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JUN 06 2011

Consumer Services  
CAC Division

May 31, 2011

Rosemary Chiavetta  
Secretary  
PA Public Utility Commission  
PO Box 3265  
Harrisburg, PA 17105

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PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

Dear Secretary Chiavetta:

In accordance with 52 Pa. Code § 62.4, Peoples Natural Gas Company LLC (Peoples), is submitting an original and three (3) copies of its Universal Service and Energy Conservation Plan. The Plan incorporates Peoples' Universal Service and Energy Conservation Programs including the Customer Assistance Program, Low Income Usage Reduction Program, Peoples Emergency Furnace/Service Line Program, Community Weatherization Partnership Program, Customer Assistance Referral and Evaluation Services Program, and Hardship Funds with the accompanying needs assessment for each program.

We respectfully request an expedited review and approval of this Plan. Please note that some of the modifications listed in the Plan were effective immediately in accordance with the approved Settlement of the sale of The Peoples Natural Gas Company d/b/a Dominion Peoples to PNG Companies LLC, a subsidiary of SteelRiver Infrastructure of North America.

Please feel free to call me at (412) 208-6556 or contact me by e-mail at: [Sadie.J.Kroeck@peoples-gas.com](mailto:Sadie.J.Kroeck@peoples-gas.com) if you have any questions or would like additional information.

Thank you.

Sincerely,

Sadie John Kroeck  
Director, Customer Relations

Enclosures

cc: Alexis Bechtel, Director, Bureau of Consumer Services

**Peoples Natural Gas Company LLC**

**UNIVERSAL SERVICE AND ENERGY CONSERVATION  
PLAN  
2012-2014**

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SECRETARY'S BUREAU

Peoples Natural Gas Company LLC  
375 North Shore Drive  
Pittsburgh, PA 15212

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## LIST OF ATTACHMENTS

1. Attachment A - Universal Service Impact Evaluation and Needs Assessment
  - a. Executive Summary
  - b. Impact Evaluation
  - c. Needs Assessment
2. Attachment B - Summary of Major Modifications
3. Attachment C - Sales Agreement Settlement
4. Attachment D - Proposed Rate Settlement
5. Attachment E - PA Department of Public Welfare, Position on Application of LIHEAP Grants
6. Attachment F - Peoples Natural Gas Company Tariff, 43 pages 34 to 36 which represent our current tariff and Tariff 44, pages 35 to 37 which represent the modifications to our CAP program as agreed to in the joint settlement.
7. Attachment G - Customer Referral Guide
8. Attachment H - Income Guidelines
9. Attachment I - Energy Conservation Information

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## **UNIVERSAL SERVICE AND ENERGY CONSERVATION PLAN**

### **Overview**

On February 1, 2010, PNG Companies LLC, a subsidiary of SteelRiver Infrastructure of North America, finalized an agreement to acquire The Peoples Natural Gas Company d/b/a Dominion Peoples from Dominion Resources Inc. As a result of the acquisition the company is now named Peoples Natural Gas Company LLC (Peoples). Peoples has served customers in Western Pennsylvania for more than 125 years. Currently, the Company serves approximately 359,000 customers in sixteen counties in Southwestern Pennsylvania.

Many of Peoples' Universal Service Programs have been in existence for more than twenty years. These programs include: Customer Assistance Program (CAP), Low Income Usage Reduction Program (LIURP), Customer Assistance Referral and Evaluation Services (CARES), and hardship funds. Peoples' Universal Service and Energy Conservation Plan outlines key components for each of these programs and three new programs. The three additional programs that are incorporated in this three year plan are the Emergency Furnace/Houseline Repair/Replacement Program, Community Weatherization Partnership Program and the PNG Hardship Fund.

### **Plan Submission**

This plan will be in effect during the period from January 1, 2012 through December 31, 2014 and will be implemented upon approval from the PA Public Utility Commission.

### **Universal Service Plan Evaluation**

In accordance with 52. PA Code, 62.6, Peoples conducted a six year evaluation of its Universal Service programs. Peoples contracted with Melanie K. Popovich to conduct the independent evaluation which was submitted to the PA Public Utility Commission on August 1, 2010. Attachment A contains the executive summary, Universal Services Impact Evaluation and Needs Assessment and summary of findings.

### **Plan Modifications**

The Universal Service Plan is being modified based on the following:

- Settlement in the sale of Dominion Peoples to PNG Companies LLC, a subsidiary of Steel River Infrastructure North America, which closed on February 1, 2010. The Universal Service Plan is modified in accordance with the terms of the settlement which included:

- Development of a Request for Proposal to administer the CAP program.
- Increase spending for the Low Income Usage Reduction Program from \$610,000 to \$768,000. See Attachment C.
- Universal Service Evaluation and Needs Assessment, dated August 1, 2010.
- Peoples' Base Rate Case filing submitted on October 28, 2010 and the related Joint Petition for Approval and Settlement dated April 11, 2011.
- The Joint Petition for Settlement is pending Commission approval. DPW Policy Change-application of credits from the Low Income Home Energy Assistance Program (LIHEAP) for customers who participate in the company's Customer Assistance Program (CAP).

Attachment B outlines the key recommendations and modifications based on the above. There is overlap in each of the areas. The Universal Service Impact Evaluation is consistent with all of the recommendations from the Settlement agreement, rate filing and DPW recommendations.

**Major Universal Service Evaluation Recommendations incorporated in this Plan:**

**Customer Assistance Program**

- Design a Request For Proposal (RFP) for a CAP Administrator.  
The successful bidder (a) will substantially increase the number of CAP intake sites (b) is an experienced administrator of utility CAP programs (c) recruits and partners with multi-service agencies and, (d) uses an electronic case management system to track and monitor referrals and enrollments into utility programs.
- Integrate a specialized Universal Service Call group within the new Peoples Gas Customer Service Center. This call group will be sufficiently staffed, held to the newly proposed call center performance indicators and possess exceptional customer service skills in handling low income customers.
- Redesign the CAP bill to adhere to the standards of Plain English and best practices within the industry,
- Increase CAP enrollment from 15,000 to 18,000-20,000 customers,
- Implement collection procedures as originally designed for CAP default for non-pay customers in order to terminate customers in a timely manner.
- Implement consistent and timely outbound calling protocol to CAP customers exceeding usage by 25% of historical usage.



- Consider engaging the LIURP educator for remedial phone calls and/or site visits on an as needed basis.
- Revise arrearage forgiveness policy to allow monthly benefits when CAP payments are up to date. Shorten the forgiveness period from 25% annually over four years to 1/36 monthly over a three year period.
- Modify CAP customer payment plans to take into account the changes to the LIHEAP program. Divide the projected LIHEAP customer grant by 12 months and add in a "plus" amount monthly to the percent of income CAP amount.

#### **CARES**

- Continue to develop new signature events such as the "Warm Your Hearth...Touch A Heart" Campaign for Dollar Energy Fund to increase customer contributions.

#### **Low Income Usage Reduction Program-LIURP**

- Remove LIURP spending caps as per the usage matrix and replace with the Company's historical average spending allowance. Review this on an annual basis to adjust for inflation and increased costs for weatherization labor and materials.
- Mechanize and track DCED funding with LIURP combined weatherization jobs to achieve maximum benefits.
- Implement the necessary procedures to revitalize the partnership between Peoples Gas and Duquesne Light for jointly funded LIURP projects in Beaver and Allegheny counties.
- Increase LIURP annual budget levels to \$900,000 to \$1,000,000 with base rate case filing.

#### **Emergency Furnace Program**

- Consider establishing a company funded Emergency Furnace/Line Repair program separate from LIURP for eligible low income customers.

#### **Base Rate Case Settlement items incorporated in this plan:**

- Maintain a maximum consumption limit for CAP customers of 125% of historical consumption, unless the customer meets an exemption as set forth in the Commission's "Policy Statement on Customer Assistance Programs."
- Limit CAP credits to no more than \$1,000, unless the customer meets an exemption as set forth in the Commission's "Policy Statement on Customer Assistance Programs."

- Seek approval through its Universal Service Plan to establish a CAP Plus amount.
- Implement the Emergency Furnace and Service Repair Program and Community Weatherization Program.
- Increase annual LIURP funding to \$1,000,000.

On October 28, 2010, Peoples filed a general rate request that was later suspended for investigation and hearing. The Company filed a proposed settlement with the PA Public Utility Commission that included the above modifications to the Company's Universal Service Plan. See Attachment D.

### **Plan Attachments and Coordination Efforts**

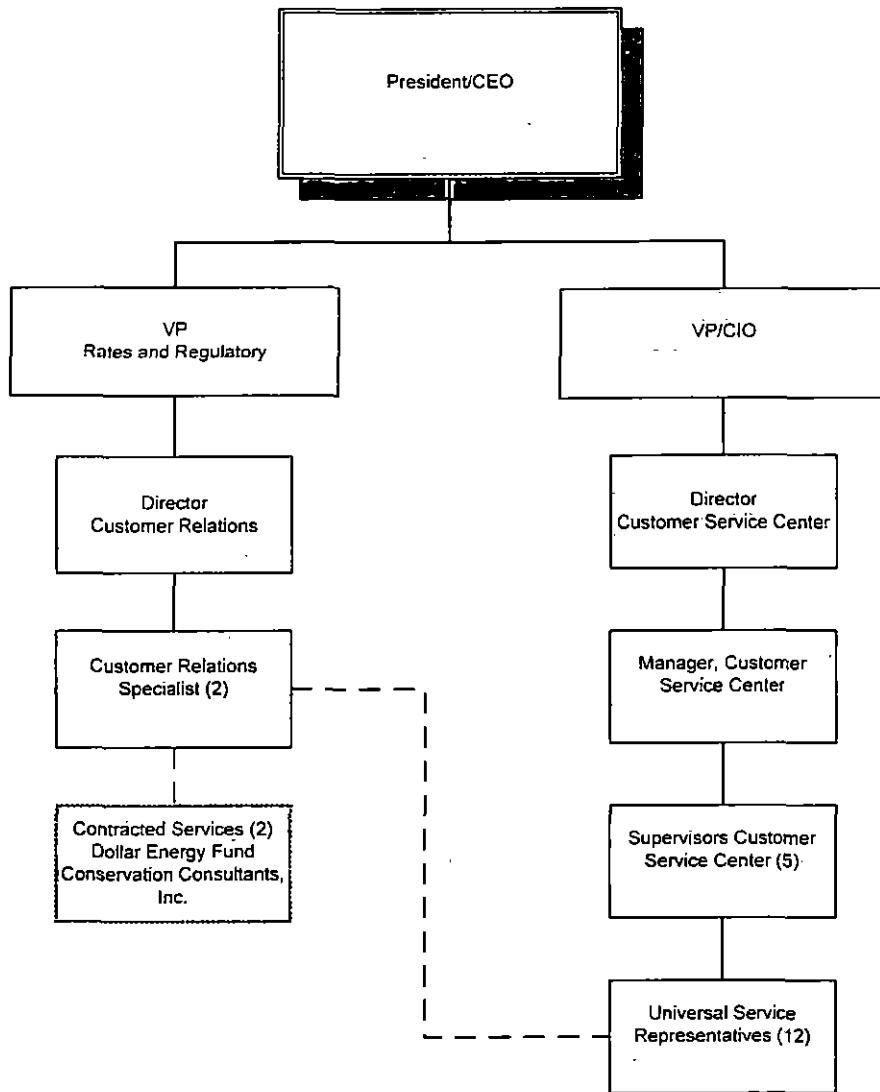
Refer to page 5 for the list of attachments that provide supporting documentation for the Universal Service and Energy Conservation Plan.

An integral part of Peoples Natural Gas Company LLC's Universal Service Plan is the coordination of programs both within the Company and through external agencies.

Company employees receive training on referral and outreach to encourage customers to apply for assistance. In addition, area agencies are encouraged to refer customers to these programs.

Steps used to identify low-income customers with arrears and identification of the manner in which the programs are integrated can be found listed in the first section, Customer Assistance Program. These steps apply to all of the programs.

Below is an organization chart depicting the Company's staffing for its Universal Service Programs:



Note: Universal Service Programs are managed and directed by the Regulatory Section of the Company; the Director of Customer Relations and the Customer Relations Specialists have the primary responsibility for the administration of these programs.

## **CUSTOMER ASSISTANCE PROGRAM (CAP)**

### **Program Description**

Peoples Natural Gas Company LLC's Customer Assistance Program (CAP) is a special payment plan for low-income, payment-troubled customers. The CAP program is funded by ratepayers and administered by the Company. Over 17,000 Peoples Natural Gas customers are currently enrolled in the Customer Assistance Program.

Ratepayers who qualify agree to pay 8%, 9%, or 10% of their verified before tax monthly income for natural gas service. The household income and family size determine which percentage of income the customer is to pay. In addition to the percentage of income amount, CAP customers pay \$2 per month toward amortizing the balance that existed before being accepted into the program.

### **Low Income Home Energy Assistance Program – LIHEAP Coordination**

The Low Income Home Energy Assistance Program (LIHEAP) and LIHEAP Crisis Program provide grants to eligible households to help with their utility bills. CAP participants should apply for LIHEAP and the company provides information on how to apply for the grants. CAP participants are asked to direct payment of any LIHEAP cash benefit grant that they receive to Peoples Natural Gas Company LLC. The LIHEAP Crisis Grant may be requested contingent upon state developed criteria. The LIHEAP Crisis Grant would be applied consistent with state guidelines. Under the current state guidelines, the LIHEAP cash grant will be used to offset customer CAP payments. (Refer to pages vi and vii Commonwealth of Pennsylvania Low-Income Home Energy Assistance Program Fiscal Year 2011 Final State Plan.) See Attachment E.

### **Current Program Benefits**

- Affordable monthly payments based on ability to pay.
- Monthly CAP credits when timely payments are received.
- Annual arrearage forgiveness when timely CAP payments are received. Exemption from late payment charges and waived security deposits for new eligible applicants.
- Referrals to other Universal Service programs and assistance programs

## Payment Plan

Peoples utilizes a "Percent of Income Payment Plan" to establish a customer's monthly payment. Applicants must provide proof of household income when applying for the CAP program. Household income and family size will place customers in a percent of income matrix (see chart). The monthly income times the 8, 9, or 10 percent equals the minimum monthly payment. Customers who have an existing balance prior to entering CAP will have an add-on of \$2 per month to help offset arrearages.

Federal Poverty Status	Percent of Income
0 - 50%	8%
51 - 100%	9%
101 - 150%	10%

\* If the ratepayer's monthly CAP payment, as calculated above, exceeds the otherwise applicable monthly budget payment amount, the monthly budget payment amount will be accepted as the CAP payment. Attachment F-Refer to Page 35 of Peoples Natural Gas Company LLC's Retail Tariff.

## Program Dimensions

### 1. CAP Enrollment

As of 5/10/2011, the number of active CAP participants is 16,989. The Company will continue to identify and enroll all eligible customers and increase enrollment to a target range of 18,000 to 20,000 customers. Enrollment is not limited to a predetermined level. Customers must be payment-troubled and low-income to be eligible. A payment troubled customer is defined as one who has missed one or more payments and/or has a broken payment agreement; income eligibility is established at or below of 150% of the federal poverty level. See "Customer Referral Guide," Attachment G.

### 2. Arrearage Forgiveness

The Company will revise the arrearage forgiveness policy to allow monthly benefits when CAP payments are up to date and paid on time. The forgiveness period will be shortened from 25% annually over four years to 1/36<sup>th</sup> monthly over a three year period. The Company will enhance its educational efforts to provide CAP participants with information on the benefits of arrearage forgiveness.

### 3. Calculation of CAP Credits

CAP credits are applied on a monthly basis when the CAP payment plan is paid up to date. Monthly CAP credits associated with missed CAP payments will be applied once the customer makes missed CAP payments and brings the payment plan to a

current status. Per 52.69.262, a CAP credit is defined as the difference between the CAP customer's actual usage bill and the CAP monthly bill. In order to better illustrate the benefits of the CAP program, participants receive a monthly CAP credit on their bill as long as monthly payments continue to be made.

#### 4. CAP Plus Program

LIHEAP receipts for customers participating in the CAP program for the previous LIHEAP heating season will be divided by the total of (1) current active CAP participants; and (2) the projected average number of CAP participants to be added for the projected quarter to arrive at a CAP Plus amount which will be added to the calculated monthly CAP payment amount (as described in 'Payment Plan' above) for all participating CAP customers.

#### 5. CAP/LIHEAP Program Modifications

Peoples made modifications to its billing system in order to implement the changes issued by the Department of Public Welfare for the 2010-2011 program year. Refer to pages vi and vii Commonwealth of Pennsylvania Low-Income Home Energy Assistance Program Fiscal Year 2011 Final State Plan. Attachment E.

#### 6. Redesign of CAP Bill

The evaluator recommended that the company redesign its CAP bill to be more user friendly. The redesign has been completed and reviewed by the PA Public Utility Commission's Bureau of Consumer Services. It is scheduled to be in production in the first quarter of 2012.

#### 7. CAP Administration, First Call Resolution and Use of Community Based Organizations

As recommended in the Universal Service Evaluation, Peoples will integrate a specialized Universal Call group within the new Peoples Gas Customer Service Center to pre-screen customers for CAP and provide referrals to additional Universal Service Programs. Peoples will maintain a Universal Service 800 number for referrals to CAP and customers will be immediately transferred to the CAP Program administrators upon contact with the Company.

In August 2010, PNG designed an RFP for a CAP Administrator that was sent to five potential bidders. Dollar Energy Fund was chosen to administer the program and effective May 16, 2011 began training in order to assume the role of program administrator. The agency is an experienced administrator of utility CAP programs and will partner with at least ten community based organizations to provide assistance with enrollment. The agency will also utilize a case management system to track and monitor

referrals and enrollments in accordance with the Sales Agreement Settlement. Attachments A, B, C.

Customers will continue to be referred to 1-800-400-WARM for LIHEAP, LIHEAP-Crisis, Dollar Energy Fund and LIURP programs and will receive referrals for all available programs during their initial call.

In addition, community-based organizations will be encouraged to provide referrals to the CAP program. Community-based agencies will provide appropriate follow up, education, budget counseling, and referrals in conjunction with the LIURP program. Accounts are monitored for excessive usage and the company contacts the customer by telephone and mail to review excessive usage, offer conservation tips and enroll in the LIURP program, based on program availability and customer eligibility.

### **Control Features**

To limit program costs, Peoples monitors CAP accounts monthly to ensure customers are complying with the terms of the program and are receiving the proper benefits from CAP and other Universal Service Programs.

- The minimum payment for a heating account is \$21 per month plus \$2 for the arrearage for a total minimum monthly payment of \$23.
- CAP participants who qualify for weatherization will receive priority in accordance with the criteria established for the Residential Low Income Usage Reduction Program (LIURP).
- A CAP customer who meets the eligibility criteria for LIHEAP should complete an application.
- Upon enrollment in CAP, participants will be advised of the importance of energy conservation and information on conservation tips and weatherization will be provided. If the customer has a history of high usage, referrals to weatherization (LIURP) and energy assistance programs will be made. Energy savings tips will also be provided to newly enrolled CAP customers. All participants will be advised that their usage will be reviewed on an ongoing basis and unjustified excess CAP usage may be billed to the CAP customer.
- A daily report will be generated by Peoples Natural Gas Company LLC's billing system that will allow the Company to identify CAP customers whose weather-normalized annual usage has increased by more than 25%. The CAP customer's most recent 12-months usage (adjusted for normal weather) will be compared to weather-normalized usage for the preceding 12-month period. For the accounts that indicate a situation of excess gas usage 125% per Peoples' proposed rate settlement, the Company will take the following steps:

- The account will be reviewed and the customer will be contacted in order to determine if the increase in gas usage is justified. Justified usage may include: increase in household size, serious illness of a family member, or usage was beyond the household's ability to control. Special needs customers identified through this process will be referred to the CARES program in accordance with 52 PA Code, 69.261-267.
- Any customer with unjustified excess usage will be contacted and provided with conservation information, tips for lowering usage, and a referral to weatherization programs. Unjustified excess usage will be billed to the CAP customer.
- A daily report will also be utilized to monitor customers who exceed \$1,000 in CAP credits.
  - The account will be reviewed and the customer will be contacted in order to determine if the excess in CAP credits is justified. Justified credits may include: increase in household size, serious illness of a family member, or usage was beyond the household's ability to control. Special needs customers identified through this process will be referred to the CARES program in accordance with 52 PA Code, 69.261-267.
  - Unjustified CAP credits in excess of \$1,000 will be reversed and the resulting bill will be the responsibility of the CAP participant.

### **Default, Termination Conditions and Requests for Removal**

Peoples Natural Gas Company LLC monitors accounts for changes in family size or income, timely payments, and timely meter readings for non-access situations. CAP participants' failure to comply with one or more of the following may result in the Company ending the ratepayer's opportunity to receive service under CAP:

- Failure to allow access to or provide customer meter readings in four consecutive months.
- Failure to report changes in income or family size.
- Failure to reapply as requested and/or meet eligibility requirements.
- Failure to make payments may result in the company returning the customer to the regular collection cycle and may lead to termination of service. To avoid termination, the customer must pay the amount set forth in the termination notice prior to the scheduled termination date. If a CAP account is terminated, the customer must pay all missed CAP payments to have service restored.



## **Eligibility Criteria**

The CAP program is available to customers who are at or below 150% of the Federal Poverty guidelines (See Attachment H - Income Guidelines). Applicants must have active residential heating service and be classified as "Payment-troubled." "Payment-troubled" is defined as a customer who has one or more missed payments and/or has a broken payment agreement. Appropriate nonprofit, community-based agencies, Peoples Natural Gas Company LLC staff, CARES representatives, the Public Utility Commission (PUC) and other agencies are encouraged to make program referrals. Customers who request discontinuance of service and apply for service within 60 days will continue to be active CAP participants. New applicants will be required to meet eligibility standards.

Upon contact, a ratepayer may be enrolled in CAP if he/she has defaulted on a payment arrangement and has received a LIHEAP payment within the past two years. Peoples will accept a customer's participation in an electric CAP program as verification of income, if the Company is satisfied that the electric Company verifies income.

The Company will follow its filed and approved tariff for customers who fail to meet their CAP payments in a timely manner. In all cases, the Company reserves the right to stay terminations based on individual, extraordinary customer circumstances.

## **Appeal Process**

CAP applicants may appeal the denial of eligibility. If the CAP applicant is not satisfied with the Company's initial eligibility determination, the company will follow the dispute procedures at 52 PA. Code 56.151 and 56.152. The CAP applicant may also appeal the denial of eligibility to the PUC's Bureau of Consumer Services in accordance with 52 PA Code 56.161-56.165.

## **Needs Assessment**

See Attachment A: Impact Evaluation, CAP Needs assessment, page 24.

## **Program Budget**

The CAP program is funded by Peoples' customers and administered by the Company. The current CAP funding levels were established as a result of settlement agreements between Peoples Natural Gas Company LLC and various parties in Docket R-2010-2201702. The chart below contains the projected expenditures for the 2012 – 2014 periods. In its' base rate case, Peoples established Rider F, Universal Service Rider, which provides cost recovery for CAP related costs including CAP credits, Arrearage Forgiveness, and third-party administration. This Rider is subject to an annual reconciliation to actual experience.

credits, Arrearage Forgiveness, and third-party administration. This Rider is subject to an annual reconciliation to actual experience.

2012	\$8,726,221
2013	\$8,855,431
2014	\$8,173,970

### **Plans to Use Community Based Organizations**

Peoples' CAP program will be managed by Peoples and administered by Dollar Energy Fund and will be housed in DEF's Customer Contact Center. Dollar Energy Fund will contract with at least ten community based organizations throughout PNG's sixteen county service territory. Community-based organizations will be utilized to complete applications and to provide referrals to the CAP program as well as provide appropriate follow up, information on education, budget counseling and referrals in conjunction with the Low Income Usage Reduction Program. (LIURP) In addition, Peoples will refer eligible customers to appropriate programs and services including, but not limited to, sources of third-party funding, budget counseling, and consumer education.

### **Organizational Structure of Staff responsible for CAP**

See organization chart on page 10

Vice President, Regulatory  
Director Customer Relations  
Customer Relations Specialists  
Customer Service Center Representatives  
Dollar Energy Fund-Program Administrators

### **Outreach and Intake Efforts for CAP**

Peoples will provide outreach for CAP and other programs through the Customer Service Center, Internet and other forms of media as listed below. Fliers are included with termination notices to inform customers of available programs. Bill inserts, press releases and other information are also provided to the public to encourage referrals. Community-based agencies receive information on these programs and are encouraged to make referrals as well. A "Customer Referral Guide" is distributed to social service agencies, community leaders and Company personnel. Meetings are held with social service agencies, elected officials and other community groups to provide current information on available programs. See attachment G. Information on the programs can also be found on the Company's website at [www.peoples-gas.com](http://www.peoples-gas.com).

### **Identification of Specific Steps to Identify and Enroll Low-Income Customers**

Potentially eligible customers are identified through the Company's Billing System by their income and level of arrears. All Customer Service Center Representatives receive training on identification of potential referrals to all Universal Service Programs. Universal Service agents will pre-screen customers for the program prior to referring them to the administrator for enrollment. Program information is available through the Company's manuals. This information includes income eligibility and program dimensions.

### **Integration of Programs**

The Universal Service Call Group is part of the Customer Service Center. Twelve specially trained representatives will pre-screen customers who appear to be eligible for the Universal Service Programs. The customers will be routed to this Call Group by the following methods: internal routing- upon identification of receiving LIHEAP, CAP or Dollar Energy Fund; external routing through calling the Company's Universal Service line: 1-800-400-WARM. All customers who are referred to the Universal Service 800 number are screened to determine eligibility for all available internal and external assistance programs including, but not limited to, CAP, LIURP, LIHEAP, CARES and Hardship Funds.

Field Metering Service Personnel also make referrals to the Universal Service Programs. The Company provides service center representatives with information and referral mechanisms for all of the Universal Service Programs and includes income guidelines and eligibility criteria. A "Customer Referral Guide" that lists all of the program dimensions is prepared, disseminated and also available on-line. Refer to Attachment G.

### **Modifications since Last Plan**

As a result of the sales agreement and proposed rate settlement, enrollment will be increased from 15,000 to more than 17,000 participants.

Due to the sale of Peoples, the Universal Service calls were contracted to Advantage Credit Counseling Service.

In accordance with the PA Department of Public Welfare's administrative memo, the company modified its billing process to apply LIHEAP grants to customer's current and future CAP payments.

## **LOW INCOME USAGE REDUCTION PROGRAM (LIURP)**

### **Program Description**

The Peoples Natural Gas Company LLC's Low Income Usage Reduction/Weatherization Program is designed to help low income customers who have problems coping with high gas bills. Program goals are to make the home warmer, control high usage and achieve bill reduction through usage reduction.

### **Home Weatherization**

An energy auditor visits the customer's home and thoroughly inspects it from the basement to the attic. The auditor looks for areas where heat is escaping and cold is entering the house and also notes any previous weatherization measures and evaluates their effectiveness. The auditor asks customers to provide any information that can assist them during the home inspection.

The information that is gathered by the auditor determines what measures will most benefit the customers' homes. Measures are installed based on established payback criteria and may include:

- Heating system improvements and replacements
- Attic, sidewall, and other types of insulation
- Caulking and weather-stripping
- Air sealing
- Hot water treatments including tank improvements, wrapping and replacements
- Minor repairs that relate to weatherization

### **Energy Education**

The Low Income Usage Reduction is comprised of several components to encourage ongoing conservations. Upon completion of the installation of weatherization measures, an energy educator reviews the measures and offers suggestions on ways to conserve energy. The education program is designed to encourage customers to reduce consumption.

After energy conservation measures have been completed, a Conservation Education Specialist visits the customer's home to explain the weatherization program in more detail and to provide conservation and energy efficiency suggestions. The

Conservation Specialist may provide "hands on" demonstrations of conservation measures such as lowering the thermostat and, replacement of furnace filters. The specialist also provides written reference materials for the customers.

A follow up telephone call or visit may be scheduled one year after the program measures have been completed if the customer has had an unusually high increase in consumption.

### **Eligibility Criteria**

Note: CAP participants will receive priority to receive LIURP but must meet the following criteria as well:

1. Total family income does not exceed 150% of Federal Poverty Guidelines. (Up to 20% of the annual program budget may be allocated to customers with incomes from 151- 200% of the federal poverty level on a case-by-case basis.)
2. Residential, gas-heating customer.
3. Customer has not moved and have not had gas service terminated within the last year.
4. Customer plans to live at the same address for the next year.
5. Customer has arrearage above \$200 and /or consumption is greater than 140 MCF per year.
6. Renters must have the gas account in their name

Note: Rental units must be metered separately and have individual heating systems. Landlord permission is required.

### **Needs Assessment**

See Universal Service Impact Evaluation LIURP Needs Assessment page 57.

### **Projected Enrollment Levels**

Based on actual homes weatherized and attempted outreach over the past seven years, Peoples expects to complete approximately 204 homes per year for a total of 584 completions over the next three years. Peoples has spent \$13,231,789 and weatherized 4,401 homes since the program's inception in 1987 through December 31, 2010.

## **Program Budget**

The estimated funding amounts for the LIURP program including program measures, Customer Relations Staff, contract labor, administrative expenses, agency meetings, equipment, outreach, and handout materials will total approximately \$1,000,000 per year for a total of \$3,000,000 from 2012 through 2014.

Peoples will remove the spending caps as per usage matrix and replace with the company's historical average spending allowances. The company will review the usage matrix on an annual basis to adjust for inflation and increased cost for weatherization labor and materials.

## **Plans to use Community Based Organizations**

Peoples' LIURP program is managed in house and administered through Conservation Consultants, Inc., a non-profit agency. Conservation Consultants, Inc. will conduct energy audits, contract with non-profit community action agencies as appropriate to install weatherization measures, provide consumer education and conduct post-installation inspections. See Attachment I for conservation information.

## **Modifications since last Plan**

As part of the sales settlement, Peoples agreed to increase the spending for its LIURP program from \$610,000 to \$768,000. Upon conclusion of its most recent rate filing and settlement, Peoples' LIURP will increase the budget spending from \$768,000 to \$1,000,000 per year.

In addition, and as recommended by the 2010 Universal Service Impact Evaluation, LIURP spending caps as per usage matrix will be removed and replaced to reflect inflation and increased cost for weatherization labor and materials. The maximum total amount spent per household will increase from approximately \$3,609 to \$5,000.

## **Organizational Structure of Staff responsible for LIURP**

See Organizational Chart, page 10

Vice President, Regulatory  
Director Customer Relations  
Customer Relations Specialist  
Customer Service Center Representatives  
Conservation Consultants Inc, program administrators

### **Outreach and Intake Efforts for LIURP**

Customers who participate in the CAP program and meet LIURP eligibility criteria are referred to LIURP during the CAP intake process. Referrals are also made by community-based organizations, CARES, Customer Service Center and customer service personnel. In addition, Peoples coordinates its LIURP Program with existing community-based programs including Rebuilding Together Pittsburgh, Coordinated Weatherization Campaign and others. Peoples also will join with the electric companies in the service territory to provide extended services to the customer. Outreach efforts for LIURP are listed under the Customer Assistance Program (CAP).

In addition, the company will attempt to coordinate and track monetary funding from qualified State/ Utility eligible customers and electric utility programs such as the Joint Utility Usage Management Program (JUUMP).

### **Steps to Identify and Enroll Low Income Customers**

Eligible customers are identified through the CAP program and in conjunction with the other Universal Service Programs and enrolled in the LIURP program in accordance with program guidelines.

### **Integration of Programs**

The Low Income Usage Reduction Program will be integrated with the *federal and state* weatherization programs, electric utilities weatherization programs and with programs offered by Conservation Consultants, Inc. It will also coordinate with our Community Weatherization Partnership Program when possible. Other integration methods are as outlined under the Customer Assistance Program.

## **PEOPLES EMERGENCY FURNACE / SERVICE LINE REPAIR PROGRAM**

### **Program Description**

The Peoples Emergency Furnace/House and Service Line Repair Program is pending approval as part of Peoples Base Rate Case. Approval is expected in June 2011.

Many low income customers are faced with the prospect of going through the winter months without heat because they cannot afford to have their furnace or service lines repaired and there are very few programs to provide assistance and support.

### **Eligibility Criteria**

Customers must be at or below 200% of the federal poverty level and have a need for emergency repairs to their heating system.

### **Needs Assessment**

See Needs Assessment, Appendix A 3.

### **Projected Enrollment Levels**

It is expected that this program will assist approximately 160 customers per year; or 480 customers over the next three years.

### **Program Budget**

The program budget will be \$200,000 per year during the next three years for a total amount of \$600,000.

### **Organizational Structure**

See Organizational Chart on page 10 and Organizational Structure on page 21.

### **Outreach and Intake Efforts**

Peoples will coordinate the furnace programs with existing emergency programs and will receive referrals from community based organizations and through company representatives.



**Identification of Low Income Customers**

Customers will be identified through the receipt of LIHEAP, Dollar Energy Fund and other assistance programs.

**Program Integration**

The program will be administered by Conservation Consultants, Inc. In order to realize efficiencies and better coordinate with other programs, the agency will utilize subcontractors who are currently working to implement the Peoples' LIURP program.

## **COMMUNITY WEATHERIZATION PARTNERSHIP PROGRAM**

### ***Program Description***

The Community Weatherization Partnership Program is pending approval as part of Peoples Base Rate Case. Approval is expected in June of 2011

Conservation programs have become increasingly important in our communities. In order to best leverage funding with existing programs and to better reach out to our customers, Peoples is proposing to expand its weatherization/conservation programs.

### ***Eligibility Criteria***

See LIURP Eligibility Criteria, page 20

### ***Needs Assessment***

See Needs Assessment, Appendix A3.

### ***Projected Enrollment Levels***

It is expected that 50-100 customers per year will receive assistance through this program for a total of 150-300 participants over the next three years.

### ***Program Budget***

The company's budget for the Community Weatherization partnership is \$50,000 per year for a total \$ 150,000 for the next three years.

### ***Organizational Structure***

See Organization Chart, page 10 and Organizational Structure for LIURP, page 21.

### ***Outreach and Intake Efforts/ Identification of Low Income Customers***

See LIURP outreach efforts and Identification of Low Income Customers, page

### **Program Integration**

The company will work to build partnerships with organizations that are trying to fill the gaps for customers whose needs cannot be served by other programs currently available. Such organizations are publicly and privately funded and will include Green Economy Initiatives supported by the Pittsburgh Foundation, area utility companies such as Allegheny Power's Joint Utility Usage Management Program (JUUMP), Rebuilding Together Pittsburgh, Habitat for Humanity and the County of Allegheny Office of Sustainability. These partnerships will leverage company resources to provide energy conservation and efficiency and a comprehensive assistance to low income customers.

## **CUSTOMER ASSISTANCE REFERRAL & EVALUATION SERVICES (CARES)**

### **Program Description**

The Customer Assistance Referral and Evaluation Services-CARES program provides comprehensive services for customers who have a true inability to pay their gas bills and have special needs such as a serious medical condition, a mental health condition, limited learning ability, recent unemployment, single parent issues, etc. Customer Relations Specialists address all CARES referrals including those relating to Protection from Abuse Orders as outlined in 66 PA CSA, Chapter 14. Customer service representatives refer special needs customers to the Customer Relations Specialists for assessment, assistance and additional referrals.

Referrals to the program are received from a variety of sources, including Customer Service Center representatives, customer service personnel, social service staff persons or the Public Utility Commission. Customer Service Center staff will provide referrals to CARES from customers who have Protection from Abuse Orders. (PFAs)

The CARES program is intended for customers with short-term problems. However, there are instances where customers are enrolled in the program and may never have an improvement in circumstances. The Customer Relations Specialists make referrals to appropriate social service agencies and maximize enrollment in the Universal Service Programs such as the Low Income Home Energy Assistance Program-LIHEAP, LIHEAP-Crisis, Dollar Energy Fund, Customer Assistance Program and other third party assistance programs.

Customer Relations Specialists maintain an ongoing caseload and devote a considerable portion of time working with appropriate agencies. Customer Relations Specialists also provide short-term assistance to assure that customers receive all of the necessary referrals during the initial contact and are then able to pursue the referrals without further assistance.

Customer Relations Specialists network with community and social service organizations throughout Peoples' service territory to better enable customers to receive appropriate referrals and third party assistance and funding. Some of these agencies and committees include:

- Health and Welfare Council
- Department of Aging
- Allegheny County Community Services Advisory Council
- Health Department,
- Department of Public Welfare

Customer Relations Specialists network and participate in awareness programs and fairs sponsored by social service agencies and elected officials. They are also active on networking committees such as:

- Be Utility Wise
- Pennsylvania Aging, Utilities and Economic Education Consortium.
- Air Conditioner Contractors Association Furnace Inspection Program
- HEAT'S ON (Handicapped and Elderly Assistance to Service Our Neighbors) furnace inspection program.
- Homeless Prevention & Rapid Re-Housing Program (HPRP)

Peoples' Customer Relations Specialists work with area social service agencies to provide third party assistance for our customers. As a result, eligible customers receive a substantial amount of financial assistance from third party social service agencies such as Catholic Charities, Salvation Army, and Lutheran Services.

Another aspect of the CARES program is the Gatekeeper program. It is designed to aid older adults and special needs customers who need help, but may not be able to access it themselves. Customer contact persons are trained as "gatekeepers" to recognize certain danger signals such as changes in behavior, signs of confusion, or disability. Gatekeepers report the situation to the Customer Relations Specialist, who may refer the customer to the local Area Agency on Aging or other appropriate agencies.

Thermostats for the vision impaired are available for customers who are medically identified as having a vision problem. Peoples provides and installs these devices free of charge. Customers can also receive large print bills or Braille bills depending upon their need.

Outreach for the Low Income Home Energy Assistance Program or LIHEAP is an important component of the CARES program. Peoples identifies income eligible customers and promotes the program through bill inserts, radio and television ads, press releases, press conferences, and letters sent to customers. The Company also partners with Columbia Gas and Equitable Gas companies along with former Steeler Franco Harris to provide outreach so eligible customers can apply for the program. Peoples' customers may call the Universal Service 800 number to request an application. From November 2009 through September 2010, Peoples' low-income customers received \$9,276,847 in LIHEAP assistance and \$615,778 in LIHEAP Crisis grants.

As previously mentioned, in order to assist customers in accessing all available Universal Service Programs and other forms of assistance, Peoples staffs a Universal Service 800 number. This telephone line is available throughout the year, and referrals are made for

programs that are open at any given time including, but not limited to, CAP, LIHEAP, LIHEAP-CRISIS, LIURP, CARES and Dollar Energy Fund and Peoples Hardship Fund.

Of special note is the fact that the proposed budget cuts in the 2011-2012 LIHEAP program will have a severe, adverse effect on low income customers. Peoples will continue to partner with the National Fuel Funds Network and other advocacy groups to encourage full funding for LIHEAP.

### **Eligibility Criteria**

Income guidelines for the LIHEAP and Crisis programs are established by the Pennsylvania Department of Public Welfare and may change annually. LIHEAP eligibility is currently established at 160% of the federal poverty level and is proposed to be 150% for the 2011-2012 heating season.

Customers at or below 200% of the federal poverty level may be referred to the CARES program for assistance. Customers must also have missed payments or demonstrated an inability to pay their bills and have special needs. Exceptions may be made for special circumstances.

### **Needs Assessment**

Refer to Attachment A.

### **Program Enrollment**

The number of CARES customers has declined as eligible customers have been placed into the CAP program. Many customers received short-term assistance and referral as part of the CARES program. Under current income guidelines, the number of customers who receive LIHEAP may decrease if the program funding is substantially reduced... The scope of the CARES program will continue to center around providing assistance to special needs customers and partnering with area social service agencies to identify and assist the special needs populations. It is important to note that the CARES program serves as an information and referral resource and networking with appropriate agencies remains an important component of the program.

