a training program and conducting the training for our customer service representatives will require up to six to eight weeks, depending on the complexity of the changes required by the Commission. In addition, PGW would be conducting a community education program. These efforts mandate early approval of the waiver request in order to ensure maximum effectiveness for the full period before the winter moratorium period.

7. In considering these waiver proposals, it is important for the Commission to keep in mind that PGW makes these proposals based on long experience with the requirements set forth in these specific sections of Chapter 56 and with most of the other requirements contained in Chapter 56. While it is true that PGW has been under PUC jurisdiction for only a short period of time and has had to comply formally with Chapter 56 itself only since last year, the relevant mandates of Chapter 56 are almost identical to, and in some cases identical to, the customer service regulations imposed by the Philadelphia Gas Commission and PGW started to comply with some of the differences pursuant to a voluntary agreement entered into between the Company and the PUC.

8. The requests for waiver are driven by the dire financial need of PGW to improve collections, as set forth in greater detail in the evidentiary record of the CRRC proceeding. Were it not for PGW's unique position with regard to cash collections, demographics, and municipal ownership, it is not likely that I, as the person most directly responsible for cash collections, would be pressing for additional collection tools.

9. The other significant factor that drives the requirement for these waivers is the failure of the CRP, PGW's CAP, to fulfill its program goals. As PGW will set forth in detail in the Commission's investigation of the Universal Service Program, CRP was designed to provide low-income customers with an affordable payment responsibility that generated for PGW sufficient revenue to pay for the gas (and other variable costs) provided to the customer plus make at least a \$1 contribution to PGW's fixed costs (overhead). The payment responsibilities met those goals through the 1990s, but no longer cover even the cost of gas since the price increases of that commodity. Revision of the CRP would normally be one vehicle for resolving that problem (though I believe that the Chapter 56 waivers are also appropriate), but CRP revision will be a complex and lengthy process which will not meet PGW's immediate cash crisis.

10. As will be evident when reviewing the proposed waivers, there are two underlying premises which guided PGW's proposals:

A. Those who can pay, must do so. Few changes are proposed for Level 1 and 2 customers – those at or below 150% of the federal poverty standard. The real focus of these proposals is to create more effective collection tools for PGW and payment incentives for those above 150% of that poverty standard. For example, a Level 3 family of four would have a family income between \$28,284 and \$56,556. A Level 4 family

would have income above that level. In PGW's opinion, customers with incomes at these levels have the ability to pay and should be required to do so, especially in light of PGW's precarious financial situation. However, only a relatively small percentage of our customer population is at Level 3 or 4, making it particularly important to PGW's resolution of its financial crisis that these customers meet their full responsibility and requiring us to propose rules which affect all customers in some instances.

B. Because of PGW's dire financial condition, PGW's collection effort must be based on principles that are used by most well-run businesses.

11. Set forth below I have provided the estimated value of the proposed Chapter 56 modifications to Philadelphia Gas Works, justification for the modifications, and the derivation of the estimated values. I also explain why, in PGW's view, the requested modifications appropriately balance the legitimate rights of consumers with PGW's need to improve its financial position by increasing its collections.

A. Permit PGW to require payment of full balance and related charges for Level 3 and 4 customers who have been shut off for non-payment.

Estimated value: \$4.2 million.

Justification: 91% of the payment arrangements entered into by customers during 2003 were broken within twelve months. The purpose of the proposal is to ensure that PGW is protected when customers stop paying during the winter period but continue to receive gas for which they subsequently make few or no payments.

Customers will be protected from undue hardship in two ways. First, this new regulation would not apply to customers at or below 150% of the poverty standard, but

only to Level 3 and 4 customers who, by definition, should have the ability to pay.

Second, any customer who believes that the charge being requested is inaccurate or incorrect may file a complaint with the PUC.

Derivation: At the end of April, 2004, approximately 133,000 accounts were eligible for shut-off.¹ Of the 133,000 accounts, service will likely be terminated to approximately 33,000 accounts before December 1. Of the 33,000 accounts, approximately 7,500 are Level 3 and 4 customers. Experience shows that 90% of terminated customers reconnect service. It is therefore anticipated that 6,750 of the 7,500 customers will reconnect. Based upon an average account balance of all level 3 and 4 customers of \$620.00 as of April 2004, the estimated value is \$4.2 million (6,750 X \$620.00 = \$4,185,000).

Effect on Consumer Protections. The proposal only affects higher income customers who have failed to pay for gas service despite continuing to receive the benefits of the service. No customer has a right to receive a utility service without paying for it. PGW will make every effort to direct customers who claim that they cannot pay their arrearage to state and local social services, credit counseling or to suggest other financing alternatives.

B. Waive winter moratorium termination procedure for Level 3 and 4 customers.

Estimated value: \$1 million.

Justification: This proposed change would permit PGW to terminate service during the winter period to customers with a generally recognized ability to pay when they meet other established criteria for termination. The proposed change gives PGW the

ability to avoid providing free gas to customers during the period of highest consumption. PGW's experience demonstrates that even when customers enter into a payment arrangement after the winter period, the delay in payment for winter usage has a serious negative consequence on PGW cash flow. Even worse, since a very high percentage of payment arrangements are broken (91% of arrangements entered in 2003 were broken within 12 months), PGW never receives payment for a substantial portion of the gas delivered to these customers. By focusing only on higher income customers, the requested modification adequately balances the need to both increase collections and to send a signal to customers that the moratorium cannot be used as a shield to avoid paying their gas bill.

While Chapter 56 has a set of procedures that would permit winter shut-off on a case by case basis, those rules are so cumbersome that the net practical effect for all Pennsylvania utilities is that no (or hardly any) residential customers are terminated in the winter. Given the large number of customers with which PGW must deal, the current winter rules are particularly ineffective.

The Level 3 and 4 customers (no other customers are affected by this proposal) who state that they are not able to make the necessary payments or payment agreement to avoid shut-off or to reinstate service will have the right to dispute the procedure to the PUC and will also be referred to State and local social services, just as home heating oil or propane customers would be.

Derivation: April 2004 accounts receivable aging data shows that there are approximately 1,000 customers at the highest income group of Levels 3 and 4 (i.e. greater

¹ See, CRRC Record, PGW St. CRRC-5 at 16.

than \$50,000) and approximately 9,000 customers within Levels 3 and 4 (i.e. between \$40,000 and \$50,000). Shutting off 1,000 of these customers per month during the four month winter moratorium period with an average annual account balance in the amount of \$475.00 (for level 3 and 4 customers whose income level is \$40,000 or above) coupled with a collection factor of 50% will result in an estimated value of \$1 million (1,000 customers x 4 months x \$475 x 50%).

Effect on Consumer Protections. The proposal only affects higher income customers who have failed to pay for gas service despite continuing to receive the benefits of the service. No customer has a right to receive a utility service without paying for it. PGW will make every effort to direct customers who claim that they cannot pay their arrearage to state and local social services, credit counseling or to suggest other financing alternatives.

C. **Require a flat turn-on deposit for all new/restored customers and refuse service until deposit is paid in full.**

Estimated value: \$7.6 million.

Justification: PGW requests that the PUC permit a flat deposit for all residential customers that start service. The deposit level would track the level of natural gas costs. Today, the average monthly bill for a residential heating customer is about \$125.00 so the deposit, for heating customers, would be \$250.00; for non-heating customers the deposit would be \$100.00. Commercial customers would be required to pay twice the projected average monthly bill. CRP customers would not be affected by this rule change. This safety net would produce a tremendous savings to PGW because it would provide security and a potential source of revenue to off-set the impact of non-payment. One need only examine the impact of the 133,000 customers eligible for shut-off in April of

this year, coupled with the receivable of approximately \$137 million associated with those customers, to understand the need for such a provision. Requiring a deposit before service is provided is a standard business practice used in a host of areas such as home or apartment leasing. It is particularly important when one considers the very large population of university students that passes through Philadelphia each year.

Credit scoring is one tool that might serve a similar function, but it is not currently available to PGW. Billing system modifications are required along with business process modifications to effectuate the program. Should the decision be made that credit scoring had appropriate potential, PGW would seek permission from the Commission to pilot such a program, but that would not likely occur for at least eighteen months.² A flat deposit requirement meets PGW's immediate needs.

