

Connecticut's Joint 2007 Natural Gas Conservation Plan

**Submitted jointly by:
Yankee Gas Services Company,

Connecticut Natural Gas
Corporation,

and
The Southern Connecticut Gas
Company**

Docket 06-10-03

December 1, 2006

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CHAPTER ONE: OVERVIEW

Introduction

In accordance with Connecticut General Statutes § 16-32f as amended by Section 22(b) of Public Act 05-1 (the “Act”) Yankee Gas Services Company (“Yankee Gas”), Connecticut Natural Gas Corporation (“CNG”) and The Southern Connecticut Gas Company (“SCG”) (collectively, the “Companies”) submit this Natural Gas Conservation Plan (“Plan”) for 2007 for the implementation of cost-effective natural gas energy efficiency programs and market transformation initiatives. All conservation options were evaluated and selected within an integrated supply and demand planning framework, which is described more fully in Chapter Six. Additionally, in accordance with Connecticut General Statutes § 16-32f(a), the Companies will submit their five year forecast of natural gas demand and supply in December 2006, and the 2007 Plan is an integral component of that filing. The Companies understand that bringing the forecasts of gas supply together with an analysis of resource options is the right strategic direction for customers, the Companies and the State. The integrated resource planning approach brings value to customers in the most cost-effective way, while reducing natural gas consumption.

The Plan conforms to the directives of the Department of Public Utility Control (“Department” or “DPUC”) in its decisions in prior Dockets relating to natural gas energy efficiency program delivery, considered potential gas supply reductions as well as societal benefits. A number of external influences have been felt in Connecticut’s energy markets. The impact of global geopolitics on all of the energy markets, including the natural gas market has made energy efficiency a critical tool for consumers looking to control ever increasing energy costs. The increasing awareness of the effect of greenhouse gases on the global climate has thrust energy efficiency to the forefront as a strategy to control greenhouse gas emissions. Energy efficiency programs can help meet these multiple needs and serve as a critical tool in helping strengthen Connecticut’s energy portfolio.

The Companies acknowledged that the current energy environment requires a strategic approach to balancing the needs of all customers and recognize that an expansion of existing gas conservation programs was an important ingredient to assisting its customers with rising energy costs by reducing natural gas consumption. With these goals in mind, as in 2006, the Companies have developed an expanded gas conservation program which includes a pilot program for the Commercial and Industrial sector for 2007. The 2007 program budget of \$3.2 million (exclusive of estimated carryover) represents a 33% increase over the 2006 Plan budget of \$2.4 million.

Table A1 provides a comparison of the Companies' approved 2006 and proposed 2007 budgets by program. The overall distribution of funds by customer class is shown on Table A1 Pie Chart with approximately 67% of the overall budget being directed to residential customers (28% to low-income customers and 39% to non low-income customers). About 33% is directed to the commercial and industrial class.

In addition to continuing the programs developed and deployed in late 2006, the proposed 2007 Plan includes increased conservation funding for the low-income sector and adds a pilot process retrofit request for proposal ("RFP") program specifically targeting natural gas process loads in the Commercial and Industrial sector.

The Companies believe this Plan represents their continued commitment to enhancing energy efficiency in Connecticut. The Plan also continues to leverage existing electric Connecticut Energy Efficiency Fund programs to serve both gas and electric customers and stretch Connecticut's efficiency dollars.

Synergies of Gas and Electric Programs

The electric distribution companies have a long and successful history of developing, deploying and administering energy efficiency programs in Connecticut. The integration, where appropriate, of gas and electric programs makes it easier for customers to receive more services and benefits at a lower cost with greater convenience.

The synergies allow for a more streamlined approach to program delivery. For example, many of the same vendors can deliver services to both gas and electric customers thereby leveraging existing resources to serve more customers. Combining program delivery also provides opportunities for cross-promotion to common customers resulting in more cost-effective efforts. A partnership of the gas and electric utilities allows coordinated energy conservation services to be delivered and enhances the quality of the services provided. The General Weatherization Program (GWP) is a partnership between the Companies and The Connecticut Light and Power Company (CL&P) and The United Illuminating Company (UI). In addition, the low-income WRAP program uses this partnership approach between CL&P and the Companies. Similarly, the UI Helps program relies on a partnership between the UI and SCG.

By improving the uniformity of utility energy efficiency program services statewide, program quality is improved through overall customer solution and greater customer satisfaction is achieved by using a holistic approach.

Further leveraging of the gas and electric companies synergies occurs with the marketing and promotion of programs. In 2007, the marketing plan for electric energy efficiency programs includes gas conservation components. This includes bill inserts, direct mail, website links, some print advertising and trade shows, associations and Chamber events.

Building officials statewide are being offered, and taking advantage of, a training course regarding energy efficiency changes to building codes. This training course, sponsored jointly by the gas and electric distribution companies, reviews residential and commercial codes for natural gas and electric measures and for administration and enforcement of codes.

As part of the oversight responsibility, the Companies monitor vendor performance and overall program results including customer satisfaction and market responsiveness. The Companies work with utility Account Executives and Customer Service organizations to promote gas conservation programs with customers. The Companies also utilize the vendor and business community to maximize tactical marketing opportunities where appropriate (i.e., MAC, CBIA, Chambers, HBA, CHCC, Small Business vendors, etc.).

Strategic Focus and Quality Control

In developing the Plan, the Companies work with each other, CL&P's Conservation and Load Management (C&LM) department, and other Connecticut stakeholders to determine the appropriate areas and levels of emphasis and funding to best serve our customer's needs. There has been a high level of cooperation and collaboration between the Companies to develop programmatic consistency and common implementation where appropriate. The Energy Conservation Management Board (ECMB) consultants have also reviewed this plan and provided valuable comments and insights during its development.

To ensure high quality conservation programs are provided to Connecticut's natural gas consumers, the Companies leverage the expertise of CL&P's professional C&LM staff and management which utilize technical, procedural and accounting systems to manage and implement the programs.

The Companies continually monitor program results and, if deemed appropriate, modify the programs to reflect customer needs and market trends. Using industry accepted guidelines, projects and program energy and economic assumptions are evaluated to determine cost-effectiveness, and projects are reviewed after implementation to assure compliance.

This is the second Natural Gas Conservation Plan filing made by the Companies since passage of the State's energy independence legislation (Public Act 05-1) and inclusion of the local gas distribution companies on the ECMB.

The 2007 Plan builds upon the lessons learned from the 2006 Plan, recognizes some of the immediate challenges facing our customers, and adds new elements to further serve our customers. While the 2007 Plan is designed to maximize the energy and demand savings, the Companies will monitor overall market response and program effectiveness and maintain the flexibility to reallocate under spent program dollars between programs. This flexibility will allow the Companies to react to market conditions and maximize the achievement of cost-effective savings.

Program Modifications

As previously noted, the Companies' have developed an RFP program specifically targeting the commercial and industrial sector. The Companies propose funding this new program from a combination of under spent 2006 funds and additional funding in 2007. While the Companies have worked diligently to fully deploy the 2006 programs, the timing of final program approval coupled with seasonal market slowdowns have resulted in an anticipated \$900,000 of combined Company funds available to support deployment of this new program. Use of the carryover funds prudently limits the financial impact on customers due to increased rates.

Administrative controls for the Furnace Replacement Program, initially deployed as a pilot in 2006, have been significantly strengthened. Areas for which enhanced controls have been put in place include:

- Bidding Process and Bid Selection
- Replacement Process
- Community Action Agency ("CAA") Roles and Responsibilities
- WRAP Program Staff Roles and Responsibilities

It is recognized that these added controls may add administrative burden and impact customer satisfaction. As such, the Companies will monitor the program for adverse impacts or unintended consequences and notify the Department should changes be necessary.

BUDGET TABLES

**Table A1
YGS, CNG & SCG
Proposed 2007 Natural Gas Conservation Plan Budget**

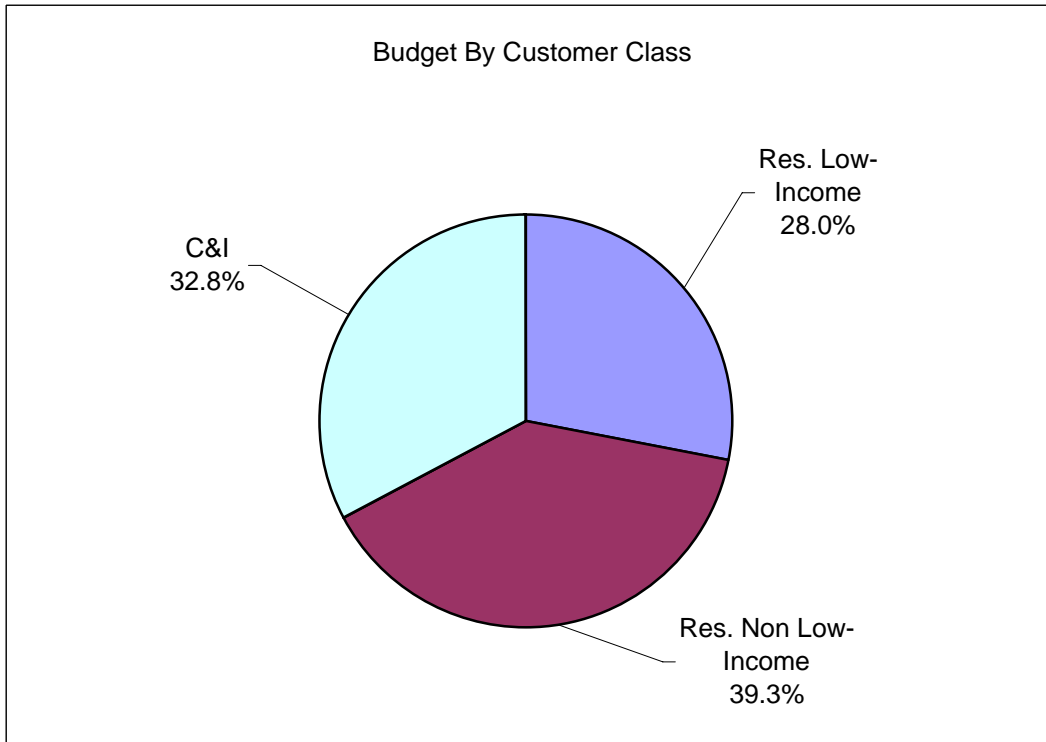
| GAS CONSERVATION BUDGET | 2006 | | | | 2007 | | | |
|---|---------------------------------------|------------------------------------|------------------------------------|--|--------------------------------------|-----------------------------------|-----------------------------------|--|
| | 2006 Yankee Approved* Budget | 2006 CNG Approved* Budget | 2006 SCG Approved* Budget | 2006 Combined YGS/CNG/SCG Total | 2007 Yankee Proposed Budget | 2007 CNG Proposed Budget | 2007 SCG Proposed Budget | 2007 Combined YGS/CNG/SCG Total |
| RESIDENTIAL | | | | | | | | |
| Low Income Weatherization and Heating System ** | \$ 243,933 | \$ 265,933 | \$ 251,933 | \$ 761,799 | \$ 400,000 | \$ 370,000 | \$ 350,000 | \$ 1,120,000 |
| General Weatherization | \$ 599,097 | \$ 430,651 | \$ 449,651 | \$ 1,479,399 | \$ 600,000 | \$ 430,000 | \$ 450,000 | \$ 1,480,000 |
| Subtotal Residential | \$ 843,030 | \$ 696,584 | \$ 701,584 | \$ 2,241,198 | \$ 1,000,000 | \$ 800,000 | \$ 800,000 | \$ 2,600,000 |
| COMMERCIAL & INDUSTRIAL | | | | | | | | |
| Process Retrofit Pilot *** | \$ - | \$ - | \$ - | \$ - | \$ 510,000 | \$ 400,000 | \$ 400,000 | \$ 1,310,000 |
| Subtotal C&I | \$ - | \$ - | \$ - | \$ - | \$ 510,000 | \$ 400,000 | \$ 400,000 | \$ 1,310,000 |
| OTHER | | | | | | | | |
| CHIF Loan Program | \$ 30,000 | \$ 30,000 | \$ 30,000 | \$ 90,000 | \$ 30,000 | \$ 30,000 | \$ 30,000 | \$ 90,000 |
| RCS Audit Program | \$ - | \$ 15,000 | \$ 10,000 | \$ 25,000 | \$ - | \$ 15,000 | \$ 15,000 | \$ 30,000 |
| Planning, Evaluation and ECMB | \$ 8,970 | \$ 8,416 | \$ 8,416 | \$ 25,802 | \$ 9,000 | \$ 9,000 | \$ 9,000 | \$ 27,000 |
| Other Expenditures | \$ 38,970 | \$ 53,416 | \$ 48,416 | \$ 140,802 | \$ 39,000 | \$ 54,000 | \$ 54,000 | \$ 147,000 |
| PROGRAM SUBTOTALS | | | | | | | | |
| Residential | \$ 843,030 | \$ 696,584 | \$ 701,584 | \$ 2,241,198 | \$ 1,000,000 | \$ 800,000 | \$ 800,000 | \$ 2,600,000 |
| C&I | \$ - | \$ - | \$ - | \$ - | \$ 510,000 | \$ 400,000 | \$ 400,000 | \$ 1,310,000 |
| Other** | \$ 38,970 | \$ 53,416 | \$ 48,416 | \$ 140,802 | \$ 39,000 | \$ 54,000 | \$ 54,000 | \$ 147,000 |
| TOTAL | \$ 882,000 | \$ 750,000 | \$ 750,000 | \$ 2,382,000 | \$ 1,549,000 | \$ 1,254,000 | \$ 1,254,000 | \$ 4,057,000 |

* Approved in Department of Public Utility Control Docket 04-10-02 Decision dated August 9, 2006
Compliance budget filed with the Department of Public Utility Control on August 31, 2006 (Order No. 3).