### **Program Budget**

The total estimated funding amounts for the CARES program including salaries for Customer Relations Specialists, Manager/ Supervisor, contract labor; administrative expenses, outreach, workshops, fairs /festivals and handout materials is approximately \$157,244. This budget is expected to remain the same for each year from 2012-2014.

### **Plans to use Community Based Organizations**

The CARES Program at Peoples is administered internally. Customer Relations Specialists network with agencies throughout the Peoples' sixteen county service territory to stay informed of available programs and to better serve low income customer needs.

### **Modifications since last Plan**

Peoples will establish a Universal Service team within the Customer Service Center. These Universal Service company representatives will handle incoming phone calls from low-income customers. Special needs customers will continue to be referred to the Customer Relations Specialists.

### **Organizational Structure of Staff responsible for CARES**

See Organizational Chart, page 10

Vice President Regulatory  
Director, Customer Relations  
Customer Relations Specialist  
Customer Service Center Representatives  
Community Based Organizations

### **Outreach and Intake Efforts for CARES**

The Customer Relations Specialists work to promote the Universal Service Programs by maintaining contact with community service organizations throughout the Company's sixteen county service territory. They also participate in meetings sponsored by the Human Service Councils in the different counties, the Department of Aging and through other activities such as: Be Utility Wise, PA Aging, Utilities and Economic Education Consortium, older adults fairs and workshops, HEAT'S ON, Air Conditioner Contractors of America (ACCA) project and the Homeless Prevention and rapid-Rehousing program (HPRP), Company Special Needs Christmas Program, and CARES Utility Network. . The Company also promotes the programs by mailing bill inserts to customers and distributing the "Customer Referral Guide" for use by the social service agencies. See Attachment G.

### **Identification and Referral of Low Income Customers**

In addition to the steps outlined under the Customer Assistance Program, CARES customers are also identified through the Company's Gatekeeper program.

**Program Integration**

See Integration Methods as outlined under the Customer Assistance Program.



## **DOLLAR ENERGY FUND / PEOPLES HARDSHIP FUND**

### **Program Description**

The Peoples Natural Gas Company LLC Hardship Fund is a partnership with the Dollar Energy Fund. (DEF) The Dollar Energy Fund was founded in 1983 and currently partners with fifteen utilities in Pennsylvania. Dollar Energy Fund is an independent, non-profit organization that provides utility bill financial assistance to customers who are on a low or fixed income. Dollar Energy Fund receives donations from utility investors, customers, and employees. Currently, Peoples Natural Gas Company LLC contribute up to \$300,000 annually to match customer donations, and Peoples Natural Gas Company LLC contributes up to \$60,000 for administrative costs.

### **Eligibility**

The Dollar Energy Fund reviews and modifies its eligibility guidelines annually. It is a fund of last resort. Households whose gas service is off and are eligible for LIHEAP and Crisis benefits must apply for these benefits, when available, before applying for Dollar Energy Fund. The Dollar Energy Fund Program year runs annually from October 1st to September 30<sup>th</sup>, and grants are available until funds are exhausted. Customers must also be at or below 200% of the poverty level to qualify for a grant. In addition, the customer must have made a sincere effort of payment, which is defined as having paid at least \$150 toward their utility bill over a ninety-day time period. Applicants under the age of sixty-two must have a balance of at least \$100 on their account to be eligible to apply. Applicants over sixty-two years of age may have a zero balance or greater to be eligible to apply. The applicant's account must be either a residential, single-family dwelling or apartment. Non-heat accounts and commercial accounts are not eligible for assistance from the Dollar Energy Fund.

### **Needs Assessment**

Refer to Attachment A.

### **Enrollment Levels**

During the 2009-2010 Program 1701 Peoples Natural Gas Company LLC customers received a total of \$300,192 in grants. Since the program's inception, Dollar Energy Fund has distributed more than \$14 million to almost 49,000 households.

## **Budget**

As noted earlier, Peoples contributes up to \$300,000 annually for the program and can provide up to \$60,000 for administrative costs. The company will continue to explore ways to increase customer donations to assist in meeting the r matching funds as well as to encourage Dollar Energy Fund to increase its fund raising programs.

## **Community Based Organizations**

Dollar Energy Fund currently partners with community-based organizations. Peoples' customers may be referred to any Dollar Energy Fund community based screening agency to complete an application. Dollar Energy Fund developed an on-line application process entitled "I-Partner" which enables the company to review grant applications more quickly. Peoples Natural Gas Company LLC plans to continue to use DEF Community Based Organizations as a means for customers to apply for DEF grants. These agencies work closely with the Company and refer eligible customers to CAP, LIURP and CARES as well.

## **Organizational Structure of Staff responsible for Hardship Funds**

See Organizational Chart, page 10

Vice President Regulatory  
Director Customer Relations  
Customer Relations Specialists  
Dollar Energy Fund

## **Outreach Efforts**

Information about the program is included each year in a bill insert that is mailed to all customers. Customer donations are also solicited annually through bill inserts, press releases and information on the bill. *In addition*, those customers referred to the Universal Service Programs are screened for DEF eligibility and referred to the program. Customer Relations Representatives receive training that enables them to make referrals and complete applications. Training is also conducted for Customer Service Supervisors and representatives so that they can make referrals to eligible customers.

Peoples continues to support Dollar Energy Fund in a variety of ways. Peoples Director of Customer Relations serves on the Board of Dollar Energy Fund. The company participated in fundraising activities that included the Warm Your Hearth Campaign, KDKA Warmathon, and a fundraiser coordinated with the Altoona Curve. In addition, Peoples' employees support the Fund through donations on "Casual Fridays."

**Identification of Eligible Customers**

See information outlined under Customer Assistance Program.

**Integration of Programs**

See Integration Methods as outlined under the Customer Assistance Program.

**Major Modifications since Last Plan**

Since the last plan, Peoples has increased its outreach to increase the visibility of Dollar Energy Fund and to encourage donations to the Fund. Examples were provided earlier and include partnerships with the Altoona Curve, Hearth and Home Furnishings and KDKA Television.

## **PNG HARDSHIP FUND**

### **Program Description**

On January 10, 2011, Peoples filed a petition with the PA Public Utility Commission to utilize a portion of the funds from the Tennessee Pipeline Refund to provide assistance for payment troubled customers. Peoples received approval from the Pennsylvania Public Utility Commission (PUC) to contribute an additional \$1.9 million over three years to the Dollar Energy Fund (DEF) to help People's low –income customers.

The PNG Hardship Fund is administered by Dollar Energy Fund and follows the same program guidelines as DEF. Funds donated through the Peoples Hardship Fund are not matched by customer donations.

Funds for the program are to be distributed in 2010, 2011 and 2012. The program assisted 390 customers from July 2010 to September 2010 and 268 from October 2010 to April 2011. Customers are referred to the program if they need additional grants or if they have utilized all other fuel grants. Customers apply for the program at Dollar Energy Fund screening agencies and upon approval, the grant is applied to the customer's account. Program guidelines are consistent with Dollar Energy Fund's program.

### **Eligibility Criteria**

Customers must be at or below 200% of the federal poverty level and have exhausted all other forms of assistance.

### **Needs Assessment**

See Needs Assessment, Appendix A3.

### **Projected Enrollment Levels**

It is expected that approximately 350 customers will receive assistance each year from this program for a total of 700 participants in the next two years.

### **Program Budget**

Program budget is established at \$1.9 million per year for the next two years for a total of \$3.8 million.

## **Organizational Structure**

See Organizational Chart, page 10 and Dollar Energy Fund Organization Structure, page 32.

## **Outreach and Intake Efforts**

Dollar Energy Fund and its screening agency representatives will provide referral information after customer has received a grant and needs additional assistance. Universal Service Representatives at Peoples Gas will also have information and make referrals to this program.

## **Identification of Low Income Customers**

Customers who have received LIHEAP and Dollar Energy Fund will be identified as possible participants.

## **Program Integration**

This program will be integrated with other programs and community based assistance as outlined in the Dollar Energy Fund program.



**PEOPLES  
NATURAL GAS**

**Universal Service Plan 2012-2014  
Attachments**

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Evaluation  
Summary

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# **PEOPLES NATURAL GAS**

2010

**UNIVERSAL SERVICE EVALUATION**

**EXECUTIVE SUMMARY**

Melanie K. Popovich

Utility Business Consultant



# EVALUATION CRITERIA

- BCS Standard Questions for Third Party Evaluators
- 2004 Universal Service Evaluation Compliance with Recommendations from BCS
- 2009-2011 Universal Service Plan Compliance
- 2009 PUC Management Report
- 2010 Settlement Conditions of Sale

# BCS STANDARD EVAL QUESTIONS

- Is the appropriate population being served? >18,000-20,000 ( 58,346 confirmed low income; industry avg part rate=31%)
- What is the CAP customer distribution by Federal Poverty guidelines? 51-100% 7,558 48%
- What are the barriers to CAP participation? No CAP data base ; CIS multiple Screens; CAP Bill ; Timely collections
- What is the customer distribution by CAP payment plan? See FP distribution
- What are the barriers to program recertification? Letters + 1 phone call inconsistent
- Why do customers leave CAP? Non-pay; self remove-stay-out period 12 mos.
- Are there effective links with CAP and other programs? Yes
- How effective is CAP and LIURP link? Improve link with call group. Current use of manual emails.
- How effective are the CAP control features? CAP usage coverage-1/3 customers (5039) over 10%; Month of Jan 2010-customer average coverage was 33%.
- Has customer payment behavior improved? Retention Rate? 83% of Bill Paid; vs. 94% Dominion Peoples. No tracker on retention.
- Does CAP reduce arrearages? Yes Recommend monthly arrearage forgiveness.
- Does participation in CAP decrease service terminations? yes
- Does participation in CAP decrease collection costs? Tbd
- How can CAP be more effective and efficient? Regulatory delay w/CAP disputes-2009 avg 4.5 mos for 178 complaints. CIS system cannot pursue current bill collections- manual process. Timely collections.

# Comparison of 2004 BCS Recommendations to Current Universal Service Plan

## BCS Recommendation

- Increase CAP enrollment to 15,000.
- Revise arrearage forgiveness design to provide monthly benefits.
- Increase CAP credit limit from \$840 to \$1000; develop tracker for real and timely recovery.

## Current Plan

- 2009 enrollment: 15,716 customers; no limits on CAP participation.
- Not Implemented. Company continues to provide annual forgiveness benefits @ 25%/year. Complex enhancements to CIS .
- Removal of maximum annual CAP credit. Tracker developed for timely recovery.

# Comparison of 2004 BCS Recommendations to Current Universal Service Plan 'Cont

## BCS Recommendations

- Eliminate the 12 month lag in calculating customer CAP credits.
- Implement Cash Working Capital Tracker to more accurately establish CAP savings relating to collection and bad debt expense.
- Single point of contact for CAP customers; training; prioritization of IT requests.

## Current Plan

- Cap credits applied monthly when payments are made in full.
- Not in effect.
- Dominion-Peoples Call Center was outsourced to First Energy Charlotte, NC. In June 2009, CAP calls handled by Advantage Credit Counseling-on site in Pittsburgh. Training provided by Customer Relations Dept. New billing system underway.

# Comparison of 2004 BCS Recommendations to Current Universal Service Plan 'Cont

## BCS Recommendations

- Include Level 2 Customers (101%-150% Poverty) in annual LIHEAP outreach mailings.
- Investigate options to minimize the overuse of the 800 Universal Service Line by CAP customers.
- Prioritize the core functions of CARES dept to assure integrity of Universal Service programs.

## Current Plan

- Implemented
- Advantage Credit Counseling on site call group handles all CAP related calls.
- Current responsibilities include CARES; LIURP oversight; and CAP call group oversight.

# Comparison of 2004 BCS Recommendations to Current Universal Service Plan 'Cont

## BCS Recommendations

- Target LIURP enrollees to CAP high usage customers .
- Expedite LIURP customers to a 120 day ( 4 mo) turnaround time.
- Limit “furnace only” jobs to less than 1/3 of total LIURP.
- Reduce post inspections to 25% of jobs completed.
- Develop RFP to provide admin oversight to LIURP.

## Current Plan

- Implemented
- Average turnaround time is 117 days.  
Outliers: Community Action Cambria 6.5 mos; Indiana County 8 mos; Mercer County 5.8 mos; Westmoreland County 4.4 mos.
- 2009 “Furnace only” jobs @ 20% of total LIURP jobs completed.
- Implemented
- Conservation Consultants is LIURP Administrator.

# 2009 PUC MANAGEMENT AUDIT

## CUSTOMER SERVICE IMPACTING UNIVERSAL SERVICE

- **Overall Customer Satisfaction for PNGC is deteriorating.**
  - Analyze the appropriate ratio of call center staffing to call volume.
  - Ensure proper training and performance.
  - Add additional incentives or create penalties for measures not met such as average hold time; percentage of callers satisfied on initial contact, etc.
  - Create separate call group to handle Universal Service Calls (2010 stats=54% calls answered in 73 seconds. Goal: 70% of calls answered in 30 seconds. Important to staff sufficiently.)
- **Dominion Peoples customer arrearages do not compare well to a panel of PA natural gas distribution services.**
  - Percent of confirmed low income customers in debt. 36% (7/8 rank)
  - Average arrearage for confirmed low income customers. \$927 (8/8 rank)  
Combined on an agreement; not on an agreement
  - Changes to CAP; Timely Collections; Monthly Arrearage Forgiveness.

# UNIVERSAL SERVICES 2010 SETTLEMENT CONDITIONS OF COMPANY SALE

- PNC will continue to fund its CAP consistent with its needs analysis approved in conjunction with the Dominion Peoples currently approved Universal Services Plan.
- PNGC will manage its CAP program similar to that of Columbia Gas in that it will partner with an agency that: (a) can substantially increase the number of intake sites; (b) is an administrator of utility CAP programs for the EDC's or NGDC's in their territory; (c) recruits and partners with multi-service agencies; and (d) uses a case management system to track and monitor referrals and enrollments into utility programs.
- PNGC will be permitted to recover CAP costs under Dominion Peoples' existing recovery mechanism for CAP costs. PNGC may propose changes to the recovery mechanism which any party to the Settlement may oppose for review by the Commission.
- PNGC will match customer contributions to its Hardship Fund with up to \$300,000 of shareholder funds annually for three years commencing January 1, 2010. PNGC will provide up to \$50,000 annually in administrative funds for a three year period commencing January 1, 2010. PNGC will review possible ways to increase outreach to customers to attempt to increase customer contributions.



# **UNIVERSAL SERVICES 2010 SETTLEMENT CONDITIONS OF COMPANY SALE 'CONT**

- PNGC will commit to an increase in LIURP funds to \$768,000 per year with the amount above the current \$610,000 per year to be borne by the Company. Any funds not used in one year will roll-over into the next calendar year. Funding on this basis will continue until the effective date of rates set in the next base rate proceeding.

# INCLUDED IN THE EVALUATOR REVIEW

- Interviews with:
  - Company Management/Staff
  - CCI
  - Dollar Energy
  - LIURP Contractors
  - Columbia Gas CAP Mgt
- 2005-2009 Internal Company Reports for CAP; LIURP, Dollar Energy; LIHEAP; CAP Call Center Statistical Reports
- 2005-2009 Annual BCS Universal Service Reports
- Annual BCS Conservation Reports
- Review of 2009-2011 Universal Service Plan
- Review of all Universal Service Program procedures, customer education materials, and random review of third party contracts associated with the programs.

# UNIVERSAL SERVICE PROGRAM RECOMMENDATIONS

- Increase Cap enrollments from 15,716 to 18,000-20,000 customers.  
(Cap part rate @ 25% vs. 39% Columbia; 31% Industry Avg.)
- RFP for CAP Administrator with experience in CAP enrollment/income eligibility/re-verification/customer correspondence and electronic capability of developing and managing CAP data base.
- Initiate consistent and timely outbound calling protocol to delinquent CAP customers and CAP at risk for termination.
- Redesign CAP bill to Eliminate customer confusion and default. Plain English.
- Monthly Arrearage Forgiveness for Cap customers who pay on time.
- Redesign CAP payment structure to include the impact of LIHEAP grants. (Monthly CAP + anticipated LIHEAP Grant divided by twelve months).
- Reestablish a single point of Customer Contact integrating a Universal Service Call Group within the new Peoples Gas Call Center. (Incoming CAP Calls; referrals to LIHEAP; LIURP; CARES; and other Community resources).

# UNIVERSAL SERVICE PROGRAM RECOMMENDATIONS 'CONT

- Initiate a telephone follow-up to all CAP Customers exceeding 110% of Annual Weather Normalized Usage. Remedial LIURP education call/visit 15 months post wx. Print-outs to educator.
- Increase LIURP Funding from \$768,000 to \$900,000 Annually.
- Maximize and track DCED funding with LIURP combined weatherization jobs. (DCED \$6,000 per household).
- Remove LIURP spending caps as per allowance usage matrix and replace with avg spend allowance per job.
- Establish Emergency Furnace/Houseline Repair Program separate from LIURP Funds. Need for furnace funding/ line repair is significant in western PA.
- 2009 CAP LIHEAP grant recipients decreased by 1,158 customers. Revisit LIHEAP outreach efforts.
- Confirmed low income customers in debt=36% 7/8 Industry. Terminations lowest in industry. Ramp up timely collections for CAP defaulted customers. Affects bad debt; impacts CAP.
- CIS system enhancement to identify agency/or third party contributions to customer accounts. Amount is currently applied with no identifier.
- \$ Energy sends weekly list of grantees names and amount along with a paper check. Grant amounts are manually applied. Replace with electronic transfer of funds.
- Continue to develop new signature events for \$ Energy fundraising to increase customer contributions.

# IN SUMMARY

- Overall Peoples Gas has adhered to its 2009-2011 Universal Service and Conservation plan as filed.
- Peoples Gas is in compliance with all BCS recommendations resulting from the 2004 Universal Service Impact Evaluation with only two exceptions: Implementation of CAP monthly arrearage forgiveness and IT trackers for cash working capital/credit and collections costs.
- CAP control features regarding CAP default, CAP recertification and CAP LIHEAP grant recipients need revisited.
- Priority items are :
  - Timely collections for defaulted CAP customers.
  - Enhancements to CIS.
  - Newly designed CAP Bill.
  - Selection of turn-key CAP Administrator.
  - Universal Service Call group in new Peoples Gas Call Center.
  - IT tracking mechanism for CAP credit and collection costs; cash working capital; retention rate for CAP customers.

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2. Impact Evaluation



2010

An independent analysis of Universal Service Programs  
Prepared for

Sadie J. Kroeck, Director Customer Relations

**UNIVERSAL  
SERVICE  
IMPACT  
EVALUATION**

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## FOREWARD

For purposes of this evaluation it is important to take into consideration the significant challenges experienced by Peoples Gas (the Company) during the four year period (2006-2010) of their potential sale by Dominion, their parent company. In addition to placing many Company requested improvements to its customer relations operations "on hold," state specific key business functions formerly handled by Dominion were transferred beginning 2006 through mid-year 2009 to the local Peoples Gas Pittsburgh headquarters.

Billing, customer correspondence, back office call center work, and CAP call center functions were inherited without the accompanying experienced resources to effectively run them. The Company suddenly found themselves in the position of recruiting and hiring to fill the required positions. Despite these challenges the Company was very cooperative in providing the evaluator with as much Universal Service program data and information that they were able to obtain with limited resources.

This evaluation provides the evaluator's perspective of the design, management, and implementation improvements viewed as most relevant to the Company's management to assure their continuing efforts toward effective and efficient Universal Service program implementation. With very few exceptions, the Company has adhered to its Universal Service and Conservation Plan as currently filed.

Data sources for the Universal Service evaluation included:

- Departmental reports from Customer Relations, Credit and Collections, Rates, and Call Center
- Ad Hoc IT reports
- 2008 Bureau of Consumer Services Annual Universal Service and Conservation Report
- Interviews of Peoples Gas Supervisory and Management Staff
- Interviews of Advantage Credit Counseling-CAP Administration
- Interviews of Dollar Energy Administrative Staff
- Interviews of Conservation Consultants Administrative Staff
- Interviews of LIURP Sub Contractors
- On site assessments of CAP Call Center group

In addition to responding to the Bureau of Consumer Services questions for third party evaluators, the evaluation included a compliance review of the:

- 2004 Universal Service Impact Evaluation
- 2005 Bureau of Consumer Services Recommendations from 2004 Universal Service Impact Evaluation
- 2009-2011 Universal Service Plan
- 2009 Public Utility Commission Focused Management and Operations Audit
- 2010 Settlement Conditions for the Sale of Peoples Natural Gas

## EVALUATION SCOPE

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As required by the Bureau of Consumer Services (BCS) this evaluation addresses the following questions as relates to effectiveness and efficiency of Peoples Gas Company's (the Company) Universal Service Programs:

1. Is the appropriate population being served?
2. What is the customer distribution by CAP payment plan? Payment plans are defined at 52 PA Code §69.265(2) of the CAP Policy Statement.
3. Generally do participants' energy burdens comply with the CAP Policy Statement? Energy burden is defined as the percentage of household income spent on energy services.
4. What are CAP retention rates? Why do customers leave CAP?
5. Is there an effective link between participation in CAP and participation in energy assistance programs (LIHEAP, Hardship Funds, and other grants)?
6. How effective are CAP control features as defined in 52 PA Code §69.265(3) of the CAP Policy Statement at limiting program costs?
7. How effective is the CAP and LIURP link? Is the Company's procedure for dealing with excessively high usage effective? If not, how can it be improved?
8. Has collection on missed CAP payments been timely? Has the Company followed its own default procedures in its Commission approved Universal Service Plan for CAP customers?

For the most recent 12-month period provide findings for the following data

Requests: Number of CAP accounts that have missed 3 or fewer payments;  
4-6 payments, 7-12 payments, more than 12 payments.

9. Does participation in Universal Service Programs decrease service terminations?
10. Does participation in Universal Service programs decrease collection costs?
11. Is the CAP program cost effective?
12. How can Universal Service programs be more cost effective and efficient?

## EVALUATION SCOPE

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The evaluator also conducted a comprehensive review for compliance of the recommendations contained within the following five (5) documents as they impacted the Company's Universal Service Programs:

**1. November 2004**

Dominion Peoples 2004 Universal Service Impact Evaluation

Melanie K. Popovich Utility Business Consultant

**2. January 2005**

PUC Letter Key Findings and Recommendations of Importance

Peoples Natural Gas Company 2004 Impact Evaluation submitted by:

Janice K. Hummel BCS

**3. May 2008 Docket No. M-00021616**

PUC Dominion Peoples Universal Service and Energy Conservation Plan 2009-2011

**4. November 2009 Docket No. D-08MGT003 Bureau of Audits**

PUC Focused Management and Operations Audit of Peoples Natural Gas

Pages 10-14

**5. January 2010**

The PUC settlement conditions of the sale of Peoples Natural Gas Company to

Steel River Infrastructure Partners of North America specific to Universal

Service Programs and Community Commitment:

Section F Universal Services Pages 9-10

Section G Community Commitment

## SUMMARY INDEX

Item No.	Findings	Recommendations
<p><b>CAP-1</b></p>	<p>The current CAP Administrator is staffed with inexperienced reps who are utilizing outdated and cumbersome Company customer information systems to manage CAP customer data and processes.</p> <hr/> <p>The Company is currently in the design phase of an updated billing system scheduled to go into production June 2011.</p>	<p>Design RFP for a CAP Administrator.</p> <p>The successful bidder (a) will substantially increase the number of CAP intake sites (b) is an experienced administrator of utility CAP programs (c) recruits and partners with multi-service agencies and (d) uses an electronic case management system to track and monitor referrals and enrollments into utility programs.</p>
<p><b>CAP-2</b></p>	<p>The Company lacks a single point of customer contact for CAP.</p>	<p>Integrate a specialized Universal Service Call group within the new Peoples Gas Call Center. This call group will be sufficiently staffed, held to the newly proposed call center performance indicators and possess exceptional customer service skills in handling low income customers.</p>
<p><b>CAP-3</b></p>	<p>Due in part to the limitations of the existing billing system, the CAP bill is poorly defined and adds to customer confusion regarding CAP benefits and CAP amount due.</p>	<p>Redesign the CAP bill to adhere to the standards of Plain English and best practices within the industry.</p>
<p><b>CAP-4</b></p>	<p>Although CAP enrollment has grown steadily in the past six years, only 25% of the Company confirmed low income population is being served by CAP.</p>	<p>Increase CAP enrollment from 15,000 to 18,000-20,000 customers</p>

	<p>There is an underserved potential Universal Service population based on the Company's most recent CAP needs assessment and based on a comparison of the PA natural gas industry peer companies CAP participation rate to the number of confirmed low income customers.</p>	
<b>CAP-5</b>	<p>Twenty-six (26%) percent of CAP participants are in the 0-50% income range, are on the CAP 8% of Income Plan with an average CAP payment of \$51.</p> <p>Forty-eight (48%) percent of CAP participants are in the 51%-100% income range, are on the CAP 9% of Income Plan with an average CAP payment of \$78.</p> <p>Twenty-six (26%) percent of CAP participants are in the 101%-150% income range, are on the CAP 10% of Income Plan with an average CAP payment of \$100.</p>	No Recommendations
<b>CAP-6</b>	<p>In 2009 the CAP retention rate for customers remaining in CAP was 53%. Failure to recertify is a major reason for CAP removal.</p>	<p>Integrate the CAP daily reports as a tool for contacting CAP customers by phone prior to their recertification due date. Maintain daily phone logs. See Recommendation CAP-8</p> <p>Provide extensive remedial training to CAP administrators on the criticality of customer recertification.</p>
<b>CAP-7</b>	<p>There has been little termination activity for CAP default customers for non-pay due to the 4 yr sales transition.</p>	<p>Implement collection procedures as originally designed for CAP default for non-pay customers in order to terminate customers in a timely manner.</p>

<p><b>CAP-8</b></p>	<p>Customer reminder letters are not adequately addressing CAP delinquency, missed payment, or recertification.</p>	<p>Integrate the CAP daily reports as a tool for contacting customers by phone. Maintain daily phone logs. Provide extensive remedial training to CAP administrators on the criticality of customer recertification.</p> <hr/> <p>At agency sites, consider requiring the customer to complete a self addressed stamped CAP reminder postcard which alerts the customer to their CAP anniversary date, 60 days prior with simple instructions for CAP recertification. The agency would be required to maintain tickler files on each customer's anniversary date and provide the mailing service.</p> <hr/> <p>Enclose a self addressed, stamped envelope with the CAP recertification application 60 days prior to the customer's anniversary date.</p>
<p><b>CAP-9</b></p>	<p>The Company follow-up letters sent to CAP customers exceeding usage 10% or more appears to be effective.</p> <hr/> <p>Less than 3% of CAP participants active in 2009 were identified for review of usage in excess of 110% – of their annual weather normalized usage. Of this group, approximately 10% had a confirmed increase in usage that required customer contact to determine if the usage increase was justified.</p>	<p>Implement consistent and timely outbound calling protocol to CAP customers exceeding usage by 10% or more. Consider engaging the LIURP educator for remedial phone calls and/or site visits on an as needed basis.</p>
<p><b>CAP-10</b></p>	<p>CAP customers on average pay on time and consistently at least six out of twelve payments on an annual basis or 50% of the time.</p> <hr/> <p>In 2008, CAP customers' percentage of bill paid was 83%, ranked fifth out of eight peer PA natural gas utilities.</p>	<p>No Recommendations</p>

<p><b>CAP-11</b></p>	<p>The Company's CAP helped reduce pre-program arrearages by approximately 18% in '09.</p> <p>Of the total customers enrolled in CAP (15,716) only 12% (1,823) of CAP customers earned arrearage forgiveness benefits (\$198/ customer).</p> <p>Company arrearage forgiveness procedures that only allow 25% forgiveness/annually after 12 consecutive months of CAP payments create barriers for success</p>	<p>Revise arrearage forgiveness policy to allow monthly benefits when CAP payments are up to date and paid on time. Shorten the forgiveness period from 25% annually over four years to 1/36 monthly over a three year period.</p>
<p><b>CAP-12</b></p>	<p>In a sample of 806 CAP customers with twelve months Pre-CAP and twelve months Post-CAP payment history, customers received an increase of 252 termination notices, an increase of 163 phone attempts, and an increase of 32 actual terminations. Due in part to the limitations of the existing billing system, the Company was unable to provide data on the CAP collection costs.</p> <p>CAP collection costs are not tracked.</p>	<p>Enhance system programming to ensure accurate and timely data downloads for CAP collections activities and associated collection costs.</p>
<p><b>CAP-13</b></p>	<p>In CAP spending, the Company falls within the industry norm for Administrative costs; slightly higher (\$583 or 92% per CAP customer) than the industry norm for CAP Credits; and second to the lowest in Arrearage</p>	<p>Revisions to the Arrearage Forgiveness program should bring these costs more in line with the industry. See Recommendation CAP-11.</p>

	Forgiveness costs as compared with PA peer natural gas companies.	
<b>CAP-14</b>	<p>The Company is extremely effective in linking CAP customers to other <i>Universal Service</i> and assistance programs.</p> <p>Ninety-nine (99%) of all LIURP weatherization jobs completed in 2009 were high usage CAP customers.</p> <hr/> <p>Seventy percent (70%) of all CAP customers active in 2009 received LIHEAP benefits up from sixty-three percent (63%) receiving benefits in 2008, an increase of 2,390 participants amounting to an additional \$1,670,789.</p>	No Recommendations
<b>CAP-15</b>	The new DPW LIHEAP program for the 2010-2011 heating season would increase the Company's CAP deficiency costs by \$2.8 million.	Modify CAP customer payment plans to take into account the changes to the LIHEAP program. Divide the projected LIHEAP customer grant by 12 months and add in a "plus" amount monthly to the percent of income CAP amount. This would reinforce regular affordable payments rather than allowing customers to "skip" a payment.
<b>CARES-1</b>	The Company continues to significantly improve its LIHEAP and other energy assistance outreach benefits to their low income customers each year.	No Recommendations.
<b>CARES-2</b>	The manual system of applying Dollar Energy Fund grant amounts to customer accounts and processing weekly paper checks is inefficient and creates barriers to timely management of the <i>Company's hardship fund</i>	Replace the manual paper system with an electronic transfer of funds from Dollar Energy to the Company.



	program. This may be due in part to the limitations of the existing billing system.	
<b>CARES-3</b>	The Company continues to realize significant benefits from Dollar Energy grants of an average of \$358 per low income customer.	Continue to develop new signature events such as the "Warm Your Hearth... Warm Your Heart Campaign" for Dollar Energy fundraising to increase customer contributions.
<b>LIURP-1</b>	The Company's 2008 needs assessment concludes that there are approximately 8,000 underserved low income customers who are potential LIURP recipients.	Increase the LIURP budget to \$900,000-\$1,000,000 annually.
<b>LIURP-2</b>	The Company's LIURP plan imposes a maximum allowable LIURP spending cap per household utilizing a usage matrix as a means of controlling LIURP costs.	Remove LIURP spending caps as per the usage matrix and replace with the Company's historical average spending allowance. Review this on an annual basis to adjust for inflation and increased costs for weatherization labor and materials.  The Company has agreed to this recommendation and is making the procedural change effective August 1, 2010.
<b>LIURP-3</b>	There is no mechanized tracking system that combines DCED funding with LIURP funding to report the total weatherization dollar benefits per customer.	Mechanize and track DCED funding with LIURP combined weatherization jobs to achieve maximum benefits.
<b>LIURP-4</b>	The need for furnace replacement and line repair/replacement is significant in low income households throughout the Company's service territory.	Consider establishing a Company funded Emergency Furnace/Line Repair program separate from LIURP for eligible low income customers.
<b>LIURP-5</b>	There are few jointly funded LIURP projects between the Company and Duquesne Light.	Implement the necessary procedures to revitalize the partnership between Peoples Gas and Duquesne Light for jointly funded LIURP projects in Beaver and Allegheny counties.

### **Peoples Natural Gas Company LLC**

Peoples Gas provides natural gas and related services to more than 358,000 residential, commercial, and industrial customers in southwestern Pennsylvania. Their service territory has a population of approximately 3.2 million people in sixteen counties.

On February 1, 2010, PNG Companies LLC, an indirect subsidiary of Steel River Infrastructure Fund North America, acquired Peoples Natural Gas Company LLC (Peoples) from Dominion Resources Inc. (Dominion). Prior to the acquisition, Peoples operated as a wholly-owned subsidiary of Dominion under the name of Dominion Peoples. In 2008, Dominion offered Peoples for sale and on November 19, 2009, the Pennsylvania Public Utility Commission (PUC) unanimously approved the acquisition of Peoples by PNG Companies, stating that the sale provided substantial public benefits.

Under the terms of a Transition Services Agreement (TSA), Peoples will continue to receive administrative, customer and gas procurement services from Dominion for up to 18 months post-closing. The management team is in the process of creating a standalone administrative full service group while managing the Company under the TSA. Key activities for this goal include determination of staffing levels, selection of headquarters location, accessing outsourcing services vs. in-house, built IT infrastructure and budget optimization.

## COMPANY DESCRIPTION

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### **Universal Service Team**

Peoples Gas Universal Service Team includes internal staff reporting to the Vice President Rates and Regulatory Affairs and external subcontractors as follows:

#### **Internal Staff**

Director Customer Relations (1)

Manager Communications and Community Affairs (1)

Supervisor Customer Relations (1)

Customer Relations Program Specialists (2) (CAP; CARES; LIURP)

Customer Relations Specialists (2) (Complaints; Mediations; Formals)

Customer Relations Representatives (2)

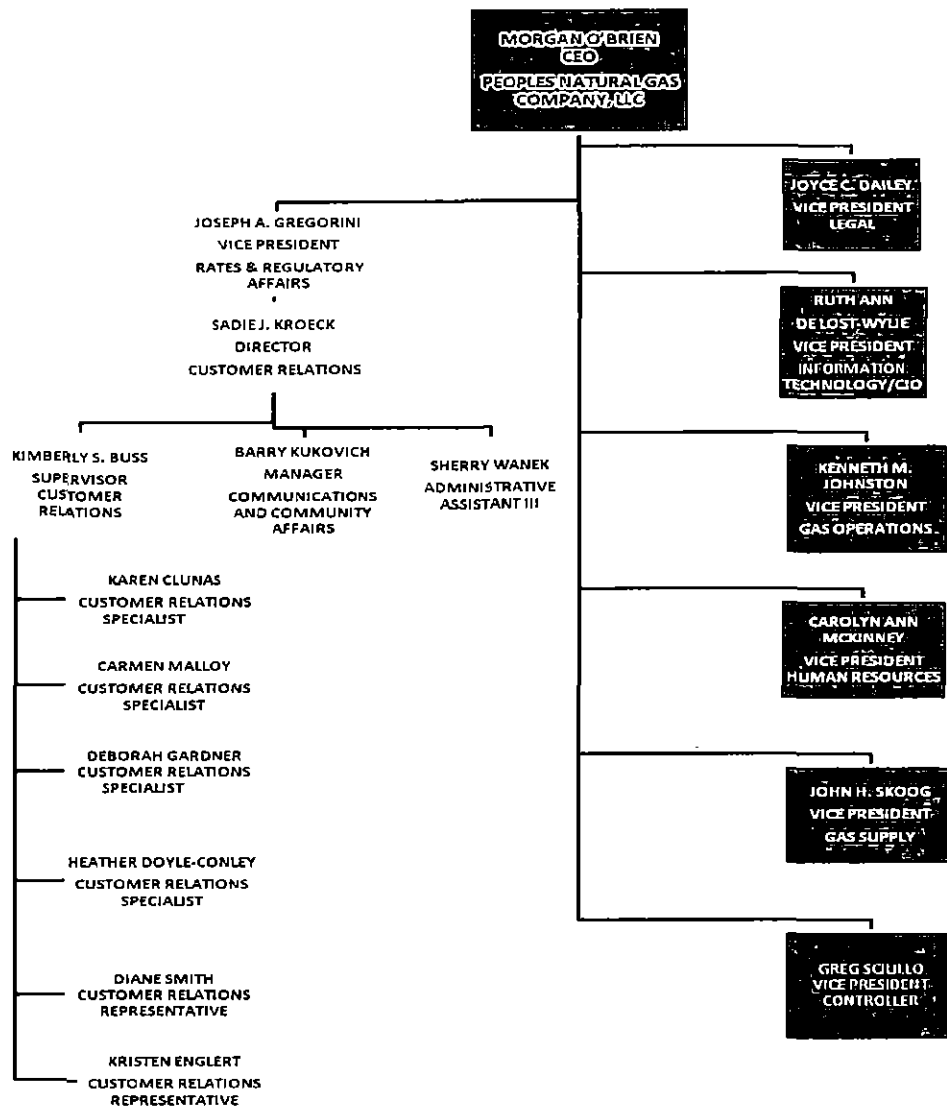
#### **Subcontractors**

Advantage Credit Counseling-CAP Administration

Conservation Consultants, Inc. – LIURP Administration

Dollar Energy Fund, Inc.-Hardship Fund Administration

# Peoples Natural Gas Company, LLC



## CAP PROGRAM DESCRIPTION

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CAP is an affordable payment plan for low-income, payment troubled customers funded by the Company's residential rate payers.

### **Eligibility criteria include:**

1. Customers at or below 150% of the Federal Poverty Income Guidelines.
2. *Active residential heat customer with one or more failed payment agreements.*
3. Low Income Home Energy Assistance Program (LIHEAP) grant in past two years.

### **Customer must agree to:**

1. Pay monthly CAP bill on time.
2. *Enroll in all eligible weatherization programs to reduce usage.*
3. Apply energy assistance grants (LIHEAP, Crisis, and Dollar Energy) to Peoples Gas.
4. Report changes in income or family size.
5. Provide monthly meter reading access.
6. Reapply annually to verify eligibility requirements.

### **Customer CAP benefits include:**

1. Affordable monthly payments based on ability to pay.
2. Monthly CAP credits.
3. Annual arrearage forgiveness over a four year period.
4. Exemption of late payment charges.
5. Referrals to other Universal Service programs and assistance programs.

## CAP PROGRAM DESCRIPTION

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### Payment Plan

Customers who qualify agree to pay 8%, 9%, or 10% of their verified gross monthly income for natural gas service. The household income and family size determine which percentage of income the customer is to pay.

If the monthly CAP payment as calculated below exceeds the applicable monthly budget payment amount, the accepted CAP payment becomes the monthly budget payment amount by default.

**Table 1**  
**CAP Payment Plans**

<b>Federal Poverty Income</b>	<b>Percentage of Income</b>
0%-50%	8%
51%-100%	9%
101%-150%	10%

### Arrearage Forgiveness

Pre-program arrearages are also considered the responsibility of the CAP enrollee. In addition to the percentage of income payment amount, CAP customers are expected to pay \$2.00 per month to amortize the balance that existed prior to program enrollment. Currently the plan forgives 25% of the pre-program arrears annually over four years contingent on monthly payments over a 12 month period.

### Low Income Home Energy Assistance Program (LIHEAP) Benefits

Currently, CAP participants are requested to direct payment of any LIHEAP cash benefit grant that they are eligible to receive to the Company in order to reduce CAP credits. The LIHEAP Crisis grants may also be requested contingent upon state developed criteria and be applied accordingly.

## CAP PROGRAM DESCRIPTION

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### **CAP Administration**

Prior to 2006, First Contact in Charlotte, NC handled Peoples credit calls only. Dominion-Richmond's Call Center handled the routine daily call volume for Pennsylvania customers. Dominion's Call Center in Akron, Ohio handled all CAP calls and became the single point of contact for CAP customers. This was a positive experience for Peoples' customers since it afforded them with a one- stop shop.