Derivation: The value of this waiver was derived in two components.

Turn-on deposit for new and restored services during May 1 to September 30: Approximately 47,000 turn-ons for new and restored residential heating service occur annually. Retaining a deposit of \$250.00 for one year for these customers equals \$11.8 million. After factoring the return of the deposit to the historical average number of customers who do not pay late (50%), the net effect for this group of customers will be \$5.9 million.

Doubled turn-on deposit for previously terminated services that are restored during October 1 to April 30: Approximately 10,000 turn-ons for previously terminated residential heating and non-heating services occur annually during this period. Retaining

² Current regulations do not permit credit scoring, though the PUC has allowed some utilities to use the technique on a pilot basis.

a deposit of \$500.00 for the 8,200 heating customers and \$200.00 for the 1,800 non-heating customers for one year equals approximately \$4.2 million $((\$500 \times 8,200) + (\$200 \times 1,800))$. After factoring the return of the deposit to the historical number of customers who do not pay late (50%), the net effect for this group of customers will be \$2.1 million.

Interest pay-out: After an interest payout of 4.8% (approximately \$400,000), the net estimated value is \$7.6 million $(\$5.9M + \$2.1M - 0.4M)$.

Effect on Consumer Protections. This change will not unduly burden consumers. Requiring a deposit is a standard practice in many areas where a valuable asset or commodity is provided to a customer without any other means for the vender to insure payment or the return of the asset. Customers that pay on time for one year will have their deposits applied to their accounts. Customers who fail to pay have no basis for complaint. Customers who have problems coming up with the deposit may finance it using a credit card or short-term loan. These proposals do not apply to CRP customers.

D. Require new applicants to establish positive identification and require applicants who are identified as previously residing at that location to be held responsible for any previous arrearage while the applicant resided there.

Estimated value: \$1.8 million.

Justification: This waiver is intended to prevent the current, widespread practice commonly known as the "name game" in which PGW terminates service to a customer for non-payment and then receives an application for service at the same address from another person in the household who takes no responsibility for the unpaid bill even when the applicant resided in the household at the time that the unpaid bill accumulated.

PGW's proposal is to utilize recent systems software advances to establish through corroborated documentation the identification and previous address of new customers. If this process determines that the new applicant resided at the address for which service is being requested during the period when the unpaid bill accrued, PGW proposes that it be allowed to demand payment from the applicant for any outstanding arrearages from that address that accrued during the time in which the new applicant lived at that address.

PGW is not planning to require all customers who apply for service to list all adult members of the household because PGW has no ability to ensure that the customer has, in fact, provided accurate information concerning adults in the household and because of the limited capability of current software to store all such names. Since PGW's need is to immediately increase collection percentages, the approach suggested is the best at this time. Any customer would have a right to file a complaint with the PUC to establish a reason why they are not responsible for the previous bill.

Derivation: In 2003, 23,000 accounts were shut-off and 4,830 of these accounts were restored under a different name and without payment at the then existing average balance of \$2,300. Of the 4,830 accounts, assuming 50% qualify to have the prior balances transferred (2,415) and further assuming that 25% of the 2,415 accounts (604 - L3's and L4's) pay the full balance, the estimated value will be \$1.4 million ($\$2,300 \times 604$). As for the remaining 1,811 customers (2,415 - 604) who qualify to have prior balances transferred, payment of a restoration fee in the amount of \$250.00 per customer will provide an additional value of \$453,000 ($1,811 \times \250), thereby resulting in a total rounded estimated value of \$1.8 million ($\$1.4M + \$0.4M$).

Effect on Consumer Protection. These positive identification and prior arrearage association steps are designed to stop fraud. When a customer is terminated for non-payment and then simply avoids the arrearage by inducing someone else in the household to apply for service, the act is fraudulent. PGW believes its data base is very accurate but if an applicant is incorrectly identified as previously residing at the address at which he/she is requesting service, the customer will be able to avoid the arrearage requirement by showing (either to PGW or the PUC upon complaint) proof of a previous residence.

E. Allow each customer only one payment arrangement unless there is a change in circumstances related to income level which places the customer in a lower BCS income level.

Estimated value: \$7.25 million.

Justification: For upper level income customers (level 4) after a broken payment arrangement, the customer would be required to pay the outstanding balance in full. The payment arrangement for level 3 customers would be restricted to a maximum timeline of twelve months and a payment amount of \$100.00 minimum.³ PGW's proposal in this instance is not dramatically different than the current PUC policy as articulated in the Frayne decision except that a clear limitation on change of circumstances would be established. Such a bright line rule is justified because, as indicated above, 91% of PGW

³ For other levels PGW proposes the following. Level Three: one payment arrangement minimal payment arrangement of \$100.00 over a maximum timeline of 24 months; if the payment arrangement is broken the customer will have one opportunity to "cure" the payment arrangement; Level Two customers would be offered one payment arrangement with a minimal payment of \$40.00 per month. If the payment arrangement is broken the customer would be required to cure the payment arrangement, there would be no limit on the number of times the Level Two customer could cure the payment arrangement. As similar arrangement would exist for Level One customers except the minimal payment arrangement would be \$15.00.

payment arrangement agreements are broken within twelve months. Allowing a pattern of breaking an agreement and then establishing another because the definition of "changed circumstances" is extremely broad vitiates PGW's ability to collect effectively. Low-income customers will have the ability to cure any default on their arrangement. All customers dissatisfied with a particular resolution will have the right to file a complaint with the PUC to show extreme hardship.

Derivation: 50,000 payment arrangements are broken annually. Assuming an average cure amount of \$125.00 (which is one missed payment of an average annual residential gas bill of \$1,500 (\$1,500 / 12 months)) for each of these broken payment arrangements, equals a value of \$6.25 million (50,000 x \$125). Additionally, reductions in accounts receivable carrying costs for level 3 and 4 accounts receivable balances can be anticipated in the amount of \$1 million which is based upon April 2004 level 3 and 4 accounts receivable balances of \$20.5 million multiplied by 4.8%.

Effect on Consumer Protections. The proposal only affects customers who have failed to pay for gas service despite continuing to receive the benefits of the service and who have broken an agreement giving them additional time in which to pay. No customer has a right to receive a utility service without paying for it. The proposal for lower income customers is similar to the existing practice. PGW will make every effort to direct customers who claim that they cannot pay their arrearage to state and local social services, credit counseling or to suggest other financing alternatives.

F. Allow Friday shut-offs.

Estimated value: \$2.5 million.

Justification: Friday shut-off rules were established and may have been reasonable when banks were not open on week-ends and there were no ATMs, but today PGW's customers have multiple channels available to obtain funds pay their bills seven days a week. No other business of which PGW is aware in the Philadelphia area is limited to just a few days on which it can terminate service for non-payment. If the PUC allows Friday shut-offs, PGW will provide customer service representatives and field service personnel to ensure that customers will be able to make payment arrangements and restore service on Saturday.

Derivation: Adding a fifth day provides 35 additional days for shut-off between April 1 and December 1. At an average collection rate per day of \$70,000, the estimated value is \$2.5 million.

Effect on Consumer Protections. Because of all the new and varied ways in which customers can pay their bills on a 7-day a week basis, this change should have no affect on any consumer rights.

G. Eliminate 48 hour notice periods during the shut-off process.

Estimated value: \$1 million.

Justification: This proposal would allow PGW to reduce from two to one the number of service visits to a customer's home currently required before service can be turned off. Currently the termination process is relatively long and costly. Eliminating the need to make an additional visit to a customer's home and to allow termination upon one visit will help PGW reduce its costs by a minimum of \$1 million per year without substantially reducing the customer's ability to avoid shut-off. PGW would still provide the standard

10-day notice, the 72 hour phone call, and one service call that are currently required by Chapter 56.

Derivation: The cost avoidance of \$1 million is based upon the time required by 48 hour notice activities. A work force of 58 full-time people currently commit 25% of their work-week to delivery of the 48 hour notice, the equivalent of 30,160 hours per year. At a full-time loaded cost rate of \$33 per hour, the cost avoidance equals \$995,280.