** Low Income Weatherization and Heating System funding increased to reflect 2006 actual spending levels.

*** Process Retrofit Pilot includes approximately \$900,000 of unexpended 2006 funds and \$775,000 new funds.

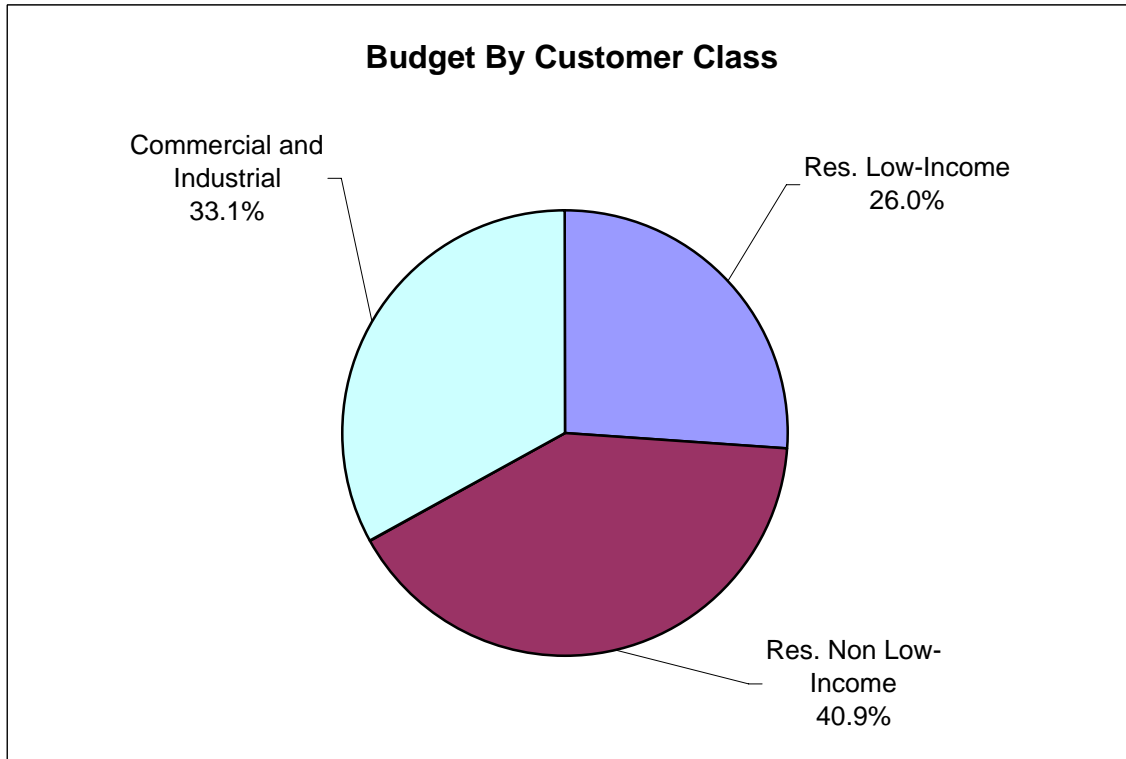
**Statewide 2007 Budget Analysis
Table A1 Pie Chart**



| Customer Class | Budget (\$,000) | % of Total Conservation Budget | % of Residential & C&I Budget |
|---|--------------------|--------------------------------|-------------------------------|
| Res. Low-Income | \$1,120,000 | 27.61% | 28.00% |
| Res. Non Low-Income | \$1,570,000 | 38.70% | 39.25% |
| Residential Subtotal | \$2,690,000 | 66.31% | 67.25% |
| Commercial and Industrial | \$1,310,000 | 32.29% | 32.75% |
| C&I Subtotal | \$1,310,000 | 32.29% | 32.75% |
| Residential and C&I Subtotal | \$4,000,000 | 98.60% | 100.00% |
| Other Expenditures | | | |
| Other Expenditures | \$57,000 | 1.40% | |
| Other Expenditures Subtotal | \$57,000 | 1.40% | |
| TOTAL | \$4,057,000 | 100.00% | |
| Yankee | \$1,549,000 | 38.18% | |
| CNG | \$1,254,000 | 30.91% | |
| SCG | \$1,254,000 | 30.91% | |

Totals may vary due to rounding

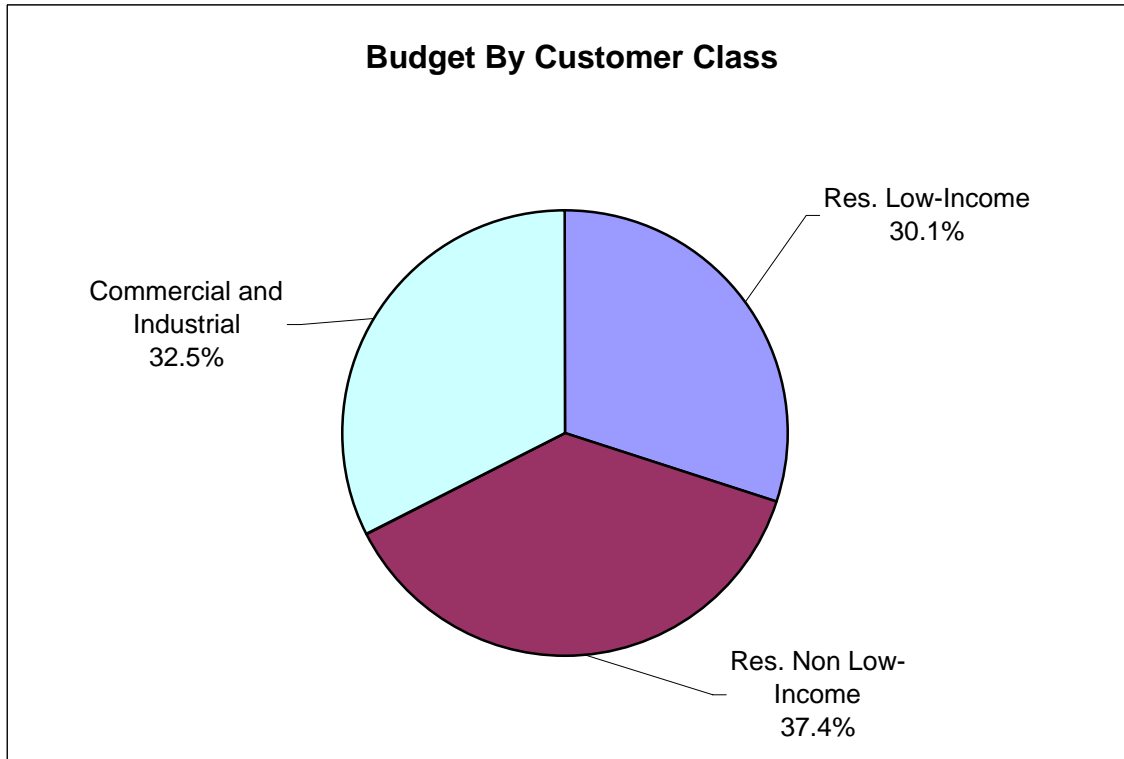
YGS 2007 Budget Analysis



| Customer Class | Budget | % of Total Conservation Budget | % of Residential & C&I Budget |
|---|--------------------|--------------------------------|-------------------------------|
| Res. Low-Income | \$400,000 | 25.82% | 25.97% |
| Res. Non Low-Income | \$630,000 | 40.67% | 40.91% |
| Residential Subtotal | \$1,030,000 | 66.49% | 66.88% |
| Commercial and Industrial | \$510,000 | 32.92% | 33.12% |
| C&I Subtotal | \$510,000 | 32.92% | 33.12% |
| Residential and C&I Subtotal | \$1,540,000 | 99.42% | 100.00% |
| Other Expenditures | | | |
| Other Expenditures | \$9,000 | 0.58% | |
| Other Expenditures Subtotal | \$9,000 | 0.58% | |
| TOTAL | \$1,549,000 | 100.00% | |

Totals may vary due to rounding

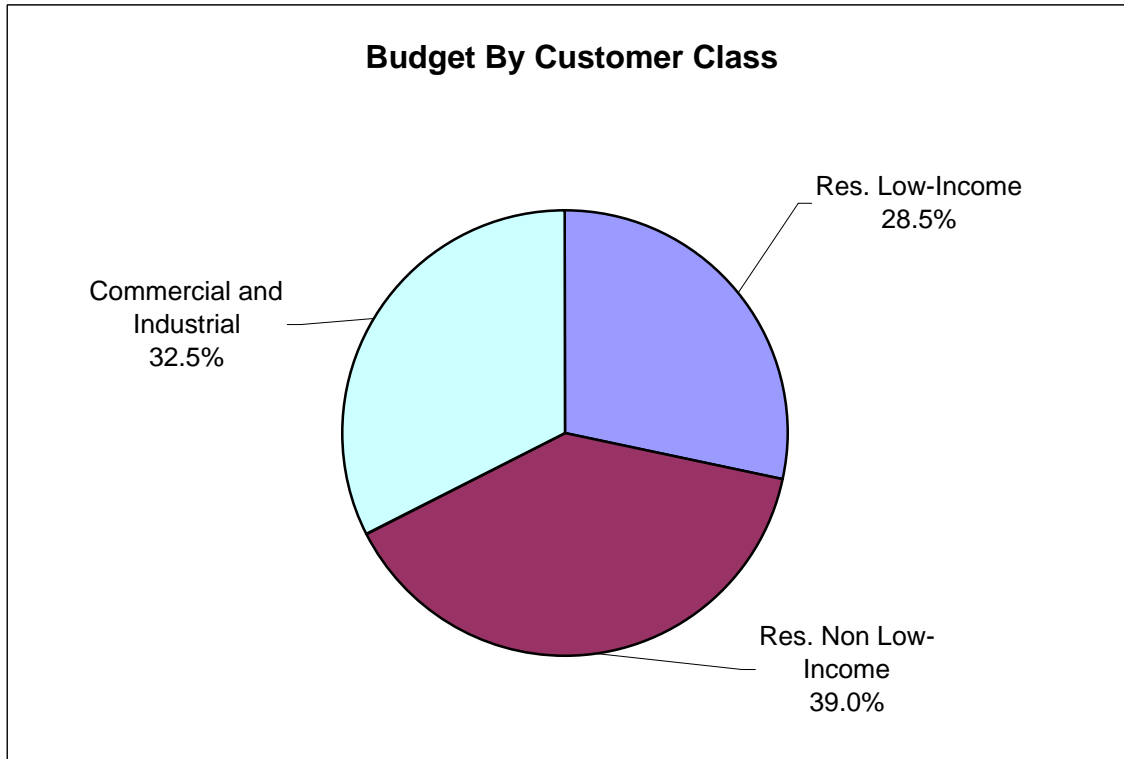
CNG 2007 Budget Analysis



| Customer Class | Budget | % of Total Conservation Budget | % of Residential & C&I Budget |
|---|--------------------|--------------------------------|-------------------------------|
| Res. Low-Income | \$370,000 | 29.51% | 30.08% |
| Res. Non Low-Income | \$460,000 | 36.68% | 37.40% |
| Residential Subtotal | \$830,000 | 66.19% | 67.48% |
| Commercial and Industrial | \$400,000 | 31.90% | 32.52% |
| C&I Subtotal | \$400,000 | 31.90% | 32.52% |
| Residential and C&I Subtotal | \$1,230,000 | 98.09% | 100.00% |
| Other Expenditures | | | |
| Other Expenditures | \$24,000 | 1.91% | |
| Other Expenditures Subtotal | \$24,000 | 1.91% | |
| TOTAL | \$1,254,000 | 100.00% | |

Totals may vary due to rounding

SCG 2007 Budget and Parity Analysis



| Customer Class | Budget | % of Total Conservation Budget | % of Residential & C&I Budget |
|---|--------------------|--------------------------------|-------------------------------|
| Res. Low-Income | \$350,000 | 27.91% | 28.46% |
| Res. Non Low-Income | \$480,000 | 38.28% | 39.02% |
| Residential Subtotal | \$830,000 | 66.19% | 67.48% |
| Commercial and Industrial | \$400,000 | 31.90% | 32.52% |
| C&I Subtotal | \$400,000 | 31.90% | 32.52% |
| Residential and C&I Subtotal | \$1,230,000 | 98.09% | 100.00% |
| Other Expenditures | | | |
| Other Expenditures | \$24,000 | 1.91% | |
| Other Expenditures Subtotal | \$24,000 | 1.91% | |
| TOTAL | \$1,254,000 | 100.00% | |