At the beginning of the interim sales period of Peoples Gas Company in 2006, Dominion began separating out state specific functions. All daily calls were outsourced to First Contact making them a full service call center provider for Pennsylvania. This was a very quick transition for First Contact with little time for recruiting, training, and adaptation time for the newly hired phone representatives. The average training time for reps was two weeks to learn the intricacies of the Company's customer information system along with the regulatory rules and regulations of PA. During this period Peoples Gas experienced a sharp decline in customer service.

On June 1, 2009 Dominion-Akron's Universal Service call group discontinued handling CAP calls. A new outsourced provider, Advantage Credit Counseling, was hired to provide on site CAP call center services for Peoples in their Wilkinsburg office. All CAP back office work was sent there as well. Since the newly hired reps had little experience, two Customer Relations Representatives initially assisted in responding to customer emails, letters, and in cleaning up backlogged work queues.

As a result of the Settlement conditions from the sale of Dominion Peoples to Steel River, one of the Universal Service recommendations recommended that the Company design a CAP administration component similar to that in effect at Columbia Gas Company. Pursuant to this, the evaluator compiled a comparative table outlining the staff, responsibilities, and administrative oversight of the two companies' Universal Service Programs.

*See Appendix A: CAP Administration Comparison Peoples Gas Vs. Columbia Gas*

### **Plans for a PA Based Call Center**

As one of the settlement conditions for the sale of Peoples Gas, the Company has agreed to move its call center function from North Carolina to Pennsylvania by August 2011 with the ultimate goal of improving customer service. Presently the Company has named a call center management team and is in the process of locating a site suitable to house the call center operations.

## CAP PROGRAM DESCRIPTION

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### **Current CAP Administrators**

CAP referrals and CAP calls are transferred to the Advantage Credit Counseling call group in Wilksburg either by First Contact in Charlotte, NC or by community based organizations (CBOs) through the local toll free number 1-800-400-WARM. Customers are also directed to use the toll free number for LIHEAP, Crisis, Dollar Energy Fund and LIURP program referral information.

One Company Customer Relations Specialist acts as temporary coordinator to ten reps comprising the CAP call center group. Four reps handle the back office work which has been best described as an "intensive, time consuming, manual operation".<sup>1</sup> (All IT enhancements for CAP administration were on hold due to the potential sale of the Company).

Back office duties include:

Receiving CAP applications

Verifying customer information

Placing customers on CAP and setting up CAP amounts

Issuance of CAP credits

Applying Dollar Energy and LIHEAP grants to customer accounts

Recertification information

CAP bill adjustments

### **Current CAP Call Center Challenges**

Since the CAP call group is staffed with only six full time phone reps, any employee absence due to illness or vacation significantly impacts the call group's statistics. Scheduling becomes an issue. For example, the CAP call group has been one rep short from November 2009 to April 2010 making it difficult to maintain performance goals should there be additional employee absences.

Outdated technology is a significant concern. The Company contracted representatives are working with an outdated and cumbersome customer information system. There are four customer screens the rep must manually populate and/or check for customer income and demographics making it difficult to efficiently manage CAP prescreening, CAP payment calculation and CAP enrollment. The Company is currently in the design phase of implementing a new billing system with the goal of incorporating many improvements and efficiencies to the overall customer information system.

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<sup>1</sup> Interview: Cap Admin Supervisor-Advantage Credit Counseling February 2010



## CAP PROGRAM DESCRIPTION

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At the time of this evaluation the majority of the contracted representatives averaged six to eight months experience on the job. Most reps also lacked prior customer service experience creating difficulties in learning the complexities of CAP credits, arrearage forgiveness, CAP billing adjustments; and explaining the CAP bill to customers.

The Company has made a genuine effort to establish quality control measures such as tape recordings of customer calls and call calibration sessions to provide necessary feedback to customer rep performance improvement.

Call Center performance is another important indicator for measuring customer service. CAP customer calls have a longer Average Handle Time (AHT) averaging between six and seven minutes per call. Typically in other utilities, the CAP call group is not held to the same standards as the Call Center for AHT.

However, performance goals for % of Calls Answered in 30 Seconds, Average Busy-out Rate, and Average Call Abandonment Rate remain the same for both the Call Center and the CAP call group.

Call Center annual performance standards proposed in the 2010 Settlement Conditions of the sale of the Company are listed in the table below:

**Table 2**  
**Call Center Proposed Performance Indicators**

<b>Performance Indicator</b>	<b>Proposed Annual Performance Standard</b>
Call Center: % of Calls Answered Within 30 Seconds	70% in Year 1; 75% in Year 2; 80% in Year 3
Call Center: Average Busy-out Rate	Below 0.5%
Call Center: Average Call Abandonment Rate	7% in Year 1; 6% in Year 2; 5% in Year 3

## CAP PROGRAM DESCRIPTION

The following table reveals that as of May 2010 the Average Speed of Answer has improved from 82 seconds to 73 seconds and the Percentage of Calls Answered in 30 seconds has improved from 44% to 54% since the transfer of CAP calls to Advantage Credit Counseling. However, the Company still has significant room for improvement.

**Table 3  
CAP Call Center Statistics 2009-2010**

2009		CALLS OFFERED	% ABAND	CALLS ANS	% ANS IN 30 SEC	ASA in SEC	AHT
JAN	DOM	5703	5.17	5288	25.04%	82.73	7:19
FEB	DOM	6408	5.66	5955	21.72%	88.84	6:59
MAR	DOM	7406	5.72	6908	24.33%	102.39	6:53
APR	DOM	5919	6.57	5530	21.73%	104.17	6:45
MAY	DOM	5160	6.18	4836	22.91%	90.56	6:14
JUN	ACC	6026	8.96	5375	47.15%	118.31	7:40
JULY	ACC	6084	5.44	5568	53.27%	92.71	7:25
AUG	ACC	5665	3.64	5070	58.62%	64.76	6:47
SEPT	ACC	5649	4.05	5415	63.34%	62.89	6:36
OCT	ACC	6607	4.01	6232	61.07%	55.7	6:21
NOV	ACC	5508	4.77	5153	51.45%	75.89	6:21
DEC	ACC	3932	3.08	3808	70.75%	49.14	6:49
<b>Total</b>		<b>70067</b>		<b>65138</b>			
<b>Average</b>		<b>5839</b>	<b>5.28%</b>	<b>5428</b>	<b>43.45%</b>	<b>82.34</b>	

2010		CALLS OFFERED	% ABAND	CALLS ANS	% ANS IN 30 SEC	ASA in SEC	AHT
JAN	ACC	3823	3.56	3686	66.60%	53.09	6:26
FEB	ACC	5113	4.01	4860	54.18%	75.61	6:55
MAR	ACC	7158	5.63	6521	40.56%	96.84	7:05
APR	ACC	5737	4.86	5428	45.04%	84.38	6:52
MAY	ACC	4772	3.73	4593	62.34%	56.41	7:00
<b>Total</b>		<b>26603</b>		<b>25088</b>			
<b>Average</b>		<b>5321</b>	<b>4.36%</b>	<b>5018</b>	<b>53.74%</b>	<b>73.27</b>	

2009-2010 CAP Call Center Interval Report; 2010 Phone Tracking Report

## CAP PROGRAM DESCRIPTION

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### **Finding-CAP-1**

The current CAP Administrator is staffed with inexperienced reps who are utilizing outdated and cumbersome Company customer information systems to manage CAP customer data and processes.

The Company is currently in the design phase of an updated billing system scheduled to go into production June 2011.

### **Recommendation**

Design RFP for a CAP Administrator. The successful bidder (a) will substantially increase the number of CAP intake sites (b) is an experienced administrator of utility CAP programs (c) recruits and partners with multi-service agencies (d) uses an electronic case management system to track and monitor referrals and enrollments into utility programs.

### **Finding-CAP-2**

The Company lacks a single point of customer contact for CAP.

### **Recommendation**

Integrate a specialized Universal Service Call group within the new Peoples Gas Call Center. This call group will be sufficiently staffed, held to the newly proposed call center performance indicators, and possess exceptional customer service skills in handling low income customers.

## CAP PROGRAM DESCRIPTION

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### **More on the CAP Bill**

In the Company's 2004 Universal Service Evaluation Finding 5.7.2 *Customers Frequently Default Due to Confusion with LIHEAP and Energy Grant Credits as Appear on CAP Bill* continues to be a problem today.<sup>2</sup>

There is customer confusion over the LIHEAP grant credit as it currently appears on the CAP bill. Oftentimes CAP customers stop paying their monthly payment for one or two months because they mistakenly view the LIHEAP grant as credit against the required monthly CAP payment.

The following items are additional areas of complexity for the customer:

- CAP Credits
- Arrearage Forgiveness
- Pre-Program Arrears Balance
- Account Balance (the amount due if the customer were not on CAP)
- CAP Missed Payments
- CAP Payment Recalculation for Missed Payments

*See Appendix B-CAP Bills*

A well designed CAP bill written in Plain English serves to reinforce customer CAP benefits and ultimately serves to retain the customer in CAP.

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<sup>2</sup> 2004 Dominion Peoples Universal Service Program Impact Evaluation-Melanie K. Popovich

## CAP PROGRAM DESCRIPTION

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**Finding-CAP-3**

Due in part to the limitations of the existing billing system, the CAP bill is poorly defined and adds to customer confusion regarding CAP benefits and CAP amount due.

**Recommendation**

Redesign the CAP bill to adhere to the standards of Plain English and best practices within the industry.

## CAP NEEDS ASSESSMENT

Is the appropriate population being served?

The most recent CAP needs assessment submitted by the Company within their 2009-2011 Universal Service Plan reveals that there is an identified underserved potential CAP population. The CAP participation numbers were 15,716 customers year end 2009. Using a 26% CAP participation percentage to the overall confirmed low income population, the needs assessment shows that an increase in CAP enrollment would be attainable.

A **confirmed low income customer** is a customer whose gross household income has been verified by the Company as meeting the stated Federal Poverty Income Guidelines. Most household incomes are verified through the customer's receipt of a LIHEAP grant or determined during the course of making a payment arrangement. Confirmed low income numbers are updated annually by the Company for inclusion in the BCS Universal Service and Collections Report.<sup>3</sup>

**Table 4  
CAP  
Needs Assessment 2008**

	Number of Customers	%
<b>Residential Customers</b>	330,807	
<b>Number of Confirmed Low Income &amp; Payment Troubled Customers</b> Customers =<150% of poverty with one or more broken payment agreements	71,359	
<b>Recommended CAP Participant Percentage</b>		<b>26%</b>
<b>Calculated Number of Eligible Customers</b>	<b>18,553</b>	

Peoples Gas Universal Service and Energy Conservation Plan-Appendix- June 1, 2008

In addition to the Company provided CAP needs assessment, the evaluator compared the number and percentage of Company confirmed low income customers already in

<sup>3</sup> Definition as reported in 2008 BCS Universal Service Programs and Collections Performance Report

## CAP NEEDS ASSESSMENT

CAP as compared with their peer PA natural gas utilities. The Company falls short in comparison to similar sized peer companies.

**Table 5  
CAP Participation-PA Natural Gas Utilities**

NGDC	Participants Enrolled as of 12/31/08	CAP Participation Rate	Participants Enrolled As of 12/31/09	CAP Participation Rate
Columbia	24,675	39%		
Equitable	20,733	38%		
NFG	12,312	44%		
PECO	20,667	100%		
PGW	78,490	51%		
Peoples	14,425 out of 71,359 conf low income	20%	15,716 out of 71,359 conf low income	22%
UGI-Gas	8,292	27%		
UGI Penn Natural	3,051	12%		
Total	182,645			
<b>Weighted Avg</b>		<b>43%</b>		

2008 BCS Universal Service Program Performance and Collection Report- page 37

## CAP ENROLLMENT

### Targets

In 2005, the BCS strongly recommended that the Company increase CAP enrollment to 15,000 customers consistent with the applicable standards at 66PA C.SF §2203(8) that requires the Company's CAP be appropriately funded and available.<sup>4</sup>

The recommended 15,000 CAP customer enrollment from the 2004 Universal Service Impact Evaluation was effectively met. The ramp-up and increased target enrollment from 9,000 CAP customers to 15,000 CAP took place over a five year period.

**Table 6**  
**Active CAP Participation**

<b>Program Year</b>	<b>Target</b>	<b>Actual</b>	<b>Target Achieved</b>
2009	15,000	15,716	Yes
2008	13,000	13,673	Yes
2007	11,000	11,906	Yes
2006	10,000	11,707	Yes
2005	9,500	9,636	Yes
2004	9,000	9,047	Yes
2003	9,000	9,251	Yes

BCS Universal Service Reports 2003-2009-Section CAP

As a result of the increased numbers of potential eligible CAP participants reported in the 2004 CAP needs assessment, the Company began a good faith effort of accelerating CAP enrollment immediately in 2005 without the benefit of an approved cost recovery mechanism. A revised CAP Cost Recovery mechanism was formally filed with the PA PUC effective January 1, 2007 which allowed certain CAP costs be recovered through a quarterly base rate adjustment made to the delivery charge of non-CAP residential ratepayers.

These costs included incremental CAP application costs, annual CAP credit amounts that exceeded the previously established limit of \$840 for the first currently enrolled 9,000 CAP participants, and annual CAP credit amounts for new participants enrolled beyond the first 9,000. Recoverable CAP credit costs are adjusted to reflect currently effective purchased gas cost rates.

<sup>4</sup> BCS Letter to Dominion-Peoples Janice Hummel, BCS Jan 19, 2005



## CAP ENROLLMENT

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### **Finding-CAP-4**

Although CAP enrollment has grown steadily in the past six years, only 25% of the Company confirmed low income population is being served by CAP.

There is an underserved potential Universal Service population based on the Company's most recent CAP needs assessment and based on a comparison of the PA Natural Gas industry peer companies CAP participation rate to the number of confirmed low income customers.

### **Recommendation**

Increase CAP enrollment from 15,000 to 18,000-20,000 customers.

## CAP PAYMENT PLANS

What is the customer distribution for CAP by poverty guidelines?

What is the customer distribution by CAP payment plan? Generally, do participants' energy burdens comply with the CAP Policy Statement at §69.265(2) (i)-(B)?

### CAP Plans by Income Level

Enrollment trends over the past three years indicate that the majority of CAP participants fall into the 51%-100% of the Federal Poverty Levels. The average CAP payment over all income levels is \$76, significantly decreased from program year 2008.

**Table 7**  
**CAP Participation and Average Cap Payment**

Year	Income Level Fed Poverty	# CAP	Average CAP Pmt	Pmt Plan
<b>2009</b>	0-50%	4,021	<b>\$51</b>	<b>8%</b>
	51%-100%	7,257	<b>\$78</b>	<b>9%</b>
	101%-150%	4,042	<b>\$100</b>	<b>10%</b>
			<b>\$76 AVG</b>	
<b>2008</b>	0-50%	3,597	<b>\$52</b>	<b>8%</b>
	51%-100%	6,621	<b>\$84</b>	<b>9%</b>
	101%-150%	3,462	<b>\$118</b>	<b>10%</b>
			<b>\$85 AVG</b>	
<b>2007</b>	0-50%	3,340	<b>\$50</b>	<b>8%</b>
	51%-100%	5,851	<b>\$80</b>	<b>9%</b>
	101%-150%	2,664	<b>\$110</b>	<b>10%</b>
			<b>\$80 AVG</b>	

## CAP PAYMENT PLANS

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### **Finding-CAP-5**

Twenty-six (26%) percent of CAP participants are in the 0-50% income range, are on the CAP 8% of Income Plan with an average CAP payment of \$51.

Forty-eight (48%) percent of CAP participants are in the 51%-100% income range, are on the CAP 9% of Income Plan with an average CAP payment of \$78.

Twenty-six (26%) percent of CAP participants are in the 101%-150% income range, are on the CAP 10% of Income Plan with an average CAP payment of \$100.

What are the barriers to program participation?

As previously stated in the section Call Center Challenges-pg 18, it is the opinion of the evaluator that the greatest barriers to program participation are:

1. Inexperienced representatives responsible for CAP administration.
2. Outdated cumbersome customer information system utilized to track CAP.
3. Numerous manual back office processes required to operate CAP.
4. A CAP bill that is confusing and complex for customers to understand.

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

**CAP Payment Frequency**

The percentage of CAP participants who remain active and who do not get dropped from the program varies from month to month. Despite Peoples efforts to maintain and increase participation, customers are dropped for a variety of reasons which impact the overall number of reported CAP participants.

Customers with missed payments are not dropped from CAP but can have their service terminated for non pay. There was a total 13,227 CAP participants as of February 26, 2010, with missed payments as indicated on the table below.

**Table 8  
CAP Default for Non-Pay  
With # of Missed Payments**

<b>Income Level</b>	<b># CAP 0-3</b>	<b># CAP 4-6</b>	<b># CAP 7-12</b>	<b># CAP 13+</b>
0-50%	1,317	488	355	1,000
51%-100%	3,754	775	468	1,415
101%-150%	2,234	437	204	780
<b>Total</b>	<b>7,305</b>	<b>1,700</b>	<b>1,027</b>	<b>3,195</b>

Ad Hoc IT Report February 26, 2010

**Reasons for CAP Removal**

The largest number of CAP customers (4659) removed are those identified as "Final Bill." It is difficult to separate and track the number of customers who actually move from the number of customers who merely change the ratepayer name to another member of the same household.

The second largest customer group removed is those who "Did Not Reapply" (1,794); and third largest group is identified as "Other" (481). Other reasons include balance transfer requests; customer removal requests; false information received; income change; and income too high. A total of **7,312 CAP customers were removed from CAP** with a balance of 15,716 customers remaining in the program.

**Table 9**  
**Accounts Removed From CAP 2009**

Top Reasons for Removal	CAP #
Final Bill	4659
Did not reapply	1,794
Other	481

Ad Hoc IT Report-2010

**Finding-CAP-6**

In 2009 the CAP retention rate for customers remaining in CAP was 53%. Failure to recertify is a major reason for CAP removal.

**Recommendation**

Integrate the CAP daily reports as a tool for contacting CAP customers by phone prior to their recertification due date. Maintain daily phone logs .Provide extensive remedial training to CAP administrators on the criticality of customer recertification.

**CAP Default for Non-Pay**

Although customers can default and be removed from CAP due to non compliance with program guidelines and customer responsibilities, customers who default solely for non-payment are not removed from CAP but they can have their service terminated. Default for non-payment is defined as one or more missed payments or partial payments, which includes the \$2 co-pay towards the customers' pre program arrears

**TABLE 10  
CAP DEFAULT FOR NON-PAY**

<b>Letter of delinquency</b>	<b>Day 5 after missed due date</b>
<b>10 Day Termination notice</b>	<b>Day 15</b>
<b>72 Hour Phone Attempts</b>	<b>Day 22</b>
<b>48 Hr Termination Notice/Premise Visit</b>	<b>Day 23</b>
<b>Shut Off</b>	<b>Day 25</b>
<b>Final Bill (When customer restores service, reinstates as CAP customer)</b>	<b>Day 30</b>

In order to avoid termination, the customer must pay the amount set forth in the termination notice prior to the scheduled termination date. If the service of a CAP account is terminated the customer must pay all missed CAP payments for service restoration.

According to the Company's collection procedures, during the winter heating season (December–March), non-pay defaulted CAP customers remain in CAP however; they are requested to make CAP catch-up payments. If payments due are not paid in full by April 1<sup>st</sup>, the customer will be targeted for termination and service will be shut off. A full payment of the catch-up amount will stop termination at any time.

Initially the Company designed a procedure to terminate CAP customers in a timely manner and made a diligent effort to prioritize termination of CAP customers who defaulted for non-pay. However, due to the four year (2006-2010) sales transition of the Company, these termination procedures which were directed by a centralized credit function in Richmond, VA were not followed resulting in many CAP non-pay customers maintaining their service and accruing more arrearages.

### **Finding-CAP-7**

There has been little termination activity for CAP default customers for non-pay over the past four years due to the sales transition period of Peoples Gas 2006-2010.

### **Recommendation**

Implement collection procedures as originally designed for CAP default for non-pay customers in order to terminate customers in a timely manner.

### **Other CAP Default Conditions**

The Company monitors accounts for changes in family size or income, timely payments and timely meter readings for non-access situations. CAP customers who fail to comply with one or more of the following may result in the Company removing them from CAP:

1. Failure to allow access to or provide customer meter readings in four consecutive months.
2. Failure to report changes in income of family size.
3. Failure to reapply as required and/or meet eligibility requirements.
4. Customer request to discontinue service.

CAP customers who request discontinuance of service and reapply for service within 60 days, will continue to be considered active CAP participants. CAP customers who request to be removed from CAP must undergo a 12 month stay-out period before being readmitted back into CAP.

What are the barriers to program recertification?

System generated CAP lists are created daily which include customer names subject for termination due to one or more missed CAP payments. Lists are also generated with customer names with recertification of income due dates. Individual customer reminder letters are sent reviewing the requirements of CAP participation which includes timely payments and recertification of income on an annual basis. It appears that customer reminder letters are inadequate in addressing delinquency or recertification issues.

The Company has no specific feedback as to why customers do not recertify. However the evaluator cites a 2005 study which was conducted by Columbia Gas of Pennsylvania, Inc, which seems to suggest the need for alternative and improved communications.

### **2005 Columbia Gas Study on Reasons CAP Customers Do Not Recertify**

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Finding 5.3.2 "CAP Customers Dropped for Failure to Recertify Is Major Issue" as cited in the Columbia Gas of PA Universal Service Program Evaluation July 12, 2004 by Melanie Popovich, Utility Business Consultant, resulted in the Company initiating its own research survey to identify the root causes for this problem. Prior to this, the assumption was that the majority of CAP customers who failed to recertify were either over income or had simply moved at the time of recertification.

During the months of April and May 2005, Marcia Lehmen, Essential Energy conducted 171 phone surveys from a data base of 2000 Columbia Gas of PA customers who failed to recertify for CAP and who were currently inactive/removed from the program. Of those, 130 customers responded, representing 18 of the 26 counties serviced by the Company and representing diverse age, family income and family member size.

#### **1. Information Regarding Customer Recertification Requirements Unclear at CAP Intake**

- 64% of customers either were not told at the time of intake or did not remember being told about the recertification process, irrespective of whether they visited an agency or were telephonically enrolled. (103 customers were agency enrolled; 26 customers telephonically enrolled; 1 customer did not remember by what method they were enrolled).
- 70% of customers did not know what happens when they fail to recertify and were surprised to find out they had been dropped from CAP.
- 62% of customers either said they definitely were not given a contract or booklet describing the benefits of the program or said they didn't know or couldn't remember if they received one or not.



### 2. Customer Letter Non Motivator for CAP Recertification

- 53% of customers either did not remember receiving a recertification letter or did not remember how they found out about the need to recertify.
- 49% of customers did not know they had to recertify their income and said they did not get a letter of notification.
- 26% of customers were over income and no longer eligible for CAP.
- 15% of customers received the recertification letter but forgot to fill it out and return it.

#### **Finding-CAP-8**

Customer reminder letters are not adequately addressing CAP delinquency, missed payment, and recertification issues.

#### **Recommendation**

Integrate the CAP daily reports as a tool for contacting customers by phone. Maintain daily phone logs. Provide extensive remedial training to CAP administrators on the criticality of customer recertification.

At agency sites, consider requiring the customer to complete a self addressed, stamped CAP reminder postcard which alerts the customer to their CAP anniversary date, 60 days prior with simple instructions for CAP recertification. The agency would be required to maintain tickler files on each customer's anniversary date and provide the mailing service.

or

Enclose a self addressed, stamped envelope with the CAP recertification application 60 days prior to the customer's anniversary date.

## CAP CONTROL FEATURES

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The Company's CAP control features as listed in their 2009-2011 Universal Service Plan are as follows:

1. To limit program costs, Peoples monitors CAP accounts monthly to ensure customers are complying with the terms of the program and are receiving the proper benefits from CAP and other Universal Service programs.
2. The minimum payment for heating is \$21 per month plus \$2 towards the arrearage for a minimum monthly payment of \$23.
3. CAP customers eligible for weatherization will be prioritized to receive services provided by the Company's Low Income Usage Reduction Program (LIURP).
4. CAP participants are encouraged to apply for energy assistance grants to reduce CAP credits.
5. Upon enrollment in CAP, participants will be advised of the importance of energy conservation and information on conservation tips and weatherization will be provided. If the customer has a history of high usage, referrals to weatherization and energy assistance programs will be made. Energy savings tips will also be provided to the newly enrolled CAP customers. All participants will be advised that their usage will be reviewed on an ongoing basis and unjustified excess gas usage may be billed to them.
6. A daily report will be generated by Peoples billing system that will allow the Company to identify CAP customers whose weather-normalized annual usage has increased by more than 10%. The CAP customers most recent 12-month usage adjusted for normal weather will be compared to weather normalized usage for the preceding 12-month period. For the accounts that indicate a situation of excess gas usage (110%) the company will take the following steps:
  - (a) The account will be reviewed and the customer may be contacted in order to determine if the increase in gas usage is justified. Justified usage may include increase in household size, serious illness of a family member, or usage was beyond the household's ability to control. Special needs customers identified through this process will be referred to the CARES program.
  - (b) Any customer with unjustified excess usage will be contacted and provided with conservation information, tips for lowering usage, and a referral to weatherization programs. The customer will be given an opportunity to adjust his/her usage pattern.
  - (c) Unjustified excess usage may be billed to the CAP customer if the usage pattern is not adjusted.

## CAP CONTROL FEATURES

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How effective are the CAP control features at limiting program costs?

All of the CAP control features as listed in their most recently filed 2009-2011 Universal Service Plan are in place at Peoples Gas. However, it is the evaluator's opinion that the follow-up action items relating to CAP customers usage increasing by 10% or more are not adequately completed. The control features reflected in the Universal Service Plan were followed accordingly from the time of the CAP Restructuring settlement until the fall of 2009. The daily usage reports were reviewed to identify accounts for further action. Letters were issued to customers with confirmed usage increases and follow up phone calls were made in order to determine if the change in usage was justified. Currently, the Company sends out a letter with energy savings tips to every CAP customer appearing on the CAP normalized usage report with a request to call the Company for further information. No outbound phone calls are made to customers to determine the reasons for their increased usage. However on the occasions when the customer does phone the Company, the phone rep completes an Energy Education and Information Survey which identifies reasons for increased usage. CAP administration procedures state that the Company will contact the customer by phone to gain a better understanding of reasons for the usage. Beginning in late 2009, changes in workflow procedures resulted in follow-up letters being sent but follow-up phone calls (to better understand usage changes) were not being performed in all cases.

### **Finding-CAP-9**

The Company follow-up letters sent to CAP customers exceeding usage 10% or more appears to be effective. Less than 3% (474) of CAP participants active in 2009 experienced an increase of =>10% in their annual weather normalized usage. Of this amount approximately 10% (48) had a confirmed increase in usage that required customer contact to determine if the usage increase was justified. Recently the Company has not made all the necessary follow-up phone calls to understand usage changes.

### **Recommendation**

Implement consistent and timely outbound calling protocol to CAP customers exceeding usage by 10% or more. Consider engaging the LIURP educator for remedial phone calls and/or site visits on an as needed basis.

## CAP PAYMENT BEHAVIOR

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Does CAP participation improve payment behavior? (Number of payments; percentage of bill paid; \$ amt paid).

The CAP billed amount is the annual total of the expected monthly CAP payment, not the actual tariff rate amount. Percentage of CAP bill paid is the total amount of payments made by CAP customers divided by the total dollar amount of CAP billed.

### Percentage of Bill Paid

In the annual 2008 BCS Universal Service and Conservation Report the Company's CAP customers percentage of bill paid was **83%** (ranked fifth out of eight PA natural gas peer companies). The Commission recommends that a percentage of bill paid of no less than 80% can be reasonably achieved with a goal of 90% or better.

### Number of Payments and Dollar Amount

Although there was no data to compare 12 months pre-CAP payment history with 12 months of post-CAP payment history, there was data submitted for the annual BCS Universal Service Cap report for payment behavior post-CAP.

**Table 11**  
**Number of Full On Time CAP Payments**

	2009	2008	2007
<b>Total Cash CAP Payments</b>	\$12,146,190	\$10,307,829	\$8,662,274
<b>Number of Full-on time Payments</b>	94,306	81,330	69,552
<b>Average # of Active Participants</b>	15,716	13,6736	11,906
<b>Average # Full Time Payments Per Active Participant</b>	6	6	5.8

BCS Annual Universal Service and Collections Report 2007-2009

## CAP PAYMENT BEHAVIOR

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### **Finding-CAP-10**

CAP customers on average pay on time and consistently at least six out of twelve payments on an annual basis or 50% of the time.

CAP customers percentage of bill paid was 83%, ranked fifth out of eight peer natural gas utilities in the state.

Does participation in CAP reduce arrearages?

### Pre-CAP Arrearages

When a customer is enrolled into CAP the total amount of their pre-CAP arrearage is suspended and put into a hold account. The customer is eligible for forgiveness on an annual basis of 25% on the condition that they remain current with their monthly CAP payment. (Percentage of income payment + \$2 applied on the arrears) for twelve (12) consecutive months. With this arrangement, the customer could potentially pay off their pre-CAP debt over a four year period dependent on consistent payment behavior.

During periods of missed payments no forgiveness occurs until such time as the CAP customer makes catch-up payments and is deemed current. If one month is missed the cycle of the twelve months of consecutive payment requirement starts over again.<sup>5</sup>

In the Company's 2004 Universal Service Program Impact Evaluation<sup>6</sup>, *Finding 6.1.2 Average 2003 Arrearage Forgiveness per CAP Customer is \$262. Strict Adherence to Program Requirement Limits CAP Participation to 30% of Total CAP Active*, the criteria of the twelve months of consecutive payment was reported as a barrier to CAP customers receiving arrearage forgiveness benefits of the program.

The evaluation recommended that the Company revise its arrearage forgiveness design so that customers who miss one or two CAP payments and make up those payments receive arrearage forgiveness benefits. Further it was recommended that the Company consider forgiving a larger percentage of pre-CAP arrearages over a shorter time period (i.e. 50% annually after twelve months of payments).<sup>7</sup>

The BCS agreed and recommended that Peoples revise its arrearage forgiveness design to provide benefits monthly when a customer makes a full CAP payment. "Acceptance of this recommendation will reflect the way the majority of companies handle arrearage forgiveness since, of the 14 major utilities that provide CAP benefits, 11 companies provide arrearage forgiveness benefits monthly upon receipt of a customer's full CAP payment."<sup>8</sup>

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<sup>5</sup> Peoples Gas 2009-2011 Universal Service Plan CAP pg. 6 Arrearage Forgiveness

<sup>6</sup> 2004 Dominion Peoples Universal Service Program Impact Evaluation Melanie K. Popovich pg.43

<sup>7</sup> BCS Letter to Dominion-Peoples Janice Hummel January 19, 2005

<sup>8</sup> Ibid.

## CAP ARREARAGES

### CAP Expansion Settlement Order

As a result of the PA Public Utility Commission Opinion and Order Docket M-00051880 the Company's plan for CAP expansion and recovery of CAP costs was approved. However, the recovery of all costs associated with arrearage forgiveness going forward was not adopted in this proceeding. The Commission did agree to allow the Company a one-time pre-program arrearage write-off for 8,562 accounts and further allowed the Company to continue with their in- place CAP arrearage forgiveness policy (25% over a four year period contingent on twelve (12) consecutive months of CAP payments).

**Table 12**  
**Pre-CAP Arrearage Forgiveness Write-Off**

	2007*	2008	2009
<b>PRECAP WRITEOFF</b>	\$10,877,245	\$126,582	\$360,760
Number customers Receiving /AVG Per Customer	10,124/ \$1074	653/\$194	1,823/\$198

AD Hoc Rate Department Report-2010

\* Dominion's 2007 average arrearage forgiveness of \$921 is a result of the Commission granted petition "Petition for Expedited Relief" at Docket No. M-00051880 in May 30, 2007 that granted Dominion-Peoples a one-time pre-program arrearage write-off of 8,562 accounts totaling \$10,488,236.75. The financial transaction was completed on June 1, 2007.

**Table 13**  
**Pre-CAP ARR Balance Paid in 12 months.**

	<b>AVG Beginning ARR Balance of all Pre-CAP Customers</b>	<b>Percentage of Pre-CAP Arrearage Paid in 12 Months by those CAP Customers Earning Arrearage Forgiveness Benefits</b>
2009	\$1105	\$198 or 18%
2008	\$1115	\$194 or 18%

Ad Hoc Report Rates Department 2010

## CAP ARREARAGES

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As a result of this analysis the evaluator believes that the current methodology of providing arrearage forgiveness benefits is not much of a benefit to the customer. Only 653 out of 13,673 CAP customers enrolled received arrearage forgiveness benefits in 2008 and only 1,823 out of 15,716 customers received benefits for 2009.

### **Finding-CAP-11**

The Company's CAP helped reduce pre-program arrearages by approximately 18% in 2009. Of the total customers enrolled in CAP (15,716) only 12% (1,823) of CAP customers earned arrearage forgiveness benefits (\$198/ customer). Company arrearage forgiveness procedures that only allow 25% forgiveness/annually after 12 consecutive months of CAP payments create barriers for success.

### **Recommendations**

Revise arrearage forgiveness policy to allow monthly benefits when CAP payments are up to date and paid on time. Shorten the forgiveness period from 25% annually over four years to 1/36 monthly over a three year period.



## CAP TERMINATIONS AND COLLECTIONS

Does participation in Universal Service programs decrease service terminations?  
Does participation in Universal Service programs decrease collection costs?

### Collection Activity

A sample size of 806 CAP customers with available 12 month pre-CAP and 12 month post-CAP payment history was analyzed for collection activity. The table below shows a significant increase in the number of termination notices issued post-CAP and a slight increase in number of phone attempts. Unfortunately, for purposes of this evaluation, the Company was not able to provide any data on CAP collections costs in order to arrive at any conclusions on the effect that CAP might have.

**Table 14**  
**CAP Collection Activities Pre-CAP Post-CAP**

	Termination Notices	Phone Attempts	Actual Terminations
Pre-CAP	183	427	13
Post- CAP	475	590	45

Ad Hoc IT Report CAP Sample 806 Accounts January 2008-January 2009

### Finding-CAP-12

In a sample of 806 CAP customers with twelve months Pre-CAP and twelve months Post-CAP payment history, customers received an increase of 292 termination notices, an increase of 163 phone attempts and an increase in 32 actual terminations.

Due in part to the limitations of the existing billing system, the Company was unable to provide data on CAP collection costs.

### Recommendations

Enhance system programming to ensure accurate and timely data downloads for CAP collections activities and associated collection costs.

## CAP PROGRAM COSTS

CAP costs include costs for administration, CAP credits and arrearage forgiveness. Administrative costs include the following cost: contract and utility staffing; account monitoring; intake; outreach; consumer education and conservation; training; maintaining telephone lines; recertification; computer programming; evaluation; and other fixed overhead costs. Account monitoring includes collection expenses, as well as other operation and maintenance expenses.

**Table 15**  
**% of Total CAP Spending 2008**

	<b>Admin Costs</b>	<b>CAP Credits</b>	<b>Arrearage Forgiveness</b>
Columbia	4%	91%	5%
<b>Peoples</b>	<b>6%</b>	<b>92% (\$583)</b>	<b>2%</b>
Equitable	5%	89%	6%
NFG	4%	87%	9%
PECO-Gas	54%	45%	1%
PGW	2%	89%	9%
UGI	6%	74%	20%
UGI-Penn Natural	9%	82%	9%
<b>Weighted Avg.</b>	<b>6%</b>	<b>87%</b>	<b>7%</b>

2008 Universal Service and Collections Report pg.64

### **Finding-CAP-13**

In CAP spending, the Company falls within the industry norm for Administrative costs; slightly higher (\$583 or 92% per CAP customer) than the industry norm for CAP Credits; and second to the lowest in Arrearage Forgiveness costs as compared with PA peer natural gas companies. Revisions to the Arrearage Forgiveness program should bring these costs more in line with the industry. See Recommendation CAP-11

### Recovery of CAP Costs

#### 2006-2008 Universal Service Plan Settlement Conditions

The Company filed its Universal Service and Energy Conservation Plan in May 2005. As a result of significant time delays and exceptions made by interested parties the resulting Settlement became effective November 30, 2006.<sup>9</sup> Major revisions to CAP cost recovery were as follows:

- The elimination of the 9,000 customer enrollment limit making CAP available to all eligible customers.
- No inclusion of preprogram arrearage forgiveness costs and CAP costs savings items associated with incremental customers added under the terms of the Settlement will not be included in the cost recovery mechanism established.
- Cost recovery will include CAP credit costs associated with new CAP participants and CAP credit amounts that exceed the previous maximum of \$840 for the existing 9,000 participants. CAP credit costs will be determined by calculating the difference between the total residential bill and the then-current CAP payment amounts less the then-current levels of LIHEAP energy assistance. The total average residential bill will be calculated based on the projected weather-normalized usage per customer for existing CAP participants.
- The initial CAP Credit cost recovery amount will be calculated to be effective on January 1, 2006 and recalculated thereafter on a quarterly basis (April 1, July 1, October 1, and January 1). The calculation of the recovery amounts will assume that new CAP customers will be added ratably over the quarter.
- A base rate adjustment will be made to the delivery charge of non-CAP customers on a quarterly basis. This charge will not be filed as a separate tariff rider. The charge will be calculated based on projected water-normalized residential sales and transportation volumes (MCF). The Company will absorb the 4.25% of recoverable CAP costs that originally were proposed to be assigned to the commercial and industrial customer classes.
- The then current \$840 maximum CAP credit was eliminated and annual CAP credit amounts exceeding this are recoverable through the cost recovery mechanism described above.

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<sup>9</sup> PA Public Utility Commission Opinion and Order Docket M-00051880

## CAP PROGRAM COSTS

**Table 16**  
**Peoples Gas CAP Recovery Mechanism**

<b>Two Parts</b>		2001 Settlement 2006 Settlement
<b>2001 Settlement</b>		Covers 9,000 participants Includes CAP Credit, Arrearage Forgiveness, and Administrative Costs Imbedded in Delivery Charges of Residential, Commercial, & Industrial Customers CAP Credit limited to \$840 per customer per year
<b>2006 Settlement</b>		Includes costs associated with CAP Credits over \$840 for the first 9,000 participants No cost recovery for Arrearage Forgiveness Limited Administrative Costs included Includes total CAP Credit costs for all participants over 9,000 Imbedded in Delivery Charges of Residential Customers
<b>Calculation of Mechanism</b>		
First 9,000 Customers	1	Identify the number of customers in the first 9,000 enrolled who are projected to exceed \$840 CAP Credit
	2	For those customers identified, calculate their average usage and average payment agreement amounts
	3	Utilizing current rates, calculate the total CAP Credit costs exceeding \$840
Customers over 9,000	1	Project the number of customers expected to be enrolled over the original 9,000 limit by the end of the current quarter
	2	Calculate the average annual usage and average payment agreement amounts for the CAP group as a whole
	3	Utilizing current rates, calculate the Total CAP Credit Costs
		For both groups, we assume an average energy assistance grant based on actual grants received by the CAP group. This figure is updated quarterly in order to reflect actual LIHEAP grant levels for the current heating season.

PA Public Utility Commission Opinion and Order Docket M-00051880 page 13

## CAP PROGRAM LINKAGES

Is there an effective link between participation in CAP and participation in energy assistance programs? (LIHEAP, Hardship Funds, and other grant programs)

How effective is the CAP and LIURP Link?

**Table 17**  
**CAP and Other Assistance**

2009	CAP + LIURP/ Total LIURP	CAP + CARES	CAP + Dollar Energy	CAP + LIHEAP / Total CAP Participants
# of CAP	139/140	186	785	10,934/15,716
\$ Amt				\$3,882,271
2008				
# of CAP	124/134	187	321	8,544.00/13,673
\$ Amt				\$2,211,482

2008-2009 BCS Universal Service Report

**Finding-CAP-14**

The Company is extremely effective in linking CAP customers to other Universal Service and assistance programs.