Effect on Consumer Protections. PGW's proposal would eliminate just one of several notices and contacts that a customer receives and, therefore, consumers will continue to have adequate notice of the potential for termination. In light of the potential savings to the Company, this change is justified.

H. The 30 day maximum for the shut-off process should be extended to 60 days.

Estimated value: \$1 million (direct benefit; as much as \$20 million indirect benefit).

Justification: BCS informal guidelines suggest that any termination notice must lead to a process which results in shut-off within 30 days of the notice (unless the customer enters into a payment arrangement or properly asserts a medical need to avoid the shut-off). If the customer does not make a payment arrangement and there is no termination within that period, the entire process must begin again.

Current data shows that PGW has mailed to customers 126,780 10-day letters since the end of March. Of that group, 34,708 will require a second complete cycle of notices and contacts because, as of today, there has been no shut-off and no other resolution for those customers. The number of customers eligible for shut-off at the end of the winter season in Philadelphia so far exceeds PGW's resources to process within the

30 day window suggested in the guidelines that it is imperative that the process be made more flexible. The 30 day requirement serves to create an additional receivable of as much as \$20 million as those customers continue to receive service without paying. A substantial portion of that additional receivable is likely to be uncollectible and cannot be justified in light of PGW's serious cash flow needs and the high cost of engaging in the termination process for PGW.

In lieu of a 30 day period PGW proposes that the 30-day limit be extended to 60 days. Allowing the termination process to go through to completion not only saves PGW money, but eliminates the perception that PGW is not serious about termination. Should the Commission eliminate this requirement, PGW would allow the customer to pay the amount originally noticed to avoid termination.

Derivation: The projected minimum, direct benefit for this waiver assumes an increase in the effectiveness of collections by 10% during the period of April 1 to December 1. During these 35 work weeks of 4 days (currently excluding Fridays) with an average collection rate per day of \$70,000 per day, the increased effectiveness at 10% equals \$1 million.

Effect on Consumer Protections. Any concern that the customer will not be fully informed of the arrearage amounts prompting the termination if the process extends for longer than 30 days should be eliminated because the customer will only be asked to pay the amount contained on the 10 day notice.

I. Service restoration time-line change from 24 hours to up to seven days during non-CWIP periods (April 1 through November 30).

Estimated value: N/A

Justification: Under the current rule, once a customer takes the necessary steps to restore service, service must be uniformly restored by PGW within 24 hours. This rule imposes a very expensive and virtually impossible requirement on PGW because so many of its restorations require field visits and in many cases the digging up of a service line. Moreover, PGW's volume of restorations is enormous. A much more reasonable and cost effective rule would be to permit PGW a longer period, up to seven days, for physical dig-ups, a shorter period for other terminations (3 days) and require 24 hours whenever service has been terminated and the initial determination of the Commission is that the termination was inappropriate and in violation of PUC or PGW rules. In all cases, PGW will prioritize restoration of service to homes where there is a senior citizen, young children, or a medical necessity.

Derivation: This modification will reduce the daily occurrence of the re-prioritization of turn-on orders due to sudden surges of next day turn-on requests. Due to the huge number of turn-ons that the Company projects it will be required to undertake there is no way that the Company could meet this standard without hiring scores of additional full time employees at an additional cost of hundreds of thousands of dollars (which the Company, of course, can not do).

Effect on Consumer Protection. This change recognizes the reality that when PGW is forced to dig up a service line to stop service (because of the lack of a curb valve) it takes several days to restore service with present resources and facilities. Further, due to the large volume of terminations with which PGW must deal even non-dig up terminations take more than 24 hours during peak periods. PGW will make every effort

to restore service as quickly as possible and, as indicated, will give priority to special circumstances and at risk customers to effectuate the restoration as quickly as possible.

VERIFICATION

I, Randall Gyory, hereby verify that I am Vice President of Customer Affairs of Philadelphia Gas Works and that I am authorized to make this verification on behalf of Philadelphia Gas Works, and that the information contained in the foregoing Verified Statement and Petition for Waiver or Modification is true and correct to the best of my knowledge, information and belief. This verification is made subject to the penalties relating to unsworn falsification to authorities as prescribed by 18 Pa. C.S. § 4904.

A handwritten signature in cursive script that reads "Randall Gyory" followed by a horizontal line.

RANDALL GYORY

APPENDIX B

**APPENDIX B:
Proposed Revisions to Chapter 56 of Title 52 of the Pa. Code.**

These proposed revisions are set forth for illustrative purposes only of how PGW's proposed waivers or modifications would be applied, and are not presented for promulgation or rulemaking.

1. Revision to add "city natural gas distribution operation" to Chapter 56 definitions.

§ 56.2. Definitions

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

"City natural gas distribution operation." A collection of real and personal assets used for distributing natural gas to retail gas customers owned by a city or municipal authority, nonprofit corporation or public corporation formed pursuant to section 66 Pa. C.S.A. § 2212(m) (relating to city natural gas distribution operations).

2. Add provisions to allow city natural gas distribution operations to require deposits from new and continuing customers.¹

§ 56.32. Credit standards.

(a) A utility, except as provided in (b) (relating to city natural gas distribution operations), shall provide residential service without requiring a deposit when the applicant satisfies one of the following requirements:

(1) *Prior utility payment history.* The applicant has been a recipient of utility service of a similar type within a period of 24 consecutive months preceding the date of the application and was primarily responsible for payment for such service, so long as:

(i) The average periodic bill for the service was equal to at least 50% of that estimated for new service.

(ii) The service of the applicant was not terminated for nonpayment during the last 12 consecutive months of that prior service.

(iii) The applicant does not have an unpaid balance from that prior service.

(2) *Ownership of real property.* The applicant owns or has entered into an agreement to purchase real property located in the area served by the utility or is renting his place of residence under a lease of one year or longer in duration,

¹ See Gyory Appendix at ¶ 11(C).

unless the applicant has an otherwise unsatisfactory credit history as an utility customer within 2 years prior to the application for service.

(3) *Credit information.* The applicant provides information demonstrating that he is not an unsatisfactory credit risk.

(i) The absence of prior credit history does not, of itself, indicate an unsatisfactory risk.

(ii) The utility may request and consider information including but not limited to: the name of the employer of the applicant, place and length of employment, residences during the previous 5 years, letters of reference, credit cards and any significant source of income other than from employment.

(b) Notwithstanding (a), city natural gas distribution operations are permitted to require a deposit from both new customers and customers restoring service and may refuse service until a deposit is paid in full as follows:

(1) Residential non-heating customers - a deposit of \$100 is required, unless the customer is restoring service after termination during the period of October 1 to April 30, then, a deposit of \$200 is required.

(2) Residential heating customers - a deposit of \$250 is required, unless the customer is restoring service after termination during the period of October 1 to April 30, then, a deposit of \$500 is required.

(3) CRP customers are excluded from the requirements of this subsection.

3. Allow city natural gas distribution operations to require the payment of an outstanding account under a different residential name upon positive identification that the applicant lived at that address during the time in question.²

§ 56.35. Payment of outstanding balance.

(a) A utility may require, except as provided in (b)(relating to city natural gas distribution operations), as a condition of the furnishing of residential service to an applicant, the payment of any outstanding residential account with the utility which accrued within the past 4 years for which the applicant is legally responsible and for which the applicant was billed properly. However, any such outstanding residential account with the utility may be amortized over a reasonable period of time. Factors to be taken into account include but are not limited to the size of the unpaid balance, the ability of the applicant to pay, the payment history of the applicant, and the length of time over which the bill accumulated. A utility may not require, as a condition of the furnishing of residential service, payment for residential service previously furnished under an account

² See Gyory Appendix at ¶ 11(D).

in the name of a person other than the applicant unless a court, district justice or administrative agency has determined that the applicant is legally obligated to pay for the service previously furnished. Examples of situations include a separated spouse or a cotenant. This section does not affect the creditor rights and remedies of a utility otherwise permitted by law.