Totals may vary due to rounding

Summary
Table B1
2007 COMPARISON OF CONSERVATION PROGRAMS

| Program | 2007 Budget | Customer Cost 2007 | Total Resource Cost 2007 | Gas Benefit | Total Resource Benefit | % of 2007 Budget | Gas System B/C Ratio | Total Resource B/C Ratio | Goals/# Units | Units of Measure | Annualized Savings (ccf) | Lifetime Savings (ccf) | Annual Cost Rate (\$/ccf) | Lifetime Cost Rate (\$/ccf) |
|--|---------------------|--------------------|--------------------------|---------------------|------------------------|------------------|----------------------|--------------------------|---------------|------------------|--------------------------|------------------------|---------------------------|-----------------------------|
| RESIDENTIAL | | | | | | | | | | | | | | |
| YGS Low Income Weatherization and Heating System | \$ 400,000 | \$ - | \$ 400,000 | \$ 835,829 | \$ 932,564 | 25.8% | 2.09 | 2.33 | 660 | Homes | 56,432 | 1,128,642 | \$ 7.09 | \$ 0.35 |
| CNG Low Income Weatherization and Heating System | \$ 370,000 | \$ - | \$ 370,000 | \$ 772,348 | \$ 861,736 | 23.9% | 2.09 | 2.33 | 610 | Homes | 52,146 | 1,042,922 | \$ 7.10 | \$ 0.35 |
| SCG Low Income Weatherization and Heating System | \$ 350,000 | \$ - | \$ 350,000 | \$ 727,728 | \$ 811,952 | 22.6% | 2.08 | 2.32 | 574 | Homes | 49,134 | 982,670 | \$ 7.12 | \$ 0.36 |
| Sub Total Low Income | \$ 1,120,000 | \$ - | \$ 1,120,000 | \$ 2,335,904 | \$ 2,606,252 | 27.7% | 2.09 | 2.33 | 1,843 | Homes | 157,712 | 3,154,235 | \$ 7.10 | \$ 0.36 |
| YGS General Weatherization | \$ 600,000 | \$ 106,700 | \$ 706,700 | \$ 1,136,365 | \$ 1,167,117 | 38.7% | 1.89 | 1.65 | 1,524 | Homes | 65,898 | 1,551,974 | \$ 9.10 | \$ 0.39 |
| CNG General Weatherization | \$ 430,000 | \$ 74,933 | \$ 504,933 | \$ 798,043 | \$ 1,157,962 | 27.8% | 1.86 | 2.29 | 1,070 | Homes | 46,279 | 1,089,915 | \$ 9.29 | \$ 0.39 |
| SCG General Weatherization | \$ 450,000 | \$ 78,857 | \$ 528,857 | \$ 839,836 | \$ 1,159,093 | 29.1% | 1.87 | 2.19 | 1,127 | Homes | 48,702 | 1,146,993 | \$ 9.24 | \$ 0.39 |
| Sub Total GWP | \$ 1,480,000 | \$ 260,491 | \$ 1,740,491 | \$ 2,774,244 | \$ 3,484,171 | 36.6% | 1.87 | 2.00 | 3,721 | Homes | 160,879 | 3,788,882 | \$ 9.20 | \$ 0.39 |
| Subtotal Residential | \$ 2,600,000 | \$ 260,491 | \$ 2,860,491 | \$ 5,110,148 | \$ 6,090,423 | 64.3% | 1.97 | 2.13 | 5,565 | Homes | 318,591 | 7,860,443 | \$ 8.16 | \$ 0.33 |
| Commercial and Industrial | | | | | | | | | | | | | | |
| YGS Process Retrofit Pilot | \$ 510,000 | | \$ 510,000 | | | 32.9% | | | | | | | | |
| CNG Process Retrofit Pilot | \$ 400,000 | | \$ 400,000 | | | 25.8% | | | | | | | | |
| SCG Process Retrofit Pilot | \$ 400,000 | | \$ 400,000 | | | 25.8% | | | | | | | | |
| Subtotal Commercial & Industrial | \$ 1,310,000 | \$ - | \$ 1,310,000 | \$ - | \$ - | 32.4% | | | | | | | | |
| OTHER | | | | | | | | | | | | | | |
| YGS CHIF Loan Program | \$ 30,000 | | \$ 30,000 | | | 1.9% | | | | | | | | |
| CNG CHIF Loan Program | \$ 30,000 | | \$ 30,000 | | | 1.9% | | | | | | | | |
| SCG CHIF Loan Program | \$ 15,000 | | \$ 15,000 | | | 1.0% | | | | | | | | |
| Sub Total Other - CHIF | \$ 75,000 | | \$ 75,000 | | | 1.9% | | | | | | | | |
| YGS RCS Audit Program | \$ - | | \$ - | | | 0.0% | | | | | | | | |
| CNG RCS Audit Program | \$ 15,000 | | \$ 15,000 | | | 1.0% | | | | | | | | |
| SCG RCS Audit Program | \$ 15,000 | | \$ 15,000 | | | 1.0% | | | | | | | | |
| Sub Total Other - RCS Audit | \$ 30,000 | | \$ 30,000 | | | 0.7% | | | | | | | | |
| YGS Planning, Evaluation and ECMB | \$ 9,000 | | \$ 9,000 | | | 0.6% | | | | | | | | |
| CNG Planning, Evaluation and ECMB | \$ 9,000 | | \$ 9,000 | | | 0.6% | | | | | | | | |
| SCG Planning, Evaluation and ECMB | \$ 9,000 | | \$ 9,000 | | | 0.6% | | | | | | | | |
| Sub Total Other - Evaluation | \$ 27,000 | | \$ 27,000 | | | 0.7% | | | | | | | | |
| Subtotal Other | \$ 132,000 | \$ - | \$ 132,000 | \$ - | \$ - | 3.3% | - | - | | | | | | |
| PROGRAM SUBTOTALS | | | | | | | | | | | | | | |
| YGS Residential | \$ 1,000,000 | \$ 106,700 | \$ 1,106,700 | \$ 1,972,194 | \$ 2,099,681 | 64.6% | | | | | 122,330 | 2,680,616 | \$ 8.17 | \$ 0.37 |
| CNG Residential | \$ 800,000 | \$ 74,933 | \$ 874,933 | \$ 1,570,391 | \$ 2,019,698 | 51.6% | | | | | 98,425 | 2,132,837 | \$ 8.13 | \$ 0.38 |
| SCG Residential | \$ 800,000 | \$ 78,857 | \$ 878,857 | \$ 1,567,563 | \$ 1,971,044 | 51.6% | | | | | 97,836 | 2,129,663 | \$ 8.18 | \$ 0.38 |
| Residential Total | \$ 2,600,000 | \$ 260,491 | \$ 2,860,491 | \$ 5,110,148 | \$ 6,090,423 | 64.3% | | | | | 318,591 | 6,943,116 | \$ 8.16 | \$ 0.37 |
| YGS C&I | \$ 510,000 | \$ - | \$ 510,000 | \$ - | \$ - | 32.9% | | | | | | | | |
| CNG C&I | \$ 400,000 | \$ - | \$ 400,000 | \$ - | \$ - | 25.8% | | | | | | | | |
| SCG C&I | \$ 400,000 | \$ - | \$ 400,000 | \$ - | \$ - | 25.8% | | | | | | | | |
| C&I Total | \$ 1,310,000 | \$ - | \$ 1,310,000 | \$ - | \$ - | 32.4% | | | | | | | | |
| YGS Other | \$ 39,000 | \$ - | \$ 39,000 | \$ - | \$ - | 2.5% | | | | | | | | |
| CNG Other | \$ 54,000 | \$ - | \$ 54,000 | \$ - | \$ - | 3.5% | | | | | | | | |
| SCG Other | \$ 39,000 | \$ - | \$ 39,000 | \$ - | \$ - | 2.5% | | | | | | | | |
| Other Total | \$ 132,000 | \$ - | \$ 132,000 | \$ - | \$ - | 3.3% | | | | | | | | |
| YGS TOTAL | \$ 1,549,000 | \$ 106,700 | \$ 1,655,700 | \$ 1,972,194 | \$ 2,099,681 | 38.3% | | | | | | | | |
| CNG TOTAL | \$ 1,254,000 | \$ 74,933 | \$ 1,328,933 | \$ 1,570,391 | \$ 2,019,698 | 31.0% | | | | | | | | |
| SCG TOTAL | \$ 1,239,000 | \$ 78,857 | \$ 1,317,857 | \$ 1,567,563 | \$ 1,971,044 | 30.7% | | | | | | | | |
| GRAND TOTAL | \$ 4,042,000 | \$ 260,491 | \$ 4,302,491 | \$ 5,110,148 | \$ 6,090,423 | 100.0% | 1.26 | 1.42 | | | 318,591 | 7,860,443 | | |

Totals may vary due to rounding

Yankee Gas
Table B
2007 COMPARISON OF CONSERVATION PROGRAMS

| Program | 2007 Budget | Customer Cost 2007 | Total Resource Cost 2007 | Gas Benefit | Total Resource Benefit | % of 2007 Budget | Gas System B/C Ratio | Total Resource B/C Ratio | Goals/# Units | Units of Measure | Annualized Savings (ccf) | Lifetime Savings (ccf) | Annual Cost Rate (\$/ccf) | Lifetime Cost Rate (\$/ccf) |
|--|---------------------|--------------------|--------------------------|---------------------|------------------------|------------------|----------------------|--------------------------|---------------|------------------|--------------------------|------------------------|---------------------------|-----------------------------|
| RESIDENTIAL | | | | | | | | | | | | | | |
| Low Income Weatherization and Heating System | \$ 400,000 | \$ - | \$ 400,000 | \$ 835,829 | \$ 932,564 | 25.8% | 2.09 | 2.33 | 660 | Homes | 56,432 | 1,128,642 | \$ 7.09 | \$ 0.35 |
| General Weatherization | \$ 600,000 | \$ 106,700 | \$ 706,700 | \$ 1,136,365 | \$ 1,167,117 | 38.7% | 1.89 | 1.65 | 1,524 | Homes | 65,898 | 1,551,974 | \$ 9.10 | \$ 0.39 |
| Subtotal Residential | \$ 1,000,000 | \$ 106,700 | \$ 1,106,700 | \$ 1,972,194 | \$ 2,099,681 | 64.6% | 1.97 | 1.90 | | | 122,330 | 2,680,616 | \$ 8.17 | \$ 0.37 |
| COMMERCIAL & INDUSTRIAL | | | | | | | | | | | | | | |
| Process Retrofit Pilot | \$ 510,000 | \$ - | \$ 510,000 | \$ - | \$ - | 32.9% | - | - | | | - | - | | |
| Subtotal Commercial & Industrial | \$ 510,000 | \$ - | \$ 510,000 | \$ - | \$ - | 32.9% | - | - | | | - | - | | |
| OTHER | | | | | | | | | | | | | | |
| CHIF Loan Program | \$ 30,000 | | \$ 30,000 | | | 1.9% | | | | | | | | |
| RCS Audit Program | \$ - | | \$ - | | | 0.0% | | | | | | | | |
| Planning, Evaluation and ECMB | \$ 9,000 | | \$ 9,000 | | | 0.6% | | | | | | | | |
| Subtotal Other | \$ 39,000 | \$ - | \$ 39,000 | \$ - | \$ - | 2.5% | - | - | | | | | | |
| PROGRAM SUBTOTALS | | | | | | | | | | | | | | |
| Residential | \$ 1,000,000 | \$ 106,700 | \$ 1,106,700 | \$ 1,972,194 | \$ 2,099,681 | 64.6% | | | | | 122,330 | 2,680,616 | | |
| C&I | \$ 510,000 | \$ - | \$ 510,000 | \$ - | \$ - | 32.9% | | | | | - | - | | |
| Other** | \$ 39,000 | \$ - | \$ 39,000 | \$ - | \$ - | 2.5% | | | | | - | - | | |
| TOTAL | \$ 1,549,000 | \$ 106,700 | \$ 1,655,700 | \$ 1,972,194 | \$ 2,099,681 | 100.0% | 1.27 | 1.27 | | | 122,330 | 2,680,616 | | |

Connecticut Natural Gas
Table B
2007 COMPARISON OF CONSERVATION PROGRAMS

| Program | 2007 Budget | Customer Cost 2007 | Total Resource Cost 2007 | Gas Benefit | Total Resource Benefit | % of 2007 Budget | Gas System B/C Ratio | Total Resource B/C Ratio | Goals/# Units | Units of Measure | Annualized Savings (ccf) | Lifetime Savings (ccf) | Annual Cost Rate (\$/ccf) | Lifetime Cost Rate (\$/ccf) |
|--|---------------------|--------------------|--------------------------|---------------------|------------------------|------------------|----------------------|--------------------------|---------------|------------------|--------------------------|------------------------|---------------------------|-----------------------------|
| RESIDENTIAL | | | | | | | | | | | | | | |
| Low Income Weatherization and Heating System | \$ 370,000 | \$ - | \$ 370,000 | \$ 772,348 | \$ 861,736 | 29.5% | 2.09 | 2.33 | 610 | Homes | 52,146 | 1,042,922 | \$ 7.10 | \$ 0.35 |
| General Weatherization | \$ 430,000 | \$ 74,933 | \$ 504,933 | \$ 798,043 | \$ 1,157,962 | 34.3% | 1.86 | 2.29 | 1,070 | Homes | 46,279 | 1,089,915 | \$ 9.29 | \$ 0.39 |
| Subtotal Residential | \$ 800,000 | \$ 74,933 | \$ 874,933 | \$ 1,570,391 | \$ 2,019,698 | 63.8% | 1.96 | 2.31 | 1,680 | | 98,425 | 2,132,837 | \$ 8.13 | \$ 0.38 |
| COMMERCIAL & INDUSTRIAL | | | | | | | | | | | | | | |
| Process Retrofit Pilot | \$ 400,000 | | | | | 31.9% | | | | | | | | |
| Subtotal Commercial & Industrial | \$ 400,000 | \$ - | \$ - | \$ - | \$ - | 31.9% | | | | | | | | |
| OTHER | | | | | | | | | | | | | | |
| CHIF Loan Program | \$ 30,000 | | | | | 2.4% | | | | | | | | |
| RCS Audit Program | \$ 15,000 | | | | | 1.2% | | | | | | | | |
| Planning, Evaluation and ECMB | \$ 9,000 | | | | | 0.7% | | | | | | | | |
| Subtotal Other | \$ 54,000 | \$ - | \$ - | \$ - | \$ - | 4.3% | | | | | | | | |
| PROGRAM SUBTOTALS | | | | | | | | | | | | | | |
| Residential | \$ 800,000 | \$ 74,933 | \$ 874,933 | \$ 1,570,391 | \$ 2,019,698 | 63.8% | | | | | 98,425 | 2,132,837 | | |
| C&I | \$ 400,000 | \$ - | \$ - | \$ - | \$ - | 31.9% | | | | | - | - | | |
| Other** | \$ 54,000 | \$ - | \$ - | \$ - | \$ - | 4.3% | | | | | - | - | | |
| TOTAL | \$ 1,254,000 | \$ 74,933 | \$ 874,933 | \$ 1,570,391 | \$ 2,019,698 | 100.0% | 1.25 | 2.31 | | | 98,425 | 2,132,837 | | |