Ninety-nine (99%) of all LIURP weatherization jobs completed in 2009 were high usage CAP customers.

Seventy percent (70%) of all CAP customers active in 2009 received LIHEAP benefits up from sixty-three percent (63%) receiving benefits in 2008, an increase of 2,390 participants amounting to an additional \$1,670,789.

**CAP PROGRAM LINKAGES**

## The Financial Impact of LIHEAP on CAP Deficiency

The Department of Welfare (DPW) recently proposed a major LIHEAP program change for the 2010-2011 heating season which would in effect reduce the monthly CAP payments required by CAP utility customers. In the existing program, LIHEAP funds are used to offset CAP credits or the amount difference between the CAP billed amount and the tariff usage amount. CAP credits are costs borne by the Company's non-CAP residential customers.

Under the new proposal, LIHEAP funds would be used to offset the customer's payment obligation when the grant is received. If the customer is in arrears on their monthly CAP agreement, the LIHEAP funds would be used to:

1. Bring the agreement up to date.
2. Cover the current monthly payment due.
3. Pay upcoming plan amounts in advance.

For example, if a customer's monthly CAP payment is \$50 and they have one missed CAP payment of \$50 in the arrears, their Total CAP Payment Due is \$100. A LIHEAP grant of \$200 under the new plan would be used to pay the existing \$100 CAP payment due and the other \$100 would be used to cover the next two monthly CAP payments of \$50 each in advance.

This change by DPW reduces the payment obligation of the customer below the established affordability guidelines established by utility percent- of -income CAP programs. This creates an increase in CAP costs which are passed on to non-CAP residential customers.

Using the customer group that was the basis for Peoples' January 1, 2010 cost recovery filing, the increase in CAP deficiency of \$2.8 million would eventually be borne by Peoples' non-CAP residential customers. The implementation of this change would also require significant programming changes to Peoples current billing system.<sup>10</sup>

Current CAP Deficiency Calculation:	\$3,461,967
Calculated CAP Deficiency New DPW Plan	\$6,268,057

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## CAP PROGRAM LINKAGES

<sup>10</sup> Rate Department Deficiency Calculation February 25, 2010

**Finding-CAP-15**

The new DPW LIHEAP program for the 2010-2011 heating season would increase the Company's CAP deficiency costs by \$2.8 million.

**Recommendation**

Modify CAP customer payment plans to take into account the changes to the LIHEAP program. Divide the projected customer LIHEAP grant by 12 months and add in a "plus" amount monthly to the percent of income CAP amount. This would reinforce regular affordable payments rather than allowing customers to "skip" a payment.

## Eligibility Requirements

The Customer Assistance Referral and Evaluation Services (CARES) program provides comprehensive services for special needs customers having a true inability to pay their bills. CARES customers are screened for eligibility based on income up to 200% of the Federal Poverty Income Guidelines as well as their inability to pay. While the program does not include special payment arrangements, it does grant payment extensions for 30 days based on circumstances. Situations such as a serious medical or mental health condition, limited learning ability, short-term unemployment, etc. would deem customers eligible for CARES. Designed to assist customers over the short term, the reality is that many customers' circumstances never improve. However, the program is intended to assure that these customers maintain safe and adequate utility service. Many CARES customers transfer into CAP as their income and special needs situations improve.

**Table 18**  
**CARES Transferred to CAP**

<b>Program Year</b>	<b>CARES to CAP</b>
<b>2009</b>	<b>186</b>
<b>2008</b>	<b>184</b>

2008-2009 BCS Universal Service Report-Section CARES

For most utilities CARES representatives provide case management services to a limited number of customers with special needs. According to the BCS, most customers receive the case management services of CARES for no more than six months.<sup>11</sup> If a customer's hardship is not resolved within that time, a utility will transfer a customer from the CARES program to their CAP. However, in the case of the Company, the average length of time a customer is in CARES is 5.3 months due in part to the high percentage of elderly on fixed income and in part to system limitations which do not flag CARES accounts for length of time in the program. CARES accounts must be removed manually.<sup>12</sup>

## CARES PROGRAM DESCRIPTION

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<sup>11</sup> 2008 BCS Universal Service and Collections Report Section CARES pg 43

<sup>12</sup> Interview: Customer Relations Specialist



## **Referrals to the Program**

Referrals to the CARES program are received through the Company's 1-800-400-WARM toll free phone line from a variety of sources including but not limited to:

Call Center Representatives  
Customer Service Representatives  
Community Based Organizations (CBOs)  
Social Service Agencies

## **CARES Representatives**

Currently two Customer Relations Program Specialists provide assessment and referral services to appropriate Company Universal Service programs (LIURP, CAP) as well as to social service (Dollar Energy Fund) and government assistance programs (LIHEAP, Crisis). While each specialist maintains a small ongoing caseload, it is more common that the specialists provide the customers with short-term assistance to assure that they receive all the necessary referrals during the initial contact and are then able to pursue the referrals without further Company assistance. On occasion a home visit is performed if a customer is homebound unable to communicate, illiterate, mentally incompetent or confused.

The Customer Relations Program Specialists network extensively with CBOs and social service agencies throughout Peoples sixteen county service territory. Each year the Company's eligible customers receive substantial financial assistance from these third party social service agencies.

## **Other Responsibilities**

In addition to handling the CARES caseload and providing referral assistance other responsibilities of the Customer Relations Specialists include:

1. Coordinating the Gatekeeper program, designed to identify and aid older adults.
2. Coordinating thermostat installations for the visually impaired.
3. Assisting special needs customers as identified in the Annual Cold Weather survey.
4. Coordinating LIHEAP outreach including customer letter mailings and promotions.
5. Managing the Universal Service 800 line.
6. Coordinating the Dollar Energy Fund grant program.
7. Participation in energy related fairs and workshops.

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## **ENERGY ASSISTANCE BENEFITS**

Outreach for LIHEAP is an important component of the CARES program. The Company identifies income eligible customers and promotes the program through bill inserts, radio and television ads, press releases, press conferences, and letters sent to customers. Customers may call the Universal Service 800-400-WARM number to request LIHEAP applications.

**Table 19  
LIHEAP and Direct Benefits**

	<b>CARES</b>	<b>LIHEAP</b>
<b>Nov 2008-Apr 2009</b>	<b>CUSTOMERS</b>	<b>ALL LOW INCOME CUSTOMERS</b>
<b>LIHEAP CASH</b>	\$64,955	\$9,592,222
<b>LIHEAP #</b>	201	29,020
<b>LIHEAP Crisis</b>	\$24,246	\$2,636,270
<b>LIHEAP Crisis #</b>	50	5,248
<b>*DIRECT \$</b>	\$86,056	
<b>*DIRECT #</b>	367	
	<b>CARES</b>	<b>LIHEAP</b>
<b>Nov 2007-Apr 2008</b>	<b>CUSTOMERS</b>	<b>ALL LOW INCOME CUSTOMERS</b>
<b>LIHEAP CASH</b>	\$34,720	\$4,623,428
<b>LIHEAP #</b>	163	18,855
<b>LIHEAP Crisis</b>	\$13,329	\$1,148,136
<b>LIHEAP Crisis #</b>	39	3,175
<b>*DIRECT \$</b>	\$89,600	
<b>*DIRECT #</b>	401	

2008-2009 BCS Universal Service Report-CARES section

\*Direct benefits are defined as the cumulative total dollar amount of all energy assistance sources (LIHEAP, Dollar Energy, and local agency grants cash amounts applied to CARES accounts along with the cumulative number of total recipients.

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**ENERGY ASSISTANCE BENEFITS**

### **Finding-CARES-1**

The Company continues to significantly improve its LIHEAP and other energy assistance outreach benefits to their low income customers each year.

### **Hardship Fund**

The Peoples Hardship Fund is a partnership with the Dollar Energy Fund (DEF). This organization was founded in 1983 with Peoples Gas being the first utility to form a partnership with them. Currently, DEF partners with thirteen utilities in Pennsylvania. DEF is an independent, non-profit organization that provides utility bill financial assistance to customers who are on a low or fixed income. The organization is funded through donations from utility shareholders, customers, and employees. Currently Peoples' contribute up to \$300,000 annually to match customer donations with the Company contributing an additional \$60,000 for administration.

### **Eligibility**

DEF reviews and modifies its eligibility guidelines annually. It is a fund of last resort. Households whose gas service is off and are eligible for LIHEAP and Crisis benefits must first apply for those benefits, when available, before applying for Dollar Energy grants. The program year runs annually from October 1<sup>st</sup> to September 30<sup>th</sup>. Grants are available until funds are exhausted.

Other eligibility criteria include:

- Income must be at or below 200% of Federal Poverty Income Guidelines.
- Customers must have made a sincere effort of payment which is defined as having paid at least \$150 toward their utility bill over a ninety-day time period.
- Applicants under the age of sixty-two must have a balance of at least \$100 on their account to be eligible to apply.
- The customer is classified as a residential heat customer.

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## **ENERGY ASSISTANCE BENEFITS**

Dollar Energy Fund currently partners with CBOs. Customers may be referred to any DEF community based screening agency to complete an application. DEF developed an on-line application process "I-Partner" which enables the Company to review grant applications electronically. With this system, the Company or agency can input a customer application and within fifteen minutes receive approval for a Dollar Energy grant.

The Company and Dollar Energy report that the only challenge to this system is internal to Peoples Gas. Grantees names, account numbers, and grant amounts along with a paper check are sent by Dollar Energy through the mail where the Company must have the grant amounts entered manually and the paper check mailed to Payment Processing in Richmond, VA.

**Finding-CARES-2**

The manual system of applying Dollar Energy Fund grant amounts to customer accounts and processing weekly paper checks is inefficient and creates barriers to timely management of the Company's hardship fund program. This may be due in part to the limitations to the existing billing system.

**Recommendation**

Replace the manual paper system with an electronic transfer of funds from Dollar Energy to the Company.

**Outreach Efforts**

Information about the program is included each year in a bill insert that is mailed to all customers. Customer donations are also solicited annually through bill inserts, press releases and information on the bill. In addition those customers referred to the Universal Service Programs are screened for DEF eligibility and referred to the program. The Company has also sponsored single events to support Dollar Energy fundraising efforts in order to increase customer contributions.

**Table 20  
Dollar Energy Cash Benefits**

2008-2009		AVG CASH GRANT
<b>Cash Benefits \$</b>	\$599,616	<b>\$358</b>
<b>Cash Benefits #</b>	1,679	
<b>Dollar Energy &amp; CARES</b>	19	
<b>Dollar Energy &amp; CAP</b>	85	
2007-2008		AVG CASH GRANT
<b>Cash Benefits \$</b>	\$402,194	<b>\$366</b>
<b>Cash Benefits #</b>	1,099	
<b>Dollar Energy &amp; CARES</b>	15	
<b>Dollar Energy &amp; CAP</b>	321	

BCS Universal  
Report-Hardship Fund Section

2008-2009  
Service

**Finding-CARES-3**

The Company continues to realize significant benefits from Dollar Energy cash grants of an average of \$358 per low income customer.

**Recommendation**

Continue to develop new signature events such as the "Warm Your Hearth... Warm Your Heart Campaign" for Dollar Energy fundraising to increase customer contributions.

## LIURP PROGRAM DESCRIPTION

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The Company's LIURP is a weatherization and conservation education program targeted to low income, high usage customers within the Company's 16 county service territory. The program was designed in 1987 and has been funded with an annual budget of \$610,000 to assist with customers who have problems coping with high gas bills.

The goals of the program are to:

- Increase the warmth and comfort of the home.
- Control high gas usage.
- Reduce customer energy bills.

Since the program's inception through December 31, 2008, the Company has spent approximately \$11,853,757 and weatherized 4,100 homes.<sup>13</sup>

### Eligibility

- CAP customers with qualifying high usage will be prioritized for LIURP services.
- Customers cannot exceed 150% of Federal Poverty Income Guidelines except in special needs cases where customers can qualify up to 200% of the poverty level guidelines. (Up to 20% of the program budget may be allocated to this customer group).
- Customers must be a residential gas heat customer, have 12 months of residency at their current address, and have no intentions of moving within the next year.
- Customers must use in excess 140 Mcf per year and have an arrearage of \$200 or more.
- Renters must have the gas account in their own name, not the landlord's. Eligible rental units must be metered separately and have individual heating units. Prior to receiving LIURP services, landlord permission must be obtained.

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<sup>13</sup> PNG 2008 Universal Service Plan; Annual BCS Universal Service Report

## LIURP NEEDS ASSESSMENT

### Needs Assessment and Additional Funding

This analysis incorporates 2000 US Census data by county as well as Company data for those customers who meet the usage and income level requirements for LIURP.

#### In Summary:

Total PNG Residential Customers Meeting the Usage Requirement (>140 Mcf/yr) 38,890

Total PNG Residential Customers Meeting both the Usage and Low Income Requirement as estimated on Census Data 8,331

### Identified LIURP Eligible Customers

PNG also examined the number of existing residential customers, for which income data is available, that are currently at or below 10% of Federal Poverty Level and use in excess of 140 Mcf/year. The following table identifies the level of these customers by county serviced as of May 7, 2008.

County	Customers
Allegheny	2795
Armstrong	224
Beaver	426
Blair	1354
Butler	142
Cambria	1261
Clarion	0
Fayette	50
Green	3
Indiana	209
Lawrence	68
Mercer	118
Somerset	16
Venango	1
Washington	85
Westmoreland	1085
<b>Total</b>	<b>8,331</b>

## LIURP NEEDS ASSESSMENT

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In reviewing the results of both the Company and census provided information, the evaluator is in agreement that there is an estimated 8,000 customers currently eligible for LIURP services. Additional criteria for eligibility include uninterrupted service for the prior 12 months and sound physical condition of the home. This could potentially reduce the eligible population even further.<sup>14</sup>

Based on the Company's needs assessment and pursuant to agreement for the sale of Peoples Natural Gas to Steel River, Inc., in February 2010 the PUC required the annual LIURP budget be increased from \$610,000 to \$768,000/annually to serve more of the eligible population.

Even with the newly adjusted LIURP spending level increase to \$768,000, the Company's spending level remains second to the lowest in the industry as compared to PA peer natural gas utilities.<sup>15</sup>

### **Finding-LIURP-1**

The Company's 2008 needs assessment concludes that there are approximately 8,000 underserved low income customers who potentially are eligible to receive LIURP services.

### **Recommendation**

Increase the LIURP budget to \$900,000-\$1,000,000 annually.

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<sup>14</sup> Dom-Peoples Universal Service and Energy Conservation Plan June 1, 2008 Appendix-LIURP Needs Assessment.

<sup>15</sup> 2008 BCS Universal Service and Collections Report.



### Administration

As a result of a recommendation of the 2004 Universal Service Impact Evaluation the Company issued a RFP to outsource LIURP administration to a third party.<sup>16</sup> Conservation Consultants Inc. (CCI) located in Pittsburgh, PA. was the successful bidder.

CCI conducts energy audits, contracts with eight non-profit Department of Community Education Development (DCED) state funded community action agencies and one private weatherization company to install weatherization measures, provide consumer education and conduct post installation inspections.

When possible, CCI blends funding for both the state weatherization program and LIURP in order to offer a more comprehensive weatherization package to PNG customers.

CCI utilizes a Company provided LIURP database to capture program information on four screens: customer and demographic information, dwelling information, measures installed, and job status. In the Company's 2004 Universal Service Evaluation Finding 10.2.2 the average lag time between LIURP proceed date to LIURP completion date was six to seven months. DCED agencies simply were not prioritizing LIURP customers. The evaluator recommended that agencies prioritize LIURP customers to expedite weatherization to a 120 day (4 months) turnaround time.<sup>17</sup> As of 2008 the average turnaround time for the nine LIURP providers was 117 days, quite an improvement from the previous evaluation.

CCI coordinates communications between eligible customers and the Company; reviews and approves recommended weatherization measures prior to installation; reviews agency invoices; and maintains information on the LIURP database.

Significant to this process is agency invoice reconciliation post weatherization. To date, CCI performs random checks and balances on invoices submitted comparing costs with agreed upon contracted fees for weatherization measures and services.<sup>18</sup> Invoices are typically routed to bookkeeping as a general practice for automatic payment.

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<sup>16</sup> Dom-Peoples Universal Service Program Impact Evaluation-2004, pg. 71

<sup>17</sup> Ibid,69

<sup>18</sup> Interview: CCI Coordinator LIURP Administration

### **Referrals**

Referrals to LIURP are received by CCI from community and social service agencies and from the Company through customers who are enrolled in CAP, customers with high arrears, and customers who are enrolled in CARES.

Once referred the customer is reviewed for both LIURP and the Department of Community Education Development (DCED) state weatherization program. For agency referrals, CCI verifies usage and income eligibility with the Company. CCI sends out a maximum of three letters plus makes one phone attempt to eligible customers inviting their participation into the program.

### **Program Partners**

Beginning in 2004, Duquesne Light Company and Peoples partnered to begin identifying joint LIURP customers in Allegheny and Beaver counties eligible to receive a 90% efficient replacement gas furnaces. To be eligible customers must be a Duquesne Light and PNG customer, meet CAP eligibility guidelines, and own a disabled or inefficient gas furnace in need of repair or replacement.

**Audit**

The auditor performs a blower door test on eligible customer homes noting air leakage areas inside the home. Job orders detailing recommended installed measures are then submitted to CCI for approval. CCI determines the allowable per house expenditure based on the usage amount to minimize expenditures and maximize consumption savings.<sup>19</sup>

**Table 21**  
**LIURP Allowable Expenditure Per Household**

<b>Usage Amount</b> <b>Mcf</b>	<b>Allowable Expense</b>
140-155	\$2,475
156-170	\$2,550
171-190	\$2,800
191-220	\$2,900
221-250	\$3,000

Measures are installed based on established payback criteria which may include:

- Heating system improvements and/or replacements
- Attic, sidewall and other types of insulation
- Caulking and weather stripping
- Air sealing
- Hot water treatments including tank improvements, wrapping, and replacements
- Incidental minor repairs

<sup>19</sup> Interview: CCI Coordinator LIURP Admin

**Finding LIURP-2**

The Company's LIURP plan imposes a maximum allowable LIURP spending cap per household utilizing a usage matrix as a means of controlling LIURP costs.

**Recommendation**

Remove LIURP spending caps as per the usage matrix and replace with the Company's historical average spending allowance. Review this on an annual basis to adjust for inflation and increased costs for weatherization labor and materials.

The Company has proceeded with this recommendation and is making the procedural change effective August 1, 2010.

**A Closer Look at Furnace Replacement**

Heating equipment is inspected by the DCED auditors trained in furnace and water heater inspections or by private heating dealers subcontracted by the agencies. The furnace or water heater replacement is approved by CCI based on a phone call and a picture of the appliance in question. The damaged part is left behind at the customer's premise to be examined by the Company's post weatherization inspector. The LIURP program is not meant to be solely a furnace replacement program. In the Company's 2004 evaluation LIURP Finding 10.2.3 indicated that 80% of the weatherization jobs reported as completed were "Furnaces Only" jobs.<sup>20</sup>

While the Company has done a good job at reducing the percentage of "Furnace Only" jobs funded through the LIURP program, the need still exists for a low income furnace replacement program for eligible customers. Replacing a faulty furnace with a new energy efficient furnace can make all the difference in customers reducing their gas usage and obtaining more affordable bills.

**Table 22  
LIURP Completions**

	2008	2007	2006	2005
<b>Furnace + Full Wx</b>	34	40	30	65
<b>Furnace Only</b>	26	31	49	29
<b>Other-(Audit, Air Seal)</b>	74	85	90	82
<b>Total Jobs Complete</b>	134	156	169	176
<b>Normalized Savings</b>	23.6%	17.5%	17.6%	31.2%
<b>PNG+DCED</b>		69	70	
<b>PNG+ Duquesne Light</b>	0	2	0	0

<sup>20</sup> 2004 Dominion Peoples Universal Service Program Impact Evaluation pg.70

## LIURP ADMINISTRATION

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### **Finding-LIURP-3**

There is no mechanized tracking system that combines DCED funding with LIURP funding to report the total weatherization dollar benefits per customer.

### **Recommendation**

Mechanize and track DCED funding with LIURP combined weatherization jobs to achieve maximum benefits.

### **Finding-LIURP-4**

The need for furnace replacement and line repair/replacement is significant in low income households throughout the Company's service territory.

### **Recommendation**

Consider establishing a Company funded Emergency Furnace/Line Repair Program separate from LIURP for eligible low income customers.

### **Finding-LIURP-5**

There are few jointly funded LIURP projects between the Company and Duquesne Light.

### **Recommendation**

Implement the necessary procedures to revitalize the partnership between Peoples Gas and Duquesne Light for jointly funded LIURP projects in Beaver and Allegheny counties.

### **Energy Education and Inspections**

CCI subcontracts with an Education and Inspection Specialist to visit the customers' home post-weatherization to further explain the weatherization program, educate the customer on additional ways to conserve energy through lifestyle changes, and to provide conservation materials. While on site, the educator verifies that the measures listed were actually installed and that the customer is satisfied with the work.

If the customer has an unusually high increase in consumption post-weatherization, a follow-up call or visit may be scheduled.

A retired Peoples employee performs infra-red inspection scans on approximately 25% of homes weatherized under the LIURP program.

APPENDIX







## APPENDIX A

### CAP ADMINISTRATION COMPARISON PEOPLES GAS vs. COLUMBIA GAS

	PEOPLES GAS	COLUMBIA GAS
<b>CAP Customers</b>	15,737	22,000-25,000
<b>Referral Source</b>	Agencies; Customers; Call Center	Agencies; Customers; Call Center
<b>CAP Calls</b>	<p>On site at Peoples Pitt Street office, Pittsburgh, PA</p> <p>Subcontractor-Advantage Consumer Credit Counseling (ACCC)</p> <p>1 internal acting Supervisor; 6 phone; 4 back office reps (little customer service experience)</p> <p>2009-70,000 CAP calls total</p> <p>244 Calls/daily; 41 calls/rep</p>	<p>Universal Services (US) Call Group within Call Center</p> <p>12 specialty trained reps + 1 team leader</p> <p>Handles CAP; LIURP; LIHEAP; Crisis ; Dollar Energy calls;</p> <p>2008- 190,000 US calls total</p> <p>800 Calls/daily; 65 calls/rep</p>
<b>IVRU Prompt</b>	No	Yes
<b>Call Flow</b>	<p>Customer calls Dominion Call Center in Charlotte, NC</p> <p>Rep recognizes as potential CAP Customer</p> <p>Transfers call to Pitt Street contractor ACCC</p> <p>Rep explains program; populates income and customer info screen</p> <p>Requests income verification/ customer in 30 day pending status</p> <p>Upon receipt of income verification, customer deemed eligible or ineligible.</p>	<p>When IVRU recognizes acct # as Level #1.</p> <p>Call auto routes to US call group</p> <p style="text-align: center;">or</p> <p>Customer calls 800#/direct to US call group</p> <p style="text-align: center;">or</p> <p>When IVRU does not recognize acct</p> <p>Call routes to regular rep</p> <p>Rep recognizes acct may be CAP eligible</p> <p>Rep gives 3 highlights of CAP/ on Call Aid</p> <p>Routes to US call group</p> <p>US call group populates 1 CAP screen</p> <p>Cuts and pastes customer info onto OSCAR(\$ Energy)</p> <p>\$ Energy receives real time Info; customer on 30 day pending</p>
<b>CAP Admin</b>	<p>Outsourced to Advantage Credit Counseling</p> <p>CIS screens capture CAP information; <b>not user friendly</b></p> <p>Customer letters generated by CIS system</p> <p>Handles recertification; customer defaults</p> <p>Reps phone customers with daily reports on recertification</p>	<p>Outsourced to Dollar Energy</p> <p>OSCAR software manages CAP information; user friendly</p> <p>Receives income verification</p> <p>Customer accept or denied based on income</p> <p>If accepted calculates CAP payment</p> <p>Explains CAP; refers to other energy and weatherization asst programs</p> <p>Handles recertification; customer defaults</p> <p>Letters generated by DIS system</p>

**US Staff**

**Director Customer Relations**

Ext Affairs; Community Affairs; US Programs:CAP;LIURP;CARES  
Dollar Energy; LIHEAP; Crisis; Complaints and Compliance

**1-Manager Communications and Community Affairs**

**1-Supervisor Customer Relations**

Complaints and Compliance; CARES; Fuel Fund  
LIHEAP; Crisis; LIURP

**4-Customer Relations Specialists**

1-CARES; CAP;LIHEAP: Hardship Fund

1-CARES; LIURP

2-PUC Complaints; customer disputes

2-Customer Relations Representatives

PUC Complaints; customer disputes

**1-Manager Universal Service**

CAP; LIURP; Dollar Energy; LIHEAP; Crisis;  
Emergency Furnace Repair Fund (\$250,000/annually)  
Energy Efficiency Program

**1-Coordinator - On site at call center**

CAP billing adjustments; works daily system memos  
Over budget customers; moved; defaults; removing security  
deposits

Problem accts; monitors \$ Energy daily

Acts as go-to person for US call group/updates Call Aid

Dormant acct surveys; agency contact person

**1-Coordinator - On site at call center**

DPW -Brings up all accts with pending grants

Provides customer verification; hard copy to DPW

Troubleshoots

Back-up for Eva

**1-Coordinator-Western PA-Canonsburg Office**

CARES; Community Relations; LIURP back-up; Energy Asst

**1-Coordinator-Central PA-York Office**

CARES; Community Relations; LIURP backup: Energy Asst

**1-Manager Customer Relations**

DSM Programs; US strategy; Written and oral testimony;  
PUC Relations

**1-Supv Quality Control-Position to be filled**

Field control on all contractors performing

work in LIURP; Energy Efficiency Audits;

Conservation Ed programs; and other DSM

**1 Manager Regulatory Compliance-York,PA office**

PUC Complaints; Disputes; Formals

Supervises 3- representatives

Interview: George Dice, Manager Columbia Gas Call Center, Smithfield, PA; Deb Davis, Manager Universal Services, Columbia Gas; Kim Buss, Coordinator Customer Relations, Peoples

**APPENDIX B**

# CAP CUSTOMER WITH LIHEAP

Date Prepared: April 16, 2010      Next Meter Reading: 08/15 - 08/16/2010      For questions about Peoples Natural Gas charges call 1-800-784-0111.

Summary of Basic Charges		Monthly Usage Comparison																					
<b>Credits And Charges Since Your Last Bill</b>		Average Daily Temperature For This Billing Period																					
Balance from last bill	\$83.00	2009	2010																				
Liheap Adjustment	300.00 CR	47°F	52°F																				
<b>Balance</b>	<b>\$217.00 CR</b>	Gas Use in MCF																					
<b>Current Charges</b>																							
Rate R5 Residential	\$11.00	<input type="checkbox"/> Actual <input type="checkbox"/> Estimate <input type="checkbox"/> Customer Read <input type="checkbox"/> Adjustment																					
Customer Charge - 1 Month	8.31	Average monthly use: <input type="checkbox"/> 5.0 MCF																					
Delivery Charge	1.72	Total annual use: <input type="checkbox"/> 59.9 MCF																					
Capacity Charge \$0.5059 per MCF	19.75	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">Billing Period And Meter Readings</th> </tr> <tr> <th>Date</th> <th>Meter Number</th> <th>Read Type</th> <th>Reading</th> </tr> </thead> <tbody> <tr> <td>Apr 16, 2010</td> <td>21405508</td> <td>Actual</td> <td>221.7</td> </tr> <tr> <td>Mar 18, 2010</td> <td>Estimate</td> <td>218.3</td> <td>3.4</td> </tr> <tr> <td colspan="3">MCF Used in 29 Days</td> <td>3.4</td> </tr> </tbody> </table>		Billing Period And Meter Readings				Date	Meter Number	Read Type	Reading	Apr 16, 2010	21405508	Actual	221.7	Mar 18, 2010	Estimate	218.3	3.4	MCF Used in 29 Days			3.4
Billing Period And Meter Readings																							
Date	Meter Number			Read Type	Reading																		
Apr 16, 2010	21405508			Actual	221.7																		
Mar 18, 2010	Estimate			218.3	3.4																		
MCF Used in 29 Days			3.4																				
Commodity Charge \$5.8088 per MCF	.72 CR																						
Gas Cost Adjustment - \$0.2118 per MCF	.25 CR																						
State Tax Surcharge Cr @ 2.77%	\$39.83																						
<b>Total Current Charges</b>	<b>\$177.17 CR</b>																						
Peoples Natural Gas current charges include \$ 25 in state taxes.																							
<b>Please Pay CAP Amount of \$100.00 by May 10, 2010</b>																							
Your Pre-CAP balance is \$804.31. Please continue to pay your CAP Amount by the due date.																							
If you have questions about your CAP agreement, call 1-800-400-9276.																							
You can pay this bill with an electronic check, ATM/debit card with a Pulse, Star, NYCE or Accell logo, or a Visa, MasterCard, or Discover credit card at 1-800-573-1169. BillMatrix provides this service.																							
A service fee applies.																							

Please detach and return this coupon with a check made payable to Peoples Natural Gas. Please see reverse side for mailing address change instructions.

<b>DUE DATE</b>	May 10, 2010	<b>Account No.</b>	8 6000 1864 5597
<input type="text" value="\$180.00"/>	<input type="text" value=""/>		
CAP Amount	Amount Enclosed		

PEOPLES NATURAL GAS  
PO BOX 20784  
RICHMOND VA 23261-0784

.....  
 0285000186455920000000003763000000180008

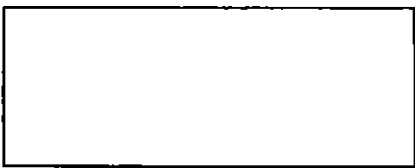
# CAP CUSTOMER WITH MISSED PAYMENTS

Date Prepared: July 8, 2010      Next Meter Reading: 09/01 - 09/07/2010      For questions about Peoples Natural Gas charges call 1-800-784-0111.

Summary of Basic Charges		Monthly Usage Comparison	
<b>Credits And Charges Since Your Last Bill</b>		Average Daily Temperature For This Billing Period	
Balance from last bill	\$386.18	2009	2010
Payment on Jun 22, 2010 - Thank You	261.00 CR	85°F	70°F
<b>Balance</b>	<b>\$125.18</b>	<b>Gas Use In MCF</b>	
<b>Current Charges</b>			
Rate RS Residential		<input type="checkbox"/> Actual <input type="checkbox"/> Estimate <input type="checkbox"/> Customer Read <input type="checkbox"/> Adjusted Usage	
Customer Charge - 1 Month	\$11.00	Average monthly use: <input type="checkbox"/> 9.6 MCF. Total annual use: <input type="checkbox"/> 117.1 MCF.	
Delivery Charge		<b>Billing Period And Meter Readings</b>	
11.1 MCF @ \$2.4321	27.00	<u>Date</u>	<u>Read Type</u>
Capacity Charge \$0.4613 per MCF	5.12	<u>Meter Number</u>	<u>Reading</u>
Commodity Charge \$5.218 per MCF	57.92	27573720	
Gas Cost Adjustment \$0.0559 per MCF	.62	Jul 6, 2010	Actual
State Tax Surcharge Cr @ 1.98%	.53 CR	Jun 4, 2010	Estimate
<b>Total Current Charges</b>	<b>\$101.13</b>	<b>MCF Used in 32 Days</b>	<b>Difference</b>
<b>Current CAP Allowance</b>	<b>\$226.31</b>		11.1
Peoples Natural Gas current charges include \$.87 in state taxes.			11.1
<b>Please Pay      CAP Amount of \$174.00 by July 30, 2010</b>			
Your Pro-CAP balance is \$1,003.00.			
Please continue to pay your CAP Amount by the due date.			
If you have questions about your CAP agreement, call 1-800-400-9276.			
You can pay this bill with an electronic check, ATM/debit card with a Pulse, Star, NYCE or Accell logo, or a Visa, MasterCard, or Discover credit card at 1-800-573-1169. BillMatrix provides this service.			
A service fee applies.			

Please detach and return this coupon with a check made payable to Peoples Natural Gas. Please see reverse side for mailing address change instructions.

<b>DUE DATE</b>	Jul 30, 2010	<b>Account No.</b>	0 5000 2056 6367
<b>\$174.00</b>	[ ]		
CAP Amount	Amount Enclosed		



PEOPLES NATURAL GAS  
PO BOX 26784  
RICHMOND VA 23261-6784

020500020566367000000010113000000174002

# CAP CUSTOMER WITH ARREARAGE FORGIVENESS CREDIT

Date Prepared: March 26, 2010      Next Meter Reading: 04/21 - 04/26/2010      For questions about Peoples Natural Gas charges call 1-800-764-0111.

Summary of Basic Charges		Monthly Usage Comparison	
<b>Credits And Charges Since Your Last Bill</b>		Average Daily Temperature For This Billing Period	
Balance from last bill	\$107.47 CR	2008	2010
Payment on Mar 16, 2010 - Thank You	43.00 CR	40°F	39°F
<b>Balance</b>	<b>\$150.47 CR</b>	Gas Use In MCF	
<b>Current Charges</b>			
Rate RS Residential		<input type="checkbox"/> Actual <input type="checkbox"/> Estimate <input checked="" type="checkbox"/> Customer Read <input type="checkbox"/> Adjusted Usage	
Customer Charge - 1 Month	\$11.00	Average monthly use: <input type="checkbox"/> 8.0 MCF. Total annual use: <input type="checkbox"/> 95.7 MCF.	
Delivery Charge		<b>Billing Period And Meter Readings</b>	
18.5 MCF @ \$2.4522	40.46	Date	Read Type
Capacity Charge \$0.5546 per MCF	8.15	Meter Number	Reading
Commodity Charge \$6.4569 per MCF	106.59	Mar 24, 2010	Estimate
Gas Cost Adjustment - \$0.6446 per MCF	10.64 CR	Feb 23, 2010	Actual
State Tax Surcharge Cr @ 2.93%	1.19 CR	MCF Used In 29 Days	Difference
<b>Total Current Charges</b>	<b>\$155.37</b>		16.5
<b>Current CAP Allowance</b>	<b>\$4.90</b>		16.5
Peoples Natural Gas current charges include \$.87 in state taxes.		This is an Estimated Bill.	
<b>Please Pay:</b> CAP Amount of \$23.00 by April 19, 2010			
Thank you for your CAP payment. \$9.00 CR has been applied to your Pre-CAP balance. A Pre-CAP Credit of \$234.74 CR has been applied. Your Pre-CAP balance is \$680.21.			
Please continue to pay your CAP Amount by the due date.			
If you have questions about your CAP agreement, call 1-800-400-9276.			

Please detach and return this coupon with a check made payable to Peoples Natural Gas. Please see reverse side for mailing address change instructions.

<b>DUE DATE</b>	Apr 19, 2010	<b>Account No.</b>	2 5000 3544 1850
\$23.00	[ ]		
CAP Amount	Amount Enclosed		

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PEOPLES NATURAL GAS  
PO BOX 26784  
RICHMOND VA 23261-6784  
.....

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SECRETARY'S BUREAU





**PEOPLES NATURAL GAS COMPANY LLC  
UNIVERSAL SERVICE AND ENERGY CONSERVATION  
PLAN**

**NEEDS ASSESSMENT**

**June 1, 2011**

**Peoples Natural Gas Company  
Universal Service and Energy Conservation Plan – June 1, 2011**

**Low Income Usage Reduction Program (LIURP) - Needs Assessment (Continued)**

**LIURP Needs Assessment Estimate**

Based on the existing program income eligibility and usage requirements and relying upon the results described above, Peoples estimates that there are approximately **7,000** customers who are currently eligible for LIURP services. In addition, the customer must have an uninterrupted service for the prior 12 months and some homes are beyond scope of program because of physical condition. This additional criteria could reduce the eligible population.

**Peoples Natural Gas Company  
Universal Service and Energy Conservation Plan – June 1, 2011**

**Customer Assistance Referral Evaluation Service (CARES) - Needs Assessment**

**Estimate of CARES Eligible Customers Using Income Census Data**

Income eligibility for CARES is 200% of the Federal Poverty Level. Additionally, the customer must also demonstrate that a special need exists. Generally, “special need” includes customers that have a serious medical condition, a learning disability, recent unemployment, single parenting issues etc.

Attached is an analysis that provides an estimate of the total number of Peoples’ customers who are eligible for CARES based on income criteria only. This analysis incorporates county census data as well as company data on the number of customers by county. Peoples estimates that approximately **99,000** customers meet the income criteria for CARES.

A determination of whether a customer is considered to be “special needs” is made by a Peoples’ CARES representative based on a referral from a Peoples’ customer account representative or customers service person or a social service agency staff member. A determination of eligibility is based on a number of factors that are described in the Universal Service Plan. Because the detailed information needed to assess whether a customer meets the “special needs” requirements are only available after referral and investigation by a CARES representative, Peoples is unable to estimate the level of income eligible customers who may qualify for CARES. Listed below are the number of customers who have been referred to Peoples for the CARES program and the actual number of customers who received CARES benefits annually since 1998.

<b><u>Year</u></b>	<b><u>CARES Referrals</u></b>	<b><u>CARES Participants</u></b>
2002	364	551
2003	393	563
2004	319	469
2005	495	448
2006	273	430
2007	353	392

**Peoples Natural Gas Company  
Universal Service and Energy Conservation Plan – June 1, 2011**

**Low Income Home Energy Assistance Program (LIHEAP) - Needs Assessment**

**Estimate of LIHEAP Eligible Customers Using Census Data**

This program is available to customers who are at or below 150% of the federal poverty level. Attached is Peoples' analysis in support of the LIURP Needs Assessment. This analysis incorporates county census data as well as company data on the number of customers by county. The results of the LIHEAP Needs Assessment analysis are summarized below. The attached analysis was done on a county-by-county basis. The information below summarizes the results on a total company basis.

Total Residential Heating Customers – 5/26/11	325,026
% of Customers 0%-150% of Poverty (Based on current Census Data)	<u>20.8%</u>
Number of Residential Eligible Customers 0%-150% of Poverty	67,583

**Identified LIHEAP Eligible Customers**

Peoples also examined current income data that is available for existing residential customers (as of May 26, 2011). This examination revealed the following:

Level 1 (0-150% of Poverty) - 74,796 residential customers

**Peoples Natural Gas Company**  
**Universal Service Plan – June 1, 2011**  
**Low Income Home Energy Assistance Program (LIHEAP) - Needs Assessment**  
**(Continued)**

**LIHEAP Needs Assessment Estimate**

Based on existing program income eligibility requirements and relying upon the results described above, Peoples estimates that approximately **75,000** customers are currently eligible for LIHEAP services.

### DEF Needs Assessment Estimate

Based on existing program income eligibility requirements and relying upon the results described above, Peoples estimates that approximately **28,000** customers are currently eligible for DEF services.

**Peoples Natural Gas Company**  
**Universal Service and Energy Conservation Plan – June 1, 2011**

**Customer Assistance Program (CAP) - Needs Assessment**

This program is available to customers who are at or below 150% of the federal poverty level and are classified as “payment troubled”. “Payment troubled” specifically refers to customers who are on a payment agreement and have failed to maintain one or more payment agreements.

<b>Number of Confirmed Low Income Customers</b>	<b>74,791<sup>1</sup></b>
Recommended Participant Percentage	26%
Calculated Number of Eligible Customers	19,446
Confirmed Low Income Customers with Broken Payment Arrangements	16,302

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<sup>1</sup> Income information is obtained from customers when service is initiated and when payment arrangements are discussed. The income figure, once entered into the account, remains in place until and if the customer provides updated information.