(b) Notwithstanding (a), a city natural gas distribution operation may require, as a condition of the furnishing of residential service to an applicant, the presentation of positive identification in a form to be determined by the city natural gas distribution operation and the payment of any outstanding residential account with the utility which accrued within the past 4 years for which the applicant is legally responsible. A city natural gas distribution operation may not require, as a condition of the furnishing of residential service, payment for residential service previously furnished under an account in the name of a person other than the applicant unless the applicant's positive identification reveals that the applicant lived at the service address during the period of the prior customer's arrearage or a court, district justice or administrative agency has determined that the applicant is legally obligated to pay for the service previously furnished. The applicant will only be responsible for the arrearage during which time the applicant resided at the service address. This section does not affect the creditor rights and remedies of a utility otherwise permitted by law.

4. Allow city natural gas distribution operations to require deposits to be paid in full before providing service.³

§ 56.38. Payment period for deposits by applicants.

(a) An applicant may elect to pay any required deposits in three installments: 50% payable upon the determination by the utility that the deposit is required, 25% payable 30 days after the determination, and 25% payable 60 days after the determination, except as provided in (b) (pertaining to city natural gas distribution operations).

(b) An applicant for service from a city natural gas distribution operation may not elect to pay required deposits in installments. Service will not be provided until a deposit is paid in full.

5. Add a provision to allow city natural gas distribution operations to terminate service on Friday.⁴

§ 56.82. Days termination of service is prohibited.

Except in emergencies—which include unauthorized use of utility service—service shall not be terminated, for nonpayment of charges or for any other reason, during the following periods:

³ See Gyory Appendix at ¶ 11(A) and (C).

⁴ See Gyory Appendix at ¶ 11(F).

(1) On Friday, Saturday, or Sunday, except that city natural gas distribution operations may terminate service on Friday.

* * *

6. Allow city natural gas distribution operations to terminate service upon nonpayment of a deposit or delinquent accounts.⁵

§ 56.83. Unauthorized termination of service.

Unless expressly and specifically authorized by the Commission, service may not be terminated nor will a termination notice be sent for any of the following reasons:

* * *

(4) Nonpayment of bills for delinquent accounts of the prior ratepayer at the same address, except as consistent with Section 56.35(b).

(5) Nonpayment of a deposit which is based, in whole or in part, on a delinquent account arising out of a make-up bill as defined in § 56.14 (relating to previously unbilled utility service) and the ratepayer has complied with the requirements of § 56.41(1)(ii)(A) or (B) (relating to general rule).

* * *

(8) Nonpayment for residential service already furnished in the names of persons other than the ratepayer unless the utility is a natural gas distribution operation and the applicant's positive identification reveals that the applicant lived at the service address during the period of the prior customer's arrearage or a court, district justice or administrative agency has determined that the ratepayer is legally obligated to pay for the service previously furnished. This paragraph does not affect the creditor rights and remedies of a utility otherwise permitted by law.

* * *

(11) Nonpayment of delinquent accounts when the amount of the deposit presently held by the utility is within \$25 of account balance.

(12) Paragraphs (5) and (11) are not applicable to city natural gas distribution operations.

7. Add a provision to give city natural gas distribution operations discretion as to contacting responsible persons at the residences of responsible ratepayers and affected dwellings immediately before terminating service.⁶

⁵ See Gyory Appendix at ¶ 11(D) and (E).

§ 56.94. Procedures immediately prior to termination.

Immediately preceding the termination of service, a utility employee, who may be the utility employee designated to perform the termination, shall attempt to make personal contact with a responsible person at the residence of the ratepayer and shall attempt to make personal contact with a responsible person at the affected dwelling except for city natural gas distribution operations which may attempt to make personal contact with a responsible person at the residence of the ratepayer and may attempt to make personal contact with a responsible person at the affected dwelling.

(1) *Termination prohibited in certain cases.* If evidence is presented which indicates that payment has been made, a serious illness or medical condition exists, or a dispute or complaint is properly pending or if the employee is authorized to receive payment and payment in full is tendered in any reasonable manner, then termination shall not occur. However, if the disputing party does not pay all undisputed portions of the bill, termination may occur.

(2) *Methods of payment.* Payment in any reasonable manner includes payment by personal check unless the ratepayer within the past year has tendered a check which has been returned for insufficient funds or for which payment has been stopped.

8. Release city natural gas distribution operations from the requirement of contacting responsible persons at the residences of responsible ratepayers and affected dwellings immediately before terminating service, or from posting signs at the residences if those individuals cannot be reached. City natural gas distribution operations would still be responsible to make the contacts required under § 56.93.⁷

§ 56.95. Deferred termination when no prior contact.

If a prior contact has not been made with a responsible adult either at the residence of the ratepayer, as required by § 56.94 (relating to procedures immediately prior to termination) or at the affected dwelling, the employee may not terminate service but shall conspicuously post a termination notice at the residence of the ratepayer and the affected dwelling, advising that service will be disconnected not less than 48 hours from the time and date of posting, except for city natural gas distribution operations for which the only prior contact required before termination is set forth by § 56.93 (relating to personal contact).

⁶ See Gyory Appendix at ¶ 11(G).

⁷ *Id.*

9. Add language consistent with the exclusion of city natural gas distribution operations from mandatory installment payment requirements. Outlines a schedule for permitted payment arrangements to be offered by city natural gas distribution operations that is uniform throughout the enumerated income brackets.⁸

§ 56.97. Procedures upon ratepayer or occupant contact prior to termination.

(a) If, after the issuance of the initial termination notice and prior to the actual termination of service, a ratepayer or occupant contacts the utility concerning a proposed termination, an authorized utility employee shall fully explain:

* * *

(b) The utility, through its employees, shall exercise good faith and fair judgment in attempting to enter a reasonable settlement or payment agreement or otherwise equitably to resolve the matter. Factors to be taken into account when attempting to enter into a reasonable settlement or payment agreement, except for city natural gas distribution operations, include the size of the unpaid balance, the ability of the ratepayer to pay, the payment history of the ratepayer and the length of time over which the bill accumulated. If a settlement or payment agreement is not established, the company shall further explain the following:

(1) The right of the ratepayer to file a dispute with the utility and, thereafter, an informal complaint with the Commission.

(2) The procedures for resolving disputes and informal complaints, including the address and telephone number of the Commission: Public Utility Commission, Box 3265, Harrisburg, Pennsylvania, 17105-3265, (800) 692-7380.

(3) The duty of the ratepayer to pay any portion of a bill which the ratepayer does not honestly dispute.

(c) City natural gas distribution operations are permitted to offer only one payment arrangement for all income levels (income levels as defined by BCS Income Guidelines, i.e. Income Levels L1, L2, L3, and L4) unless the change in the customer's circumstances is a change in the customer's income level. The following outlines permissible city natural gas distribution operations payment arrangements by income levels:

(1) L1 customers may be offered only one payment arrangement with a minimum payment amount of \$15 per installment. If the payment arrangement is broken, the customer must cure the payment arrangement.

(2) L2 customers may be offered only one payment arrangement with a minimum payment amount of \$40 per installment. If the payment arrangement is broken, the customer must cure the payment arrangement.

⁸ See Gyory Appendix at ¶ 11(E).

(3) L3 customers may be offered only one payment arrangement with a minimum payment amount of \$100 per installment and a maximum repayment timeline of 24 months. If the payment arrangement is broken, the customer must cure payment arrangement but L3 customers are only permitted to cure one time.

(4) L4 customers may be offered only one payment arrangement with a minimum payment amount of \$100 per installment and a maximum repayment timeline of 12 months. If the payment arrangement is broken, the customer must pay the account balance in full.

10. Exclude city natural gas distribution operation customers under 60 years of age or not medically certified from the winter termination procedures otherwise applicable.⁹

§ 56.100. Winter termination procedures.

Notwithstanding another provision of this chapter, during the period of December 1 through March 31, utilities subject to this chapter shall conform to the provisions of this section. The covered utilities may not be permitted to terminate heat related service between December 1 and March 31, except for city natural gas distribution operation customers whose income level is defined as Level 3 or Level 4 pursuant to BCS Income Guidelines (does not include customers who are sixty years of age or older or customers who have satisfied the requirements of 52 Pa. Code §56.113 re: Medical Certifications) and except as provided in this section or in § 56.98 (relating to exception for terminations based on occurrences harmful to person or property).