Southern Connecticut Gas
Table B
2007 COMPARISON OF CONSERVATION PROGRAMS

| Program | 2007 Budget | Customer Cost 2007 | Total Resource Cost 2007 | Gas Benefit | Total Resource Benefit | % of 2007 Budget | Gas System B/C Ratio | Total Resource B/C Ratio | Goals/# Units | Units of Measure | Annualized Savings (ccf) | Lifetime Savings (ccf) | Annual Cost Rate (\$/ccf) | Lifetime Cost Rate (\$/ccf) |
|--|---------------------|--------------------|--------------------------|---------------------|------------------------|------------------|----------------------|--------------------------|---------------|------------------|--------------------------|------------------------|---------------------------|-----------------------------|
| RESIDENTIAL | | | | | | | | | | | | | | |
| Low Income Weatherization and Heating System | \$ 350,000 | \$ - | \$ 350,000 | \$ 727,728 | \$ 811,952 | 27.9% | 2.08 | 2.32 | 574 | Homes | 49,134 | 982,670 | \$ 7.12 | \$ 0.36 |
| General Weatherization | \$ 450,000 | \$ 78,857 | \$ 528,857 | \$ 839,836 | \$ 1,159,093 | 35.9% | 1.87 | 2.19 | 1,127 | Homes | 48,702 | 1,146,993 | \$ 9.24 | \$ 0.39 |
| Subtotal Residential | \$ 800,000 | \$ 78,857 | \$ 878,857 | \$ 1,567,563 | \$ 1,971,044 | 63.8% | 1.96 | 2.24 | | | 97,836 | 2,129,663 | \$ 8.18 | \$ 0.38 |
| COMMERCIAL & INDUSTRIAL | | | | | | | | | | | | | | |
| Process Retrofit Pilot | \$ 400,000 | | | | | 31.9% | | | | | | | | |
| Subtotal Commercial & Industrial | \$ 400,000 | \$ - | \$ - | \$ - | \$ - | 31.9% | | | | | | | | |
| OTHER | | | | | | | | | | | | | | |
| CHIF Loan Program | \$ 30,000 | | | | | 2.4% | | | | | | | | |
| RCS Audit Program | \$ 15,000 | | | | | 1.2% | | | | | | | | |
| Planning, Evaluation and ECMB | \$ 9,000 | | | | | 0.7% | | | | | | | | |
| Subtotal Other | \$ 54,000 | \$ - | \$ - | \$ - | \$ - | 4.3% | | | | | | | | |
| PROGRAM SUBTOTALS | | | | | | | | | | | | | | |
| Residential | \$ 800,000 | \$ 78,857 | \$ 878,857 | \$ 1,567,563 | \$ 1,971,044 | 63.8% | | | | | 97,836 | 2,129,663 | | |
| C&I | \$ 400,000 | \$ - | \$ - | \$ - | \$ - | 31.9% | | | | | - | - | | |
| Other** | \$ 54,000 | \$ - | \$ - | \$ - | \$ - | 4.3% | | | | | - | - | | |
| TOTAL | \$ 1,254,000 | \$ 78,857 | \$ 878,857 | \$ 1,567,563 | \$ 1,971,044 | 100.0% | 1.3 | 2.2 | | | 97,836 | 2,129,663 | | |

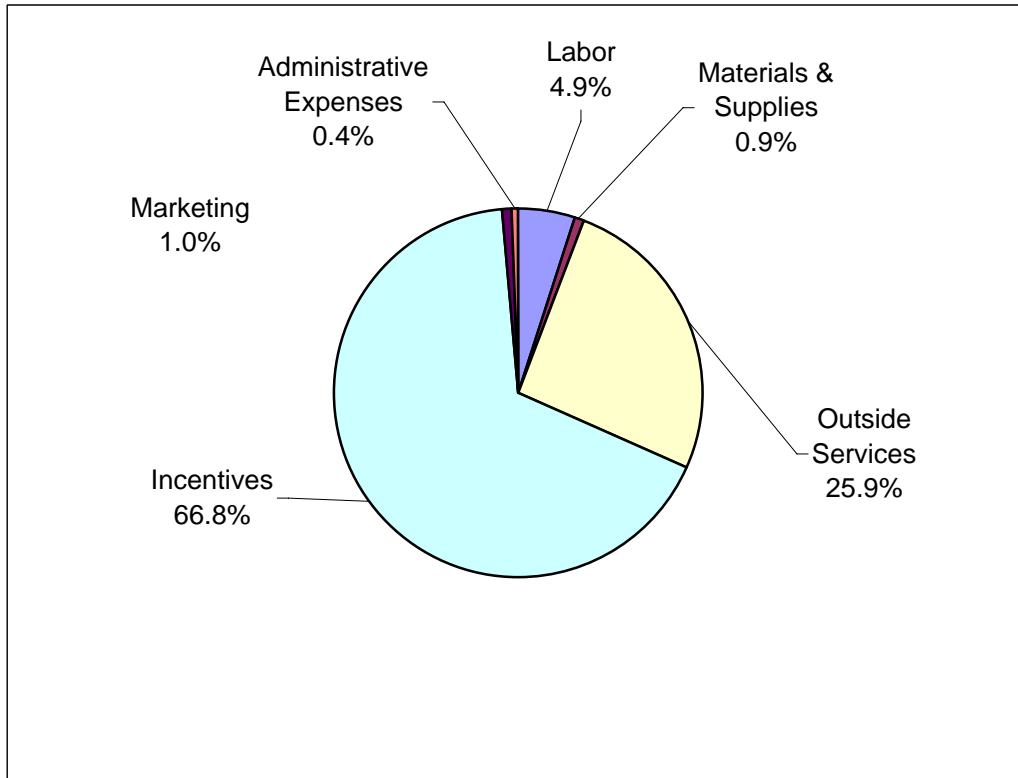
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**Table C
YGS 2007 Budget Details**

| GAS CONSERVATION BUDGET (\$000) | Labor | Materials & Supplies | Outside Services | Incentives | Marketing | Administrative Expenses | TOTAL |
|--|------------------|---|-----------------------------|---------------------|------------------|------------------------------------|---------------------|
| RESIDENTIAL | | | | | | | |
| Low Income Weatherization and Heating System | \$ 30,200 | \$ 2,000 | \$ 136,488 | \$ 226,912 | \$ 3,000 | \$ 1,400 | \$ 400,000 |
| General Weatherization | \$ 20,000 | \$ 3,000 | \$ 182,915 | \$ 388,085 | \$ 4,000 | \$ 2,000 | \$ 600,000 |
| Subtotal Residential | \$ 50,200 | \$ 5,000 | \$ 319,403 | \$ 614,997 | \$ 7,000 | \$ 3,400 | \$ 1,000,000 |
| COMMERCIAL & INDUSTRIAL | | | | | | | |
| Process Retrofit Pilot | \$ 26,300 | \$ 8,800 | \$ 42,966 | \$ 419,634 | \$ 8,800 | \$ 3,500 | \$ 510,000 |
| Subtotal C&I | \$ 26,300 | \$ 8,800 | \$ 42,966 | \$ 419,634 | \$ 8,800 | \$ 3,500 | \$ 510,000 |
| OTHER | | | | | | | |
| CHIF Loan Program | \$ - | \$ - | \$ 30,000 | \$ - | \$ - | \$ - | \$ 30,000 |
| RCS Audit Program | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Planning, Evaluation and ECMB | \$ - | \$ - | \$ 9,000 | \$ - | \$ - | \$ - | \$ 9,000 |
| Subtotal Other | \$ - | \$ - | \$ 39,000 | \$ - | \$ - | \$ - | \$ 39,000 |
| PROGRAM SUBTOTALS | | | | | | | |
| Residential | \$ 50,200 | \$ 5,000 | \$ 319,403 | \$ 614,997 | \$ 7,000 | \$ 3,400 | \$ 1,000,000 |
| C&I | \$ 26,300 | \$ 8,800 | \$ 42,966 | \$ 419,634 | \$ 8,800 | \$ 3,500 | \$ 510,000 |
| Other | \$ - | \$ - | \$ 39,000 | \$ - | \$ - | \$ - | \$ 39,000 |
| TOTAL BUDGET | \$ 76,500 | \$ 13,800 | \$ 401,369 | \$ 1,034,631 | \$ 15,800 | \$ 6,900 | \$ 1,549,000 |

Totals may vary due to rounding

YGS
2007 Gas Conservation
Budget By Expense Class



| Expense Classes | Budget | % of Budget |
|-------------------------|---------------------|----------------|
| Labor | \$ 76,500 | 4.9% |
| Materials & Supplies | \$ 13,800 | 0.9% |
| Outside Services | \$ 401,369 | 25.9% |
| Incentives | \$ 1,034,631 | 66.8% |
| Marketing | \$ 15,800 | 1.0% |
| Administrative Expenses | \$ 6,900 | 0.4% |
| Total | \$ 1,549,000 | 100.00% |

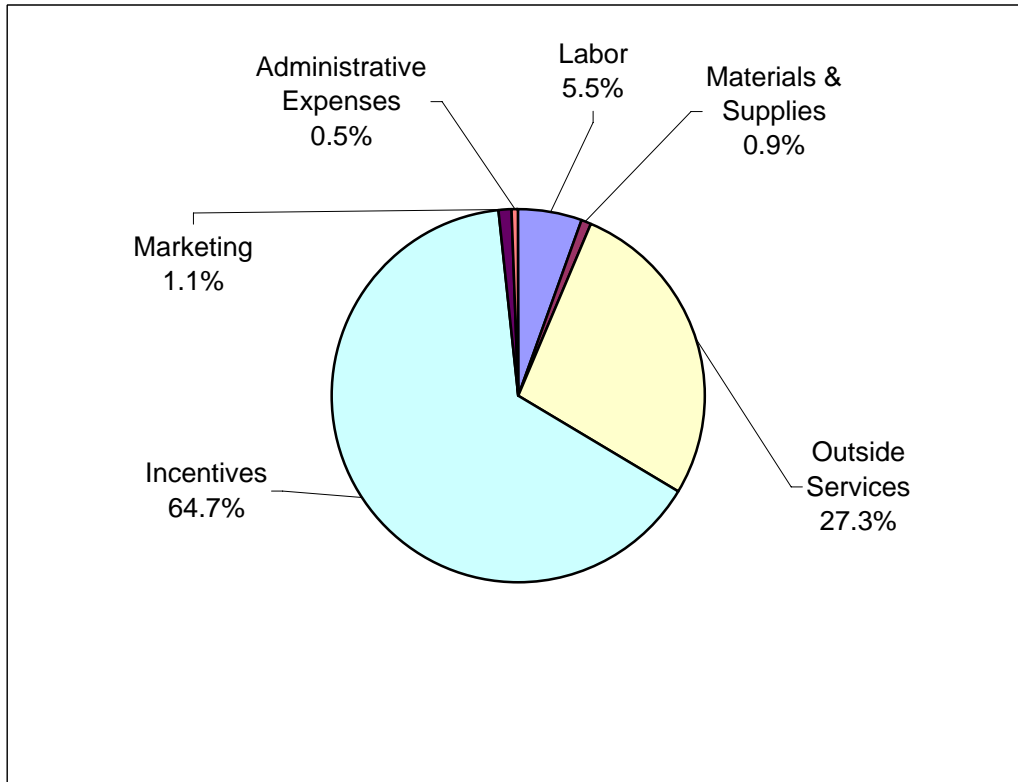
Totals may vary due to rounding

**Table C
CNG 2007 Budget Details**

| GAS CONSERVATION BUDGET (\$000) | Labor | Materials & Supplies | Outside Services | Incentives | Marketing | Administrative Expenses | TOTAL |
|--|------------------|---|-----------------------------|-------------------|------------------|------------------------------------|---------------------|
| RESIDENTIAL | | | | | | | |
| Low Income Weatherization and Heating System | \$ 27,800 | \$ 2,000 | \$ 126,122 | \$ 209,678 | \$ 3,000 | \$ 1,400 | \$ 370,000 |
| General Weatherization | \$ 20,000 | \$ 3,000 | \$ 128,457 | \$ 272,543 | \$ 4,000 | \$ 2,000 | \$ 430,000 |
| Subtotal Residential | \$ 47,800 | \$ 5,000 | \$ 254,579 | \$ 482,221 | \$ 7,000 | \$ 3,400 | \$ 800,000 |
| COMMERCIAL & INDUSTRIAL | | | | | | | |
| Process Retrofit Pilot | \$ 20,600 | \$ 6,900 | \$ 33,667 | \$ 329,188 | \$ 6,900 | \$ 2,745 | \$ 400,000 |
| Subtotal C&I | \$ 20,600 | \$ 6,900 | \$ 33,667 | \$ 329,188 | \$ 6,900 | \$ 2,745 | \$ 400,000 |
| OTHER | | | | | | | |
| CHIF Loan Program | \$ - | \$ - | \$ 30,000 | \$ - | \$ - | \$ - | \$ 30,000 |
| RCS Audit Program | \$ - | \$ - | \$ 15,000 | \$ - | \$ - | \$ - | \$ 15,000 |
| Planning, Evaluation and ECMB | \$ - | \$ - | \$ 9,000 | \$ - | \$ - | \$ - | \$ 9,000 |
| Subtotal Other | \$ - | \$ - | \$ 54,000 | \$ - | \$ - | \$ - | \$ 54,000 |
| PROGRAM SUBTOTALS | | | | | | | |
| Residential | \$ 47,800 | \$ 5,000 | \$ 254,579 | \$ 482,221 | \$ 7,000 | \$ 3,400 | \$ 800,000 |
| C&I | \$ 20,600 | \$ 6,900 | \$ 33,667 | \$ 329,188 | \$ 6,900 | \$ 2,745 | \$ 400,000 |
| Other | \$ - | \$ - | \$ 54,000 | \$ - | \$ - | \$ - | \$ 54,000 |
| TOTAL BUDGET | \$ 68,400 | \$ 11,900 | \$ 342,246 | \$ 811,409 | \$ 13,900 | \$ 6,145 | \$ 1,254,000 |

Totals may vary due to rounding

CNG
2007 Gas Conservation
Budget By Expense Class



| Expense Classes | Budget | % of Budget |
|-------------------------|---------------------|--------------------|
| Labor | \$ 68,400 | 5.5% |
| Materials & Supplies | \$ 11,900 | 0.9% |
| Outside Services | \$ 342,246 | 27.3% |
| Incentives | \$ 811,409 | 64.7% |
| Marketing | \$ 13,900 | 1.1% |
| Administrative Expenses | \$ 6,145 | 0.5% |
| Total | \$ 1,254,000 | 100.00% |