**Peoples Natural Gas Company  
Universal Service and Energy Conservation Plan-June 1, 2011**

**Low Income Usage Reduction Program (LIURP) - Needs Assessment**

**Estimate of LIURP Eligible Customers Using Census Data**

This program is available to customers who are at or below 150% of Federal Poverty Level and use in excess of 140 Mcf per year. Attached is Peoples' analysis supporting the LIURP Needs Assessment. This analysis incorporates county census income data as well as company data for those customers who meet the usage requirement. The results of the LIURP Needs Assessment analysis are summarized below. The attached analysis was done on a county-by-county basis. The information below summarizes the results on a total company basis.

Total Residential Customers Meeting the Usage Requirement (>140 Mcf/yr.) -5/26/11	33,868
Total Residential Customers Meeting both the Usage Requirement and estimated as low income based on Census Data	7,258

**Identified LIURP Eligible Customers**

Peoples also examined the number existing residential customers, for which income data is available, that are currently at or below 150% of Federal Poverty Level and use in excess of 140 Mcf per year. The following table identifies the level of these customers by county as of May 7, 2008:

<u>County</u>	<u>Customers</u>
Allegheny	2,583
Armstrong	245
Beaver	258
Blair	1,117
Butler	150
Cambria	1,255
Clarion	1
Fayette	70
Green	6
Indiana	330
Lawrence	106
Mercer	119
Somerset	23
Venango	1
Washington	58
Westmoreland	935
Total Identified	7,258



**Peoples Natural Gas Company  
Universal Service and Energy Conservation Plan – June 1, 2011  
Hardship Funds: Dollar Energy Fund - Needs Assessment**

**Estimate of Dollar Energy Fund (DEF) Eligible Customers**

The specific eligibility requirements for the DEF include the following:

- The customer's income is at or below 200% of the federal poverty level;
- The customer is classified as a residential heating customer;
- Customers who are less than 62 years of age must have a minimum account balance, at the time of application, of \$100; and
- The customer must have made a "sincere effort to pay." Generally this refers to customers who have made at least \$150 in payments to Peoples within the past 90 days.

Attached is Peoples' analysis supporting the DEF Needs Assessment. This analysis incorporates county census income and age data as well as company data on the current population of customers who meet the minimum account balance, effort-to-pay and heating requirements. The results of the DEF Needs Assessment analysis are summarized below. The attached analysis was done on a county-by-county basis. The information below summarizes the results on a total company basis.

Total Residential Customers Meeting Non-Income Requirements <sup>1</sup> – 5/26/11	45,783
Number of RS DEF Eligible Customers 0%-200% of Poverty	13,906
Overall estimate of Customers > than 65 Years of Age (Based on current Census Data) <sup>2</sup>	17,009
Less Customers meeting both program requirements and age requirements	-2,417
<b>Total Estimated DEF Eligible Customers</b>	<b>28,498</b>

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<sup>1</sup> Includes total residential heating customers that have a minimum account balance of \$100 and have made a "sincere effort to pay" as demonstrated by a minimum of \$150 in payments in the 90 days previous to May 26, 2011.

<sup>2</sup> Census population data on the number of persons above 62 years of age is not available. However, population data on the number of persons above the age of 65 years is available through the Census and was therefore used in this analysis. The use of this data results in a slight underestimate of the level of possible DEF participants.

Calculation of LIURP Eligible Households  
(Adjusted for Percentage of County Households Served)

C1	COUNTY C2	Customers in County (PNG)* C3	Households in County (Census) C4	% Households Served by PNG (Calc.) C5	C6	If Less Than 150% of Poverty **		
						C7	Households (Calc.) C8	PNG Customers (Calc.) C9
1	Allegheny	13,041	537,150	2.4%		106,392	2,583	
2	Armstrong	1,026	29,005	3.5%		6,939	245	
3	Beaver	1,377	72,576	1.9%		13,610	258	
4	Blair	4,597	51,518	8.9%		12,518	1,117	
5	Butler	887	65,862	1.3%		11,148	150	
6	Cambria	5,051	60,531	8.3%		15,038	1,255	
7	Clarion	3	16,052	0.0%		4,258	1	
8	Fayette	224	59,969	0.4%		18,720	70	
9	Greene	22	15,060	0.1%		4,122	6	
10	Indiana	1,148	34,123	3.4%		9,822	330	
11	Lawrence	455	37,091	1.2%		8,620	106	
12	Mercer	584	46,712	1.3%		9,521	119	
13	Somerset	93	31,222	0.3%		7,652	23	
14	Venango	3	22,747	0.0%		5,590	1	
15	Washington	298	81,130	0.4%		15,860	58	
16	Westmoreland	5,059	149,813	3.4%		27,694	935	
Total		33,868	1,310,561			0	7,258	
							LT 150% Poverty	

\* Defined as Residential Customers using 140 MCF or more annually.

\*Census data from 2000.

Calculation of CARES Eligible Households (Adjusted for Percentage of County Households Served)

C1	COUNTY C2	Customers in County (PNG)* C3	Households in County (Census) C4	% Households Served by PNG (Calc.) C5	C6	If Less Than 200% of Poverty **		C9	
						Households (Calc. using C7)	PNG Customers (Calc.) C8		
1	Allegheny	138,220	537,150	25.7%		150,600	38,752		
2	Armstrong	11,157	29,005	38.5%		10,510	4,043		
3	Beaver	17,188	72,576	23.7%		20,410	4,834		
4	Blair	29,389	51,518	57.0%		17,943	10,236		
5	Butler	12,079	65,862	18.3%		16,509	3,028		
6	Cambria	26,131	60,531	43.2%		22,283	9,620		
7	Clarion	53	16,052	0.3%		6,038	20		
8	Fayette	3,071	59,969	5.1%		25,682	1,315		
9	Greene	485	15,060	3.2%		5,869	189		
10	Indiana	11,044	34,123	32.4%		13,808	4,469		
11	Lawrence	3,836	37,091	10.3%		12,737	1,317		
12	Mercer	4,197	46,712	9.0%		14,188	1,275		
13	Somerset	1,455	31,222	4.7%		11,817	551		
14	Venango	67	22,747	0.3%		8,028	24		
15	Washington	4,593	81,130	5.7%		23,178	1,312		
16	Westmoreland	66,198	149,813	44.2%		41,461	18,321		
Total		329,163	1,310,561				99,304		
							LT 200% Poverty		

Calculation of LIHEAP eligible customer base

C1	COUNTY	Customers in County (PNG)*	Households in County (Census)	% Households Served by PNG (Calc.)	C6	If Less Than 150% of Poverty		
						C7	Households (Calc.)	PNG Customers (Calc.)
C1	C2	C3	C4	C5	C6	C7	C8	C9
1	Allegheny	136,865	537,150	25.5%			106,392	27,109
2	Armstrong	11,024	29,005	38.0%			6,939	2,638
3	Beaver	16,869	72,576	23.2%			13,610	3,163
4	Blair	28,597	51,518	55.5%			12,518	6,948
5	Butler	12,026	65,862	18.3%			11,148	2,035
6	Cambria	25,556	60,531	42.2%			15,038	6,349
7	Clarion	53	16,052	0.3%			4,258	14
8	Fayette	3,021	59,969	5.0%			18,720	943
9	Greene	479	15,060	3.2%			4,122	131
10	Indiana	10,869	34,123	31.9%			9,822	3,129
11	Lawrence	3,775	37,091	10.2%			8,620	877
12	Mercer	4,130	46,712	8.8%			9,521	842
13	Somerset	1,446	31,222	4.6%			7,652	354
14	Venango	65	22,747	0.3%			5,590	16
15	Washington	4,561	81,130	5.6%			15,860	892
16	Westmoreland	65,690	149,813	43.8%			27,694	12,143
Total		325,026	1,310,561				277,503	67,583

LT 150% Poverty

\*Defined as residential heating customers

Dollar Energy Fund Eligibility  
Assessment

C1	COUNTY C2	Customers in County (PNG)* C3	Households in County (Census) C4	% Households Served by C5	C6	If less than 200% Poverty **			% Over Age 65 (Census) C9	Over 65 Customers (Calc.)
						C7	Households (Calc.) C8	PNG Customers (Calc.) C9		
1	Allegheny	20,749	537,150	3.9%			150,600	5,817	17.00%	989
2	Armstrong	1,349	29,005	4.7%			10,510	489	18.10%	88
3	Beaver	2,275	72,576	3.1%			20,410	640	18.10%	116
4	Blair	4,617	51,518	9.0%			17,943	1,608	17.10%	275
5	Butler	938	65,862	1.4%			16,509	235	14.20%	33
6	Cambria	4,637	60,531	7.7%			22,283	1,707	18.60%	318
7	Clarion	7	16,052	0.0%			6,038	3	16.50%	0
8	Fayette	300	59,969	0.5%			25,682	128	17.40%	22
9	Greene	51	15,060	0.3%			5,869	20	14.60%	3
10	Indiana	1,463	34,123	4.3%			13,808	592	15.50%	92
11	Lawrence	486	37,091	1.3%			12,737	167	18.40%	31
12	Mercer	515	46,712	1.1%			14,188	156	17.60%	28
13	Somerset	143	31,222	0.5%			11,817	54	18.30%	10
14	Venango	5	22,747	0.0%			8,028	2	17.00%	0
15	Washington	543	81,130	0.7%			23,178	155	17.10%	27
16	Westmoreland	7,705	149,813	5.1%			41,461	2,132	18.10%	386
<b>Total</b>		<b>45,783</b>	<b>1,310,561</b>				<b>401,061</b>	<b>13,906</b>	<b>150 - 200% Poverty</b>	<b>2,417</b>

\* Defined as Residential Heating Customers with minimum account balances of \$100 on May 26, 2011 and a minimum of \$150 in payments received from customer during the 90 days period prior to May 26, 2011.

Heating Customers		325,026	DEF requirements met	13,906
>65 yrs.	17.10%	55,579 1/	Less:	17.10%
<200% poverty	30.60%	17,009 2/	DEF require met under 65	11,488

Over 65 -- heating cust	17,009	Over 65- DEF require met	2,417	Over 65 heat/no require	14,591
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1/ Slightly underestimates eligible customers since > 65 years census data was used. Census data for population above and below 60 years is unavailable.  
2/ Slightly overestimates eligible customers because this figure assumes that all identified customers meet the 'sincere effort to pay' criteria.

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Attachment B

## Universal Service Program Changes

Docket A-2008-2063737  
Transfer of Ownership

<u>Number</u>	<u>Commitment</u>	<u>Programs</u>
51	PNGC will manage its CAP program similar to that of Columbia Gas in that it will partner with an agency that: (a) can substantially increase the number of intake sites; (b) is an administrator of utility CAP programs for the EDCs or NGDCs in their territory; (c) recruits and partners with multi-service agencies; and (d) uses a case management system to track and monitor referrals and enrollments into utility programs.	CAP
54	PNGC will commit to an increase in LIURP funds to \$768,000 per year with the amount above the current \$610,000 per year to be borne by the Company. Funding at this level will continue until the effective date of rates in the next base rate proceeding.	LIURP

Independent Evaluation of Universal Service and Programs  
August 2010  
Prepared by Melanie K. Popovich, Utility Business Consultant

<u>Item</u>	<u>Recommendation</u>	<u>Programs</u>
CAP-1	Design RFP for a CAP administrator	CAP
CAP-2	Integrate a specialized Universal Service Call group within Peoples' Call Center	All Programs
CAP-3	Redesign the CAP bill to adhere to standards of Plain English and best practices within the industry.	CAP
CAP-4	Increase CAP enrollment from 15,000 to 18,000 - 20,000 customers.	CAP
CAP-11	Revise arrearage forgiveness policy to allow monthly benefits when CAP payments are up to date and paid on time. Shorten the forgiveness period from 25% annually over four years to 1/36 monthly over a three year period.	CAP
CAP-15	Modify CAP customer payment plans to take into account the changes to the LIHEAP program. Divide the projected LIHEAP customer grant by 12 months and add in a "plus" amount month to the percent of income CAP amount.	CAP
CARES-2	Replace the manual paper system with an electronic transfer of funds from Dollar Energy to the Company.	CARES
LIURP-1	Increase the LIURP budget to \$900,000 - \$1,000,000 annually.	LIURP
LIURP-2	Remove LIURP spending caps as per the usage matrix and replace with the Company's historical average spending allowances. Review this on an annual basis to adjust for inflation and increased costs for weatherization labor and materials.	LIURP
LIURP-4	Consider establishing a Company funded Emergency Furnace/Line Repair program separate from LIURP for eligible low income customers.	LIURP
LIURP-5	Implement the necessary procedures to revitalize the partnership between Peoples Gas and Duquesne Light for jointly funded LIURP projects in Beaver and Allegheny counties.	LIURP

<u>Settlement Item</u>	<u>Commitment</u>	<u>Programs</u>
X, 23 (a)	CAP customers that are eligible for LIHEAP are required to apply for assistance. Peoples will provide outreach to encourage this effort, but will not remove a customer from CAP for failure to apply for and/or receive a LIHEAP grant for their Peoples' bill.	CAP
X, 23 (c)	Peoples will apply a maximum consumption limit for a CAP customer of 125% of historic consumption, unless the customer meets an exemption as set forth in the Commission's "Policy Statement on Customer Assistance Programs."	CAP
X, 23 (d)	Peoples will limit the CAP credit that a CAP customer receives to no more than a \$1,000 maximum CAP credit, unless the customer meets an exemption as set forth in the Commission's "Policy Statement on Customer Assistance Programs."	CAP
X, 23 (e)	Peoples will seek approval to amend its Universal Service and Energy Conservation Plan to establish a CAP Plus amount.	CAP
XII, 26	Peoples' proposed Emergency Furnace and Service Repair Program and Community Weatherization Program are approved.	CARES



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47. Nothing in this Settlement is intended to restrict the Company's right to request recovery of new systems to improve service, including as a consequence of an existing system's age, obsolescence or other requirements, as appropriate, in future rates. Any such request will be subject to review for reasonableness and prudence in accordance with rate making principles.
48. No party waives any right to request that the Commission order penalties in any proceeding convened to investigate the Company's noncompliance with the service metrics in **Appendix C**.
49. Nothing contained herein is intended to limit the authority of the Commission, the Bureau of Consumer Services, the Bureau of Safety and Compliance or other Bureaus of the Commission from performing their duties and making recommendations, including *recommendations regarding fines, for failure of PNGC to perform in any of the areas contained in Appendix C.*

**F. Universal Service**

50. PNGC will continue to fund its Customer Assistance Program ("CAP") consistent with its needs analysis approved in conjunction with the Dominion Peoples currently approved Universal Services Plan.
51. PNGC will manage its CAP program similar to that of Columbia Gas in that it will partner with an agency that: (a) can substantially increase the number of intake sites; (b) is an administrator of utility CAP programs for the EDCs or NGDCs in their territory; (c)

recruits and partners with multi-service agencies; and, (d) uses a case management system to track and monitor referrals and enrollments into utility programs.

52. PNGC will be permitted to recover CAP costs under Dominion Peoples' existing recovery mechanism for CAP costs. PNGC may propose changes to the recovery mechanism, which any party to the Settlement may oppose, for review by the Commission. The provisions of Paragraph No. 20 shall not limit implementation of any change to PNGC's recovery mechanism. Nothing in this Settlement shall be construed to alter the settlement reached in *Pennsylvania Public Utility Commission v. The Peoples Natural Gas Company d/b/a Dominion Peoples*, Docket No. R-00051093.
53. PNGC will match customer contributions to its Hardship Fund with up to \$300,000 of shareholder funds annually for three years commencing January 1, 2010. PNGC will provide up to \$50,000 annually in administrative funds for a three-year period commencing January 1, 2010. PNGC will review possible ways to increase outreach to customers to attempt to increase customer contributions and will provide a report to the Commission and OCA.
54. PNGC will commit to an increase in LIURP funds to \$768,000 per year with the amount above the current \$610,000 per year to be borne by the Company until the end of the period in Paragraph 20. Any funds not used in one year will roll-over on into the next calendar year. Funding on this basis will continue until the effective date of rates set in the next base rate proceeding.

Attachment D

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by Peoples and make their policy clear on its website devoted to customer choice. Peoples will also notify customers electing service from an NGS in its 10-day enrollment letter.

(d) Peoples will require its NGS purchase of receivables program participants to confirm that they have revised their customer terms and conditions so shopping customers have notice of their collections rights if Peoples purchases the NGS receivables.

(e) Peoples will provide upon request to any party, a current calculation of Peoples' experienced uncollectibles expense percentage by class for all customers. Peoples will make this data available for a period of five years following the approval of the settlement.

43. Any shortfall in recovery of the uncollectible expenses and administrative costs of the POR program will not be recovered from sales customers.

44. Peoples shall make compliance filings consistent with the forms of tariff supplements attached hereto as **Appendices F** (regarding POR provisions in the Retail Tariff) and **G** (regarding POR provisions in the Supplier Tariff) with effective dates, on one day's notice, of January 1, 2012.

**J. CAP Program**

45. Peoples' Customer Assistance Program ("CAP") will be modified as follows:

(a) CAP customers that are eligible for LIHEAP are required to apply for assistance. Peoples will advise CAP customers of their obligation to apply for LIHEAP if they appear to be eligible. Peoples will provide outreach to encourage this effort, but will not remove a customer from CAP for failure to apply for and/or receive a LIHEAP grant for their Peoples' bill. The following language in Peoples' tariff regarding CAP shall be maintained: "A ratepayer who meets the eligibility criteria for the Low Income Home Energy Assistance Program – LIHEAP should complete an application for a LIHEAP grant when available."

(b) Following implementation of Peoples' new billing and customer information systems, Peoples will examine additional new designs that can be developed to improve Peoples' current income verification process for CAP participants. Peoples shall provide by December 14, 2012 a report to the Commission's Bureau of Consumer Services, OCA, and OTS regarding such new designs.

(c) Peoples will apply a maximum consumption limit for a CAP customer of 125% of historic consumption, unless the customer meets an exemption set forth in the Commission's "Policy Statement on Customer Assistance Programs," 52 Pa. Code § 69.265(3)(vi).

(d) Peoples will limit the CAP credit that a CAP customer receives to no more than a \$1000 maximum CAP credit, unless the customer meets an exemption set forth in the Commission's "Policy Statement on Customer Assistance Programs," 52 Pa. Code § 69.265(3)(vi). This maximum CAP credit is for purposes of settling the instant proceeding and is without prejudice to any position that a signatory party may adopt in any subsequent proceeding.

(e) Peoples will seek approval to amend its Universal Service and Energy Conservation Plan to establish a CAP Plus amount in its filing due June 1, 2011. If approved, the CAP Plus program will be effective November 1, 2011. Peoples will include language in the CAP rate schedule to clarify that the CAP Plus amount to be applied to the CAP customer's "asked-to-pay" amount will be calculated by dividing LIHEAP receipts for customers participating in the CAP program for the previous LIHEAP heating season by the total of (1) current active CAP participants; and (2) the projected average number of CAP participants to be added for the projected quarter.

(f) Peoples agrees that if the Department of Public Welfare removes its current directive to post LIHEAP payments to CAP "asked-to-pay" amounts, the Company will modify its billing system accordingly and remove the CAP Plus program from its tariff and Universal Service Plan.

**K. Peoples Rider F**

46. The component of the revenue requirement that will be recovered in the initial charge under "Rider F – Universal Service" ("Rider F") is \$4,681,170, which reflects projected CAP participation levels as of June 30, 2011. Attached as **Appendix H** are schedules demonstrating the calculation of the initial Rider F amount.

47. Peoples' proposed provisions regarding CAP in Retail Tariff No. 44, including Rider F, are approved, subject to the following modifications:

(a) Amounts included in Rider F for CAP credits will be limited to actual CAP credits and arrearage forgiveness earned.

(b) The projection of CAP participants used in Rider F will reflect the projected average net change in the number of CAP participants for the quarter.

(c) The "CAP credit amount" will be defined as the difference between the total Rate RS bill, excluding Rider F, and the CAP payment amount, which is comprised of the sum of the percentage of income payment or minimum bill, whichever is greater, plus the CAP Plus payment.

(d) Recoverable CAP credits and arrearage forgiveness amounts will be reduced by 3.27% times the average CAP credit and arrearage forgiveness of existing CAP customers times the incremental number of CAP participants in excess of 16,725 CAP customers.

(e) Incremental costs of a specialized universal service call group will not be recoverable under Rider F.

(f) The Company will use historical payment statistics concerning earned credits and arrearage forgiveness to project amounts recoverable under Rider F.

**L. Non-CAP Universal Service Cost Recovery**

48. Peoples' proposed Emergency Furnace and Service Repair Program and Community Weatherization Program are approved. The costs of these programs will be recovered under Rider F.

**M. Pooling Fees**

49. The Company's existing pooling fees applicable to NP-1 and P-1 pools will be retained. Peoples agrees to modify its Rate LGA to remove the requirement to apply the aggregation fee to gas supplied from an LGA pool and delivered off system by Peoples. Rate LGA will also be modified to require that gas supplied from an LGA pool and delivered off system by Peoples will be subject to a separate off-system transportation rate.

**N. Unbundled Storage and Gathering Fees**

50. Storage costs and Gathering costs will not be unbundled.

**O. Price to Compare**

51. With the exception of the gas cost portion of bad debt to be recovered through Peoples' proposed Merchant Function Charge, no other costs shall be removed from base rates and included in the Price to Compare ("PTC") as a result of this proceeding. However, Peoples will comply with all requirements that become effective pursuant to the rulemaking proceeding



Attachment E

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Comment:

Four testifiers supported raising the amount of maximum crisis grant due to greater demand for emergency energy assistance; suggested maximum amounts ranged from \$600 to \$800.

Response:

Based on anticipated Federal funding, DPW has made the decision to set the maximum crisis component benefit at \$400.

**Weatherization Transfer**

The amount of funds allocated to DCED for the Weatherization Assistance Program will be up to 15 percent of Pennsylvania's Federal LIHEAP block grant allocation.

Comment:

Five testifiers recommended transferring the full 15 percent of the LIHEAP block grant allocation to DCED. Reasons for support of the 15 percent weatherization transfer to DCED included:

- Reducing fuel consumption is a practical way of alleviating the burden of energy costs for low-income households;
- Repair or replacement of dangerous or malfunctioning heating systems is a valuable public service.

Six testifiers objected to the transfer of funds to DCED for weatherization when there is little public funding for energy assistance. Testifiers also noted that DCED receives additional funding from the Department of Energy and the American Recovery and Reinvestment Act. Testifiers asked that the allocation for weatherization be reduced or eliminated for FY 2011.

Response:

For FY 2011, DPW will transfer up to 15 percent of LIHEAP funds to DCED for the Weatherization Assistance Program.

**Application of Cash Benefits**

Public utilities that operate customer assistance programs (CAPs) will apply the LIHEAP cash component benefits only to the customer's monthly 'Asked to Pay' amount. No LIHEAP funds may be applied to CAP customer's pre-program arrearages or actual usage amounts.

Comment:

Eight testifiers opposed restricting the application of cash benefits for CAP customers. They cited the following reasons:

- Restricting the LIHEAP cash grant only to the 'Asked to Pay' amount will force the utility companies to subsidize the cost of the program by charging non-CAP customers even more.
- Monthly CAP payments are meant to teach households fiscal responsibility. By allowing the cash grant to pay the monthly amount, the household will not develop good payment habits.
- CAP households will have less incentive to conserve energy if they do not have a payment responsibility.

Response:

The purpose of LIHEAP is to help low income households meet their home heating needs. The LIHEAP Federal statute, regulations and Pennsylvania's approved state plan require that LIHEAP funds be applied in full to the account of those households determined LIHEAP eligible. Therefore, in order to assure compliance with federal regulations, utility companies must apply LIHEAP cash grants only to the "Asked to Pay" amount the CAP customer is required to pay.

Discount Oil Program

DPW is continuing the expansion of the Discount Oil Program. During the 2009-2010 LIHEAP season, DPW successfully administered the program in nine counties. The program increases the purchasing power of LIHEAP recipients who use fuel oil or kerosene by requiring vendors to provide fuel to LIHEAP recipients at a discounted price. DPW plans to add twelve additional counties to the program during the 2010-2011 heating season. Additional counties will be phased in during subsequent heating seasons. This program is similar to various fuel discount programs currently offered by Pennsylvania's neighboring states.

Comment:

Three testifiers supported the expansion of the Discount Oil Program.

Nine testifiers opposed the Discount Oil Program. Testifiers stated that the program places an administrative burden on small fuel companies and many cannot afford to provide discounts for LIHEAP customers.

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Attachment F

TARIFF PA PUC NO. 43

PAGES 34 TO 36

CUSTOMER ASSISTANCE PROGRAM (CAP)

AVAILABILITY

(C)

Rate CAP is a program designed to enroll residential ratepayers who satisfy the criteria set forth below.

1. Processing and verification by authorized agencies upon referral by the Company's offices, Customer Assistance Referral Evaluation Service (CARES) representatives, other agencies, or BCS.
2. Ratepayer of the Company and using natural gas for space heating.
3. Annual income verified annually as being no greater than 150 percent of the federal poverty level. The Company will accept a ratepayer's participation in an electric CAP program as verification of income, if the Company is satisfied that the electric company verifies income. For payment purposes, the ratepayers will be defined as follows:
  - a. Group A - Ratepayers whose annual income has been verified as being from 0 to 50 percent of poverty.
  - b. Group B - Ratepayers whose annual income has been verified as being from 51 to 100 percent of poverty.
  - c. Group C - Ratepayers whose annual income has been verified as being from 101 to 150 percent of poverty.
4. A ratepayer who meets the eligibility criteria for the Low Income Home Energy Assistance Program—LIHEAP should complete an application for a LIHEAP grant when available.
5. The company will monitor the usage of CAP ratepayers on an ongoing basis. Any unjustified excess CAP usage will be billed to the CAP ratepayer. An increase in CAP usage may be justified if the CAP ratepayer can demonstrate the household has experienced the addition of a family member; a member of the household experienced a serious illness; energy consumption was beyond the ability of the household to control; or the household is located in housing that is or has been condemned or has housing code violations that negatively affect energy consumption. Before responsibility for the excess CAP usage is imposed on the household, the Company shall notify the customer of the grounds for exemption and assure that the customer has received and understands the grounds for exemption.
6. Agreement by ratepayer to apply for any other energy assistance programs, if available, as referred to by the Company.
7. Ratepayers will automatically be enrolled in CAP if:
  - a. the ratepayer has defaulted on a payment arrangement, and
  - b. the ratepayer has received a LIHEAP payment within the past two years.

CUSTOMER ASSISTANCE PROGRAM (CAP)

(C)

RATE TABLE

Ratepayers will pay a specified percentage of their monthly income or \$21/month whichever is greater. The applicable percentage by Group follows:

<u>Group</u> <sup>1</sup>	<u>Percentage</u>
A	8%
B	9%
C	10%

If the ratepayer's monthly CAP payment, as calculated above, exceeds the otherwise applicable monthly budget payment amount, the monthly budget payment amount will be accepted as the CAP payment. The Company will review any ratepayer account where usage exceeds 110% of the ratepayer's annual usage. In cases where the Company determines that the increase in a CAP ratepayer's usage is unjustified, the Company will provide the ratepayer with conservation information, refer the ratepayer to a usage reduction program, and bill the ratepayer for excess usage.

PAYMENTS TOWARD ARREARAGE

In addition to the ratepayer's obligation under the Rate Table above, the ratepayer also shall make payments of \$2 per month toward his/her arrearage.

SURCHARGES

All riders to this tariff as would otherwise be applicable to Rate RS.

LATE-PAYMENT CHARGES

No late-payment charges shall be applied to arrearage existing at the time the ratepayer begins receiving service under Rate Schedule CAP. Late-payment charges will not be applied during participation in the CAP program.

1/ Defined under Availability Criteria 3.

CUSTOMER ASSISTANCE PROGRAM (CAP)

(C)

RULES AND REGULATIONS

1. Ratepayer must reapply as requested by the Company.
2. If at any time after acceptance into the CAP, a ratepayer's family size or income changes, the ratepayer must notify the Company or its contractor of the change within 30 days of its occurrence. Failure to do so may result in the Company ending the ratepayer's opportunity to receive service under CAP.
3. If a ratepayer no longer satisfies the criteria set forth under Availability with the exception of Item 4, the ratepayer will no longer receive service under CAP.
4. At the time of application for CAP, the ratepayer will be advised of the importance of timely payments and energy conservation. The CAP screening administrator will review relevant assistance programs and offer help in applying for programs such as weatherization or energy assistance as appropriate. Energy saving tips will be provided and all participants will be advised that usage will be reviewed on an ongoing basis. Unjustified excess CAP usage will be billed to the CAP ratepayer.
5. If a ratepayer fails to allow access to or provide meter readings in four consecutive months, the ratepayer will no longer receive service under CAP.
6. Failure to make payments will result in the Company returning the participant to the regular collection cycle and may lead to termination of service. To avoid termination, the participant must pay the amount set forth in the termination notice prior to the scheduled termination date.
7. A ratepayer whose service has been terminated pursuant to Rule 6, will be required to pay all CAP arrearages prior to reinstatement and will be advised of appropriate energy assistance programs including LIHEAP, LIHEAP Crisis and Dollar Energy Fund that are available to assist in restoration of service.
8. Ratepayers who have been dropped from CAP for the reasons outlined above will be subject to normal termination procedures. The ratepayer will receive a telephone call and/or a warning letter giving him/her an opportunity to correct the problem before being removed from CAP.

CAP Cost Recovery

(C)

Certain CAP costs will be recoverable through a quarterly base rate adjustment made to the delivery charge of non-CAP residential ratepayers. CAP costs to be recovered through this quarterly base rate adjustment include incremental CAP application costs, annual CAP credit amounts that exceed \$840 for the first currently-enrolled 9,000 CAP participants, and annual CAP credit amounts for new participants (new participants are those ratepayers enrolled beyond the first 9,000 participants). Recoverable CAP credit costs will be adjusted to reflect currently effective purchased gas cost rates.



TARIFF PA PUC NO. 44

PAGES 35 TO 37

CUSTOMER ASSISTANCE PROGRAM (CAP)AVAILABILITY

(C)

Rate CAP is a program designed to enroll residential ratepayers who satisfy the criteria set forth below.

1. Processing and verification by authorized agencies upon referral by the Company's offices, Customer Assistance Referral Evaluation Service (CARES) representatives, other agencies, or BCS.
2. Ratepayer of the Company and using natural gas for space heating.
3. Annual income verified annually as being no greater than 150 percent of the federal poverty level. The Company will accept a ratepayer's participation in an electric CAP program as verification of income, if the Company is satisfied that the electric company verifies income. For payment purposes, the ratepayers will be defined as follows:
  - a. Group A - Ratepayers whose annual income has been verified as being from 0 to 50 percent of poverty.
  - b. Group B - Ratepayers whose annual income has been verified as being from 51 to 100 percent of poverty.
  - c. Group C - Ratepayers whose annual income has been verified as being from 101 to 150 percent of poverty.
4. A ratepayer who meets the eligibility criteria for the Low Income Home Energy Assistance Program-LIHEAP should complete an application for a LIHEAP grant when available.
5. The company will monitor the usage of CAP ratepayers on an ongoing basis. Any unjustified excess CAP usage or unjustified CAP credit (defined as the difference between the CAP payment amount, including CAP Plus, and the current charges as billed under Rate RS) that exceeds a maximum of \$1,000 per year will be billed to the CAP ratepayer. An increase in CAP usage or annual CAP credit over \$1,000 may be justified if the CAP ratepayer can demonstrate the household has experienced the addition of a family member; a member of the household experienced a serious illness; energy consumption was beyond the ability of the household to control; or the household is located in housing that is or has been condemned or has housing code violations that negatively affect energy consumption. Before responsibility for the excess CAP usage is imposed on the household, the Company shall notify the customer of the grounds for exemption and assure that the customer has received and understands the grounds for exemption.
6. Agreement by ratepayer to apply for any other energy assistance programs, if available, as referred to by the Company.
7. Ratepayers will automatically be enrolled in CAP if:
  - a. the ratepayer has defaulted on a payment arrangement, and
  - b. the ratepayer has received a LIHEAP payment within the past two years.

ISSUED:

EFFECTIVE:

CUSTOMER ASSISTANCE PROGRAM (CAP)

RATE TABLE

(C)

Ratepayers will pay a specified percentage of their monthly income or \$21/month, whichever is greater. The applicable percentage by Group follows:

<u>Group<sup>1</sup></u>	<u>Percentage</u>
A	8%
B	9%
C	10%

If the ratepayer's monthly CAP payment, as calculated above, exceeds the otherwise applicable monthly budget payment amount, the monthly budget payment amount will be accepted as the CAP payment. The Company will review any ratepayer account where usage exceeds 125% of the ratepayer's annual usage.

CAP Plus

(C)

Effective November 1, 2011, LIHEAP receipts for customers participating in the CAP program for the previous LIHEAP heating season will be divided by the total of (1) current active CAP participants; and (2) the projected average number of CAP participants to be added for the projected quarter to arrive at a CAP Plus amount which will be added to the calculated monthly CAP payment described above for all participating CAP customers.

PAYMENTS TOWARD ARREARAGE

In addition to the ratepayer's obligation under the Rate Table above, the ratepayer also shall make payments of \$2 per month toward any pre-program arrearage.

SURCHARGES

All riders to this tariff, as would otherwise be applicable to Rate RS with the exception of Rider F.

LATE-PAYMENT CHARGES

No late-payment charges shall be applied to arrearages existing at the time the ratepayer begins receiving service under Rate Schedule CAP. Late-payment charges will not be applied during participation in the CAP program.

1/ Defined under Availability Criteria 3.

ISSUED:

EFFECTIVE:

CUSTOMER ASSISTANCE PROGRAM (CAP)RULES AND REGULATIONS

(C)

1. Ratepayer must recertify income eligibility annually.
2. If, at any time after acceptance into CAP, a ratepayer's family size or income changes, the ratepayer must notify the Company of the change within 30 days of the change. Failure to do so may result in the Company ending the ratepayer's opportunity to receive service under CAP.
3. If a ratepayer no longer satisfies the criteria set forth under Availability, with the exception of Item 4, the ratepayer will no longer be eligible to receive service under CAP.
4. At the time of application for CAP, the ratepayer will be advised of the importance of timely payments and energy conservation. The CAP screening administrator will review relevant assistance programs and offer help in applying for programs such as weatherization or energy assistance as appropriate. Energy saving tips will be provided and all participants will be advised that usage will be reviewed on an ongoing basis. Unjustified excess CAP usage will be billed to the CAP ratepayer.
5. If a ratepayer fails to allow access to the Company's meter or fails to provide meter readings in four consecutive months, the ratepayer will no longer receive service under CAP.
6. Failure to make payments will result in the Company returning the participant to the regular collection cycle and may lead to termination of service. To avoid termination, the participant must pay the amount set forth in the termination notice prior to the scheduled termination date.
7. A ratepayer whose service has been terminated pursuant to Rule 6 will be required to pay all CAP arrearages prior to reinstatement and will be advised of appropriate energy assistance programs, including LIHEAP, LIHEAP Crisis and Dollar Energy Fund, that are available to assist in restoration of service.
8. Ratepayers who have been dropped from CAP for the reasons outlined above will be subject to normal termination procedures. The ratepayer will receive a telephone call and/or a warning letter providing an opportunity to correct the problem before being removed from CAP.

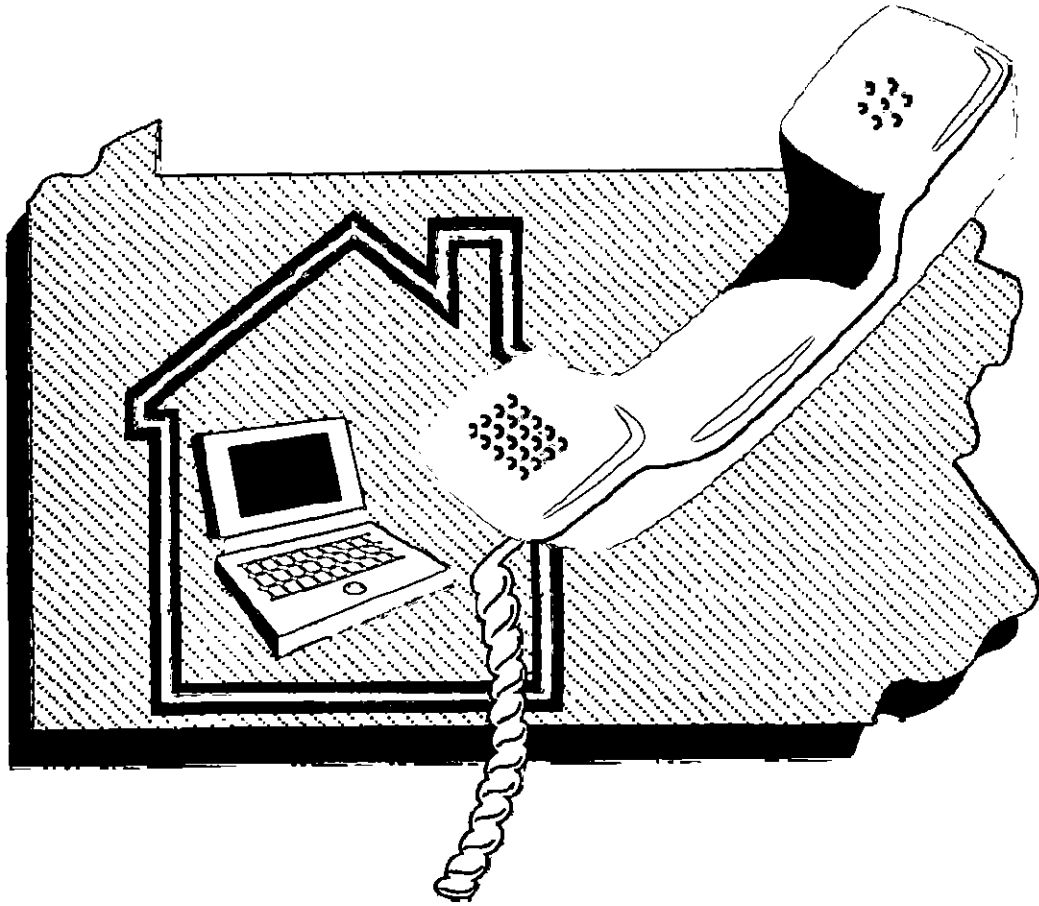
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Attachment C

- Customer Referral Guide 2011



PEOPLES  
NATURAL GAS™

Peoples Natural Gas Company LLC  
375 North Shore Drive, Suite 600  
Pittsburgh, PA 15212-5322

Spring, 2011

Dear Colleague:

Thank you for your continued support as we reach out to assist our neighbors in need. This year marks the 125th anniversary of Peoples Natural Gas Company and we remain committed to the community we serve and offer a number of programs for income eligible customers.

We hope that you will find our Customer Referral Guide a valuable resource. The Guide provides information on the programs and services offered by Peoples as well as other community resources. We hope this Guide will enable you to better work with your clients and to provide useful referral information.

More information about Peoples Gas and our programs can be found on our website: [www.peoples-gas.com](http://www.peoples-gas.com). As always, feel free to contact us if we can be of any assistance. Please call: 1-800-400-WARM (9276).

Sincerely,

Sadie John Kroeck  
Director, Customer Relations

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## **UNIVERSAL SERVICE PROGRAMS**

### ***Customer Assistance Program (CAP)***

Peoples Natural Gas Customer Assistance Program (CAP) is a special payment plan for low income, payment-troubled customers. Ratepayers who qualify will agree to pay 8%, 9%, or 10% of their verified monthly before-tax income. The household income and family size determine which percentage of income the customer is to pay. In addition to the percentage of income amount, CAP customers will pay \$2 per month to the balance that existed before being accepted into the program.