12. Add a provision to allow city natural gas distribution operations up to seven calendar days to restore service during non-winter months.¹⁰

§ 56.115. Restoration of service.

When service is required to be restored under this section and §§ 56.111, 56.114 and 56.116—56.118, the utility shall make a diligent effort to have service restored on the day of receipt of the medical certification. In any case, service shall be restored before the end of the next working day, except for city natural gas distribution operations which may restore service by the end of the first full seven calendar days during the period of April 1 to November 30. Each utility shall have employees available or on call to restore service in emergencies.

⁹ See Gyory Appendix at ¶ 11(B).

¹⁰ See Gyory Appendix at ¶ 11(I).

13. Add language consistent with the rule allowing city natural gas distribution operations up to seven full days to restore service. Also add a provision requiring city natural gas distribution operation customers with Level 3 or 4 incomes to pay their entire outstanding balance and reconnection fee before service will be returned.¹¹

§ 56.191. General rule.

When service to a dwelling has been terminated, the utility shall reconnect service by the end of the first full working day (except for city natural gas distribution operations which in accordance with § 56.115 may restore service by the end of the first full seven calendar days during the period of April 1 to November 30) after receiving one of the following:

(a) For city natural gas distribution operation customers whose income level is defined as Level 3 or Level 4 pursuant to BCS Income Guidelines, full payment of all outstanding charges plus a reasonable reconnection fee.

(b) For city natural gas distribution operation customers whose income level is defined as Level 1 or Level 2 pursuant to BCS Income Guidelines and the customers of all other utilities:

(1) Full payment of an outstanding charge plus a reasonable reconnection fee. Outstanding charges and the reconnection fee may be amortized over a reasonable period of time. Factors to be taken into account shall include, but not be limited to:

- (i) The size of the unpaid balance.
- (ii) The ability of the ratepayer to pay.
- (iii) The payment history of the ratepayer.
- (iv) The length of time over which the bill accumulated.

(2) Payment of amounts currently due according to a settlement or payment agreement, plus a reasonable reconnection fee, which may be a part of the settlement or payment agreement. The utility may apply the procedure in paragraph (1), if the payment history indicates that the ratepayer has defaulted on at least two payment agreements, or an informal complaint decision, or a formal complaint order.

(3) Adequate assurances that any unauthorized use or practice will cease, plus full payment of the reasonable reconnection fee of the utility, which may be subject to a payment agreement and compliance or adequate assurance of compliance with an applicable provision for the establishment of credit or the posting of deposits or guarantees.

¹¹ See Gyory Appendix at ¶ 11(A) and (I).



COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA PUBLIC UTILITY COMMISSION
P.O. BOX 3265, HARRISBURG, PA 17105-3265

May 20 2004
RECEIVED

2004 MAY 25 A 8:45

BCS No:

CUSTOMER AFFAIRS
PGW

SECRETARY'S BUREAU

2004 JUL 11 PM 10:28

RECEIVED

Consumer 1
Consumer 2

DOCUMENT

DOCKETED

JUL 13 2004

The Bureau of Consumer Services (BCS) has completed its investigation into an informal complaint filed by Philadelphia Gas Works (PGW) regarding your account. Attached is the decision resulting from that investigation. A copy of this decision has also been sent to PGW. This decision is binding on all parties, and unless it is appealed will become final 20 days after the date of this letter.

If you do not agree with any part of this decision you may appeal it by filing a formal complaint. If you wish to appeal, you must fill out and return a formal complaint form to the Public Utility Commission by the date shown on this decision. Your complaint will be assigned to an Administrative Law Judge, and a hearing date will be assigned.

You do not need a lawyer to file an appeal.

You must make all of the payments required by this decision. If you do not make these payments the utility company is permitted to terminate your utility service.

If you have any questions about the terms and conditions of this decision or about the Public Utility Commission's appeal procedures you may call me toll free at 1-800-782-1110, or you may call me directly at 717-787-8994.

Sincerely,

Michael G. Riley
MICHAEL G. RILEY
Manager, Residential Termination Unit

Enclosure

RANDY GYORY
PHILADELPHIA GAS WORKS
800 W MONTGOMERY AVE
PHILADELPHIA PA 19122

R-000 49157

PGW CROSS Exh. CP-3

7/6/04 Phila
JK

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

PHILADELPHIA GAS WORKS
800 MONTGOMERY AVE v. CONSUMER 1
PHILADELPHIA PA 19122 CONSUMER 2

Case Number:

Account Number:(

Decision On Informal Complaint By The Bureau Of Consumer Services:

Statement Of Complaint:

A summary of the complaint of PGW is as follows:

Consumer 1 was the customer of record at this location until May 18, 2004, when she brought her mother to PGW offices to transfer the service into her name. PGW believes both parties should be responsible for the entire balance and asks that a determination of liability be made.

Investigation By Staff Of The Bureau Of Consumer Services Revealed:

1. That, according to company records, Consumer 1 was the customer of record at the subject location until May 18, 2004.
2. That, according to company records, Consumer 1 accompanied Consumer 2 to its customer service center to transfer the service and account balance into Consumer 2's name.
3. That, according to company records, Consumer 1 actively participated in negotiating a payment arrangement for Consumer 2.
4. That, according to company records, Consumer 1's income was reported as the primary source of income for Consumer 2.
5. That, according to company records, when PGW requested an appointment to visit the subject location to confirm account information, Consumer 1 requested that she be there. PGW reported that Consumer 1 was, in fact, present at that meeting on May 18, 2004.
6. That, according to company records, Consumer 1 has an outstanding balance of \$7,178.60 and she was in its CRP program.
7. That, according to company records, a termination notice was issued to Consumer 1 because she was behind in her CRP payments.
8. That, according to company records, Consumer 2 does not qualify for CRP.

Based On These Findings, The Bureau Of Consumer Services Concludes:

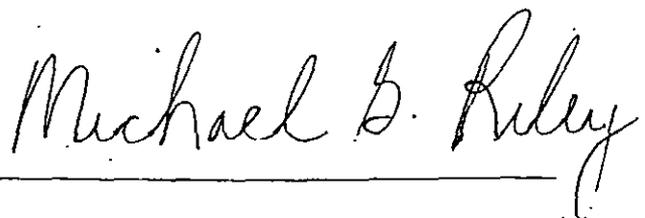
Consumer 1 was the customer of record at the subject location until May 18, 2004. On that date, Consumer 1 accompanied Consumer 2 to a PGW district office to have the service and the balance transferred to Consumer 2. Consumer 1 was facing termination of service for nonpayment of past due charges at the time of the office visit. Consumer 1's income was reported, along with Consumer 2's income, for purposes of making a payment arrangement for Consumer 2. Consumer 1 actively participated in the entire process, beginning with Consumer 2's application for service and continuing through negotiating a payment arrangement on the transferred balance. Further, Consumer 1 is not moving from this premise. It is apparent that Consumer 1 chose to transfer the service into Consumer 2's name and has continued to be actively involved in negotiations with PGW regarding the account.

Therefore It Is Decided:

1. That Consumer 1 and Consumer 2 are jointly responsible for the current outstanding balance of \$7,178.60 as well as any future bills issued on this account.
2. That, beginning with the first bill issued on this account, the customers must pay budget (currently \$140) plus \$100 per month toward the outstanding balance.
3. That there is no stay of termination pending appeal of this decision unless otherwise ordered by the Commission.