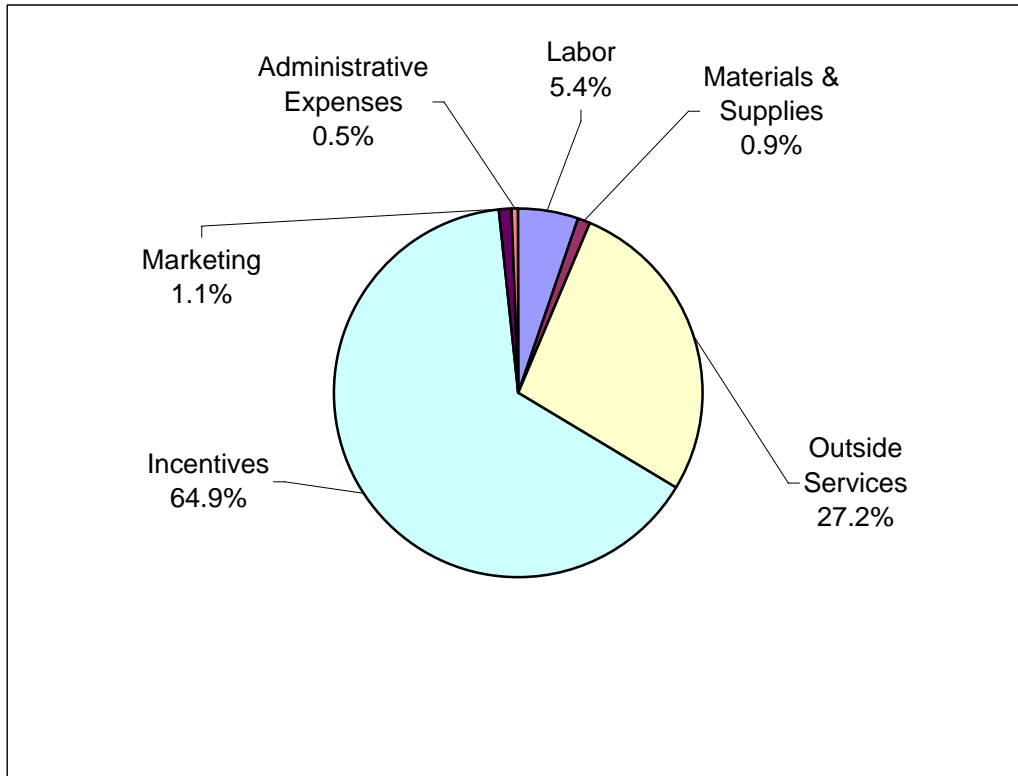
Totals may vary due to rounding

**Table C
SCG 2007 Budget Details**

| GAS CONSERVATION BUDGET (\$000) | Labor | Materials & Supplies | Outside Services | Incentives | Marketing | Administrative Expenses | TOTAL |
|--|------------------|---|-----------------------------|-------------------|------------------|------------------------------------|---------------------|
| RESIDENTIAL | | | | | | | |
| Low Income Weatherization and Heating System | \$ 27,200 | \$ 2,000 | \$ 118,836 | \$ 197,564 | \$ 3,000 | \$ 1,400 | \$ 350,000 |
| General Weatherization | \$ 20,000 | \$ 2,000 | \$ 135,184 | \$ 286,816 | \$ 4,000 | \$ 2,000 | \$ 450,000 |
| Subtotal Residential | \$ 47,200 | \$ 4,000 | \$ 254,020 | \$ 484,380 | \$ 7,000 | \$ 3,400 | \$ 800,000 |
| COMMERCIAL & INDUSTRIAL | | | | | | | |
| Process Retrofit Pilot | \$ 20,600 | \$ 6,900 | \$ 33,667 | \$ 329,188 | \$ 6,900 | \$ 2,745 | \$ 400,000 |
| Subtotal C&I | \$ 20,600 | \$ 6,900 | \$ 33,667 | \$ 329,188 | \$ 6,900 | \$ 2,745 | \$ 400,000 |
| OTHER | | | | | | | |
| CHIF Loan Program | \$ - | \$ - | \$ 30,000 | \$ - | \$ - | \$ - | \$ 30,000 |
| RCS Audit Program | \$ - | \$ - | \$ 15,000 | \$ - | \$ - | \$ - | \$ 15,000 |
| Planning, Evaluation and ECMB | \$ - | \$ - | \$ 9,000 | \$ - | \$ - | \$ - | \$ 9,000 |
| Subtotal Other | \$ - | \$ - | \$ 54,000 | \$ - | \$ - | \$ - | \$ 54,000 |
| PROGRAM SUBTOTALS | | | | | | | |
| Residential | \$ 47,200 | \$ 4,000 | \$ 254,020 | \$ 484,380 | \$ 7,000 | \$ 3,400 | \$ 800,000 |
| C&I | \$ 20,600 | \$ 6,900 | \$ 33,667 | \$ 329,188 | \$ 6,900 | \$ 2,745 | \$ 400,000 |
| Other | \$ - | \$ - | \$ 54,000 | \$ - | \$ - | \$ - | \$ 54,000 |
| TOTAL BUDGET | \$ 67,800 | \$ 10,900 | \$ 341,687 | \$ 813,568 | \$ 13,900 | \$ 6,145 | \$ 1,254,000 |

Totals may vary due to rounding

SCG
2007 Gas Conservation
Budget By Expense Class



| Expense Classes | Budget | % of Budget |
|-------------------------|---------------------|--------------------|
| Labor | \$ 67,800 | 5.4% |
| Materials & Supplies | \$ 10,900 | 0.9% |
| Outside Services | \$ 341,687 | 27.2% |
| Incentives | \$ 813,568 | 64.9% |
| Marketing | \$ 13,900 | 1.1% |
| Administrative Expenses | \$ 6,145 | 0.5% |
| Total | \$ 1,254,000 | 100.00% |

Totals may vary due to rounding

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CHAPTER TWO: RESIDENTIAL PROGRAMS

Residential Low-Income Weatherization and Heating System

Objective: The objectives of the Companies' Low-Income Weatherization Residential Assistance Partnership with Heating System Replacement ("WRAP-HS") program are to reduce the utility bills of low-income customers and make their houses more energy-efficient and comfortable by:

- Installing weatherization measures and performing energy conservation services at no cost to the participant.
- Providing energy efficiency education to raise customer awareness of conservation and to encourage them to take behavioral and other steps beyond weatherization to further reduce energy consumption.
- Having a streamlined program delivery mechanism by working in conjunction with the electric efficiency Weatherization Residential Assistance Partnership ("WRAP"), administered by the utilities and delivered through Community Action Agencies ("CAAs") within the State and/or vendors.
- Replacing older, inefficient heating and water heating systems.

Target

Market: Customers participating in WRAP-HS must meet the following eligibility criteria:

- Owner-occupied one to four residential dwelling units, or renters who pay for their own natural gas heat and have a natural gas account in their name.
- Consistent with WRAP program eligibility guidelines:
 - Household income less than 60 percent of the State median income and,
 - Dwelling unit must not have received WRAP services in the prior 18 months.

Program

Description: The WRAP-HS program will utilize existing electric company agreements with the CAAs and/or vendors that deliver the electric efficiency WRAP Program.

Qualified, low-income, residential customers will receive free energy efficiency services through the following process:

- 1) Leads are primarily generated by CAAs. As a result of program awareness campaigns, leads will also be generated by direct mail, bill inserts, media advertising, Energy Forums, and the Companies' call centers.
- 2) An appointment is made with the customer.
- 3) A qualified CAA auditor conducts a walk-through needs analysis to identify potential energy saving measures.
- 4) *HomeCheck*¹ audit software is used to assess the energy savings potential and cost-effectiveness of various measures. Health and safety factors are also considered in the audit. Using *HomeCheck*, the audit will address a comprehensive assortment of energy saving measures outlined below:
 - a) Building Envelope
 - A blower-door test is performed to quantify the amount of air leakage. If required, air sealing measures are installed, and a follow-up blower door test is conducted to measure the effectiveness of the air sealing.
 - The audit determines the need for additional insulation based on cost-effectiveness criteria using the Total Resource Benefit/Cost Test². Necessary insulation is installed at a follow-up appointment. Appropriate

¹ *HomeCheck* software is proprietary, approved by the U.S. DOE and is the residential audit tool used in CL&P's WRAP Program.

² Refer to Chapter 5: Benefit-Cost Analysis.

ventilation is installed when necessary to prevent moisture problems (i.e., ridge and eave vents in attics).

- A visual assessment of the basement is performed to identify moisture problems and determine whether pipes or ducts need to be insulated. Appropriate actions are taken to rectify any identified problem areas, which may or may not entail a follow-up appointment.

b) Domestic Hot Water

- Domestic hot water measures are assessed, including the installation of low-flow showerheads and faucet aerators.
- If a freestanding hot water heater exists, it is tested; and the unit may be wrapped and/or the set-point adjusted to improve efficiency and prevent a scalding hazard. Older, inefficient water heaters will be identified and replaced with new, energy-efficient models, where cost effective. In particular, water heaters with an energy factor less than 0.5 and/or water heaters that pre-date the 1992 Federal Energy Policy Act will be targeted.

c) Heating System

- An assessment is conducted on the heating system, including combustion testing. The system is cleaned and tuned.
- If deemed cost-effective or necessary for health and safety reasons, old, inefficient natural gas furnaces and boilers will be replaced with similar, more efficient units. EnergyStar[®] rated equipment will be provided when such units are available and practical. EnergyStar[®] rated equipment will have priority and will be used in all instances where the benefit-cost ratio equals or exceeds 1.0. However, some dwellings may have certain site characteristics which limit the use of Energy Star[®] equipment. In these instances, the Companies will provide equipment with the best available cost-effective criteria that

accommodates the site characteristics. Boilers that are replaced will be equipped with indirect hot water systems, where cost effective.

- In situations where heating systems are replaced, Program Administrators will seek bids from three contractors. Each contractor will submit a price for an Energy Star® unit and a price for a standard non Energy Star® unit³.
- The Program Administrator will verify the following before the contractor is paid for the service:
 - The contractor has provided documented evidence of compliance with local and state building standards including copies of required local permits.
 - The town building official has conducted a field inspection.
 - The installation of system complies with program rules including verification that the installed efficiency (AFUE) meets program guidelines.

d) Energy Education

Energy efficiency education will be provided to every participating household. Additionally, referrals to the appropriate CAA and/or the utility's Community Relations function will be made if household budget management counseling is requested by the customer.

³ If a situation arises during the winter months where the system is deemed unsafe or inoperable ("emergency situations"), the multiple bid requirement can be waived. In such situations, bid(s) that are obtained will be screened and approved by the Program Administrator to ensure that they are reasonable before any work is authorized.

e) Electric Program Synergies

Since the WRAP-HS program works in conjunction, and is synergistic with the WRAP program of the electric companies, the walk-through and audit will also seek to identify and provide cost-effective measures which reduce electric energy usage and cost. Therefore, measures such as energy-efficient compact fluorescent lighting will be provided as appropriate. The costs and savings associated with electric measures will not be included in the Companies' natural gas programs. Instead, they will be allocated to and installed under the Connecticut Energy Efficiency Fund ("CEEF") electric conservation programs⁴.

Marketing

Strategy: Existing, proven promotional mechanisms from the electric WRAP program will be utilized to promote and generate awareness for the Companies' WRAP-HS program. These include CAAs, social service agencies, senior citizen organizations, family welfare agencies, landlords, and public housing authorities. WRAP-HS will also have leads generated via the distribution of brochures, bill inserts, targeted mailings, and through call centers of Yankee, CNG, SCG and the electric utilities. WRAP-HS will also be promoted to customers at area Home Shows and Energy Forums in which the Companies participate.

Incentive

Strategy: Incentives are designed to pay for 100 percent of all cost-effective weatherization measures as determined by the B/C ratio.

Incentives for replacement of inefficient heating systems, when appropriate, will be up to the full replacement costs, which are expected to be approximately \$3,640 per replacement based on actual results for the first twenty heating system replacements evaluated under the pilot program through mid-January 2006. Full replacement cost includes labor and material associated with removing existing and installing new equipment, in addition to additional related costs that may be necessary at some locations based on site-specific conditions. Such conditions

⁴ Please refer to the 2007 Connecticut Light and Power Conservation Plan (Docket No. 06-10-02) for information on electric measures installed through the electric WRAP Program.

include: (a) the presence of asbestos, (b) tight working space requiring the dismantling and removal of existing equipment, (c) unhealthy working conditions caused by broken sewage piping and (d) the need to provide return air ducting.

Goals: Refer to standard filing requirement for program goals.

New
Program

Issues: Based on preliminary results and recommendations from a recently conducted WRAP process evaluation, the Companies anticipate that programmatic changes will be developed and implemented to further improve program delivery. Upon issuance of the final report and identification of specific program changes, an updated program plan reflecting these changes will be filed with the Department.

YGS Standard Filing Requirement

Low Income Weatherization and Heating System

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> | | |
|---------------------------|------------------------|------------------------------|------------------------|---|---|
| Labor | \$ 20,000 | \$ 44,444 | \$ 30,200 | | |
| Outside Service | \$ 74,360 | \$ 24,020 | \$ 136,488 | | |
| Material & Supply | \$ 4,000 | \$ 500 | \$ 2,000 | | |
| Incentives | \$ 133,573 | \$ 217,296 | \$ 226,912 | | |
| Marketing | \$ 11,000 | \$ 1,541 | \$ 3,000 | | |
| Administrative Expense | \$ 1,000 | \$ 547 | \$ 1,400 | | |
| Total | \$ 243,933 | \$ 288,347 | \$ 400,000 | 1 | a |

Note 1: Includes \$50,000 for Furnace Replacements

| <u>Energy Savings Information</u> | <u>2006 Goal</u> | <u>2006 YE Projected</u> | <u>2007 Goal</u> | |
|--|----------------------|------------------------------|----------------------|-------|
| Annual Energy Savings (ccf Reduction Goal) | 35,150 | 57,475 | 56,432 | b |
| Lifetime Energy Savings (ccf Reduction Goal) | 572,388 | 1,172,876 | 1,128,642 | c |
| Annual Cost Rate (\$/ccf) | \$ 6.94 | \$ 5.02 | \$ 7.09 | d=a/b |
| Lifetime Cost Rate (\$/ccf) | \$ 0.43 | \$ 0.25 | \$ 0.35 | e=a/c |
| Total Gas Benefit | \$ 493,497 | \$ 1,011,221 | \$ 835,829 | f |
| Total Gas System Benefit-Cost Ratio | \$ 2.02 | \$ 3.51 | \$ 2.09 | g=f/a |
| Homes Served | 301 | 607 | 660 | h |
| Lifetime Savings per Home (ccf) | 1,902 | 1,932 | 1,711 | i=c/h |
| Program Cost per Home | \$ 810 | \$ 475 | \$ 606 | k=a/h |
| Benefit per Home | \$ 1,640 | \$ 1,665 | \$ 1,267 | l=f/h |