CAP customers are required to make regular monthly payments, for continued provision of the service. The following criteria are required to qualify for CAP:

- Household income is verified at or below 150% of the Federal Poverty Guidelines. (See CAP income guidelines).
- Status as a utility ratepayer with active residential heating service is verified.
- The applicant is a low-income, payment-troubled customer. Payment-troubled is defined as a customer who has failed to maintain one or more payment arrangements.

For 2011 CAP Income Guidelines/Household Monthly Income/Yearly Income see page 11.

### ***Low Income Usage Reduction Program (LIURP)***

Peoples Natural Gas Company's Low Income Usage Reduction Program is designed to help eligible CAP customers who have had problems coping with high gas bills. It is a free program for qualified Peoples customers. A team of "energy auditors" visits the home and thoroughly inspect it from the basement to the attic. They will be looking for areas where heat is escaping and cold air is entering the home. The customer can also provide information to the energy auditor that will be beneficial during the inspection. Measures that provide the greatest energy savings will be installed and may include:

- Heating System Improvements
- Attic & Wall Insulation
- Caulking and Weatherstripping

Energy savings booklets will be provided to the customer during these education visits, by the energy auditor. See page 11 for Income Guidelines.

### ***Peoples Emergency Furnace/ Line Repair Program***

Peoples offers an Emergency Furnace and Line Repair Program to assist low-income customers with furnace and houseline repair issues. See page 11 for Income Guidelines.

### ***Customer Assistance Referral and Evaluation Services (CARES)***

The CARES program (Customer Assistance Referral and Evaluation Services) helps customers who have a true inability to pay their utility bills and who are facing other problems as well. Customer Relations Program Specialists review the customer's situation and provide referral information about agencies that may be able to help the customer. The Customer Relations Program Specialists also work with the family to provide information and referral to fuel assistance programs and social service agencies.

## **PAYMENT ASSISTANCE PROGRAMS**

### ***Low Income Home Energy Assistance Program (LIHEAP)***

LIHEAP is a federally funded program to help low-income households meet their home heating needs. LIHEAP is administered by the PA Department of Public Welfare (DPW) and consists of cash benefits to help eligible low-income households pay for their home-heating fuel; and crisis payments, if needed, to resolve weather-related, and other household energy-related emergencies.

Although DPW administers LIHEAP, it is not a public assistance program. Eligible low-income households will not have liens placed on their property, nor will other assets affect their eligibility for LIHEAP benefits. In addition, eligibility for public assistance and grant amounts is not affected by receipt of LIHEAP benefits. See page 11 for Income Guidelines.

Customers receiving LIHEAP in the previous year will automatically receive a new application by mail. Others can get applications by calling Peoples Universal Service Hotline at 1-800-400-9276 or by visiting their local County Assistance Office, or online at [www.compass.state.pa.us](http://www.compass.state.pa.us) (Commonwealth of Pennsylvania Access to Social Services).

### ***Crisis Program – Emergency Energy Assistance***

Additional money is available if you have an emergency situation and are in danger of losing your heat. Emergency situations include:

- Being without fuel.
- Utility service termination.
- In danger of being without fuel or of having utility service terminated.
- Broken heating equipment or leaking lines which must be fixed or replaced.

Assistance with emergency situations is available 24 hours a day. Call your local County Assistance office for more information.

### ***Dollar Energy Fund (DEF)***

Dollar Energy Fund (DEF) is an independent, non-profit organization that provides assistance to people who are on low or fixed incomes. Dollar Energy Fund receives donations from utility customers, shareholders and employees. For every dollar donated by Peoples' customers, the company matches it through shareholder/ investors contributions. In addition, Peoples donates funding for program administration.

To be eligible for a Dollar Energy Fund grant, a customer must meet the following requirements:

- Dollar Energy Fund is a fund of “last resort”. Households whose gas or electric service is OFF and who appear to be eligible for LIHEAP and Crisis benefits must apply for these benefits, when available, before applying for Dollar Energy Fund.
- Total household income for the past 30 days or one year, before taxes or deductions, cannot be more than the amount shown on the income guidelines chart. (See page 11 for Income Guidelines)
- Account must be for residential service, a single home or apartment. “Cooking-only” commercial, industrial, or multiple unit dwellings where service is shared are not eligible.
- The name on the account must be that of an adult who is currently living in the household.
- Senior citizens age 62 and over must have paid at least \$100 and may have zero balance as long as there is no existing credit on the account.
- Applicants must have paid at least \$150 on their account in the last 90 days.
- LIHEAP Cash & Crisis benefits, FEMA grants, and other charitable assistance are not personal payments.

For more information on how to apply for Dollar Energy Fund, customers can call Peoples at 1-800-400-WARM (9276), or access the Dollar Energy Fund website at [www.dollarenergyfund.org](http://www.dollarenergyfund.org). For questions, call Agency Support: 1-800-375-1388.

**(These numbers are set up for agency or utility use only. Please do not share this number with clients.)**

## **SPECIAL SERVICES**

### ***Gatekeeper Program***

The Gatekeeper program aids older customers who need help, but may not be able to get it themselves. Through this program, Peoples' employees are trained to recognize certain danger signals in the elderly – a change in behavior, signs of confusion, or disability. Our Gatekeepers include customer service personnel, meter readers and other customer contact personnel. Gatekeepers report possible problems to Customer Relations Program Specialists, who may refer the customer to a program coordinated by the local Area Agency on Aging. Through these programs, older adults can receive additional help with social and health services, medical and personal care, household chore services, food and transportation. Peoples' representatives follow up with our older customers to make sure they are getting the help they need.

When a potential problem is spotted, company customer contact personnel refer special needs customers to the Customer Relations Specialists. You may contact the Universal Service Hotline at 1-800-400-WARM (9276).

### ***Thermostats for the Visually Impaired***

A special large dial thermostat is installed in the customer's home, at no charge for vision impaired customers. The thermostat cover produces an audible clicking sound as the thermostat is being adjusted. This sound allows vision impaired customers to count how many degrees they have raised or lowered the thermostat.

To make cooking safer and more convenient for the vision impaired, our customer service personnel will also mark the dials on ovens and ranges with special substance that raises the markings at specified settings. To request a special thermostat customer can contact Peoples at 1-800-400-WARM (9276) or Pittsburgh Vision Services at 1-800-706-5050.

### ***Large Print Bill***

Peoples' customers who have vision impairment may request to receive a large print bill summary. The customer will receive the current monthly bill and in addition, they will receive an enlarged summary page. To request a large print bill the customer may contact 1-800-400-WARM (9276).

### ***Pennsylvania Relay Service***

Hearing-impaired or speech disabled customers can use The Pennsylvania Relay service to communicate with Peoples. This service allows users to utilize a Communications Assistance person to relay the message to the other person. The Pennsylvania Relay Service number is 711 or 1-800-654-5988.

### ***Third Party Notification***

Peoples Third Party Notification service helps individuals who may have problems handling things on their own. A third party (such as a relative, neighbor or friend) will receive a copy of any shutoff notice. Although this service will not stop a shutoff, it will alert the third party that the person needs help. The third party is under no obligation to pay the bill. Landlords are not eligible for this service. Both the customer and the third party must sign the notification form. Applications are available via the Internet at [www.peoples-gas.com](http://www.peoples-gas.com) billing options, then select Peoples Gas Third Party Notice request. Or, you may call Peoples at 1-800-764-0111.

### ***Budget Counseling***

Budget counseling is available for Peoples customers who have missed payments and have an ability-to-pay bill. Referrals are made and accepted from non-profit budget counseling agencies.

### ***Protection from Abuse Order***

If you currently have a valid Protection from Abuse Order (PFA) from a court, your service cannot be terminated during the winter without PUC permission and there are some additional protections available to you. Please call us at 1-800-400-9276. (You must provide a copy of the order.)

### ***Energy Saving Tips***

Here are 16 tips that can help save gas and money during the winter heating season. For more tips, see our web site at [www.peoples-gas.com](http://www.peoples-gas.com).

1. Have the furnace “tuned-up” annually. A heating system “tune-up” could save up to 3 to 18 percent in energy costs.
2. When it’s time to replace the natural gas furnace, consider a new high efficiency gas furnace. New gas heating systems are as much as 30 percent more energy efficient.
3. Insulate the home. Any insulation will help reduce heat loss, but adequate insulation in the ceiling is most important. Ceiling insulation and attic vents could reduce fuel usage by up to 20 to 30 percent.
4. Install storm windows and doors. A less expensive alternative is to cover windows with clear plastic, which can be purchased in rolls. If the home does not have storm windows and doors, as much as 6 to 10 percent of the heat might be lost to the outside.
5. Caulk cracks between window frames or door frames and walls, both inside and outside the home. Press putty into smaller cracks; seal larger crevices with a caulking gun.
6. Weather strip drafty crevices under doors and around windows. Make sure the garage door has a reasonably tight seal around the bottom edge. Remember to weather-strip around doors that lead to the attic and garage. Caulking and weatherstripping doors and window could reduce fuel usage by as much as 7 to 10 percent.
7. Seal cracks in chimney and foundation bricks and mortar. Caulk where foundation bricks meet the house siding.

8. Check heating ducts for cracks, holes or separations at joins. This is especially important where ducts pass through unheated garages, crawl spaces or attics. Repair leaks with adhesive tape or a more durable tape designed especially for repairing heating ducts (available at hardware, discount or department stores). Sealing and insulating ducts and pipes could reduce fuel usage from 2 to 15 percent.
9. Check furnace air filters once a month during the heating season. If they become clogged, clean or replace with new filters and save 2 to 5 percent in fuel cost.
10. Keep the thermostat set at the lowest possible comfort setting during the day and set it back at night. Setting the thermostat back at night for a period of eight hours or more will reduce the heating consumption by approximately one percent for each degree below the daytime setting.
11. On sunny days, open shades, draperies and blinds to let the sun help to heat the home. Close blinds and draperies block radiators or heating ducts. Fuel consumption could be reduced by 3 to 7 percent.
12. Close the vents/registers and doors in unused rooms and save up to 8 percent of the heat.
13. Install a humidifier. It will keep the home at the proper humidity level and keep everyone comfortable at lower temperatures.
14. If the house has radiators, vacuum, all surfaces including hard-to-reach areas one a month. Don't use radiators as shelves.
15. Arrange furniture with the heating system in mind. Don't restrict air flow from registers or cold air returns. Position furniture away from drafts.
16. Don't open and close outside doors needlessly. Reduced traffic means a warmer, draft-free home.

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# CAP INCOME GUIDELINES

## 2011-2012

Income Group	Federal Poverty Level	HOUSEHOLD SIZE								
		1	2	3	4	5	6	7	8	
A - 8%	0% Minimum	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	50% Maximum	\$454	\$613	\$772	\$931	\$1,090	\$1,250	\$1,409	\$1,568	

B - 9%	51% Minimum	\$455	\$614	\$773	\$932	\$1,091	\$1,251	\$1,410	\$1,569
	100% Maximum	\$908	\$1,226	\$1,544	\$1,863	\$2,181	\$2,499	\$2,818	\$3,136

C - 10%	101% Minimum	\$909	\$1,227	\$1,545	\$1,864	\$2,182	\$2,500	\$2,819	\$3,137
	150% Maximum	\$1,361	\$1,839	\$2,316	\$2,794	\$3,271	\$3,749	\$4,226	\$4,704

FOR EACH ADDITIONAL PERSON, ADD:

\$159 FOR GROUP A - 8%

\$318 FOR GROUP B - 9%

\$478 FOR GROUP C - 10%



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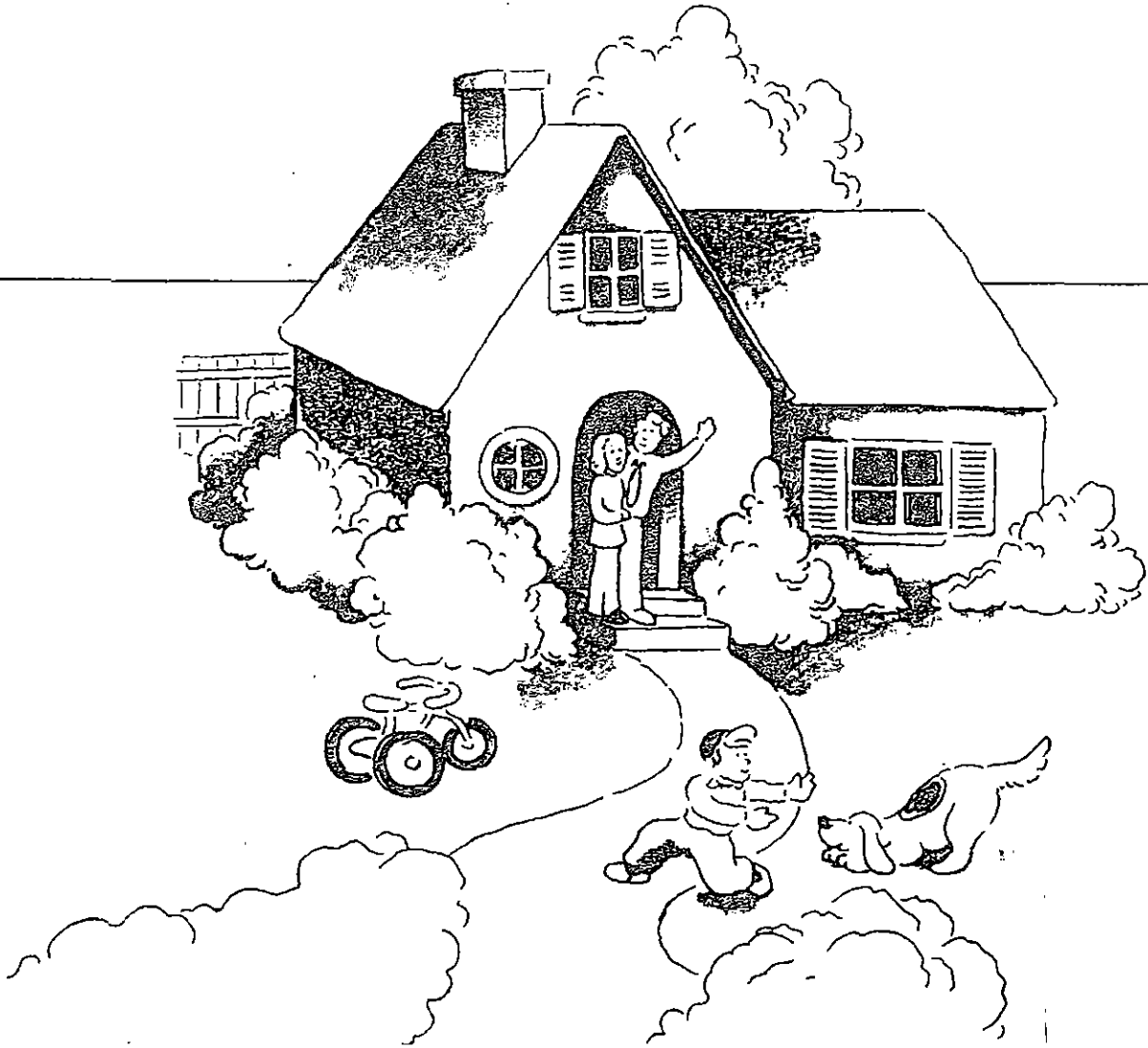
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1. Self-audit



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# HOW TO SAVE ENERGY AND MONEY IN YOUR HOME

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## Where to Start?

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An energy survey (an analysis of how well your home uses energy) is the most important step you can take to decide the best ways to save energy and money in your home. All homes are not the same. They vary in size, age, type of heating system, and material and structural characteristics. Only through an energy survey can you really determine what energy saving measures are right for your particular home.

**Free on-site energy surveys are available to you provided you are a Peoples customer.**

The energy survey evaluates things such as ceiling, attic, wall and basement insulation, storm windows and doors; night set-back thermostats; caulking; weatherstripping; pipe, duct and hot water heater insulation; and improvements to your heating system including replacement systems.

If you decide you want to make some energy conservation improvements, your utility energy specialist will give you a list of contractors in the area.

See "Getting The Work Done", beginning on page 35 of this book for more information on how to arrange for a Peoples energy survey.

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# A Quick Energy Tour

## • Are you doing everything you can to save energy in your home?

Before you can answer this question you must know how to identify the areas in your home where additional energy-saving improvements can be made. In addition, you must become aware of just how the amount of energy you use is affected by how you and your family use and care for your home.

## • What can you do now?

First, take a quick energy tour of your home by answering the following questions. Your answers here will tell you whether you need to look more closely at what's involved in energy-saving retrofit of that item, and where to go in this book to learn more. If you check a box, it means you have an energy-saving opportunity.

## QUICK SAVERS

Does your house feel drafty and cold even when the thermostat says it's warm inside?

yes  no - go to page 6

Are you aware of all the ways you can save energy simply by using your lights and appliances more efficiently?

yes  no - go to page 7

Do you know how to save on your hot water bill without spending any money?

yes  no - go to page 8

Are your heating pipes and ducts in good repair?

yes  no - go to page 9

Do you know how to turn windows and doors from energy-loser to energy-savers?

yes  no - go to page 10

Do you turn down your thermostat at night and have your heating system serviced regularly?

yes  no - go to page 11

## INSULATION INSPECTION

# 1

Is your attic floor or roof/ceiling structure well-insulated?

yes  no

If it is not insulated at all, or if less than 4" of insulation exists, adding insulation could pay for itself within four to seven years. To determine exactly what's right for your attic, read more on 1 on page 17.

# 2

Are your exterior walls insulated?  yes  no

If you don't know, you can find out by:

- Drilling small holes through inconspicuous interior walls (such as in a closet), and looking inside;

- Removing a switchplate or outlet cover on an exterior wall and **carefully** probing on the outside of the electrical box where it meets the wall covering, or

- If you have aluminum or vinyl siding outside, looking underneath siding where it meets the foundation wall, to determine whether insulation board exists beneath the siding.

- If no insulation exists, it is wise to consider adding insulation; the energy savings would outweigh the costs. If no insulation exists, go to 2 on page 19.

# 3

Are any of your floors cold or drafty?  yes  no

If so, one solution may be:

- To insulate the underside of the floor, which is your basement or crawl space ceiling, or

- To insulate the walls of your crawl space or basement.

What's right for you depends on several factors. Before you decide, read pages 20-22.

**4**

**Is your free-standing, domestic hot water heater warm to the touch?**  yes  no

If you answer "yes", you should insulate your water heater storage tank. Find out how on page 23.

**5**

**Do you have uninsulated hot air ducts, steam or hot water heating pipes in unheated spaces?**  yes  no

Look in your basement, crawl space, garage - even in your attic. If you do, read 5 on page 24.

## WINDOW AND DOOR INSPECTION

**Are your exterior doors and windows creating uncomfortable cold drafts? Can you rattle your windows in their frames or see daylight between storm frames and your house?**  yes  no

If any of this is true for you, there are one or more ways to correct the situation - and save energy dollars:

**6**

Install new tight-fitting storm windows or doors.

**7**

Install weatherstripping.

**8**

Caulk window and door frames on the outside of your home.

To decide what's right for you, begin on page 28.

## HEATING SYSTEM INSPECTION

**9**

**Do you turn down your thermostat at night and when you're not at home for a day or more?**  yes  no

If you don't, find out how much you could save by installing an automatic clock thermostat. See what's involved and how much you could save beginning at 9 on page 30.

**10**

**Do you know how well your central heating system is running and what options you have to improve it?**

**14**

If you're like most people, you probably rely on the judgment of your serviceworker or utility, and haven't considered making any energy-saving improvements to that system. Find out what options you have to improve your heating system efficiency by reading items 10-14 beginning on page 30. Implementing these options could mean a direct savings of between 5% - 25% of your heating portion of your gas bill per year.

## Quick Savers

"Quick Savers" are measures that cost little or nothing to implement and which pay back very quickly, usually within a year or so. Dollar savings will vary considerably depending on the characteristics of your home, fuel costs, and your lifestyle.

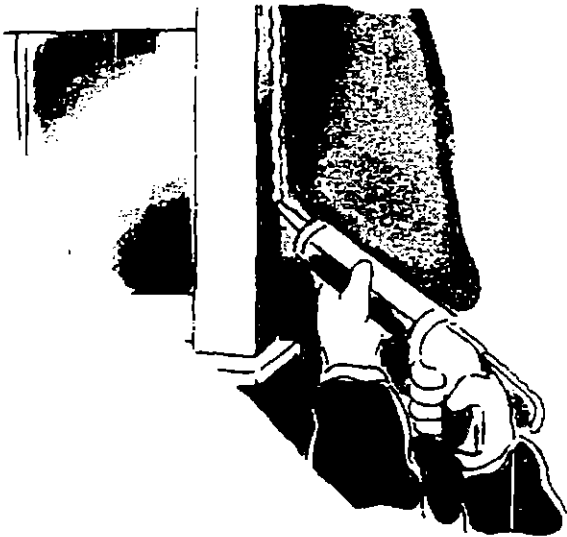
### TIGHTENING YOUR HOUSE

Cold air which seeps into your house through small holes and cracks and heated air which leaks out can cost you lots of money. Since you must pay to heat up the cold air coming in, and you have paid to heat the hot air leaking out, taking care of those "small cracks" can save a large part of your fuel bill.

#### • Install Rope Caulk Weatherstripping

Rope caulk is an inexpensive, flexible, clay-like material which you can install with little effort. Available at local hardware stores, it comes coiled in a box. Press it into cracks between the sash and frame. Since it dries out over time, check it once or twice during the heating season to make sure that it is still tight. You'll need new rope caulk in the fall and must remove the old caulk in the spring.

#### • Caulk Cracks and Gaps Around the House



As much as 80 percent of air leakage gets in through areas **other than** windows and doors:

- where the wooden sill of the house meets the foundation,
- where dryer vents and fan covers pass through the wall,
- where plumbing pipes and telephone wires enter the house,
- where any two different outside materials meet, and
- where the fireplace chimney meets the siding.

Fill these cracks in the interior and exteriors of your house with caulk. Use only caulking compounds which are flexible over large temperature ranges and that will last for many years. These include acrylic-latex, acrylic-terpolymer, phenolic, latex, monomer, butyl and silicone caulks. They may cost a little more, but are worth it. If cracks are larger than 1/2 inch, stuff them with bits of insulation or oakum before caulking them.

See **8** Caulking on page 28 for more information on materials, how to caulk, and caulking of windows and doors.

#### • Install Switch and Outlet Gaskets

Stop drafts around electric light switches and wall outlets with inexpensive styrofoam or foam rubber gaskets, which fit behind the cover plates. Buy only U.L.-approved products, available at most hardware and discount stores. Remember to turn off the electricity to the outlets or switches before you install the gaskets.

#### • Seal Air Leaks in the Attic

Weatherstrip around the edges of the attic hatch or door to reduce warm air leaking into the attic from the living space. This increases the effectiveness of your insulation significantly, at very little cost. Also, insulate the back of the hatch or door with a piece of fiberglass or rigid board insulation.

Stuff gaps around chimneys with **UNFACED** fiberglass batt. Seal any connections between the heated space and the attic, such as plumbing, vent stack openings, and the tops of interior and exterior walls or stairway framing, using fiberglass batt.



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## LIGHTS AND APPLIANCES

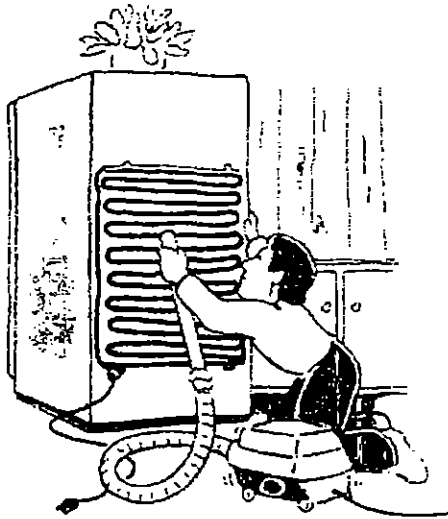
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Save money on your household electrical bill by using less electricity and by using your lights and appliances more efficiently. Here are some tips to help you reduce your energy bill for appliances.

### • Maintain Your Appliances

Keep appliances, particularly large energy users, in top working order. For instance;

- Test the fit of your refrigerator or freezer door by closing the door over a piece of paper so it is half in and half out of the refrigerator. If you can pull the paper out easily, the latch may need to be adjusted or the gasket replaced.

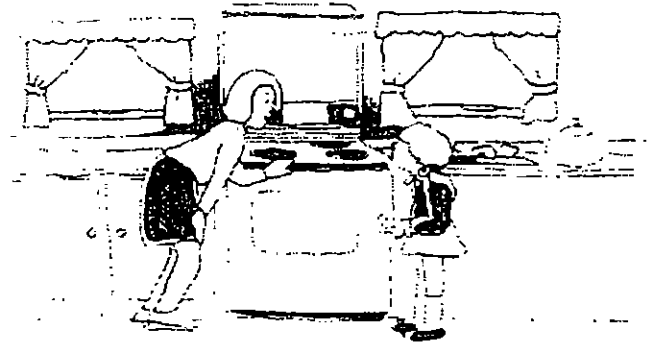


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- Keep the fan coils clean on refrigerators, space heaters, and air conditioners.
  - Make sure your refrigerator and freezer are located in a cool spot; direct sunlight or heat from an adjacent appliance can place a harmful - and expensive! - strain on cooling appliances.

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### • Purchase Only Energy-Efficient Appliances

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If you are planning to replace or add to your home appliances, buy only those that offer maximum energy efficiency for your dollar. Look for the Federal Trade Commission "Energy Guide" label to guide your choice of appliances. These labels are pasted on refrigerators, refrigerator-freezers, freezers, clothes washers, water heaters, and room air conditioners manufactured after May of 1980. Compare appliances carefully before you buy, and make sure that they are clearly labeled as to the following:

**For gas appliances:** only those which feature an energy saving feature called an **electronic ignition system**. This feature saves fuel by replacing the continuously burning pilot light.

**For dishwashers:** those featuring a heating element that automatically comes on for drying after the rinse cycle may use additional energy unless the appliance also has a clearly-marked switch to let you turn off the drying cycle. Save energy by opening your dishwasher door to help dry dishes.

**Refrigerators and Freezers:** that feature a continuously energized electrical heating unit (use more energy) and should have a clearly marked manual override switch.

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**Television receivers:** which maintain a continuous flow of electricity to components ("instant-on" sets) use energy and considerable thought should be given before purchasing.

#### • Use Lights Wisely

There are several tips here which may help you save on your electric bill.

- Turn off incandescent lights when they are not in use.
- Turn off fluorescent fixtures if you won't be using them for more than 15 minutes. Fluorescent lamps use as much energy in starting as they use during 15 minutes of operation;
- Substitute fluorescent lamps or lower-wattage, long-life bulbs for those you currently use, making sure that the **lumen output** (the amount of light) is adequate for the task;
- Use task lighting (lighting directed at a specific area) instead of overhead or general lighting, which may light areas of the room which are not in use;
- Finally, keep in mind that light colored rooms and furnishings reduce the need for artificial lighting; consider this when you choose your decor.

#### • Use Appliances Wisely

The most obvious way to save here is to use your appliances **less often**. In addition, it saves money and reduces wear. For example, dishwashers, washers and dryers all use as much energy to wash a partial load as a full load. Try to schedule your washing according to full loads only. The same principle applies to cooking appliances.

## DOMESTIC HOT WATER HEATING

The money you spend to heat hot water for showers, dishwashing and washing clothes is probably your next largest expense for energy after space heating/cooling costs. Here are five low-cost ways to save on your hot water heating bills.

#### • Install Water Flow Reduction Devices



Install new low-flow showerheads in your showers, and low-flow sink aerators in all the faucets in the house. These devices will reduce your water bill by limiting the flow of water to about two gallons per minute (normally five gallons per minute!) Since you will no longer use as much hot water, your hot water heating bill could be reduced significantly. Showerheads cost about ten dollars each and aerators cost only about a dollar. These measures can save five to fifteen dollars in the first year.

#### • Save on Your Hot Water Bill

Water heaters keep hot water available 24 hours-a-day, every day. Significant savings will occur if:

- (1) you turn down the hot water temperature, and

(2) you regularly turn off your water heater when you're away for extended periods of time, such as weekend trips.

**NOTE:** If you find that after reducing the temperature that you have insufficient hot water for showers, and have already installed a low-flow showerhead, turn the temperature back up a notch. Similarly, if you have a dishwasher and you find that the temperature of the water is too low to clean the dishes satisfactorily, turn the temperature back up a notch (often a thorough rinse of the dishes first will also solve the problem).

#### **For Free-Standing Gas and Oil Heaters:**

(1) Turn the dial at the bottom of the tank down to 120°F or "low",

(2) Turn the temperature control to "pilot only" when you are away for two days or longer. **DO NOT BLOW OUT THE PILOT LIGHT.** If you do not know how to turn it down, consult your water heater serviceperson.

**For Electric Water Heaters:** (1) Two separate dials are located behind cover plates. Unscrew these and turn down the same way as for gas systems.

**NOTE: TURN OFF THE ELECTRICITY TO THE HEATER BEFORE YOU ATTEMPT THIS.** (2) Turn off the heater by removing the fuse at your electrical fuse panel, or by turning off the appropriate circuit breaker.

#### **For Tankless Water Heaters:**

(1) Find the **aquastat** or **mixing valve** which is attached either to the tankless unit or to the body of the boiler. With a screwdriver, turn back the setting until you reach a position which provides just enough hot water for your normal needs.

(2) To achieve significant savings in the summer, use the **burner cut-off switch** to turn off the system while you are at work, or out of the house.

#### **• Drain Sediment from Your Hot Water Heater**

Drain a half-bucket of water from the faucet at the bottom of your hot water heater every two months to remove impurities, rust, and sludge that can collect at the bottom of the tank. Doing this makes the heat transfer from the flame to the water in the tank much more efficient and extends the life of the unit two to three years by reducing corrosion.

#### **• Use Your Clothes Washer More Efficiently**

1. Wash only full loads of clothing or adjust water level to load size to save water.
2. Lower the temperature settings on your washing machine. One hot wash and warm rinse

combination uses 25 gallons of hot water. If you have an electric water heater, one load a day on this setting can cost \$200 a year. By changing the rinse water to cold, which should not affect your wash results, you will save eight gallons of heated water with every washload, or \$65 a year. By changing the wash setting from hot to warm, you can save another \$65. If you have a gas or oil water heater, the savings is \$35 and \$50 respectively for each strategy. For maximum savings, use a cold water detergent, and wash and rinse with cold water.

## **PIPES AND DUCTS**

The pipes or ducts which deliver heating, cooling, and hot water throughout your home should be kept in good condition. This will not only save money on fuel bills, but also guard against costly repairs or disruption of service. Here are some tips on how to take care of them.

#### **• Seal Leaky Pipes**

Tighten or plug leaking joints in hot water or steam pipes. A leaking joint or faucet can lose 1 to 10 gallons of hot water a day! Also, repair or replace leaking valves. You may be able to repair these kinds of problems if you have tackled them successfully before and if you have the proper tools. Otherwise, have your plumber fix them.

#### **• Seal Leaky Ducts**

On hot air heating system ducts, *leaky joints* will send hot air where it may not be needed. You can easily fix duct leaks yourself using duct tape, available at most hardware stores.

#### **• Guard Against Freezing Pipes**

It often makes more sense to keep water pipes warm with insulation and "heat tape" rather than to heat the space around the pipes. "Heat tape" is a tape-like piece of plastic which turns on when the temperature falls below a preset level. It is available at most hardware stores with installation instructions. For best results, fiberglass pipe insulation must be installed over the heat tape.

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### • Tape and Repair Existing Insulation

If the existing insulation on your pipes and/or ducts is in poor condition, and if it is not asbestos, you can save most of it with a little repair time. Use duct tape to cover cracks which have developed between insulation pieces and cover gaps left at exposed end sections of insulation to prevent cool air from circulating beneath the insulation. Wear protective clothing, a dust mask and gloves to avoid contact with the irritating substances which are frequently found in older insulation.

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## WINDOWS AND DOORS

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Windows and glass doors can be good sources of free energy by admitting sunlight, but can also be one of the worst offenders when it comes to heat loss. Get maximum energy value from your windows by observing these low and no-cost measures.

### • Maintain Your Windows

Keep your windows clean and in good repair. It will pay off by reducing leaks and greatly extending the life of the window. Replace or repair broken sash cords, missing parting beads, and old window putty (glazing compound). Replace broken or cracked panes; a piece of clear tape over the crack will work temporarily. Paint the window sashes to prevent wood rot and seal leaks. All the necessary materials can be found at your local hardware store.

Clean your windows in the fall. Dirty glass can block as much as 40 percent of the solar energy coming through during the day, which could contribute to as much as 3 to 4 percent of your heating bill.

### • Close Your Storm Windows

As soon as the heating season begins in the fall, close all storm windows and lock all your inside sashes. For aluminum combination storm windows, the pane of glass that rides in the middle track should be at the bottom and the outer pane should be at the top to get the best seal at overlapping edges.

### • Use Your Sash Locks

For wood double-hung windows, it is important that the lock both pull together the edges where the top and bottom sashes meet, and push the upper and lower sashes tightly into the frame. The lock which does this is called a "clamshell" lock and is available

at most hardware stores. If there are no locks now, or if you need to replace them, buy this kind of lock.

### • Use Your Curtains, Draperies, and Shades

Most curtains, blinds, shades, and drapes provide some insulating value when they are closed over a window; close them tightly in the evening. During sunny winter days, keep windows which are receiving direct sun uncovered, because they will let in more heat (in the form of solar energy) than they will lose. In a typical home, you can achieve 3% to 10% fuel bill savings by taking advantage of window insulating and solar opportunities.

Protect south-facing windows from the summer sun to avoid the extra heat gain. Consider covering your north-facing windows on winter days if they do not have an important lighting or viewing function.

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## HOME HEATING AND COOLING HABITS

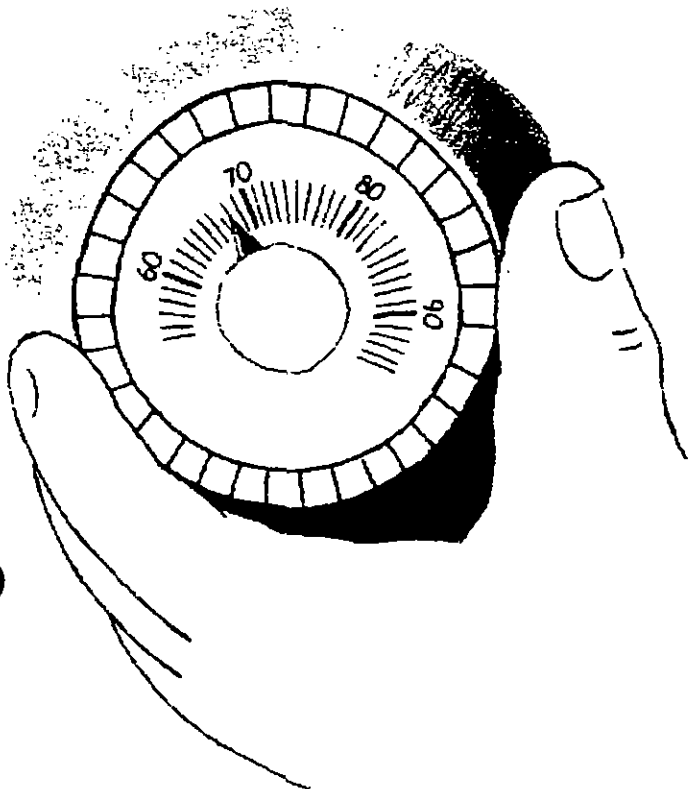
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These low and no-cost measures, discuss important adjustments you can make to your heating and cooling systems. For instance, changing your thermostat setting **costs nothing**, takes only minutes to change, and can save as much on fuel bills as insulation, storm windows, or weatherstripping. Maintaining your heating/cooling system regularly is as important as maintaining your car. Just as a tuned-up car will last longer and get more miles for every gallon of fuel, your heating system will give you longer service and more heat for every unit of fuel. A more efficient heating system saves you money because you need to buy less fuel to get the same amount of heat.

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## Change Your Thermostat Setting

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68°F in winter

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If you have a regular schedule, and/or can't remember to change the setting all the time, read about automatic thermostats on page 30.

**Winter:** Set your thermostat no higher than 65° to 68°F during the day and 55°F during sleeping hours. If the house is empty during the day, set it back to 55°F during that period, too. A 10-degree night setback could save 8 to 12 percent of your heating bills.

**Summer:** Keep your central air conditioner thermostat at 78°F or higher. When you leave the house for 4 hours or more, **turn off** the system. If you have room air conditioners, turn them off if you are out of those rooms for more than an hour.

Remember that the more you turn down (and, in the summer, turn up) your thermostat, the larger the savings will be. You can still stay comfortable

by wearing more or less clothing. Changing the thermostat setting can become as automatic as turning out the lights at night.

**If your home is electronically heated**, and zoned by room, close off rooms that you do not intend to heat. Otherwise, the thermostat in adjacent rooms may turn on the heat for the cold room.

**If you heat your home with a heat pump**, thermostat setbacks of five degrees or less are recommended. Otherwise, during high demand periods (such as very cold weather or after a thermostat setback), the much less efficient back-up resistance coils may be required to meet the home's heating needs. This can cause **increased** energy consumption.

**CAUTION:** Some people, especially the elderly, may require higher indoor temperatures - about 65 degrees at all times - to avoid a possibly fatal drop in body-temperature. People with circulatory problems or those taking certain types of drugs may also be vulnerable. In such instances, follow your doctor's advice on both winter and summer thermostat settings in your home.

### • Tune Up Your Oil Burner

Have a qualified technician from your fuel dealer, or the company with whom you have a service contract, tune up your burner and service the system on an annual basis. A burner tune-up is usually different from the cleaning and servicing offered by most companies.

When you schedule a tune-up, ask your service company about reducing the firing rate of the burner. Most burners are oversized and significant savings can be achieved by downsizing the nozzle. The burner nozzle controls the firing rate (the rate of oil flow in gallons per hour). Only your fuel supplier has the records necessary to determine if this is applicable. Make sure your serviceperson leaves a tag attached to the heating system which records the final **combustion efficiency**, smoke reading, percent carbon dioxide (CO<sub>2</sub>), net stack temperature, and any other work done. Combustion efficiency indicates what percentage of fuel your burner turns into heat.

The items listed here are those that most frequently require attention during a tune-up; however, all may not apply to your specific situation.

- Combustion chamber cleaned or replaced;
- Heat exchanger cleaned;

- Oil pump pressure checked and regulated;
- Oil filter replaced (installed if not present);
- Operating and safety controls (thermostat, aquastat, on/off switches, etc.) checked;
- Pumps and blower motors checked and oiled;
- Barometric draft regulator checked, adjusted, or replaced as necessary;
- Burner fan, motor, electrodes, and transformer cleaned and lubricated;
- Oil pump bled (if necessary);
- Nozzle replaced (must be done annually);
- Leaks into the unit sealed;
- Potential of "baffling" installation assessed (especially if older unit);
- Final combustion tests completed.

For additional information on oil burners, see page 30.