May 20, 2004

Date



MICHAEL G. RILEY
Manager, Residential Termination Unit
Bureau of Consumer Services
PA Public Utility Commission

DOCUMENT

DOCKETED

JUL 13 2004

R-00049157

PGW CROSS
EXHIBIT CP-

7/6/04 Phila
JK

RECEIVED

2004 JUL 11 PM 10:28

SECRETARY'S BUREAU

**UTILITY PAYMENT PROBLEMS:
THE MEASUREMENT & EVALUATION
OF RESPONSES
TO CUSTOMER NONPAYMENT**

POOR ORIGINAL

OCTOBER 1983

**PAL PUBLIC UTILITY COMMISSION
BUREAU OF CONSUMER SERVICES**

UTILITY PAYMENT PROBLEMS:
THE MEASUREMENT AND EVALUATION
OF RESPONSES
TO CUSTOMER NONPAYMENT

OCTOBER 1983

PA. PUBLIC UTILITY COMMISSION
BUREAU OF CONSUMER SERVICES
JOSEPH W. FARRELL, DIRECTOR

COPIES OF THIS REPORT CAN BE SECURED BY CONTACTING:

JOSEPH W. FARRELL, DIRECTOR
BUREAU OF CONSUMER SERVICES
P.O. BOX 3265
HARRISBURG, PA 17120

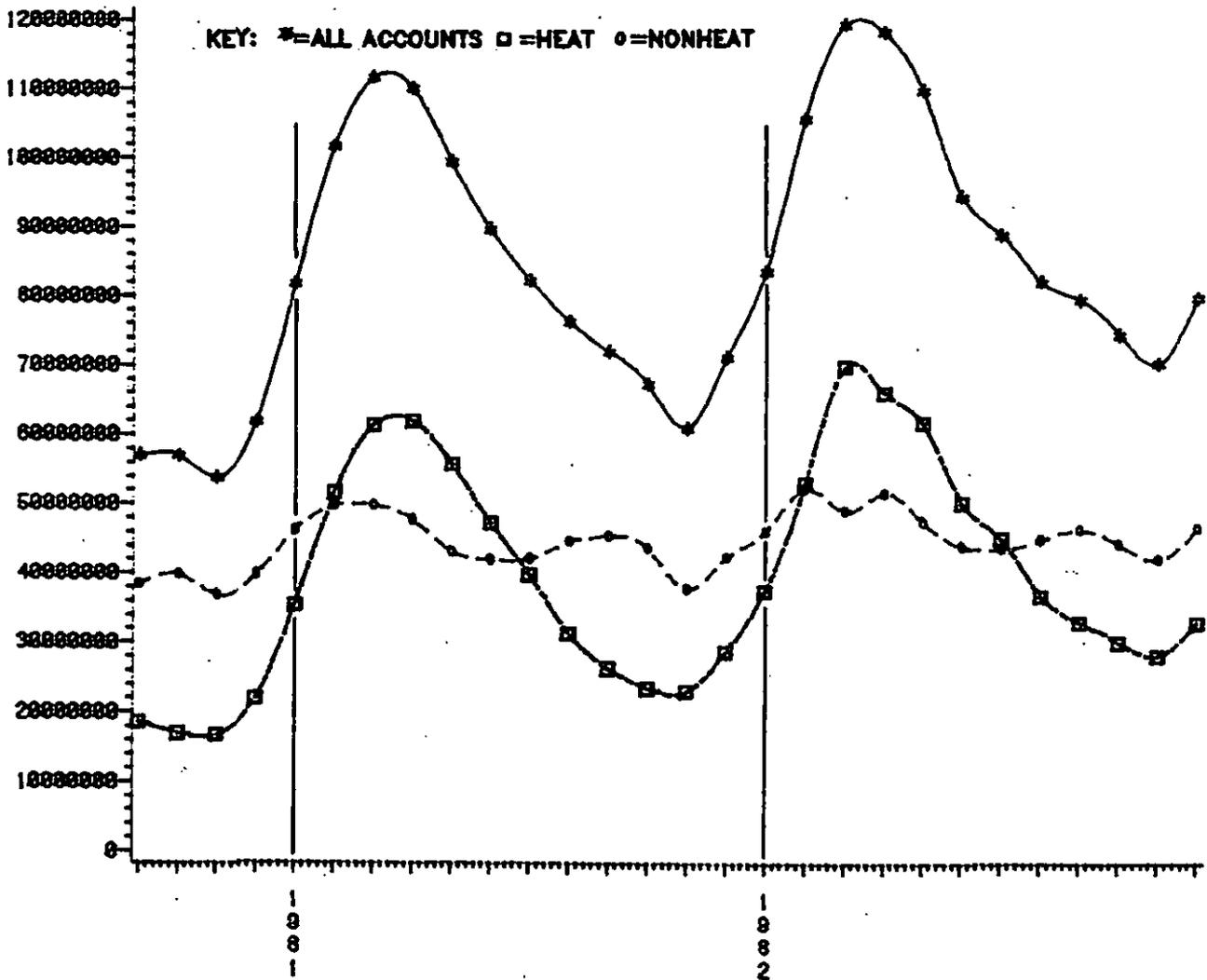
INQUIRIES REGARDING THIS REPORT AND REQUESTS FOR COPIES OF THE
DATA BASE SHOULD BE MADE TO DAN GRIFFITHS AT THE ABOVE ADDRESS
OR BY PHONE AT 717-783-1957.

Money Owed by Residential Utility Customers

In December 1982, residential customers owed over \$79.8 million in unpaid utility bills. Most of these bills were eventually paid; but the cost of carrying unpaid bills is substantial. Customer payments are largely used to support utility operations and to pay for the product supplied to customers. Thus, when large numbers of bills aren't paid on time, the utility must borrow in order to cover ongoing expenses. The cost of borrowing money must be added to other collections costs in order to reflect the total cost of non-payment. However, late payment charges assessed by companies are currently set at a maximum of 18%, an amount which supplies significant compensation for collections costs. The extent to which this charge covers collections costs, and hence the impact of non-payment, is open to debate.

FIGURE 3

**MONEY OWED BY OVERDUE ACCOUNTS
MAJOR REGULATED GAS AND ELECTRIC COMPANIES
SEPTEMBER 1980 - DECEMBER 1982**



The total amount owed by the customers of major gas and electric companies rose from \$85.3 million in an average month of 1981 to an average of \$92.2 million per month in 1982, an increase of 8%. This compares to a 13% increase in bills during the same period. In addition, seasonal fluctuations in total arrears are quite large. For example, in 1982 total dollars owed ranged from \$119.3 million in March to \$70.4 million in November (See Figure 3).

Discussion

Much attention has been paid to the plight of utility customers in the face of simultaneously high inflation, unemployment, and fuel prices. The strong expectation, based on the background introduced so far, is that non-payment of utility bills ought to have risen sharply. There is, however, not much support for that picture here. There were only 6% more overdue customers in December 1982 than in December 1980. In the same period inflation was about 15% and average customer bills increased by about 25%. In this light, a 6% growth in non-payment is a pleasant surprise. Thus, despite economic hardship, utility payment problems have not become significantly more common, and companies are not faced with a greater collections load than in the past.