CNG Standard Filing Requirement

Low Income Weatherization and Heating System

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> | |
|---------------------------|------------------------|------------------------------|------------------------|---|
| Labor | \$ 20,000 | \$ 28,000 | \$ 27,800 | |
| Outside Service | \$ 82,228 | \$ 125,500 | \$ 126,122 | |
| Material & Supply | \$ 4,000 | \$ 2,000 | \$ 2,000 | |
| Incentives | \$ 147,705 | \$ 214,000 | \$ 209,678 | |
| Marketing | \$ 11,000 | \$ 1,000 | \$ 3,000 | |
| Administrative Expense | <u>\$ 1,000</u> | <u>\$ 1,500</u> | <u>\$ 1,400</u> | |
| Total | \$ 265,933 | \$ 372,000 | \$ 370,000 | a |

| <u>Energy Savings Information</u> | <u>2006 Goal</u> | <u>2006 YE Projected</u> | <u>2007 Goal</u> | |
|--|----------------------|------------------------------|----------------------|-------|
| Annual Energy Savings (ccf Reduction Goal) | 38,869 | 52,800 | 52,146 | b |
| Lifetime Energy Savings (ccf Reduction Goal) | 632,949 | 1,060,000 | 1,042,922 | c |
| Annual Cost Rate (\$/ccf) | \$ 6.84 | \$ 7.05 | \$ 7.10 | d=a/b |
| Lifetime Cost Rate (\$/ccf) | \$ 0.42 | \$ 0.35 | \$ 0.35 | e=a/c |
| Total Gas Benefit | \$ 545,712 | 726,200 | \$ 772,348 | f |
| Total Gas System Benefit-Cost Ratio | \$ 2.05 | \$ 1.95 | \$ 2.09 | g=f/a |
| Homes Served | 333 | 615 | 610 | h |
| Lifetime Savings per Home (ccf) | 1,901 | 1,724 | 1,711 | i=c/h |
| Program Cost per Home | \$ 799 | \$ 605 | \$ 607 | k=a/h |
| Benefit per Home | \$ 1,639 | \$ 1,181 | \$ 1,267 | l=f/h |

SCG Standard Filing Requirement

Low Income Weatherization and Heating System

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> | |
|---------------------------|------------------------|------------------------------|------------------------|---|
| Labor | \$ 20,000 | \$ 24,500 | \$ 27,200 | |
| Outside Service | \$ 77,222 | \$ 112,000 | \$ 118,836 | |
| Material & Supply | \$ 4,000 | \$ 1,500 | \$ 2,000 | |
| Incentives | \$ 138,712 | \$ 187,500 | \$ 197,564 | |
| Marketing | \$ 11,000 | \$ 1,000 | \$ 3,000 | |
| Administrative Expense | <u>\$ 1,000</u> | <u>\$ 1,000</u> | <u>\$ 1,400</u> | |
| Total | \$ 251,934 | \$ 327,500 | \$ 350,000 | a |

| <u>Energy Savings Information</u> | <u>2006 Goal</u> | <u>2006 YE Projected</u> | <u>2007 Goal</u> | |
|--|----------------------|------------------------------|----------------------|-------|
| Annual Energy Savings (ccf Reduction Goal) | 36,503 | 45,951 | 49,134 | b |
| Lifetime Energy Savings (ccf Reduction Goal) | 594,411 | 910,075 | 982,670 | c |
| Annual Cost Rate (\$/ccf) | \$ 6.90 | \$ 7.13 | \$ 7.12 | d=a/b |
| Lifetime Cost Rate (\$/ccf) | \$ 0.42 | \$ 0.36 | \$ 0.36 | e=a/c |
| Total Gas Benefit | \$ 512,485 | 639,792 | \$ 727,728 | f |
| Total Gas System Benefit-Cost Ratio | \$ 2.03 | \$ 1.95 | \$ 2.08 | g=f/a |
| Homes Served | 313 | 524 | 574 | h |
| Lifetime Savings per Home (ccf) | 1,899 | 1,737 | 1,711 | i=c/h |
| Program Cost per Home | \$ 805 | \$ 625 | \$ 609 | k=a/h |
| Benefit per Home | \$ 1,637 | \$ 1,221 | \$ 1,267 | l=f/h |

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General Weatherization Program

Objective: The objective of the Companies' General Weatherization Program ("GWP"), is to reduce utility bills so they are more affordable for residential customers who have household incomes higher than WRAP's "low income" guidelines, yet still experience a financial impact because their homes are not energy efficient. This objective will be accomplished by providing comprehensive weatherization and other energy conservation services.

Target

Market: The GWP will not limit eligibility based on income. This program will be available to owner-occupied, one to four unit residential customers of the Companies. Customers of the Companies who have natural gas heat supplied by a furnace or boiler is the primary criterion for targeting customers.

Program

Description: The GWP will leverage the delivery mechanisms of the in-home services component of the Connecticut Home Energy Solutions (HES) programs of participating electric utilities. The electric utilities will have agreements in place with various qualified contractors to deliver the in-home services offering and those contractors will be utilized to deliver the additional natural gas related weatherization services required by the GWP. The following implementation process will be followed to deliver the GWP program:

- 1) Leads are primarily generated through the Companies' Call Centers, bill inserts, direct mail, Energy Forums and Home Shows. Direct mail offerings will be coordinated with the participating electric companies in order to identify key customers (e.g., high use electric and/or gas customers). In addition, CAAs or vendors may refer customers who do not meet WRAP-HS participation guidelines to the GWP program.
- 2) An appointment is made with the customer.
- 3) A qualified contractor auditor conducts a walk-through to identify potential energy saving measures outlined below:
 - a) Weatherization:
The contractor will conduct blower door and duct leakage tests and perform air sealing and duct sealing as appropriate based on test

results. Duct mastic sealer and poly butyl rubber adhesive will be used to seal exposed ducts.

b) Domestic Hot Water:

Domestic Hot Water saving measures (low flow showerheads and aerators) will be installed when appropriate. Also where appropriate, water heaters will be wrapped and/or temperature set-points adjusted to improve efficiency.

c) Insulation:

The contractor will perform an assessment to identify potential insulation opportunities. Utility rebates for insulation will be offered to customers. Based on cost-effectiveness screening, the following criteria must be met to qualify for 50 cents per square foot insulation rebate.

- Walls with no insulation (final R-value must be 13 or greater)
- Ceilings with less the R-19 (final R-value must be 30 or greater)
- Floors over unheated garages or cantilevered floors (final R-value of 30 or greater)

Depending on the situation, utility rebates may not cover the full cost of adding insulation to a home. Customers will be encouraged to take advantage of federal tax credits, State sales tax exemptions and low interest loans available through the State to help offset the cost of upgrades that may not be covered through the program. Customers qualifying for a rebate (e.g., no insulation in walls), will be given an insulation rebate application. The completed application and documentation of installed insulation (invoice) are required for rebate qualification. Insulation rebates are only available when insulation is installed by licensed contractors. Insulation rebates are not transferable and must be used by the qualified customer. Insulation rebates will be spot-checked to ensure that insulation installation complies with program guidelines.

d) Education:

The customer will be encouraged to accompany the contractor during the walk-through, at which time the contractor will provide educational insight to the customer in the form of additional tips to save energy and information on additional programs that are available to help reduce energy consumption. Customers will be encouraged to visit the Companies' websites for energy efficiency program information. Customers will also be informed of, and encouraged to utilize, other sources for energy efficiency assistance, such as tax credits and Connecticut Housing Investment Fund loans.

e) Lighting:

Since the GWP works in conjunction, and is synergistic with, current electric conservation programs, the walk-through will also seek to identify and provide cost-effective measures which reduce electric energy usage and cost, as well as the coincident reduction of natural gas and other fossil fuels used for electric generation. Therefore, measures such as energy-efficient compact fluorescent lighting will be provided as appropriate. However, the costs and savings associated with electric measures are not included in the Companies' natural gas programs. Instead, such costs and savings will be allocated to and installed under the electric energy efficiency programs.⁵

f) Equipment Replacement:

This program does not provide direct incentives for inefficient heating or water heating equipment. However, as part of the walk-through process, the contractor will explain other energy savings opportunities that may be available (i.e., replacing an inefficient water heater with a new, efficient model, etc); and customers will be encouraged to take advantage of existing sales tax exemptions, tax credits and low interest loans that are available.

⁵ Detailed information on WRAP and the entire CL&P portfolio of conservation programs can be found in CL&P's 2007 Conservation and Load Management Plan, Docket 06-10-02.

Marketing

Strategy: The GWP will receive leveraged marketing from the promotional efforts of the CEEF electric HES program, which will be marketed to customers using direct mail and HVAC contractors. Customer leads will also be supplied as a result of customers not meeting WRAP-HS income eligibility requirements, in addition to leads coming through the Call Centers of Yankee, CNG, SCG and participating electric utilities. The GWP will also be promoted to customers at area Home Shows and at Energy Forums in which the Companies participate.

Incentive

Strategy: The incentive strategy for a comprehensive program of this nature is necessarily complex and may require adjustment as the program develops. Consistent with the electric company HES program, the program will include a customer co-pay of \$100. However, coupons will be sent to certain targeted customer groups (e.g., high use customers) which will waive the co-pay requirement. This strategy will enable the Companies to effectively target high use customers while controlling over-subscription to the Program."

The GWP Program will piggy-back on the existing electric HES program. The gas companies will ensure "geographic equity" by reserving gas dollars based on residential gas customer counts in situations where gas and electric utilities overlap⁶. For instance, approximately 92% of the SCG budget will be allocated to towns in UI territory, and 8% will be allocated to towns in CL&P territory based on the number of residential SCG gas customers in those territories. The gas utilities will split costs with the electric utilities for jobs that have residential gas accounts and GWP incentives will only be paid to residential gas customers for measures that save gas.

⁶ Currently, UI and CL&P offer the HES Program. The Connecticut Municipal Electric Energy Cooperative (CMEEC) has been involved in discussions with the utilities to join this partnership, but do not currently offer the HES Program as part of their conservation portfolio.

For gas-electric customers, the costs will be split 50:50 as presented on the following table:

| Measure | Gas Cost |
|---|--|
| General “per home” admin fee | GWP pays 50% for all customers that have a residential gas account. HES pays 100% of cost for all non-gas accounts. |
| Weatherization (blower door, duct blasting, insulation) | GWP pays 50% for all customers who use gas as their primary heat. HES pays 100% for all non-gas accounts. Program includes a customer co-pay of \$100 which will be waived for target market segments. |
| Water measures | GWP pays 100% for all customers who use gas as their primary source of domestic hot water. |
| Electric Measures (lighting, etc.) | HES (electric) pays for full cost for all homes. |

Goals: Refer to standard filing requirement for program goals.

New Program

Issues:

The Companies will establish a working group of staff, ECMB consultants, and contractors to meet periodically. The working group will carefully monitor the GWP, and will discuss and resolve “growing pain” issues. The Companies and ECMB may periodically reevaluate the program design and notify the DPUC of any necessary adjustments to ensure that the program is cost effective and is meeting its objectives.

YGS Standard Filing Requirement

General Weatherization

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> | |
|---------------------------|------------------------|------------------------------|------------------------|---|
| Labor | \$ 20,000 | \$ 28,000 | \$ 20,000 | |
| Outside Service | \$ 55,110 | \$ 10,000 | \$ 182,915 | |
| Material & Supply | \$ 10,000 | \$ 2,000 | \$ 3,000 | |
| Incentives | \$ 495,987 | \$ 40,000 | \$ 388,085 | |
| Marketing | \$ 16,000 | \$ 5,000 | \$ 4,000 | |
| Administrative Expense | <u>\$ 2,000</u> | <u>\$ 1,000</u> | <u>\$ 2,000</u> | |
| Total | \$ 599,097 | \$ 86,000 | \$ 600,000 | a |

| <u>Energy Savings Information</u> | <u>2006 Goal</u> | <u>2006 YE Projected</u> | <u>2007 Goal</u> | |
|--|----------------------|------------------------------|----------------------|-------|
| Annual Energy Savings (ccf Reduction Goal) | 110,445 | 8,910 | 65,898 | b |
| Lifetime Energy Savings (ccf Reduction Goal) | 1,988,010 | 160,380 | 1,551,974 | c |
| Annual Cost Rate (\$/ccf) | \$ 5.42 | \$ 9.65 | \$ 9.10 | d=a/b |
| Lifetime Cost Rate (\$/ccf) | \$ 0.30 | \$ 0.54 | \$ 0.39 | e=a/c |
| Total Gas Benefit | \$ 1,459,079 | \$ 117,671 | \$ 1,136,365 | f |
| Total Gas System Benefit-Cost Ratio | \$ 2.44 | \$ 1.37 | \$ 1.89 | g=f/a |
| Homes Served | 1,378 | 111 | 1,524 | h |
| Lifetime Savings per Home (ccf) | 1,443 | 1,445 | 1,018 | i=c/h |
| Program Cost per Home | \$ 435 | \$ 775 | \$ 394 | k=a/h |
| Benefit per Home | \$ 1,059 | \$ 1,060 | \$ 746 | l=f/h |

CNG Standard Filing Requirement

General Weatherization

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> | |
|---------------------------|------------------------|------------------------------|------------------------|---|
| Labor | \$ 20,000 | \$ 20,000 | \$ 20,000 | |
| Outside Service | \$ 38,265 | \$ 10,000 | \$ 128,457 | |
| Material & Supply | \$ 10,000 | \$ 2,000 | \$ 3,000 | |
| Incentives | \$ 344,386 | \$ 40,000 | \$ 272,543 | |
| Marketing | \$ 16,000 | \$ 5,000 | \$ 4,000 | |
| Administrative Expense | <u>\$ 2,000</u> | <u>\$ 1,000</u> | <u>\$ 2,000</u> | |
| Total | \$ 430,651 | \$ 78,000 | \$ 430,000 | a |

| <u>Energy Savings Information</u> | <u>2006 Goal</u> | <u>2006 YE Projected</u> | <u>2007 Goal</u> | |
|--|----------------------|------------------------------|----------------------|-------|
| Annual Energy Savings (ccf Reduction Goal) | 76,687 | 8,910 | 46,279 | b |
| Lifetime Energy Savings (ccf Reduction Goal) | 1,380,365 | 160,380 | 1,089,915 | c |
| Annual Cost Rate (\$/ccf) | \$ 5.62 | \$ 8.75 | \$ 9.29 | d=a/b |
| Lifetime Cost Rate (\$/ccf) | \$ 0.31 | \$ 0.49 | \$ 0.39 | e=a/c |
| Total Gas Benefit | \$ 1,013,104 | \$ 117,671 | \$ 798,043 | f |
| Total Gas System Benefit-Cost Ratio | \$ 2.35 | \$ 1.51 | \$ 1.86 | g=f/a |
| Homes Served | 957 | 111 | 1,070 | h |
| Lifetime Savings per Home (ccf) | 1,442 | 1,445 | 1,018 | i=c/h |
| Program Cost per Home | \$ 450 | \$ 703 | \$ 402 | k=a/h |
| Benefit per Home | \$ 1,059 | \$ 1,060 | \$ 746 | l=f/h |