#### • Tune Up Your Gas Burner

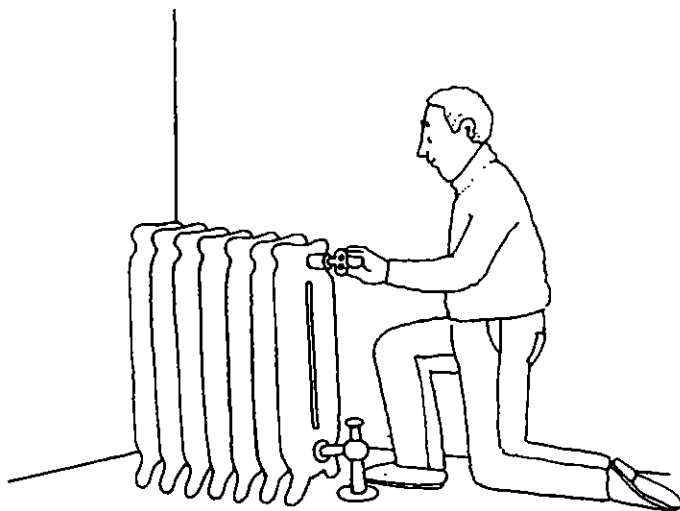
Have a qualified heating contractor tune up the burner and service your system. As with a normal service call, you will be charged a nominal fee. Make sure that the serviceworker leaves a tag attached to the heating system which records the final combustion efficiency, percent carbon dioxide (CO<sub>2</sub>) or percent carbon monoxide (CO), age, net stack temperature, and any other work done.

Some older equipment cannot be turned to efficiencies above 60%. Newer units can reach efficiencies of up to 98%. Your serviceworker should be able to determine this.

The items listed here are those most frequently required during a tune-up; however, all may not apply to your specific situation.

- Heat exchanger cleaned;
- Air inlets cleaned, adjusted;
- Operating and safety controls (thermostat, aquastat, on/off switches, etc.) checked;
- Venting systems, gas lines and valves checked for leaks, corrosion;
- Pumps and blower motors checked and lubricated;
- Pilot safety device, automatic gas valve, and pressure regulation unit inspected and serviced as necessary.

#### • Take Care of Your Hot Water Heating System



**Radiators:** "Bleed" air trapped in your radiators regularly to improve heat flow from the radiator. To do this, use the knob at the top of the radiator or a key (available at hardware stores) to open the valve. Keep it open until water spurts out. It will be **hot** and should be caught in a pan or bucket. Then close it securely.

Dust or vacuum radiators frequently. Don't cover them with boxes, books, or anything else that might block the heat flow.

#### • Take Care of Your Warm Air Heating System

**Air Filters:** Replace every one to two months during the heating season.

**Registers:** Keep clean and unobstructed by rugs or furniture.

**Dampers:** Located within the supply ducts coming from the furnace, can be adjusted to ensure even heat throughout the house. To do this, position handles on the side of each duct near the furnace to the desired heat flow.

If your system is gas-fired, you can turn off the pilot light in the summer, using the pilot control knob. **DO NOT BLOW OUT THE PILOT FLAME.** If you do not know how to turn it off, contact your heating system service company for assistance.

### • Take Care of Your Steam Heating System

**Radiators:** Replace air vents that don't work. As the system is warming up you should hear air coming out of the vent and then a click, after which the air will stop rushing out. Another way to check for proper functioning is to unscrew the vent when the radiator is cold and blow through it. Install a new vent if you can't blow through it. Dust or vacuum the radiators frequently. Don't cover them with anything that might block the flow of air around them.

**Boiler:** Prevent sediment buildup by draining, once or twice a month, half a bucketful of water from the low water cut-off valve (looks almost like a faucet and is usually mounted near the bottom of the boiler with a piece of hose attached to it). Once you have drained off the sediment, open another valve located near the ceiling, to let water flow to the boiler.

**IMPORTANT:** You **must** add enough water to keep the level adequate to fill the boiler jacket, usually shown in the glass type (sight glass) as its midway point. Do not add too much water at any one time if the unit is on, because the sudden temperature change can crack the boiler. If you have any questions, consult your heating system serviceperson.

### • Take Care of Your Air Conditioning System

There's a lot you can do to improve your window a/c unit or central air conditioning system efficiency. If you are replacing or purchasing a new unit, ask your appliance salesperson for one that has a high energy efficiency ratio (EER).

**Window Units:** Every year, at the beginning of the cooling season, unplug the unit, remove the access cover, and check the:

- **air filter:** Clean or replace as needed; check several times during the cooling season;
- **evaporator** (finned tubing behind the front cover): Vacuum as needed;
- **condenser coils** (finned tubing at the rear of the unit, outdoors): Vacuum as needed; and
- **blower** (fan): Clean as needed. If the blower motor has access holes for lubrication, follow the manufacturer's recommendations for lubricating. If directions are not available, a few drops of general purpose oil should be sufficient.

During winter, remove or cover window units, which can offer an almost unrestricted pathway for cold air to flow into a house. If the unit is too large to move or is a permanently mounted, cover the *inside and outside* with plastic or with a special cover which is available at most hardware stores. Also, block cracks around the unit and stuff foam weatherstripping between the two sashes of the window.

**Central Air Conditioning Systems:** Make sure you get maximum cooling for your dollars here; keep return air grilles and supply air diffusers clear of furniture and draperies, and clean or replace air filters as needed, usually several times during the cooling season.

In addition, at the beginning of each cooling season, have a serviceperson check the air filters, evaporator coil, condenser coil, evaporator and condenser fan motors, and centrifugal fan.

### • Use Your Fireplace Damper

Fireplaces are very **inefficient** heating systems. To get the most out of yours you should remember several tips:

- An open or missing damper can allow as much heat to escape as an open door does! Close it whenever your fireplace is not in use;
- When you are using the fireplace, carefully close the damper down as far as it will go while still maintaining sufficient draft. The wood will burn much longer;
- Have your chimney cleaned at least once a year, more often if soot and creosote build up;
- Consider a variety of products on the market which will improve the operating efficiency of your fireplace when in use, such as glass doors and heat circulating devices.

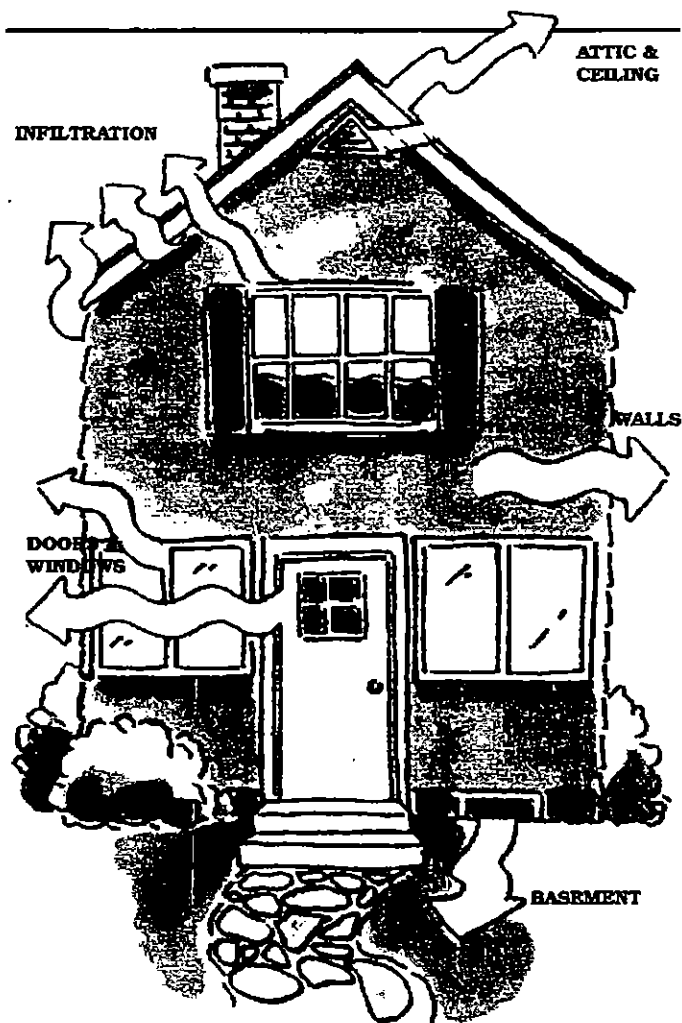
# Energy Saving Home Improvements

## YOUR HOME AND HEAT LOSS

Your home has many energy-using characteristics, many of which can be reduced by the simple changes in lifestyle suggested in the previous section. This section presents home improvement options as solutions to two major sources of heat loss:

- Heat loss through the building envelope,
- Heat loss resulting from inefficiencies in your heating system mechanical equipment.

Heat is lost through the building envelope in two ways: by **conduction** and **infiltration**. Heat lost by conduction passes directly through the building materials which make up your walls, windows, ceilings, roofs and floors. Infiltration is heat lost by cold air coming in and warm air moving out.



through cracks around windows and doors, through cracks in wall materials, through key holes, mail chutes, chimneys, etc.

The diagram illustrates the areas where heat is lost through the building envelope.

Heat loss through the building envelope increases your home's **demand** for fuel, but the efficiency of your heating system determines how much fuel you will buy given the same demand. For example, an efficient heating system may consume only two-thirds the fuel of an inefficient system, and still provide you with the same amount of heat.

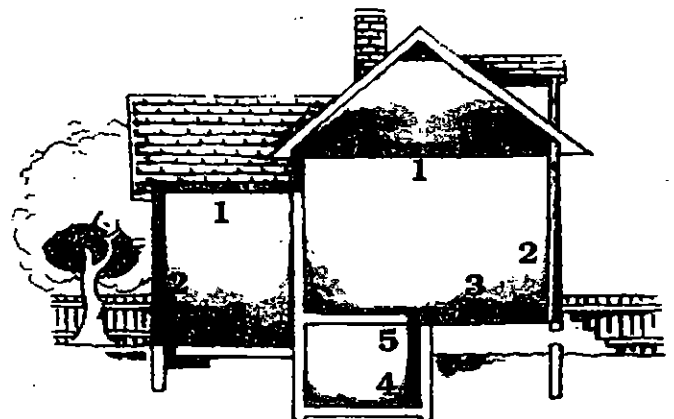
Once you've read through items 1-13 in this section that apply to your home situation, continue to the corresponding number in the next section, "Estimating Your Energy Savings", to find out how much you can save as a result of implementing each one.

## INSULATION

You should insulate any surface that separates a heated space from an unheated space, or from the outside:

1. Ceilings with cold spaces above
2. Exterior walls or walls between heated and unheated spaces
3. Floors over unheated or outside spaces
4. Walls of finished or heated basement
5. Top of foundation or basement wall

The illustration below shows these surfaces in an average house.





### • What You Should Know First

How much insulation should you have? Insulation works by resisting heat transfer. The measure of this resistance is called the "R" value. The higher the R-value, the more resistance the material has. Before you decide how much insulation you need, check what you already have. To do this, follow the procedures outlined with each measure in this section.

**TABLE 1: Typical R-values of different kinds of Insulation:**

R-Values	11	13	19	22	30	38
<b>Loose Fill</b>						
Fiberglass	3"	3 1/2"	5"	6"	8"	10"
Rock Wool	4"	4 1/2"	6 1/2"	7 1/2"	10"	13"
Cellulose	3"	3 1/2"	5 1/2"	6"	8 1/2"	10 1/2"
Vermiculite	5"	6"	9"	10 1/2"	14 1/2"	18"
<b>Batts/Blankets</b>						
Fiberglass	3 1/2"	4"	6"	7"	9 1/2"	12"
Rock Wool	3 1/2"	4"	6"	6 1/2"	9"	11 1/2"
<b>Rigid Board</b>						
Polystyrene (extruded)	3"	3 1/2"	5"	5 1/2"	7 1/2"	9 1/2"
Urethane	2"	2"	3"	3 1/2"	5"	6"
Polystyrene (bead board)	3"	3 1/2"	5 1/2"	6"	8 1/2"	10 1/2"
Fiberglass	3"	3 1/2"	5"	5 1/2"	7 1/2"	9 1/2"

R-values computed from values given in the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE) Handbook of Fundamentals, 1981 Edition.

To determine the best investment for your home, compare the amount you would initially spend for insulation to your potential savings on energy costs.

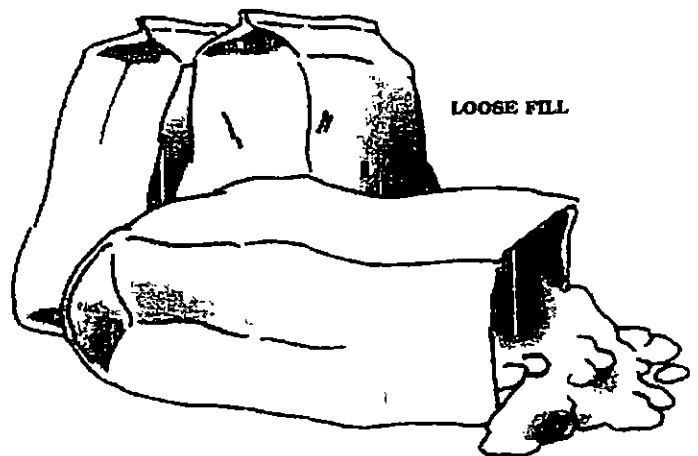
**What Type of Insulation Should You Use?** There are three main types of insulation you can install yourself: loose fill, batts or blankets, and rigid board. As you can see in Table 1, some require greater thickness than others to reach the same R-values. They also vary in price and ease of installation.

To assure you of the quality of different insulation types, the Federal government has assigned a Federal specification number to those products which meet their standards. Check that the insulation packaging is clearly labeled with the appropriate Federal specification number from Table 2.

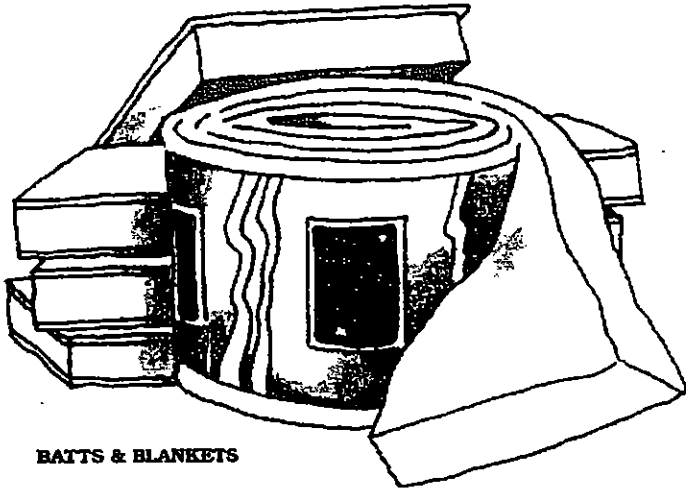
**TABLE 2: Federal Specifications Numbers**

<b>Loose Fill</b>	
Fiberglass	HH-I-1030B
Rock Wool	HH-I-1030B
Cellulose	HH-I-515D (UL Listed)
Vermiculite	HH-I-585C (amendment 1)
<b>Batts/Blankets</b>	
Fiberglass	HH-I-521F
Rock Wool	HH-I-521F
<b>Rigid Board</b>	
Polystyrene (extruded)	HH-I-524B
Urethane	HH-I-00530B
Polystyrene (bead board)	HH-I-524B
Fiberglass	HH-I-526C

**Loose Fill** (fiberglass, rock wool, cellulose, vermiculite) is a common type of insulation that is sold in bags by weight and doesn't include an attached vapor barrier. It can be poured by hand (which you can do yourself) or blown into place (usually by a contractor). Installation often requires using **baffles** or **blocking** to contain the loose-fill within the desired areas.

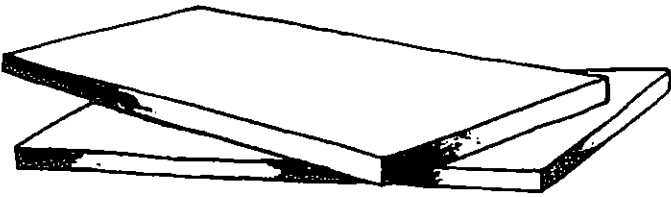


**Batts and Blankets** (fiberglass, rock wool) are sold in widths for installation between regular 16" or 24" on center joist spacings. Batts are pre-cut in four and eight foot lengths. Blankets come in continuous rolls and usually waste less during installation than batts. Batts and blankets can be bought faced (with a vapor barrier) or unfaced (without a vapor barrier).



BATT &amp; BLANKETS

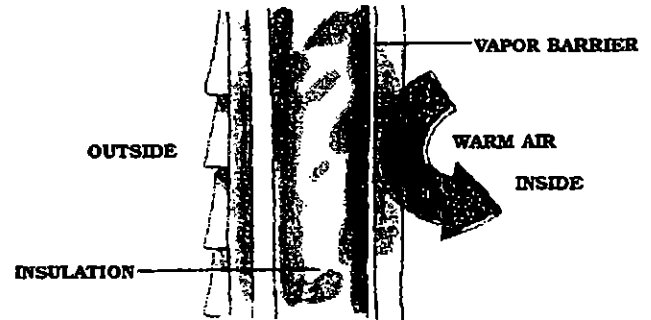
**Rigid Board** (extruded polystyrene, urethane, polystyrene bead board, fiberglass) is used most often to insulate basement walls. You can also insulate mobile home ceilings and the interior surfaces of walls and ceilings in any home, using rigid board.



Available in widths of 24" and 48", most rigid boards are not fire-resistant and must be covered by 1/2" gypsum wallboard to assure fire safety. Extruded polystyrene and urethane form their own vapor barriers. The others do not, but may include attached vapor barriers. Rigid board is usually installed by a contractor.

#### • Vapor Barriers

Water vapor that exists in the warm air of your home tends to migrate through most walls, floor and ceiling materials to the cold exterior. If this is allowed to happen, the water vapor can condense against cold surfaces and freeze. This can cause paint peeling and extensive damage to insulation and other materials. For this reason, when you add insulation, it's a good idea to install a **vapor barrier** on the warm side of the insulation.

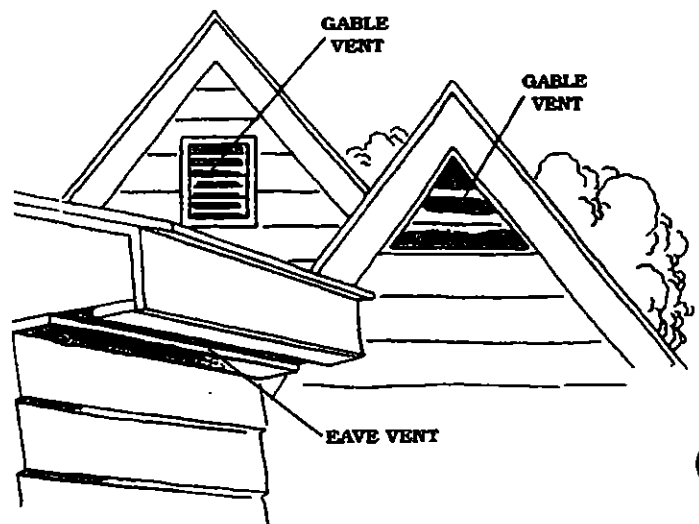


#### The right way to install a vapor barrier.

There are several types of materials available that qualify as vapor barriers. **Kraft paper** and **foil facing** on fiberglass batts and blankets, when carefully installed, provide a vapor barrier. **Polyethylene sheeting**, 4 or even 6 mil thick, is an excellent vapor barrier. Foil-backed gypsum board can also be used as a vapor barrier and room finishing material. Some **paints** are effective vapor barriers also. Check with your local paint supply dealer. By Federal standards, any material with a **perm rating** (a measure of how much water can flow through the material) of one or less is considered a good vapor barrier.

#### • Ventilation

**Attics:** Vapor barriers are never 100% effective, so it's reasonable to expect some moisture in your attic. For this reason, vents must be installed in insulated attics. If there is a vapor barrier in the ceiling, or if you put one in, provide one square foot of net vent area for



each 300 square feet of ceiling. In attics without a vapor barrier in the ceiling, provide one square foot of net vent area for each 150 square feet of ceiling. In some areas of the State, venting requirements may vary. Consult your local utility for details.

There are several types of attic vents you may want to consider. **Gable end** and **eave** or **soffit vents** are the most common and least expensive to install. However, **roof vents** or **ridge vents** are used for special types of attic construction. Consult your local contractor for details.

**Crawl Spaces:** Moisture can build up in crawl spaces under houses during warmer months as easily as it does in attics during the winter. To properly ventilate a crawl space, install vents in opposite walls from each other in a ration of one square foot of vent area to 1500 square feet of crawl space if a vapor barrier covers the ground. Without a vapor barrier, one square foot for each 150 square feet of area is required.

Both attic and crawl space vents must be protected by **screening** to keep out vermin, and **louvers** to keep out rainwater. However, these items decrease the actual or "free" ventilation area of the vent. If the free ventilation area is not specified on the vent you buy, assume it is 1/2 of the measured area to conform to current Federal ventilation standards. Ordinarily, vents will have to be installed by a contractor (unless you've had significant experience).

#### • Safety Precautions

Whenever you install insulation, be sure to wear gloves, a hat, a breathing mask or respirator and a loose-fitting, long-sleeved shirt.

The tightly compressed new material should not be unwrapped until you're ready to put it in place. Whatever materials you use, follow the manufacturer's recommendations printed on the packaging for proper installation.

When working in damp areas, like basement crawl spaces, be sure to keep lights, fans and wires off the wet ground.

In attics with no subfloor - watch your step! - and set up temporary platforms as work stations.

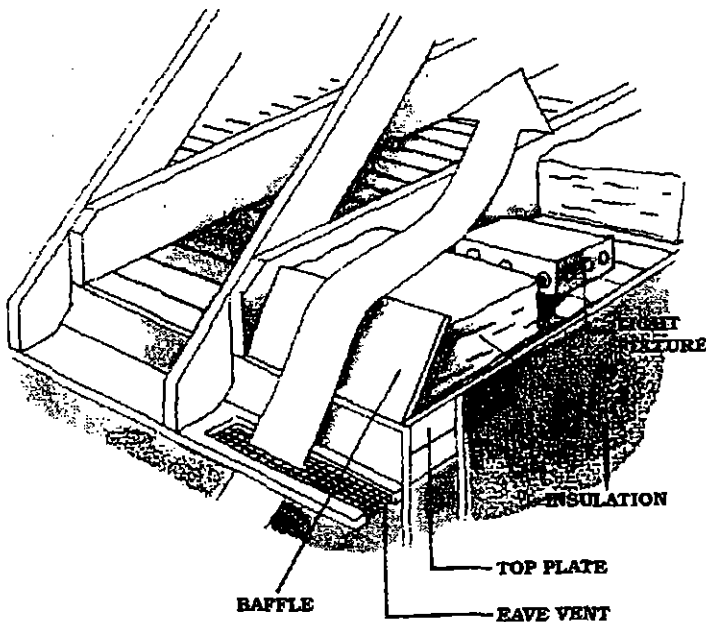
## INSULATING ATTICS

# 1

Depending on the size and condition of your attic relative to the rest of your house, you could save up to 25% of your heating and cooling costs by insulating your uninsulated attic or top floor ceiling. Even if you already have one or two inches of old insulation, your attic loses a substantial amount of heat.

**Before** you insulate:

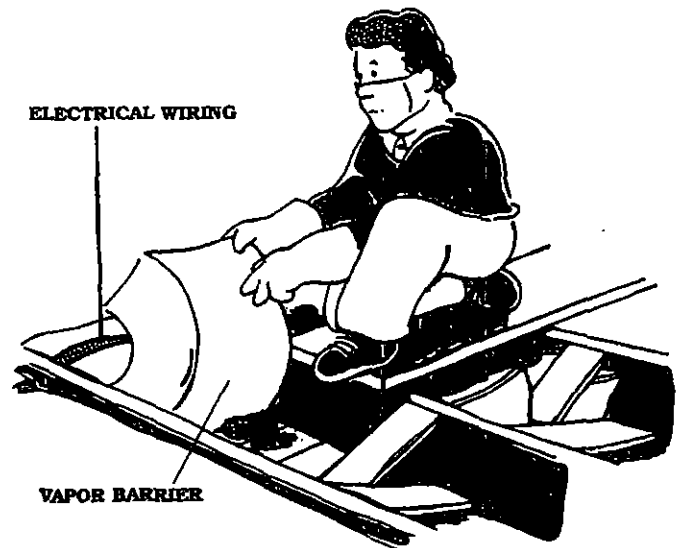
1. Look for water stains on the underside of the roof or ceiling below to find out if your roof has leaks. You'll have to have leaks repaired first.
2. Decide whether or not you can install a vapor barrier, and compute the ventilation you will need accordingly. If you need more ventilation to meet the standards discussed on pages 16-17, have these vents installed at the same time you insulate.
3. If there is no floor in your attic space, you'll need to lay boards or plywood on top of the joists for a working platform. (Be careful, the ceiling won't carry your weight.)
4. Use caulking compound to seal openings around pipes and wires which penetrate the attic's floor. For instructions, see **8** Caulking, page 28.
5. Install **baffles** to keep insulation out of unwanted areas. Baffles must be installed:
  - to prevent insulation from blocking air flow from eave vents into the attic (see page 18),
  - to keep loose-fill insulation at least 3" away from recessed light fixtures or other heat-producing devices, and
  - to keep loose-fill insulation from spilling over attic hatch door openings.



6. If you are going to install a separate polyethylene vapor barrier, don't lay it in a continuous sheet over joists and trusses unless you cover these framing members with at least 3-1/2" of insulation. Instead, lay polyethylene strips between joists or trusses. Staple or tuck in place. Seal seams, rips or tears in the plastic with tape. (If you wish, instead of taping vapor barrier seams, you can overlap the ends by 6 inches.) Now you can begin your installation.

**Unfinished, unfloored attics** include the unheated spaces beneath your pitched or flat roof, or within the space behind the kneewalls (short vertical walls) in an otherwise finished heated attic. You can easily install floor insulation in your attic floor yourself if the attic space is accessible and if the joists in the attic floor are not covered with floor boards. There are two ways that you can insulate your unfloored attic.

**Option 1: Blankets and batts** should fit snugly. Place attached vapor barriers face down, closest to the living areas. Slide insulation under wiring when possible. **Don't** install insulation in areas where wiring is cracked or frayed until such wiring has been repaired.



Cut ends of batts or blankets to fit snugly around cross bracing. Cut the next batt in a similar way to allow the ends to butt tightly together. If a second layer of insulation is required to achieve the R-value you want, it may be lined up directly on top of the first layer or at right angles to it.

For a second layer of insulation, **do not** use material with an attached vapor barrier. If your insulation has an attached vapor barrier, **remove** the vapor barrier from the insulation to prevent trapping moisture between layers of insulation.



Loose fill can be leveled with a garden rake or a board.

**Option 2: Loose-fill** insulation can be poured in between the joists in your attic floor to the depth necessary to achieve the desired R-value. Make sure that the installed depth is uniform throughout the attic.

**Floored Attics:** if your attic has one or more layers of flooring, **do not** insulate over the floor. Either remove the flooring to insulate the floor cavity, or have your contractor blow loose-fill insulation into the floor cavities. If you do it yourself and you want to blow in the insulation, the proper equipment is available for rental at most hardware and lumber stores.

**Sloped Ceilings,** in finished attic rooms, must also be insulated. In addition to "before" installation procedures for attics, be sure to block the base of these ceiling cavities **before** you begin. This is usually done by rolling pieces of fiberglass batt and stuffing them into the base of the cavity.

If you are going to refinish or re-paint sloping ceilings anyway, you may want to have your contractor blow loose-fill insulation into these cavities through the inside wall. If not, and if you can get up into the crawl space above the finished ceiling, you can pour loose-fill insulation down into each cavity from above.

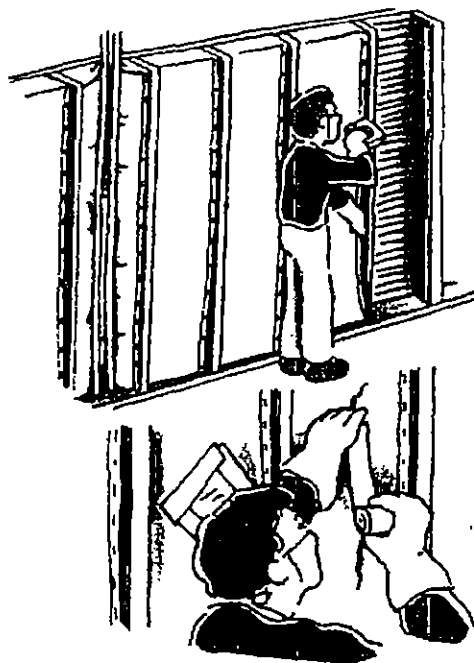
• **Checkpoints:**

- Make sure that insulation completely covers the desired area and that there are no gaps between insulation pieces.
- Insulate and weatherstrip all attic hatches and access doors to prevent air leakage to the attic.

can have the work done by a contractor who will blow in insulation. (See page 35 for advice on how to select a contractor.)

If you want to do it yourself, here's how to install **batt** or **blanket** insulation in frame walls that are still unfinished on one side.

**Before** installation, measure your stud spacing; buy insulation according to that spacing. If you buy unfaced batt, install a vapor barrier.



## INSULATING FRAME WALLS

# 2

If wall spaces are accessible, you will be able to install insulation yourself. Such unfinished walls may exist in a portion of your attic or a room which is undergoing major renovation. If walls are already finished and you decide to insulate, you

Measure and cut insulation blankets to fit snugly against top and bottom framing members and between the studs. If faced blankets are used, staple the 1" flanges on each side to the interior edge of the studs starting from the top down, about every 4 inches.

If stud spacings are irregular, cut insulation about one inch wider than the space you want to fill to make the draft or foil facing form a stapling flange. Install insulation on the winter-cold side of pipes, wiring and electrical outlets to help prevent frozen pipes and uncomfortable drafts. Stuff small gaps between framing with loose scraps of insulation, with the vapor barrier facing removed.

Carefully fit the vapor barrier around outlets. Patch rips or tears in the vapor barrier with tape. Cover

the vapor barrier with a finish material like gypsum wall board or suitable fire-resistant paneling.

#### • Contractor-Installed

Unless you've had considerable construction experience, you will need to hire a contractor to insulate the exterior frame walls of your home. A contractor will blow insulation into the wall cavities by drilling through the wall surface or by removing some siding. This type of insulation job can vary in price considerably depending on several factors:

- Type of frame construction,
- The insulation material used,
- Whether it's installed through the interior or exterior wall surface,
- The finish materials that make up your walls, and
- How much finish work (sanding, painting, etc.) is done by your contractor.

It's important that you understand **exactly** what your contractor will give you for the price, so that you can compare bids accurately and fairly. See "Selecting a Contractor," page 35.

If you plan to refinish the interior of your home anyway, consider insulating your home through the inside wall surface. Using this method requires that you or your contractor patch, sand, and paint (or wallpaper) the holes left from drilling.

If your walls will be insulated from the exterior, the type of siding or exterior finish will determine the installation method and price. The contractor must remove sections of wood shingles, clapboards, aluminum or vinyl siding to drill and insulate through the exterior sheathing; this siding must be replaced once insulation is installed. Holes are drilled directly through stucco and (the mortar between) brick siding, then patched and finished with similar materials once the cavities are insulated.

#### • Checkpoints:

- Your contractor must never leave openings in wall sections unprotected overnight, and should repair or replace finish materials to match the original as closely as possible.
- During installation, make sure your contractor carefully checks to make sure that all wall cavities are insulated by continually probing wall cavities for obstructions.

## INSULATING FOUNDATIONS AND BASEMENTS

# 3

#### • Insulating Basement, Perimeter and Masonry Walls

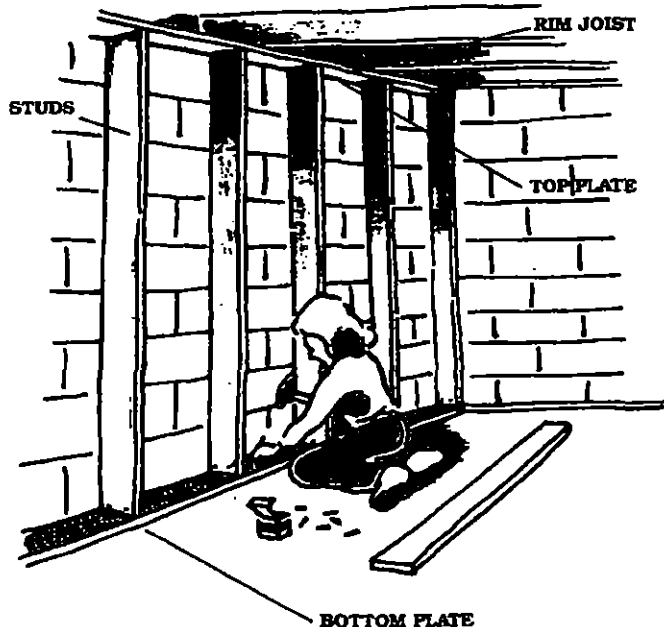
Usually, basement walls are worth insulating only if you plan to refinish your basement into a heated living space such as a playroom. However, if your heating system is in the basement, insulating the *inside perimeter of the basement walls* where the house sits on the foundation will help reduce heat loss to the outside.

**Before** installation, if moisture is coming through your basement walls from the ground outside, eliminate the source of the dampness. In addition, follow all "before" installation procedures for frame wall insulation that apply.

**CAUTION:** Depending upon your local soil type and frost penetration this insulation method may cause foundation problems.

#### • Installation

Install batts (preferably R-19) in the space above the foundation wall at the rim joist around the



entire perimeter of the basement. Cut the insulation so that it fits snugly in place.

When insulating basement walls, there are two insulation materials that you can use: batts and blankets or rigid board. For **batts and blankets**, you must first construct a stud framework against the masonry wall. A 2"x4" wall can be insulated to R-11; a 2"x6" wall, or a 2"x4" wall built 2" away from the masonry wall, can be insulated to R-19. Nail the bottom plate directly to the basement floor using masonry nails. Nail the top plate to the joists above. Place studs 16 or 24 inches on center, and nail them to the top and bottom plate.

To install the batts or blankets, follow the outlines in 2" Frame Walls, making sure to place the vapor barrier on the winter-warm side of the wall.

For rigid board insulation, you must first nail 1" or 2" wide wood strapping (the same thickness as the insulation) directly to the masonry wall using masonry nails. Place strapping along the top and bottom of the wall, and nail vertical strips to the wall at 24 or 48 inch intervals, depending on the width of the rigid board. Fasten sheets of rigid board between the strapping using an adhesive recommended for use with the insulation you bought.

• **Checkpoints:**

- Make sure there are no gaps between sections of insulation and that any rips or tears in a vapor barrier are patched with tape.
- Also, cover insulation and vapor barriers with a finish material such as 1/2" gypsum wall board or suitable fire-resistant paneling.

• **Insulating Heated Crawl Space Walls**

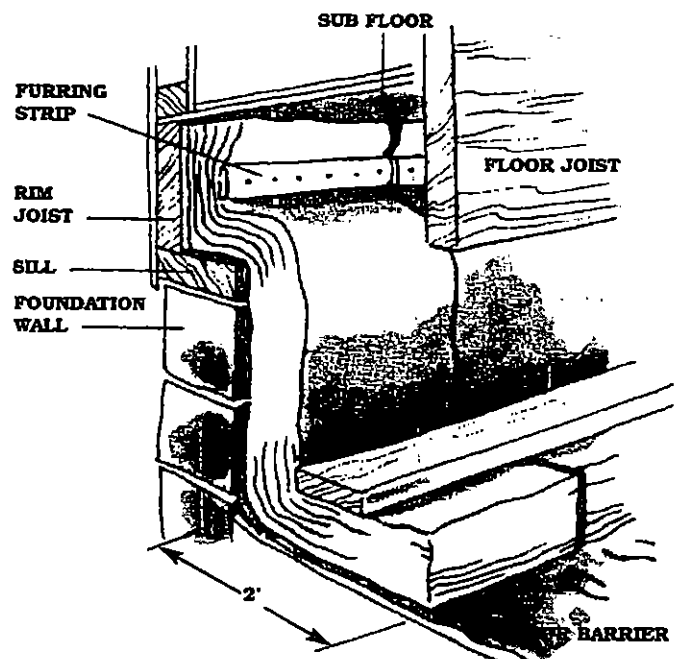
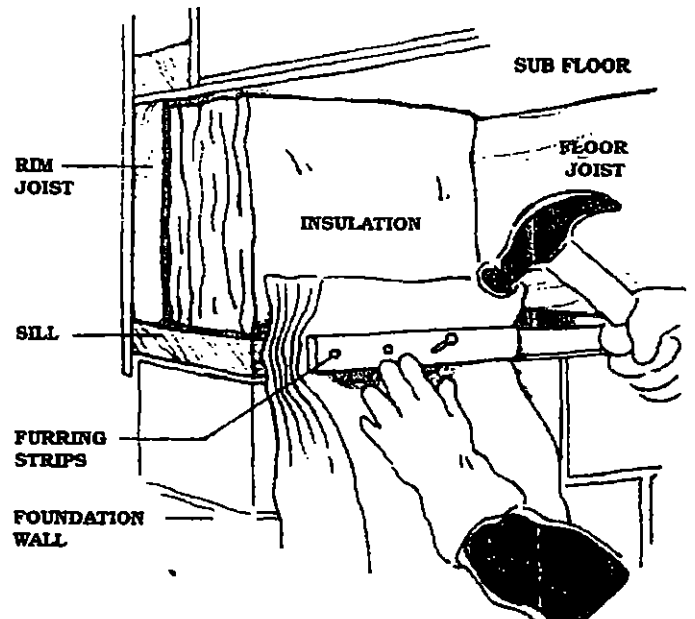
If you don't have a full basement but do have a heated crawl space, it is still important to insulate.

**Before** you begin, make sure that your crawl space does not have excessive ground moisture due to a high water table in your area. If it does, you may not be able to insulate using this method. To keep normal ground moisture out of the insulation, lay down a six mil polyethylene vapor barrier ground cover over the entire ground area and up at least 6" of the crawl space wall. Overlap sections of the ground cover and tape the seams.

**Installation:** Install insulation to cover the height of the crawl space wall plus at least two feet along the ground. Where the floor joists run at right angles to the wall, measure and cut short pieces of insulation

to fit snugly against the rim joist so there will be no heat loss through this area. Then, nail the top of each strip of insulation to the sill using 1/2" x 1-1/2" wood strapping. Make sure there are no gaps between sections of insulation.

When floor joists run parallel to walls, don't cut short pieces of insulation. Simply nail longer pieces (again with furring strips) directly to the rim joist.



Lay a 2"x4" lumber or bricks on two of the batts to keep them in place. Try to minimize your walking or crawling on the vapor barrier and patch any rips which may have occurred.

A crawl space area that is not connected to a basement should be ventilated in the spring and summer to prevent moisture accumulation. Since you'll be heating your crawl space, make the most of your new insulation by closing those vents tightly in the winter. Otherwise your pipes could freeze.

Also, when doing major exterior renovations, or if you are thinking of adding a new room to your home, remember that earth berms can provide insulating value to your basement and crawl space walls.

#### • Insulating Floors Over Unheated Spaces

If there are no pipes or heating ducts running through the crawl space or unheated basement under your floor, and if the floor joists are exposed and easily accessible, you can insulate the floor yourself from underneath.

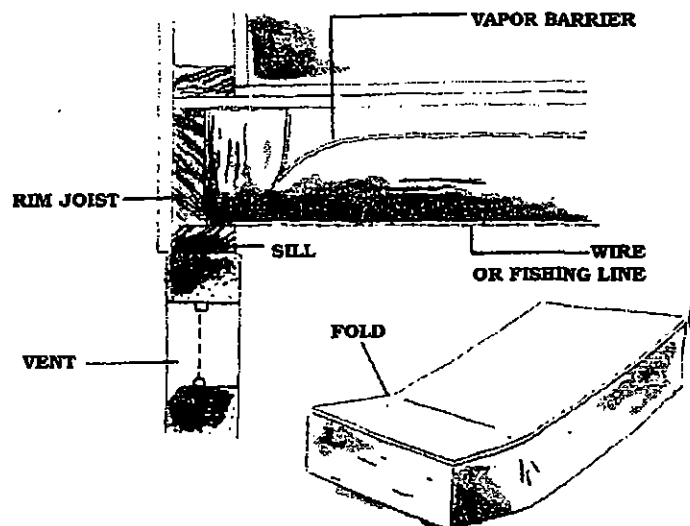
**Before** you begin, check your floor joist spacing. If they are spaced every 16" or 24", your job will be easier since these are standard widths for insulation. Otherwise, you'll have a lot of cutting and fitting to do and some waste of material. Buy insulation with a vapor barrier; R-19 is recommended here.