Customer Bills

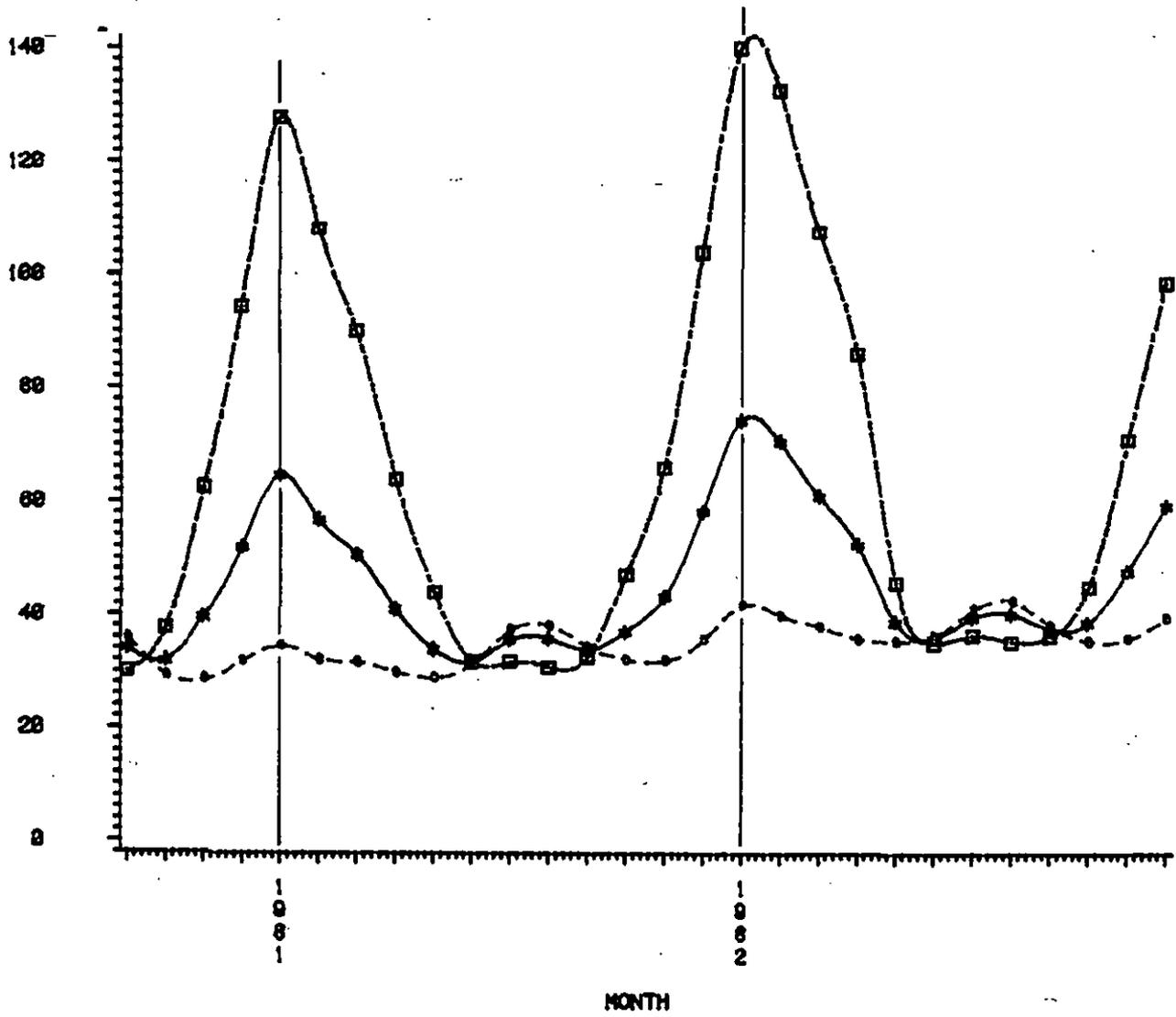
Utility customers' bills have increased significantly over the past three years (See Figure 4). For example, a household heating with gas spent about \$100 a month for heat and light (gas plus electric non-heating service) in 1982 vs. about \$81 a month in 1980. Similarly, the percentage increase in the bills of electric heating customers, in the same period (\$77 to \$85) was about the same as for gas heating customers (23% vs. 24%). These increases were one and a half times the rate of inflation for this period. Seasonal fluctuations in customer bills are quite dramatic for heating service where bills varied from \$20 to \$135 in 1982 (a variation of almost 7 to 1). The impact of such great fluctuations on the customer's ability to pay is discussed in detail below.

FIGURE 4

AVERAGE CUSTOMER BILL

MAJOR REGULATED GAS AND ELECTRIC COMPANIES

SEPTEMBER 1980 - DECEMBER 1982

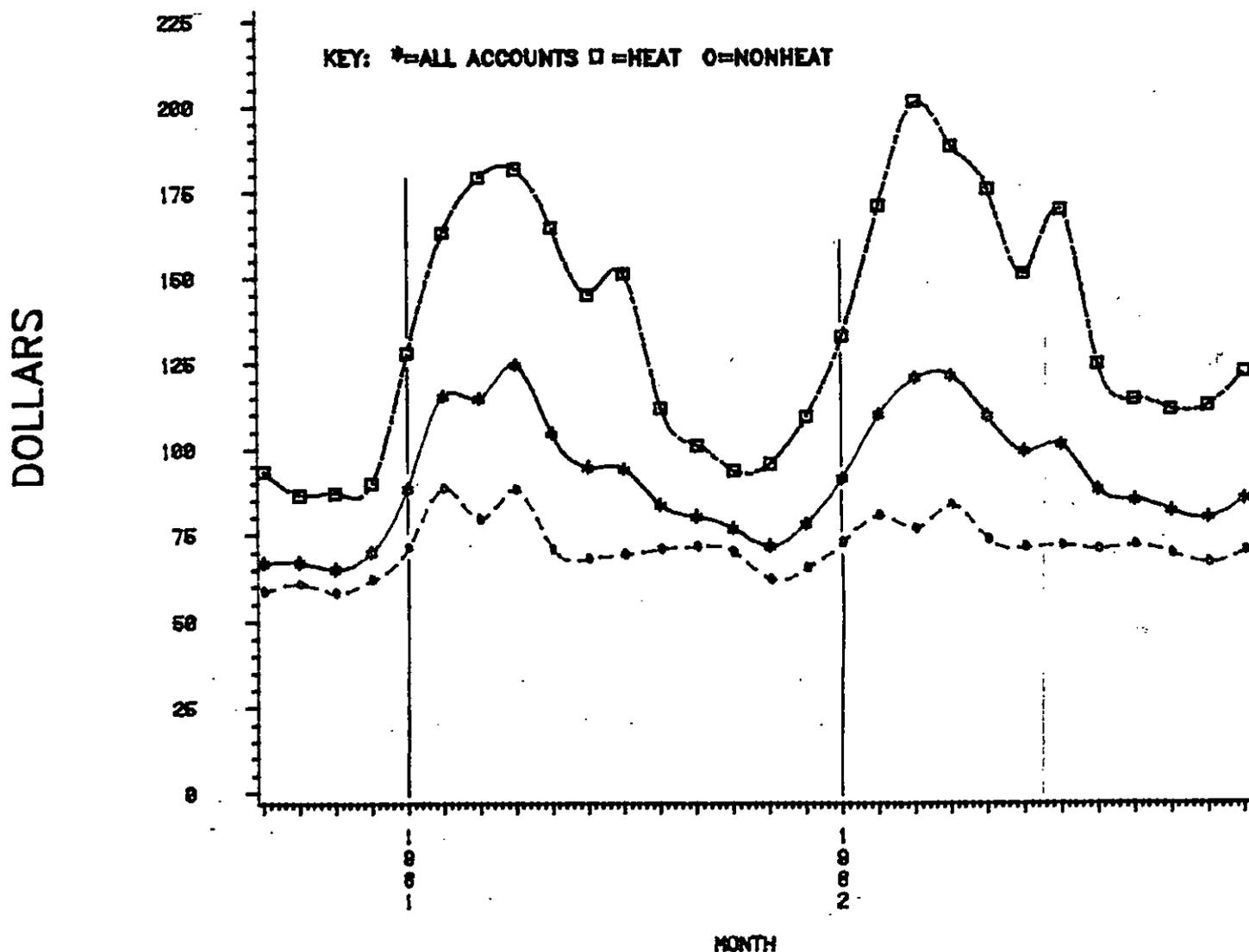


KEY: * = ALL ACCOUNTS □ = HEAT ○ = NONHEAT

Dollar Amount of Average Arrearages

The relative size of unpaid bills is another indication of the seriousness of payment problems. This figure, viewed over time, indicates whether the extent of collections problems is changing. The average arrearage for all major companies jumped sharply (12%) from December, 1980 to December, 1981 (See Figure 5). There was less growth (9%) in this measure from 1981 to 1982. This statistic shows a strong seasonal pattern with a high point in March or April which is 50% to 75% greater than the low point in November.