SCG Standard Filing Requirement

General Weatherization

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> | |
|---------------------------|------------------------|------------------------------|------------------------|---|
| Labor | \$ 20,000 | \$ 20,000 | \$ 20,000 | |
| Outside Service | \$ 40,165 | \$ 7,500 | \$ 135,184 | |
| Material & Supply | \$ 10,000 | \$ 500 | \$ 2,000 | |
| Incentives | \$ 361,486 | \$ 16,000 | \$ 286,816 | |
| Marketing | \$ 16,000 | \$ 5,000 | \$ 4,000 | |
| Administrative Expense | <u>\$ 2,000</u> | <u>\$ 1,000</u> | <u>\$ 2,000</u> | |
| Total | \$ 449,651 | \$ 50,000 | \$ 450,000 | a |

| <u>Energy Savings Information</u> | <u>2006 Goal</u> | <u>2006 YE Projected</u> | <u>2007 Goal</u> | |
|--|----------------------|------------------------------|----------------------|-------|
| Annual Energy Savings (ccf Reduction Goal) | 80,495 | 3,560 | 48,702 | b |
| Lifetime Energy Savings (ccf Reduction Goal) | 1,448,905 | 64,080 | 1,146,993 | c |
| Annual Cost Rate (\$/ccf) | \$ 5.59 | \$ 14.04 | \$ 9.24 | d=a/b |
| Lifetime Cost Rate (\$/ccf) | \$ 0.31 | \$ 0.78 | \$ 0.39 | e=a/c |
| Total Gas Benefit | \$ 1,063,409 | \$ 47,068 | \$ 839,836 | f |
| Total Gas System Benefit-Cost Ratio | \$ 2.36 | \$ 0.94 | \$ 1.87 | g=f/a |
| Homes Served | 1,004 | 44 | 1,127 | h |
| Lifetime Savings per Home (ccf) | 1,443 | 1,456 | 1,018 | i=c/h |
| Program Cost per Home | \$ 448 | \$ 1,136 | \$ 399 | k=a/h |
| Benefit per Home | \$ 1,059 | \$ 1,070 | \$ 746 | l=f/h |

CHAPTER THREE: COMMERCIAL AND INDUSTRIAL PROGRAM

Process Retrofit Pilot

Objective: The Process Retrofit Pilot program is a request for proposal (RFP) program. The overall objective of the Companies joint program is to promote competitive gas energy efficiency activities in the market place by encouraging customers and/or third parties to bid to undertake gas efficiency projects on a competitive basis. The Process Retrofit Pilot program is aimed at energy efficiency potential from commercial and industrial (C&I) customers utilizing process applications that consume natural gas resources (e.g., manufacturing, food service, laundry services, etc.). This program is being offered as a “pilot” in order to test and establish market interest and potential. The knowledge and insight gained will help in the establishment of a longer-term strategy, guide development of future program designs, and help the Companies more effectively meet customer needs. To improve overall program effectiveness, where applicable, the Process Retrofit Pilot program will leverage resources by linking to the utility administered electric energy efficiency programs.

Target

Market: Firm gas customers⁷ of the Companies, energy service companies and other third party service providers representing customers are eligible to participate in this program.

The respondents to the RFP may be any customer, organization, group or individual who contracts with the Companies to provide energy savings from an approved, energy efficiency project. It is expected that bidders typically may be of two types:

- 1) customers with significant in-house technical capability, or
- 2) customers allied with firms that specialize in implementing energy efficiency projects and have a staff of professionals trained to identify energy efficiency opportunities, calculate potential savings, design system modifications, manage construction and installation of energy efficiency measures and measure energy savings.

Program

Description: The Process Retrofit Pilot program offers incentives for measurable energy savings achieved by the installation of energy efficiency measures as specified in a Letter of Agreement (LOA).

⁷ Excludes customers who do not contribute to the gas conservation funds.

Depending on the market's response to the Companies' initial offering, additional bidding rounds may be issued and the qualification criteria modified as needed to stimulate the market.

Eligible improvements include energy efficient equipment, products, and measures that meet minimum benefit to cost ratio (b/c) requirements⁸. The estimated savings are measured from a baseline that is established either by existing conditions or what a typical customer would install without utility participation. The estimated savings are verified by the Companies and an independent third party engineering consultant.

Some eligible measures include installing and replacing boilers, energy management systems, gas burner controls and upgrades, efficiency improvements to industrial process applications, heat recovery systems, and replacing low efficiency gas fired process equipment with high efficiency process equipment.

Measures that are not eligible include any new construction or major renovation projects, any power producing project such as cogeneration, and, except for renewable energy, switching from natural gas to another fuel (fuel switching).

Because one of the goals of the Process Retrofit Pilot program is to assess the degree to which projects require incentives, this program does not intend to have published incentives. Each proposal needs to identify the required incentive amount. All bids are evaluated based upon a comparison of energy (Ccf) savings and other evaluation criteria as described below.

The following criteria are used to assess a project's ranking:

- Requested incentive level (as a percentage of total project cost)
- Gas Benefit to Cost Ratio⁸ (gas benefit to incentive cost ratio)
- Comprehensiveness⁸ (total resource benefit to total installed cost ratio)
- Project Timeline (how quickly savings can be realized)
- Participation in a documented Department of Energy (DOE) Industrial Technologies Program (<http://www1.eere.energy.gov/industry/saveenergynow/>).

The following table represents typical event timing for program deployment following approval by the Department of Public Utility Control:

| | |
|---------------|--|
| Marketing | 6 weeks prior to Bidders' Conference |
| Legal Notices | 2-3 weeks prior to Bidders' Conference |

⁸ Refer to Chapter 5: Benefit-Cost Analysis.

| | |
|----------------------|--|
| Bidders' Conference | 6 weeks prior to Bid Due date |
| Bids Due | 6-8 weeks after Bidders' Conference |
| Bid Evaluation | 4 weeks after Bids due |
| Bid Award and LOA | 2 weeks after Bid Evaluation complete |
| Project Installation | Varies based on project size and complexity |
| Incentive Payment | 2 – 4 weeks after completion of project installation and verification. |

Marketing Strategy:

The Companies will target commercial and industrial firm gas customers (excluding customers who do not contribute to the gas conservation funds). Methods of customer contact include mail and personal contacts with the Companies' account executives. The Companies will also market through newspapers, trade shows and the utility websites. Collateral materials will be made available to educate these groups on the Process Retrofit Pilot program. Potential bidders will be invited to participate in a "pre-bidders' conference" to learn how to participate in the program. Potential bidders will also be provided with information on opportunities to participate in a DOE Industrial Technologies Program.

Marketing for the Process Retrofit Pilot program will leverage resources by co-marketing with utility administered electric energy efficiency programs. Program marketing activities will occur prior to the initial offering and will be repeated for any subsequent bidding rounds offered. The marketing plan is designed to be flexible in order to maximize results. Typically, marketing expenditures are minimal, covering any direct mail costs, advertising and meeting facilities.

Furthermore, the Companies, as part of their outreach activities to C&I customers, will encourage customers to leverage various programs that are currently available outside of the Companies' conservation programs. These programs may include:

- DOE Industrial Technologies Program including the Energy Savings Assessment and related assessment tools, Best Practices, training, etc.
- No cost plant and systems-level assessments available to eligible small- and medium-sized manufacturers from the DOE's Industrial Assessment Centers.
- Tax credits available through the Energy Policy Act of 2005.
- Energy Star management tools and products.

C&I Market Assessment

A market assessment will be conducted to assist the Companies in the implementation of the current program and in the development of future C&I program offerings. The budget for this initial assessment will not exceed \$50,000. The assessment will consist of the following two elements:

1. Review of Existing C&I Gas Energy Efficiency Programs and Measures. This task will consist of a broad survey of leading gas efficiency and fuel-blind programs that are currently being implemented in the country including program designs, marketing/outreach approaches, program delivery and management, and evaluation approaches. In addition, the study will compile a list of gas energy efficiency measures, where available, along with measure technical specifications, cost and cost-effectiveness information, savings potential, operating characteristics, and other related information.
2. Analysis of Current C&I Customer Base. This task will consist of a compilation and market analysis of available data on Connecticut's commercial and industrial natural gas market. The analysis will examine C&I gas customers by customers' types and sizes, load characteristics, building types (where and if available), rate class, interruptible load status, geographical distribution, and other characteristic of assistance to program design, development and marketing. This task will rely on existing data available from the gas utilities databases and supplementary information from the US Census and other available studies.

Incentive Strategy:

Incentives are intended to be market driven such that bidders request the incentive level needed to motivate the customer to implement a retrofit or replacement energy-efficient project. The inherent design of the program rewards successful bidders for minimizing incentives requested and maximizing savings achieved, while reducing free riders.

In this strategy, competition is achieved by having a bidder's project compete for the available incentive dollars. This competition may result in the incentive requests exceeding the program budget. Thus the program strives to achieve the most energy savings for the least dollars expended. For the initial offering, the maximum incentive allowed for qualifying projects is 75% of the project cost or a maximum \$50,000 per customer account per program year. The cap will be increased to \$75,000 for projects that have undergone, and are implementing recommendations resulting from, a documented assessment using the DOE Steam System Assessment Tool, the DOE Process Heating and Assessment Tool, and/or an equivalent methodology that entails a comprehensive natural gas demand assessment for the proposed project system and/or equipment.

If needed, evaluation and project qualification criteria for subsequent bidding rounds will be adjusted based on market conditions.

Goals: The Process Retrofit Pilot program is designed to help commercial and industrial customers save energy and identify energy efficiency opportunities in these markets for future program designs.

**New
Program
Issues:**

The program is a new natural gas energy efficiency effort being offered in today's energy markets and targets the commercial and industrial sector. It is designed to solicit input from the market on the size and scope of the opportunities that exist and the type of incentive needed to move the market. A key challenge for the companies is making customers aware of, and gaining participation in, a new program.

YGS Standard Filing Requirement

Process Retrofit Pilot

| <u>Budget Projections</u> | 2007 <u>Budget</u> |
|---------------------------|------------------------|
| Labor | \$ 26,300 |
| Outside Service | \$ 42,966 ¹ |
| Material & Supply | \$ 8,800 |
| Incentives | \$ 419,634 |
| Marketing | \$ 8,800 |
| Administrative Expense | <u>\$ 3,500</u> |
| Total | \$ 510,000 |

Note 1: Includes \$19,465 for a Market Assessment.

Energy Savings Information

This is a Pilot Program with project specific energy savings to be determined by market participants.

CNG Standard Filing Requirement

Process Retrofit Pilot

| <u>Budget Projections</u> | 2007 <u>Budget</u> |
|---------------------------|------------------------|
| Labor | \$ 20,600 |
| Outside Service | \$ 33,667 ¹ |
| Material & Supply | \$ 6,900 |
| Incentives | \$ 329,188 |
| Marketing | \$ 6,900 |
| Administrative Expense | <u>\$ 2,745</u> |
| Total | \$ 400,000 |

Note 1: Includes \$15,267 for a Market Assessment.

Energy Savings Information

This is a Pilot Program with project specific energy savings to be determined by market participants.

SCG Standard Filing Requirement

Process Retrofit Pilot

| <u>Budget Projections</u> | 2007 <u>Budget</u> |
|---------------------------|------------------------|
| Labor | \$ 20,600 |
| Outside Service | \$ 33,667 ¹ |
| Material & Supply | \$ 6,900 |
| Incentives | \$ 329,188 |
| Marketing | \$ 6,900 |
| Administrative Expense | <u>\$ 2,745</u> |
| Total | \$ 400,000 |

Note 1: Includes \$15,267 for a Market Assessment.

Energy Savings Information

This is a Pilot Program with project specific energy savings to be determined by market participants.

CHAPTER FOUR: OTHER PROGRAMS

Connecticut Housing Investment Fund

The Companies will continue to provide funding to the Connecticut Housing Investment Fund (“CHIF”) to support Connecticut’s Energy Conservation Loan Program for residential customers, and provide funding for a residential (non low-income) audit program. This plan is based on budget levels which were authorized by the State of Connecticut and/or the DPUC.

Furthermore, the Companies, as part of their customer outreach activities, will help educate customers on conservation (i.e., energy saving tips). Also, customers will be encouraged to leverage various programs that are currently available outside of the Companies’ conservation program. These programs include:

- Connecticut Energy Assistance Program
- Energy Conservation Loan Program
- Home Energy Assistance Reimbursements for Tune-Ups on Heating Equipment grant program (“HEARTH”) established by Public Act 05-02, October 25, 2005 Special Session, *An Act Concerning Emergency Home Heating Assistance*
- Sales tax exemptions on certain energy efficient products
- Company sponsored information seminars (“Energy Forums”) and budget payment plans (“Money Matters”)

Information on these programs and conservation tips will continue to be made available through the Companies’ websites.

YGS Standard Filing Requirement

CHIF Loan

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> |
|---------------------------|------------------------|------------------------------|------------------------|
| Labor | \$ - | \$ - | \$ - |
| Outside Service | \$ 30,000 | \$ 63,935 | \$ 30,000 |
| Material & Supply | \$ - | \$ - | \$ - |
| Incentives | \$ - | \$ - | \$ - |
| Marketing | \$ - | \$ - | \$ - |
| Administrative Expense | \$ - | \$ - | \$ - |
| Total | \$ 30,000 | \$ 63,935 | \$ 30,000 |

Energy Savings Information

Not an energy reduction goal based program.

CNG Standard Filing Requirement

CHIF Loan

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> |
|---------------------------|------------------------|------------------------------|------------------------|
| Labor | \$ - | \$ - | \$ - |
| Outside Service | \$ 30,000 | \$ 25,170 | \$ 30,000 |
| Material & Supply | \$ - | \$ - | \$ - |
| Incentives | \$ - | \$ - | \$ - |
| Marketing | \$ - | \$ - | \$ - |
| Administrative Expense | \$ - | \$ - | \$ - |
| Total | \$ 30,000 | \$ 25,170 | \$ 30,000 |

Energy Savings Information

Not an energy reduction goal based program.