Install the batt with the vapor barrier facing up, toward the living space. Support the insulation using



spring metal stays, wire or fishing line strung back and forth in a criss-cross pattern on nails.

Carefully fit insulation around any cross-bridging, supports, pipes or anything else that you may find between the joists, and don't leave gaps between pieces of insulation. Keep insulation at least 3" away from heat-producing devices, such as lights, which may exist in the floor/ceiling structure. Don't block the vents from the unheated crawl space or combustion air openings for furnaces if there are any here. Make sure that the rim joist is insulated around the entire perimeter of the foundation.



**If a ceiling exists**, such as in a garage or a portion of a house supported on piers, you will probably need to hire a contractor to do the installation. In this case, a loose-fill insulation is blown into the cavity between the ceiling and floor above, either by drilling holes through the ceiling at regular intervals or by removing small sections of ceiling. In either case, make sure you understand who's responsible for patching and refinishing the ceiling before you accept a contractor's bid.



## INSULATING WATER HEATERS

# 4

While you're considering your insulation needs, don't overlook the water heater. If your water heater storage tank is warm to the touch it needs insulation. Even if it isn't warm it could be under-insulated; heat losses from under-insulated tanks can be significant. You can cut this heat loss by covering the water heater with either a pre-cut insulation kit (available at most lumber or hardware stores) or by wrapping the storage tank with vinyl-backed fiberglass insulation, secured with duct tape. Foil-backed insulation can also be used, although it is more difficult to work with. The vinyl backing should be labeled for a flame spread classification of no more than 150 for electric resistance water heaters or 25 for oil and gas-fired water heaters.

**Before** you begin, determine the fuel type (gas, electric, oil) of the water heater. Different procedures are necessary for each type, as follows:

**For Electric Hot Water Heaters,** cover the top and sides with insulation. The pressure relief valve, temperature relief valve, thermostat controls, power wiring and connections, and drain valve must remain unobstructed. If a kit is not being used, each section of insulation should be taped to itself starting at the bottom of the tank and working up. The vinyl backing must face outwards and all seams and edges should be taped securely. See Figure.

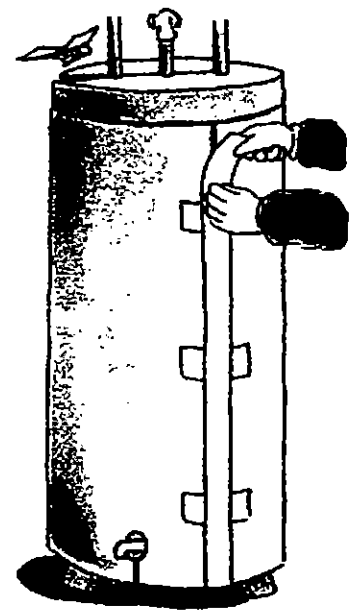
**For Gas Hot Water Heaters,** only the sides can be covered with insulation. Insulation **must** be cut to leave openings for the burner air inlet at the bottom, the thermostat control, the pilot light access plate, the drain valve, and other necessary access plates. The draft hood **must not** be blocked by insulation, which might prevent toxic fumes from properly venting to the outdoors. See Figure.

**For Free-Standing Oil Hot Water Heaters,** the side can be covered with insulation. The top can be covered with insulation only if the vent pipe is side-mounted. If the vent pipe is side-mounted, be sure

to maintain at least 18 inches between the vent and the insulation. Take care not to cover valves, access plates, and the flame peep sight.



GAS WATER HEATER



ELECTRIC WATER HEATER

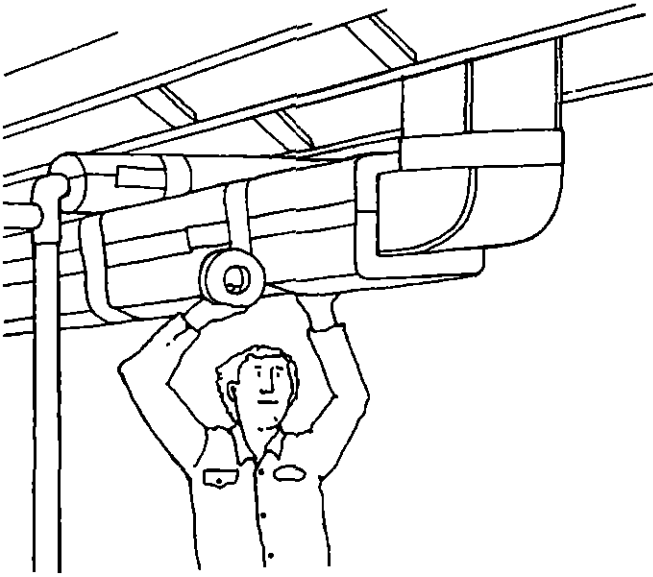
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## INSULATING DUCTS AND PIPES

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# 5

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One of the most cost-effective energy-conserving measures you can take is to insulate duct or pipe runs that exist in the unheated areas of your home. By **not** insulating them you are essentially delivering heat that you've paid for to areas of your home that you never use!

### • How To Insulate Your Ducts

Install vinyl or foil-backed fiberglass duct insulation on all heating system supply ducts. (You can also use regular faced fiberglass insulation which is less expensive and has higher R-value, but is more difficult to use in this application). To determine how much insulation you need, first measure the distance around each section of duct and multiply that by the total length. Order about 30% **more** insulation than the duct area that you calculated to account for the overlaps you'll need for fastening and waste from odd cuts. Duct insulation can be found at plumbing and heating and insulation suppliers.

**Before** you insulate: seal all air leaks in the system with duct tape and/or a high temperature caulk such as silicone.

To insulate, cover the supply ducts with insulation and secure it using clinch-type staples (preferred), wire, or tape. Although not as long-lasting as staples, duct tape is easier to install. The tape would be wrapped completely around the duct and overlapped. The backing on the insulation must be on the outside surface. Any exposed fiberglass and all joints between pieces of insulation should be covered with duct tape. Damper control handles must be left in accessible and operable position. Any labels on the ducts should be transferred to the outside of the insulation.

**WARNING:** Take caution when installing insulation near a flue pipe.

### • How to Insulate Your Pipes

**For hot water systems**, install "elastomeric" or urethane rubber pipe insulation with a suggested minimum R value of 6 on all supply pipes only. This may not be used in applications where the temperature of the pipe exceeds 200°F (such as on steam pipes). Be sure to look for the R value on the product.

**For steam systems**, install molded fiberglass pipe insulation with a *minimum recommended* R value of 6 on all supply pipes only.

**Before** you purchase the insulation, carefully measure the outside diameter and lengths required. Remember to add a little for waste at joints.

**Before** installation, check for leaks in the system. If you find a leak(s), have your plumbing contractor repair it **before** you insulate.

To install, place pipe insulation over the pipes, and seal with either glue, duct tape, or appropriate fasteners. Exposed ends of insulation sections at joints should be tightly sealed to eliminate air flow underneath the insulation.

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## WINDOWS AND DOORS

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On a per square foot basis, windows and doors are by far the highest heat loss areas in your home. A well insulated wall is 14 times more resistant to

heat loss than a single pane window. The heat loss could almost be cut one third or more by installing storm windows and doors.

There are several measures you can take to tighten up your windows and doors and increase their insulating value: installing storms, interior glazings, insulating shutters and shades, installing weatherstripping, and/or caulking window and door frames and storm windows. If window or door replacement is necessary, use only thermal replacement windows or doors; these are double or triple glazed and have insulated sashes. It may not make sense for you to undertake all of these things since, for example, the savings you will realize for installing storm windows may mean that you need not weatherstrip those same windows, depending on their original condition.

Read through items 6, 7, and 8 to help you decide what's right for you.

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## INSTALLING STORMS

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# 6

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The quality of construction of storm windows will affect their strength and appearance. As with insulation, there are recognized standards which will assure you of high quality storm windows and doors. The latest standards are:

Aluminum Storm Windows - ANSI/AAMA #1002.10-1980

Aluminum Storm Doors - ANSI/AAMA #1102.7-1977

Wood Storm Doors - NWMA #1S-5-1973

However, you should still conduct your own thorough inspection. Check the corners; they should be strong and air-tight. If you can see through the corner, the window will leak cold air. For exterior storms, check to ensure that "weep" holes exist at the base of the units. These drain condensed water away from the window. Look for hardware that's sturdy and as durable as the rest of the window. Make sure that aluminum storms have baked

enamel or anodized finishes, so that they will last. Above all, look at a number of different storm windows or doors before you decide which is the best type for your house.

### • Thermal Shutters and Shades

Window insulation primarily reduces heat loss at night, though it can also reduce unwanted heat gain, especially in direct sun, by providing shading. Like storm windows, window insulation saves energy by reducing both heat losses through the glass and leaks around the window itself. While these devices are generally more expensive than storm windows, they can achieve five times the insulating value.

Window insulation is available in a variety of shutter, shades, panels, etc. Qualities to look for are flame retardancy, moisture resistance and durability. Be sure to select materials that won't produce dangerous fumes if ignited. Quality of hardware and ease of operation are very important since daily opening/closing cycles are expected in normal use. Airflow around the top, bottom, and sides of the insulation should be prevented with high quality seals or weatherstripping.

Window insulation should be installed according to the manufacturer's instructions, so as to operate smoothly with a minimum of stress transferred to the shade/shutter materials. They should not interfere with the operation of the window or, in the case of shutters, nearby windows or doors. Edges at the sides, top and bottom must seal tightly with the shade/shutter closed. Shutters should latch in both open and closed position. Shades should secure positively in the open position.

To be most effective, window insulation should be in place at night or whenever sunlight or daylight is not being absorbed through the window. Window insulation requires careful maintenance of the edge seals to prevent condensation between the insulation and the window, and if externally installed, must maintain weather-resistance.

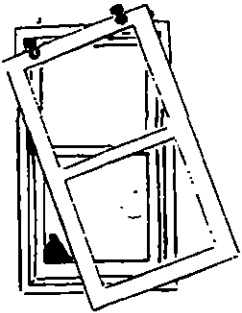
**Aluminum Storm Doors** should be reinforced at the middle and have hinges that are continuous along the whole length of the door. The latching hardware should be sturdy and adjustable. Look for weatherstripping along the sides and an adjustable sweep at the bottom.

**Wooden Storm Doors** should be treated with wood preservative and/or painted. Glass inserts should be insulating glass. Wooden storm doors are gener-

ally more durable than aluminum doors, but may be slightly more expensive. Weatherstripping and a sweep should be installed when the door is hung.

#### • How to Install Storm Windows

**Aluminum storm windows** can be installed by a contractor or as a do-it-yourself item if you have the necessary skills and tools. The surface where a window is to be installed must be clean, free of obstructions, and structurally sound. Combination (triple-track) and fixed windows should be bedded with an unbroken bead of caulk along the top and sides and fastened with a minimum of eight screws per window. Apply a bead of caulk along the bottom of the window from the inside leaving two small weep holes open at the sill to allow for necessary ventilation and drainage. Fixed panes should be pre-weatherstripped and may be attached to the casing either with screws, thumb screws, or in the case of interior or removable applications, spring loaded clips.



**Single sash** will cost you less than combination windows. The window is fairly easy to install.

**Temporary plastic storm windows** are an inexpensive storm window which can be installed using polyethylene or clear vinyl plastic and waterproof tape or wood nailing strips or can be purchased in kits from your hardware store. Although in most cases they must be removed to be able to operate the window, and reapplied the next year, they are as effective as aluminum storms at cutting heat loss.

**NOTE:** Some fire codes prohibit the use of plastic on the interior; check with your local fire marshall before installing them. Mount plastic storms on the outside of the windows if interior use is prohibited.

#### • Installing Storm Doors

Install storm doors in accordance with the manufacturer's instructions. They should be set to close automatically and latch tightly, leaving no room for excess movement. Proper installation may require custom work around the existing frame, including

chiseling down of high points, or adding trim to low points to achieve a flat installation surface. Whether you install the storm door yourself or have a supplier install it, the door must fit squarely, be weatherstripped, and form a tight seal all the way around.

**IMPORTANT:** Care must be taken to maintain the smooth operation and fit of the storm door, since its insulating value relies on the tightness of the seal. Replace weatherstripping when worn, and keep hardware used to close and latch the door adjusted and in good repair.

## INSTALL WEATHERSTRIPPING

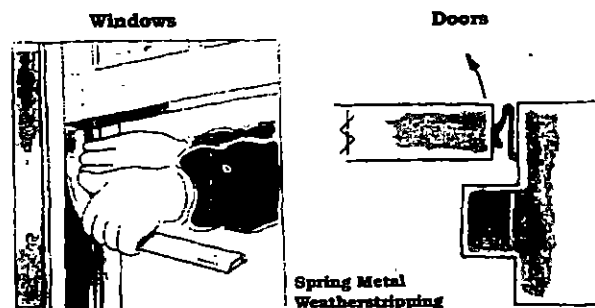
# 7

Loose-fitting windows and doors will lose heat through cracks around their edges. If they must open and close throughout the winter, they can be weatherstripped along those cracks. Weatherstripping is purchased either by the foot or in kit form for each window. Make a list of your windows and measure them to find the total length of weatherstripping you'll need. Allow for some extra. If you buy a kit, be sure it's intended for your window type and size.

#### • Materials

There are many weatherstripping materials to choose from.

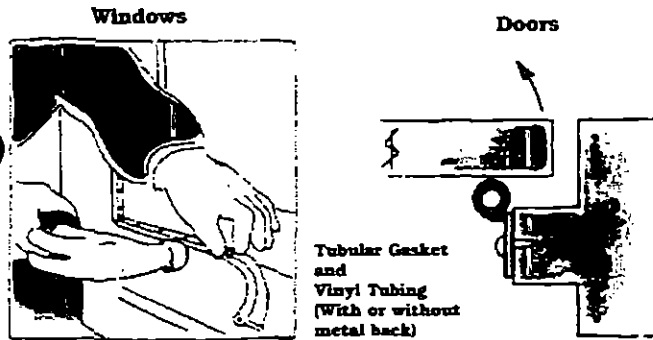
**Spring Metal Weatherstripping**, although somewhat more difficult to install, is one of the most



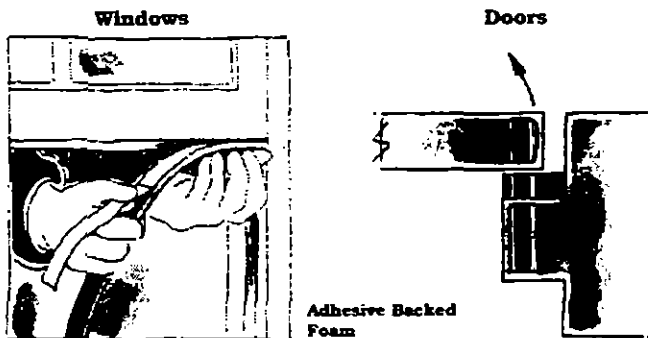
effective weatherstripping available. Since it is metal, it is more durable and longer-lasting than any of the vinyl or foam types. In addition, it can improve the operation of older, double hung windows, by offering a smooth surface for them to slide on.

**"Spring V Plastic" Weatherstripping** is an effective weatherstripping which is easy to install. It is more durable than the vinyl bulb type and is frequently available with a peel-off adhesive strip.

**Vinyl and Vinyl Bulb Weatherstrippings** are effective and sometimes easier for a homeowner to install because they are installed against the sash instead of in the track like the spring types. Since they are plastic, they don't stand up well to extreme temperatures and tend to wear out after two to three years.



**Adhesive-backed Foam Rubber and felt strips** are easy to install but wear quickly and are not as effective sealants as any of the above. Use these weatherstrippings only where they will be squeezed, like on the underside of double-hung windows, not where they will rub.



Foam rubber and felt also come with wood backings which makes them very easy to nail around door jambs for a snug fit.

There are more durable weatherstripping materials intended specifically for door bottoms. Some are illustrated below. Except for the sweeps, they are fairly difficult to install. Unless you are quite handy around the house, you may be better off having a contractor do the work for you.

The **sweep** is screwed to the bottom of doors. It can be installed on the inside or outside of the door.

A **gasket threshold** is used where there is no threshold or where it can replace a worn existing threshold. The vinyl gasket seals doors well but wears as it is walked on and eventually must be replaced.

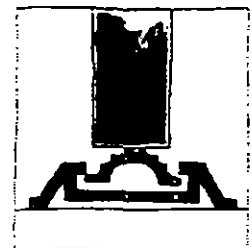
A **door shoe** has a more protected gasket that slips into a metal piece that's attached to the bottom of the door. The door shoe can be used on any threshold that isn't worn down in the middle.

You can also seal your **garage door** inexpensively and easily with a heavy rubber or plastic weatherstripping. It will keep your garage warmer and seal against snow and wind.

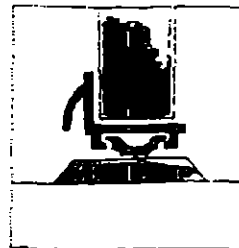
When you have stopped all the drafts around doors and windows, your house will be more comfortable and energy-efficient.



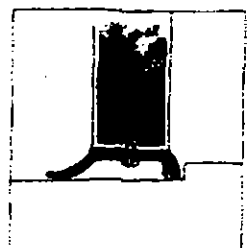
SWEEP



GASKET THRESHOLD



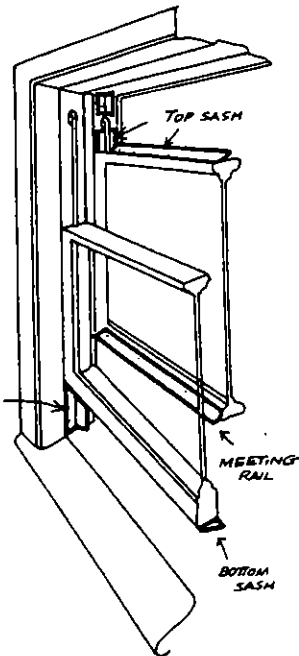
TWO-PIECE DOOR SHOE



GARAGE-DOOR STRIP

### • Weatherstrip Windows

**For a double-hung window**, weatherstripping should be installed at seven separate edges on the frame. Four pieces are required in the gaps between the sides of the sashes and the casing and three more are required, one between the top sash and the casing, one between the meeting rails, and one between the bottom sash and casing. Since there are many different types, refer to the weatherstripping manufacturer's instructions for proper installation techniques.



**For a casement window**, weatherstripping should be installed around all four sides of the frame. Follow the weatherstripping manufacturer's instructions for the proper installation techniques.

### • Weatherstrip Doors

**Weatherstripping** should be installed on the two sides (covering hinges) and at the top of the door frame. "Lock-keeper strips" should be used around striker plates. Follow the manufacturer's instructions for the proper installation technique.

**Door sweeps** should be installed along the bottom of the door itself and should be positioned to create a seal when the door is closed. Follow the manufacturer's instructions for the proper installation technique.

## CAULKING

# 8

Cracks around windows and doors (and other openings) in your home can be one of the major causes of heat loss. You can cut this loss substantially by caulking those cracks. Even if you're inexperienced, this is a job you can do yourself. The materials and tools you'll need are inexpensive.

As a general rule, caulk where a permanent seal is desired, and weatherstrip when doors and windows must be opened and closed.

The seams around doors and windows were probably tight when your house was built, but with time, cracks develop and old caulking loosens and breaks up. The areas where this might have occurred on windows and doors are:

- At joints between trim (casings) and exterior siding.
- Where storm windows meet the window frame. (**NOTE:** there should be drain holes at the window sill.)

### • Materials

Caulking compounds are available in rope form (see pg. 6), and in cartridges to be used in a caulking gun.

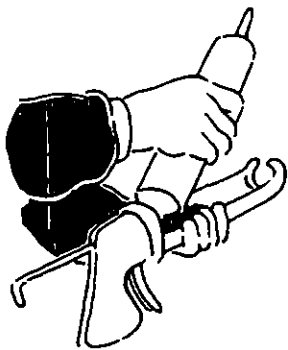
**Caulking Compounds** vary significantly in composition and in appropriateness of application. Elastomeric caulks, which remain flexible over long periods of time, should be used instead of less expensive oil-based caulks. Acceptable types include silicone, acrylic-terpolymer, acrylic-latex, latex, phenolic-based and butyl-based caulks. Check the directions carefully to note whether the caulk is suitable for the application you have in mind.

**CAUTION:** Lead based caulking is toxic. Don't use it.

**Fillers** such as oakum, urethane foam and fiberglass batt should be used in cracks greater than 3/8 of an inch. Caulk should then be applied over the filler.

#### • How to Caulk

**Before** installing caulk, remove all loose material and dirt from the crack, or the caulk won't adhere to the surface. When caulking a wide crack, stuff it to within a fraction of an inch of the surface with a filler material such as bits of insulation or oakum, and then apply the caulking material.



Cut off the tip of the nozzle on the tube at an angle so that it gives you a bead of caulk no wider than you need. Next, pierce the inner seal of the cartridge. If necessary, smooth the newly applied bead of caulk immediately after applying it with a tool like a putty knife, or your fingers. You will soon acquire a technique that allows you to apply the caulk to the crack firmly, and smooth it to an acceptable finish, in one pass of the caulking gun.

Caulk should adhere properly to the surfaces around the crack. Problems of inadequate bonding can be caused by poor cleaning of crack area, incorrect caulk type (material, temperature restrictions), or improper placement.

#### • Caulk Your Storm Windows and Clean Out the "Weep" Holes

If the caulk that seals your storm windows is drying out or missing, caulk the top, sides and bottom of the storm window frame from the inside (between the sash and storm). Leave the weep holes at the bottom of your storm window **unplugged**; they allow excess moisture to drain out, and thus help preserve both the window sill and storm. Several times a year, remove any old paint, leaves or other residue that has collected on the sills.

See page 6 for applications of caulking on other parts of your home.

## HEATING SYSTEM MODIFICATIONS

Heating system modification could potentially save between 5-25% of your fuel bill, depending on the efficiency of your current system. It is important to know that some heating system modifications apply only to specific types of heating systems, as you'll see by reading through items 9-13. Most importantly though, know that the savings you can achieve by implementing any of the following measures cannot be added directly to savings that you calculate for any other measure. This is because if you increase the efficiency of your heating system, you are using less fuel to begin with, and installation of other energy-conserving measures, though just as effective, will not pay back as quickly. A free utility energy survey includes an analysis of your heating system. It will help you determine the applicability and payback of many of the measures listed in this section.

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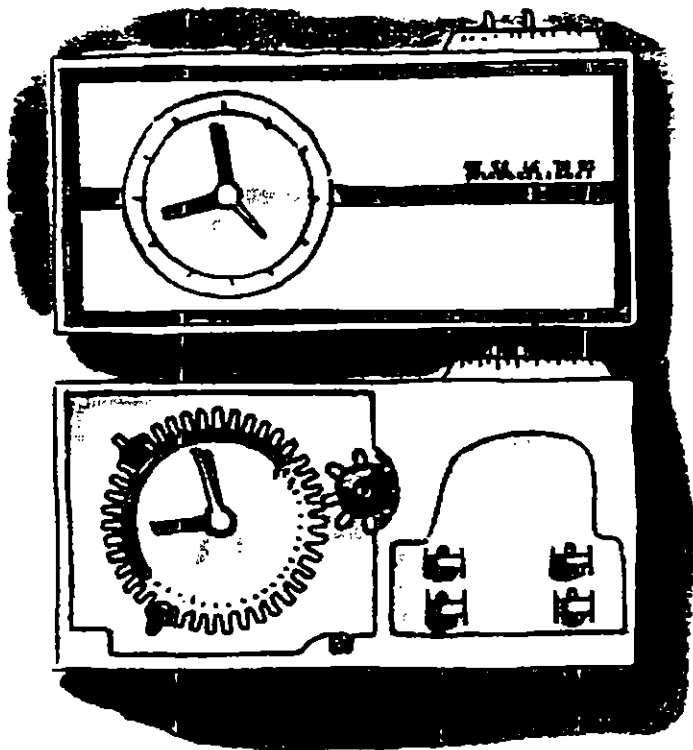
## CLOCK THERMOSTATS

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# 9

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As you know, you save on your energy bills by keeping daytime temperatures at 68°F or lower. You'll save even more by turning the thermostat down 5 to 10 degrees each night, and more if you also turn it down during the work day. (This 5 to 10 degree difference between night and daytime temperatures is called the "setback".)



You can dial the thermostat up in morning and down at night by hand, but this requires special attention and you always wake up in cool house. If you prefer, there are mechanical devices which will "remember" the setback for you.

You can regulate the amount of setback and its duration at any time. After this adjustment, the setback is controlled by the thermostat in many different ways.

Because some setback thermostats must be connected to your home's electrical system, some communities may require that they be installed by a licensed electrician. Refer to the manufacturer's instructions. The thermostat should be located away from hot and cold spots such as radiators, fireplaces and exterior walls. Air should be able to circulate freely around the unit.

Prices for setback thermostats vary between \$40 and \$300. They can save you energy used for space heating. You can purchase an automatic setback thermostat from hardware-equipment dealers, electrical supply stores, hardware stores and heating contractors.

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## REPLACEMENT BURNERS

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# 10

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The burner on your furnace or boiler controls the rate at which the fuel is burned. In an oil-fired system, it is a gun-like apparatus at the base of the heating unit. In a gas-fired system, it is either a series of plates with small holes (orifices) or a gun-like power burner.

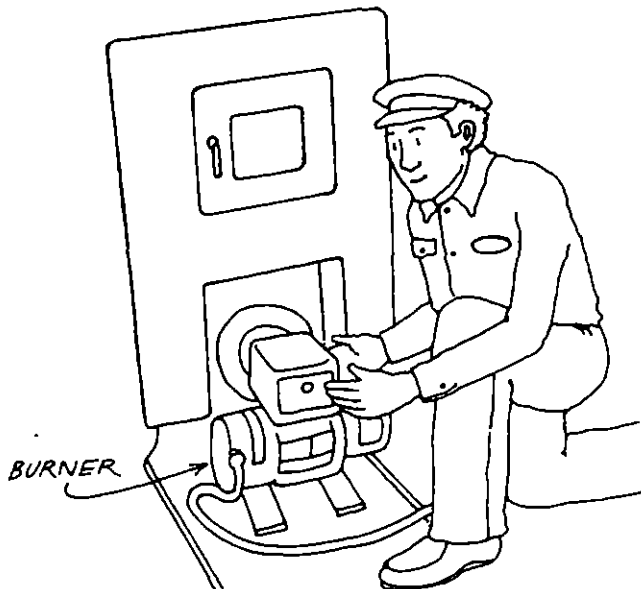
If your present burner is old, it may be running at a low efficiency. A combustion efficiency test with



results of 60% or less suggests that a new burner or a whole new system is a wise step. A new burner may increase that efficiency by 10 to 15%.

Oil-fired flame-retention head burners mix the oil and air more efficiently than conventional burners. This results in a hotter flame, less excess air and a higher efficiency.

Gas-fired power burners can also improve the efficiency of your heating system. This is obtained by using a forced air burner and premixing of air and gas. Many existing gas systems cannot be retrofitted with the new efficient gas power burners without great expense; however, the burners can be used to convert oil-fired heating systems to gas.



#### • What to Expect from the Installation

The installation of a new burner must be completed by an experienced burner technician. The unit should be tuned and the entire system completely serviced to enable the burner to operate at its maximum efficiency. A qualified heating contractor may have other suggestions (in addition to burner replacement) to modify the system to enhance overall efficiency. You should expect a new combustion efficiency between 78% and 83%.

Since most existing burners are oversized, it is important that the installer match the combustion chamber to the new burner (which may involve resurfacing or rebuilding the combustion chamber) when a new burner is being selected.

The following information should be recorded by the installer, who should leave one copy with you and one copy attached to your heating system:

- Date of burner replacement;
- Name of service company and installer;
- Original and replacement burner make, model, and model number; gas orifice or oil nozzle size;
- Other modifications to the unit;
- The initial and final efficiency; which includes smoke reading (for replacement oil burners only), net stack temperature, CO<sub>2</sub> level and stack draft reading.

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## AUTOMATIC VENT DAMPERS

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# 11

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### How it Works

Automatic vent dampers reduce heat loss up the chimney by closing the flue pipe when the burner is not operating. Closing the flue prevents the naturally induced draft that is the principle cause of heat loss while the system is idle.

**NOTE:** A heating system with a flame retention burner, gas power burner or a pulse combustion burner has little use for a damper, since the burner reduces draft while the system is idle.

There are basically two types:

**A thermally-actuated automatic vent damper** consists of moveable bi-metallic elements mounted inside the flue pipe. These elements open upon ignition of the burner and close automatically when the burner goes off. No electrical connections are necessary. These can only be used on gas systems.

**An electrically-actuated automatic vent damper** consists of a metal disc mounted inside the flue pipe. The disc is opened by an electric motor when the system is turned on and closed when the system is off.

**IMPORTANT!** Dampers should be considered with extreme caution. If the damper should malfunction and remain in the closed position when the burner is firing, hazardous fumes can escape into the dwelling. The Underwriter's Laboratory as well as the American Gas Association have established testing procedures for dampers and many state and local codes permit use of UL or AGA-tested dampers. It is suggested that you avoid devices that do not meet UL or AGA standards.

### • What to Expect from the Installation

This installation must be carried out by a qualified service technician. Prior to installation, the safe operating condition of all existing equipment must be checked. Attention should be given to the flue pipe to ensure that all connections are properly made and all piping properly supported.

The unit will be installed between the existing draft hood and the chimney. Installation and an inspection following must be made according to manufacturer's specifications and all relevant state and federal guidelines.

The damper should be cleaned and tested at the time your heating system receives its periodic servicing. If any problems arise, call your serviceperson.

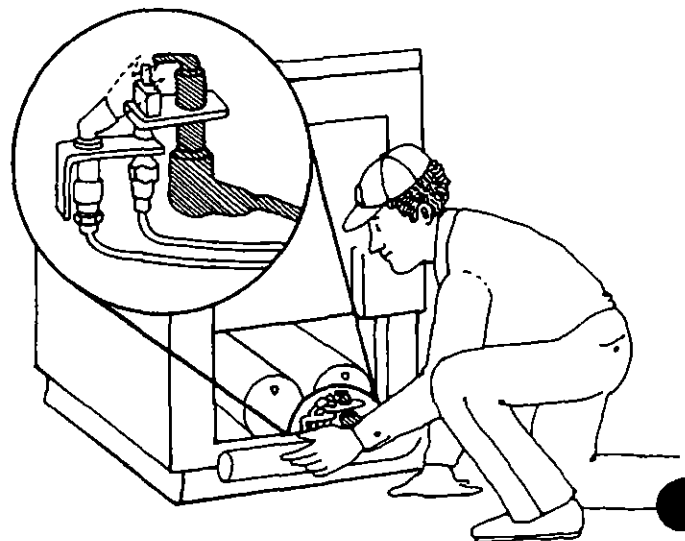
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## INTERMITTENT IGNITION DEVICES

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# 12

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INTERMITTENT  
IGNITION DEVICE

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**• How it Works**

An intermittent ignition device (IID) ignites the main gas burners by use of small amounts of electricity, thus eliminating the need for a continuously burning pilot light. This saves unnecessary fuel consumption.

**• What to Expect From the Installation**

Have your heating contractor install an IID on your central gas heating appliance. The present pilot system will remain to be a part of the IID. A number of manufacturers offer IID's for retrofit to existing gas central heating appliances. Your heating contractor can determine which is most appropriate for your heating system and what alterations to the existing system may be required to properly install the intermittent ignition device.

An IID must be installed by a qualified heating contractor. The existing condition of the heating system must be examined first to be sure that it is operating correctly and efficiently. The serviceperson will determine if valve and electrical controls which are compatible with the new IID need to be installed. The IID must be installed in accordance with manufacturer's specifications and state and federal requirements. After installation, the serviceperson should run the appliance through a number of cycles to ensure proper operation of the device.

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**HEATING SYSTEM REPLACEMENTS**

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**13**

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Although it requires a large investment, if your system is old, and it currently operates at a low combustion efficiency, you may benefit the most in the long run by replacing your entire heating system. Consult several heating contractors for advice and estimates, and make sure that the items listed here are considered before you select your new system.

**• System Sizing**

Proper sizing of the boiler or furnace is critical to economical operation of the system. Select the size that meets your home heating needs by having a heating service professional calculate your heating load requirement. Your new heating system should be matched as closely as possible to the heat loss of your home. If you have recently insulated your home, your heating needs may be considerably less than in the past. Make sure that your heating contractor takes all of your recent and future conservation installations into account when sizing your new unit. If you wish, ask to see the contractor's calculations. At maximum, your new heating unit should be sized to accommodate no more than 120% of the heating requirements of your home.

**• System Efficiency**

Select a system with the highest efficiency. The Federal Government now requires retailers of boiler/furnaces to have fact sheets on the equipment available to their customers. Your heating contractor should be able to obtain these fact sheets for you. These fact sheets include energy efficiency ratings, which offer information estimating how well one heating system will perform over the length of the heating season compared to other similar systems. The fact sheets list: the range of energy efficiency ratings for systems of the same size and type; the efficiency rating of the particular system you are

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considering and average annual cost information based upon varying fuel rates. Check the ratings of several systems before buying and select one with a high energy efficiency rating. Although higher efficiency may equal higher initial cost, it pays for itself in the long run.

• **What to Expect from the Installation**

Do not purchase a heating system that is not covered by a warranty. A minimum of one year coverage on all major components is recommended. Installation must be done by an experienced heating system technician, plumber or gas-fitter. Call your local heating association for service references.

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## OTHER OPTIONS

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# 14

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• **Domestic Hot Water System Option**

Solar domestic hot water systems use solar collectors to gather the heat provided by the sun. These systems use a fluid or air to transfer the heat from the collector to your hot water heating system. There are a wide variety of systems available from numerous manufacturers.

• **Modulating Aquastats**

An energy-saving device which can be installed on your heating system is a **modulating aquastat**, also called **outdoor reset control**. This device can save you as much as 7% of your present heating bill.

These devices work by monitoring outside temperature fluctuations and signaling the boiler to raise the temperature of the water supplied to the radiators when it is coldest out, and lower it when it is not as cold. In this way, the heat demand of your house is met and the boiler operates at greater efficiency than if it were required to continuously hold boiler water temperatures higher to keep the building warm on the coldest day. In addition, since average hot water supply temperatures are lower, heat loss through distribution pipes which pass through unheated spaces is also reduced. Although a fairly simple installation, it must be performed by an experienced service technician.

# Getting The Work Done

## SELECTING A CONTRACTOR

Although you can install many of the conservation measures discussed in this book yourself, you may want some help on certain jobs.

Here are some things you should keep in mind when selecting a contractor to do the work you can't do yourself.

### • Where To Look

One of the best places to get contractors' names is from friends and neighbors who have had similar work done, and who were satisfied with the contractor they chose.

In addition, you can check with your utility energy specialist, who will provide you with a listing of local contractors. All contractors on this list should have:

- at least one year's experience,
- adequate training in the installation of conservation measures,
- good standing with the Better Business Bureau,
- a satisfactory credit rating,
- comprehensive insurance
- any required licenses, and
- a guarantee on all work and materials for a full year.

## AN AFTERWORD

The information you've found in this workbook is based on current research and construction practices. It is not the intention of Peoples or its consultants to endorse any particular product or service but only to suggest methods and solutions. You may find, because of your unique housing style, that there are appropriate measures we didn't include. Access them as you have the measures in the book to decide which are the most cost-effective.

Energy conservation is a self-help effort; it has to start with each and every resident of our nation and state. By taking the directions and actions pointed out in this guide, you are on the way to major energy and dollar savings.

### • Making the Selection

Get written estimates from at least **three** contractors for work you want done. The estimate should spell out, in detail, the nature of the work to be done so you have a basis for comparison. If it's an insulation job, for example, the contractor should include information on the R-value and type of insulation to be used, how much will be installed and exact areas to be covered. If you buy blown-in insulation, find out if the contractor will guarantee to repair anything that may be damaged in the process of installing the insulation. Check to be sure the contractor guarantees the performance of the materials he uses and his workmanship.

Ask each contractor for a list of past customers and check to see if those customers were satisfied. Find out how long the contractor has been in business. Remember - the lowest bid is not always the best selection. The quality of the work is extremely important.

On the basis of this information, compare the estimates and make your selection.

### • Put it in Writing

Before work begins, you and your contractor should sign a contract which documents, as described above, the work to be done. Sign it when you're sure it includes everything you want done. You both are protected by knowing the exact limits of each other's responsibilities.

**For more information, contact Peoples.**



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2: Checklist



# PEOPLES NATURAL GAS™

## Energy Education and Information Survey

The Page Numbers refer to those in the "How To Save Energy and Money in Your Home" booklet.

Name: \_\_\_\_\_ Acct. No.: \_\_\_\_\_

Street: \_\_\_\_\_ Date: \_\_\_\_\_

City: \_\_\_\_\_ Phone: \_\_\_\_\_

Auditor: \_\_\_\_\_

### EDUCATION

Info	Yes	No	Measure	Page No.	Comments
1. _____	_____	_____	Caulking	P. 28	_____
2. _____	_____	_____	Weatherstrip Doors/Windows	P. 26	_____
3. _____	_____	_____	Close Fireplace Dampers	P. 13	_____
4. _____	_____	_____	Storm Windows <small>(When Not In Use)</small>	P. 25	_____
5. _____	_____	_____	Storm Doors	P. 25	_____
6. _____	_____	_____	Ceiling Insulation	P. 17	_____
7. _____	_____	_____	Wall Insulation	P. 19	_____
8. _____	_____	_____	Crawl Space Insulation	P. 17/21	_____
9. _____	_____	_____	Roof or Crawl Area Vented	P. 16	_____
10. _____	_____	_____	Sill Plate Insulation	P. 21	_____
11. _____	_____	_____	Foundation Wall Insulation	P. 20	_____
12. _____	_____	_____	Furnace Automatic Ignition	P. 32	_____
13. _____	_____	_____	Furnace Vent Damper	P. 32	_____
14. _____	_____	_____	Hot Water Tank Jacket	P. 23	_____
15. _____	_____	_____	Water Tank Vent Damper	P. 32	_____
16. _____	_____	_____	Pipe & Duct Insulation	P. 24	_____
17. _____	_____	_____	Thermostat	P. 30	_____
				& 11	_____
_____			<b>Other Savings Areas For Discussion</b>		
_____			1. Maintain Windows, Close Storm Windows	P. 10	_____
_____			2. Use of Curtains & Shades		_____
_____			3. Heating Plant Maintenance	P. 12	_____
_____			4. Clean/Replace Filter Monthly		_____
_____			5. Moist Air (Humidifier)		_____
_____			6. Dress Appropriately		_____
_____			7. Fireplace Facts	P. 13	_____
_____			8. Hot Water Usage	P. 8	_____

Comments \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

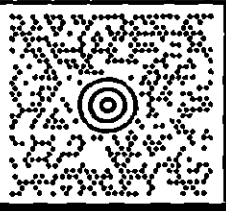
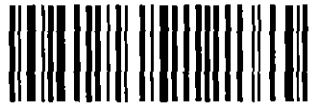
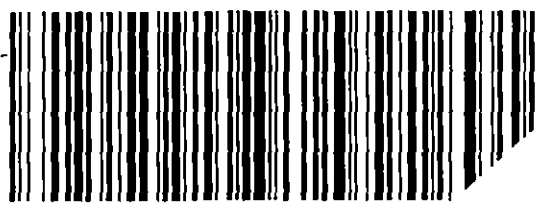


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