FIGURE 5
AVERAGE OVERDUE BILL
MAJOR REGULATED GAS AND ELECTRIC COMPANIES
 SEPTEMBER 1980 - DECEMBER 1982



An Alternate Perspective

Some companies' heating bills differ from non-heating bills by as much as 9 to 1 in peak heating months. Thus, it is important to examine the distinction between heat and non-heat accounts to insure that a clear picture of the payment problems is developed. Figure 5 shows the monthly fluctuations in the size of unpaid bills for heating and non-heating accounts for the past two years. The differences are dramatic. There were minor but consistent increases from 1981 to 1982, but the most obvious differences are in the magnitude of seasonal fluctuations. Further, arrearages were found to increase from 1981 to 1982 at a rate which is not statistically different from the increase in customer overdue bills over the same time. Heating arrearages are, on average, well over twice the size of non-heating arrearages. Also, heating arrearages fluctuate seasonally by two to three times as much as non-heating arrearages. Clearly, heating customers are faced with a radically different set of circumstances relative to those facing non-heating customers.

Discussion

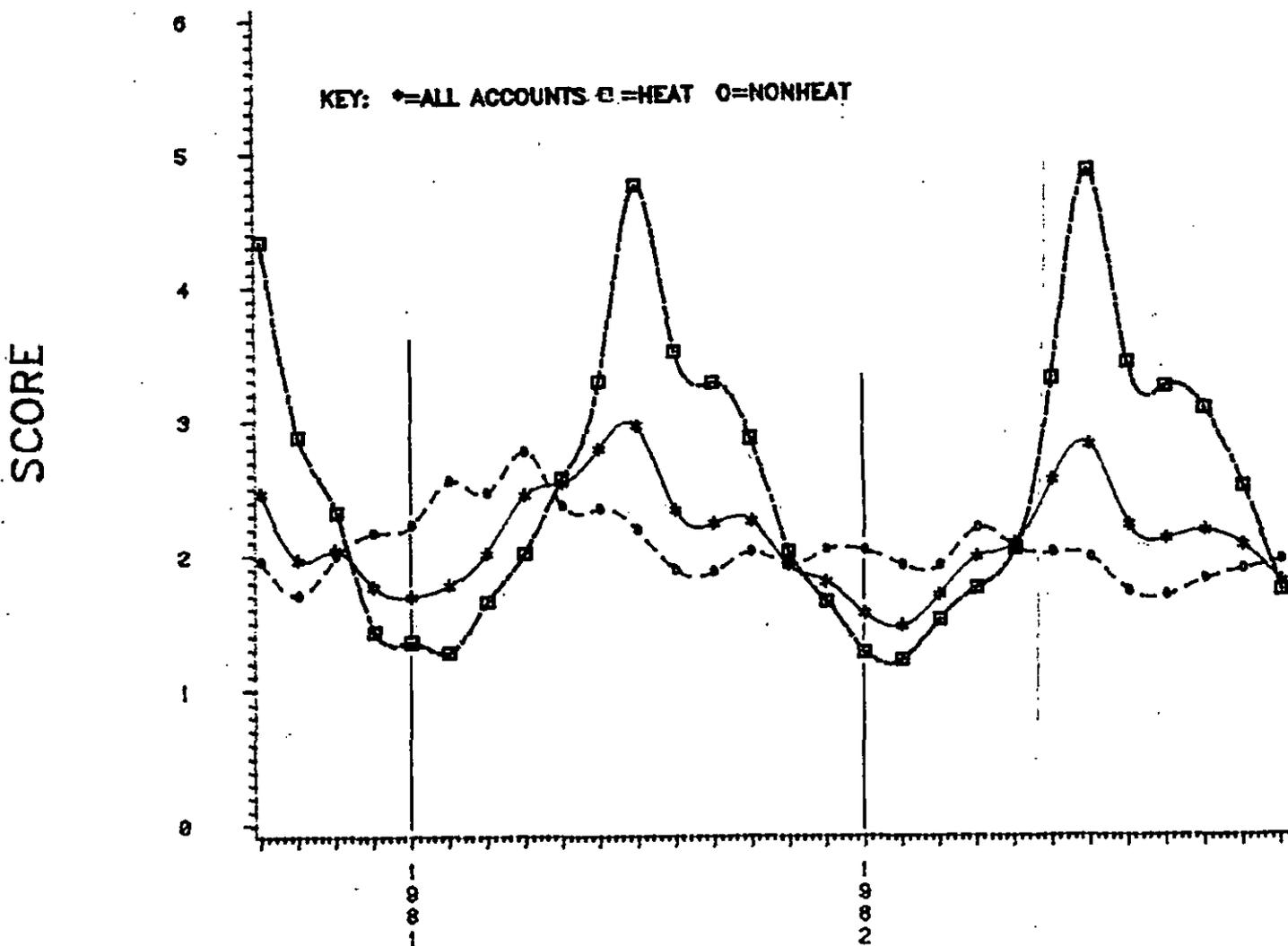
Average overdue bills are at a low in November and rise to a high point in March or April. The apparent relationship of this pattern to Public Utility Commission regulations is obvious. That is, arrearages are greatest at the end of the Commission's winter termination restrictions (December 1 to March 31 of the following year) and have been reduced to their lowest point immediately prior to the introduction of those restrictions for the following year. This pattern is consistent with the assertion put forward by utilities that they would be able to control arrearages if there were no winter termination restraints. However, the seasonal fluctuations are substantial only for heating accounts. Arrearages for non-heating accounts show only minor seasonal fluctuations. A comparison of Figures 4 and 5 suggests a simple explanation for this difference, that is, that the size of arrearages is related to the size of monthly bills. Heating customers' bills grow radically in the winter and so do their arrearages. Non-heating customers' bills change very little seasonally and their arrearages follow suit. In other words, if the assertion that winter termination restraints invite nonpayment were correct, then non-heating arrearages should show the same seasonal pattern of variation as do heating arrearages. That they do not casts substantial doubt on the assertion that PUC winter termination restraints are responsible for willful non-payment and consequent collections problems. (Although termination of gas non-heating service was permitted in the winter of 1982-1983, such terminations constituted only a minute proportion of all non-heating terminations during 1982.)

USE
IN
ATTN: [unclear]

A Weighted Arrearage Measure

Despite the interesting results of the above analysis, the interpretation of average arrearages, either over time or in comparison between companies presents some difficulties. First, arrearages fluctuate seasonally in response to bills. In conjunction with this, both permanent and seasonal changes in bills vary from company to company. Thus, arrearages cannot be easily used as measures for examining collections unless the influence of bills is controlled. This can be accomplished by controlling for the effects which bills have on arrearages, that is, by dividing the average monthly arrearage by an average monthly bill for the previous month. The result is a figure - the weighted arrearage - which shows the number of average bills which are equivalent to an average arrearage.

FIGURE 6
WEIGHTED ARREARAGES
MAJOR REGULATED GAS AND ELECTRIC COMPANIES
 SEPTEMBER 1980 - DECEMBER 1982



The review of PGW's current collection's process/timeline provides the foundation for identifying collection initiatives.

Residential

DOCUMENT LOCKET 13 2004

OUTBOUND CALLING														
PAYMENT ARRANGEMENTS														
DISCONNECT RECONNECT Non CRP/CRP Credit & Collection Paths							PARTIAL OUTSOURCING					FULLY OUTSOURCED		
DISCONNECT RECONNECT Non CRP/CRP Credit & Collection Paths							FINAL BILL/WRITE-OFF					POST-WRITE OFF COLLECTION AGENCY REFERRAL		
DAY	0	20	30-31	40	47	50-52	55	75	85	105	115	135	145	145+
EVENT	Bill 1 Sent	Bill 1 Due Date	Bill 2 Sent (Day 30)	10 Day Notice of Termination (\$ threshold)	72 Hr. AM & PM Outbound Call OR 72 Hr. Non-Phone Field Visit	Leave 48 Hour Notice or Service Shut-Off (Day 50) Final Service Shut-off (Day 52)	1 st Final Bill Sent	1 st Final Bill Due	2 nd Final Bill Sent	2 nd Final Bill Due	3 rd Final Bill Sent	3 rd Final Bill Due	Write-Off	Collection Agency Referral
							(0)	(20)	(30)	(50)	(60)	(80)	(90)	
									DAY 100 (45) 1 st W/O Letter Reminder	DAY 115 (60) 2 nd W/O Letter Credit Rating	DAY 130 (75) 3 rd W/O Letter Credit Referral			

R-00049157

PGW CROSS EXH. CP-2