SCG Standard Filing Requirement

CHIF Loan

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> |
|---------------------------|------------------------|------------------------------|------------------------|
| Labor | \$ - | \$ - | \$ - |
| Outside Service | \$ 30,000 | \$ 28,954 | \$ 30,000 |
| Material & Supply | \$ - | \$ - | \$ - |
| Incentives | \$ - | \$ - | \$ - |
| Marketing | \$ - | \$ - | \$ - |
| Administrative Expense | \$ - | \$ - | \$ - |
| Total | \$ 30,000 | \$ 28,954 | \$ 30,000 |

Energy Savings Information

Not an energy reduction goal based program.

YGS Standard Filing Requirement

RCS Audit

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> | |
|---------------------------|------------------------|------------------------------|------------------------|---|
| Labor | \$ - | \$ - | \$ - | |
| Outside Service | \$ - | \$ - | \$ - | |
| Material & Supply | \$ - | \$ - | \$ - | |
| Incentives | \$ - | \$ - | \$ - | |
| Marketing | \$ - | \$ - | \$ - | |
| Administrative Expense | \$ - | \$ - | \$ - | |
| Total | \$ - | \$ - | \$ - | 1 |

Note 1: Yankee's RCS Audit is included within the Low Income WRAP program.

Energy Savings Information

Not an energy reduction goal based program.

CNG Standard Filing Requirement

RCS Audit

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> |
|---------------------------|------------------------|------------------------------|------------------------|
| Labor | \$ - | \$ - | \$ - |
| Outside Service | \$ 15,000 | \$ 19,500 | \$ 15,000 |
| Material & Supply | \$ - | \$ - | \$ - |
| Incentives | \$ - | \$ - | \$ - |
| Marketing | \$ - | \$ - | \$ - |
| Administrative Expense | \$ - | \$ - | \$ - |
| Total | \$ 15,000 | \$ 19,500 | \$ 15,000 |

Energy Savings Information

Not an energy reduction goal based program.

SCG Standard Filing Requirement

RCS Audit

| <u>Budget Projections</u> | <u>2006 Budget</u> | <u>2006 YE Projected</u> | <u>2007 Budget</u> |
|---------------------------|------------------------|------------------------------|------------------------|
| Labor | \$ - | \$ - | \$ - |
| Outside Service | \$ 10,000 | \$ 25,000 | \$ 15,000 |
| Material & Supply | \$ - | \$ - | \$ - |
| Incentives | \$ - | \$ - | \$ - |
| Marketing | \$ - | \$ - | \$ - |
| Administrative Expense | \$ - | \$ - | \$ - |
| Total | \$ 10,000 | \$ 25,000 | \$ 15,000 |

Energy Savings Information

Not an energy reduction goal based program.

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Energy Conservation Management Board, Planning and Evaluation

Energy Conservation Management Board (ECMB)

In 1998, the ECMB was created by legislation (CGS §16-245m) to advise and assist the electric utilities in the development and implementation of conservation programs and initiatives. In 2005, Public Act 05-1 expanded the ECMB to include each of the natural gas distribution companies and the municipal electric companies.

The ECMB retains expert consultants who work with the utilities to assist in the development of new program initiatives, program budgets and goals. They also provide technical support to the ECMB members. The cost of the ECMB consultants is allocated between the electric and gas utilities, as appropriate.

As required by the Department and the Connecticut General Statutes §16-32f (c)(1), the Companies developed the 2007 Plan with advice and assistance from the ECMB and its consultants. This collaborative process engages the various stake holders and, starting with proposed budget dollars allocated to the natural gas conservation programs, the Companies have considered the following in the program planning and development process:

- Historical program performance data
- Program evaluation results and realization rates
- Changes to building codes and standards
- Market factors and influences
- Program design changes
- Avoided costs

The resulting programs are then implemented either directly by the utility or via third party implementation with utility oversight. New or modified program changes are communicated to implementers by working with, and educating, the impacted parties. These modifications may include changes to codes, manufacturer buy-downs, builder option packages, etc. The Companies also work closely with the vendor community, trade allies (ASHRAE, etc) and contractor associations to communicate new or changed program initiatives and to ramp-up program implementation.

Evaluation

An integral part of creating, delivering and maintaining quality programs is performing independent evaluations of programs and the markets they serve. While this activity is necessarily limited due to competing budget priorities, leveraging existing evaluations and

participation in joint evaluations can be effective in stretching program funds. To ensure independence in the evaluation process, the ECMB oversees and coordinates (with utility input) the evaluation process including the selection of independent third party evaluators and review and approval of the evaluation results.

Through collaboration with regional agencies and utilities with similar interests, the Companies have the opportunity to gather information in the most cost-effective manner. The Companies have an ongoing working relationship with the ECMB consultants to help identify specific areas for evaluation and for conducting the evaluation studies through third party contractors. In 2006, a process evaluation of the low-income “WRAP” program was undertaken. The results of that evaluation are currently being reviewed by the ECMB and the distribution companies for incorporation into the program. The results of this evaluation may have an impact on the delivery mechanisms for the low income programs. Additionally, as described in Chapter Three, the Companies and the ECMB consultants recommend undertaking a market assessment in the Commercial and Industrial sector to assist the Companies in the implementation of the current program and in the development of future C&I program offerings.

YGS Standard Filing Requirement

Planning, Evaluation & ECMB

| <u>Budget Projections</u> | 2006 <u>Budget</u> | 2006 <u>YE Projected</u> | 2007 <u>Budget</u> |
|---------------------------|-----------------------|-----------------------------|-----------------------|
| Labor | \$ - | \$ - | \$ - |
| Outside Service | \$ 8,970 | \$ - | \$ 9,000 |
| Material & Supply | \$ - | \$ - | \$ - |
| Incentives | \$ - | \$ - | \$ - |
| Marketing | \$ - | \$ - | \$ - |
| Administrative Expense | \$ - | \$ - | \$ - |
| Total | \$ 8,970 | \$ - | \$ 9,000 |

Energy Savings Information

Not an energy reduction goal based program.

CNG Standard Filing Requirement

Planning, Evaluation & ECMB

| <u>Budget Projections</u> | 2006 <u>Budget</u> | 2006 <u>YE Projected</u> | 2007 <u>Budget</u> |
|---------------------------|-----------------------|-----------------------------|-----------------------|
| Labor | \$ - | \$ - | \$ - |
| Outside Service | \$ 8,416 | \$ 5,163 | \$ 9,000 |
| Material & Supply | \$ - | \$ - | \$ - |
| Incentives | \$ - | \$ - | \$ - |
| Marketing | \$ - | \$ - | \$ - |
| Administrative Expense | \$ - | \$ - | \$ - |
| Total | \$ 8,416 | \$ 5,163 | \$ 9,000 |

Energy Savings Information

Not an energy reduction goal based program.

SCG Standard Filing Requirement

Planning, Evaluation & ECMB

| <u>Budget Projections</u> | 2006 <u>Budget</u> | 2006 <u>YE Projected</u> | 2007 <u>Budget</u> |
|---------------------------|-----------------------|-----------------------------|-----------------------|
| Labor | \$ - | \$ - | \$ - |
| Outside Service | \$ 8,416 | \$ 5,163 | \$ 9,000 |
| Material & Supply | \$ - | \$ - | \$ - |
| Incentives | \$ - | \$ - | \$ - |
| Marketing | \$ - | \$ - | \$ - |
| Administrative Expense | \$ - | \$ - | \$ - |
| Total | \$ 8,416 | \$ 5,163 | \$ 9,000 |

Energy Savings Information

Not an energy reduction goal based program.

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CHAPTER FIVE: BENEFIT-COST ANALYSIS

As with the 2006 Gas Conservation Plan, the Companies use common cost effectiveness testing methodologies that are based on those developed and approved for use with the electric conservation programs. The cost effectiveness testing used in the 2007 Plan relies on industry accepted methodologies. The Companies have continued to use common cost-effectiveness screening tools and consistent values or similar assumptions for key variables, including: avoided cost of energy and other resource savings; discount rate; and inflation rate.

Also in 2006, the Companies revised the Connecticut Program Savings Document (“PSD”) to reflect 2007 program changes and the results of recent program evaluations. Use of common cost-effectiveness testing methodologies and savings assumptions allows the Department, the ECMB and others to compare the benefits, costs, and benefit/cost ratios (“BCRs”) of the Companies on a consistent basis.

The Companies use the same conservation program screening tool.

The program screening tool is based on the present value of future savings divided by the program costs to yield a BCR. The Companies use the same screening tool and the same input assumptions including savings per unit and avoided costs.

The Companies use the same cost-effectiveness tests.

For the analysis of the proposed 2007 programs, the Companies used both the **Gas Utility System Test** and the **Total Resource Cost Test**. The Gas Utility Test is measure of savings from the local distribution companies (LDC) perspective and is used for integrated resource planning. The Total Resource Cost Test provides a comprehensive measure of overall economic impact of conservation programs.

The Gas Utility System Test compares the present value of local distribution companies (LDC) savings to the costs necessary to implement the program (i.e., the program budget). The gas savings represents the LDC avoided costs that are a result of the conservation programs. These savings (avoided costs) include the cost of the gas itself as well as the non-gas costs of transportation, distribution, storage and peak shaving.

The Total Resource Cost Test compares the present value of future natural gas as well as other customer savings (e.g., water savings) to the total of the conservation expenditures plus any customer costs that are related to the program (e.g., customer co-payments for measures or service).

The Companies use the same discount rate.

The discount rate is the interest rate used to discount the value of future savings in a standard, present worth economic analysis. A higher rate discounts the present value of future savings more deeply than a lower rate. Thus higher rates result in lower BCRs and lower rates result in higher BCRs. For 2007, the Companies used the same discount rate for both tests, which was the Prime Rate, the rate that banks charge their best customers. A rolling, five-year average of 5.25 percent from the Federal Reserve Web site was used.

The Companies use the same inflation rate.

The inflation rate is used to adjust the discount rate in future years. The Financial Trend Forecaster Web site was used as a reference source. A consumer price index for all items in U.S. cities was used to calculate a five-year rolling average inflation rate of 1.98 percent.

The Companies use common avoided energy costs.

The values of avoided cost are based on “Avoided Energy Supply Costs in New England”, ICF Consulting, December 2005. The avoided cost values are values for Southern New England (Connecticut and Rhode Island) are average annual avoided costs and represent a blend of residential heating and water heating values. The value of water savings is approximately 1/2 cent per gallons and was estimated using Tighe and Bond water and sewer data and average Hartford price values of water. Avoided costs in this plan are expressed in 2007 dollars.

CHAPTER SIX: INTEGRATED RESOURCE PLANNING

In accordance with Connecticut General Statutes § 16-32f as amended by Section 22(b) of Public Act 05-1, the Companies have evaluated and selected conservation options within an integrated supply and demand planning framework. Additionally, in accordance with Connecticut General Statutes § 16-32f(a), the Companies will submit their five year forecasts of natural gas demand and supply in December 2006, and this 2007 Conservation Plan will be an integral component of that filing.

Integrated Resource Planning (“IRP”) is a methodology used within conservation planning to identify and target natural gas efficiency opportunities which ultimately will be integrated into conservation program design. The targeted savings must be acquired through utility intervention and be used to cost-effectively displace other supply side options. The following basic Integrated Resource Planning process steps were used in the development of this conservation plan:

- A comprehensive list of significant natural gas efficiency measures and/or initiatives was developed. These measures had to be readily available and had to provide significant and meaningful natural gas savings. Consideration was given to proven technologies versus newer measures that were not yet thoroughly evaluated. These measures fell into the following general categories:
 - Weatherization (existing homes)
 - Residential New Construction
 - Washer Rebates
 - Heating equipment rebates (new)
 - Heating system replacement (existing)
 - Water Heater rebates (indirect and instantaneous)
 - C&I Conservation
- The measures were evaluated using the Gas Utility System Test, which measures the avoided costs that result from the conservation programs, in order to provide a measuring stick of LDC avoided costs.
- Consistent with integrated resource planning principles, the measures were also screened using the Total Resource Cost Test. The Total Resource Cost Test is a comprehensive measure of the overall economic impact and includes savings such as fossil fuel and water savings and maximizes the portfolio net value (the Gas Utility System Test does not take into consideration the overall economic impact, an important objective of programs).
- Free-ridership was considered in order to screen out initiatives where it was determined that high levels of savings would occur without gas utility intervention. The measures that were screened out generally already had high levels of naturally occurring

conservation (e.g., high efficiency furnaces), or there were already existing programs or incentives to move the market towards higher levels of efficiency (e.g., washing machine rebates, residential new construction).

- Based on the above analysis, measures and initiatives were bundled together to produce conservation programs that would be accepted by the marketplace and would maximize benefits. Initiatives that were not selected for inclusion in this conservation plan may be considered in future program planning.

In particular, instantaneous (tankless) gas water heaters have the potential to save significant amounts of energy compared to standard storage type water heaters. This technology is not new but recently has been advanced to offer adequate control, high efficiency and quantities of hot water. Tankless water heaters can be used in number of residential and commercial applications. The technology is more attractive in areas with low mineral content. In areas of higher mineral content, it is important for owners to flush the units on a regular basis with vinegar. Since homeowners typically do not perform maintenance on water heaters, there is some skepticism about their performing a new maintenance procedure for tankless water heaters. The companies will evaluate this measure and develop a plan that contemplates instantaneous gas water heating in the 2008 conservation plan.

- Finally, non-incentive costs such as marketing and administration costs were estimated and the overall cost-effectiveness of the programs was calculated (including the non-incentive costs). Priority was given to customers segments that needed the most assistance (e.g., low income). Program size was determined based on the potential savings, and the ability of the marketplace to deliver the programs. For the residential programs, there are obvious synergies with the electric conservation programs, and therefore, the residential gas conservation programs were designed to piggy-back on those electric programs.

The Companies and ECMB monitor the performance of programs throughout the year. The Companies may periodically reevaluate the program design and notify the DPUC of any necessary adjustments to ensure that the program is cost effective and is meeting its objectives.