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# Energy Efficiency Program Plan

OCTOBER 1, 2010

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# 1. Introduction

In July of 2009, the Illinois Senate passed Senate Bill 1918 ("SB1918"), which the Governor signed into law as Public Act 096-0033. Although the bill had many energy and utility provisions, energy efficiency for gas utilities was a major component of the bill with the intent of putting Illinois on the path to a more sustainable energy future. This legislation established energy reduction targets for large Illinois natural gas utilities, resulting in a cumulative reduction of 8.6% of natural gas use by May 31, 2020.

In addition to the mandated savings targets, this legislation called for the creation of an On-Bill Financing program for energy efficiency upgrades by utility customers. The bill requires both large electric and natural gas utilities to offer a program that will make it easier for consumers to invest in measures to save energy such as high efficiency furnaces. The On-Bill Financing program will allow customers to pay on their utility bill for the cost of energy efficiency measures purchased through a loan with a financial institution participating in the program[1].

Senate Bill 1918 provided guidelines for the development of a successful energy efficiency portfolio plan. In addition to meeting the savings targets outlined in the bill, a plan should:

(1) Demonstrate that the proposed energy efficiency measures will achieve the identified requirements.
(2) Present specific proposals to implement new building and appliance standards that have been placed into effect.
(3) Present estimates of the total amount paid for gas service expressed on a per therm basis associated with the proposed portfolio of measures designed to meet the identified requirements.
(4) Coordinate with the Department of Commerce and Economic Opportunity ("DCEO") to present a portfolio of energy efficiency measures proportionate to the share of total annual utility revenues in Illinois from households at or below 150% of poverty level.
(5) Demonstrate that the overall portfolio of energy efficiency measures, not including programs covered by item (4), is cost-effective using the Total Resource Cost ("TRC") test and represents a diverse cross-section of opportunities for customers of all rate classes to participate in the programs.
(6) Include a proposed cost-recovery tariff mechanism to fund the proposed energy efficiency measures and to ensure the recovery of the prudently and reasonably incurred costs of the Illinois Commerce Commission ("Commission") approved programs.
(7) Provide for an annual independent evaluation of the performance of the cost-effectiveness of the utility's portfolio of measures and the DCEO's portfolio of measures, as well as a full review of the 3-year results of the broader net

[1] The Commission approved the Companies' On-Bill Financing program in Docket No. 10-0090 (Order, June 2, 2010).

program impacts and, to the extent practical, adjustment of the measures on a going-forward basis as a result of the evaluations. The resources dedicated to evaluation shall not exceed 3% of portfolio resources in any given year.

(8) No more than 3% of energy efficiency measures may be allocated for demonstration of breakthrough equipment and devices.

This plan demonstrates that North Shore Gas Company's ("North Shore Gas") and The Peoples Gas Light and Coke Company's ("Peoples Gas") (together, the "Companies") proposed energy efficiency portfolio will satisfy the requirements of SB1918 in a prudent and cost-effective way. The proposed plan addresses the first three years of savings targets, commencing June 1, 2011, and ending May 31, 2014. The cumulative savings goal for this period is 1.2% of natural gas use, based on calendar year 2009 deliveries to retail customers. This plan documents the development of the plan including general research and specific program plans while remaining consistent with the requirements and guidelines outlined in SB1918.

The Companies contracted with Franklin Energy Services, LLC ("Franklin Energy" or "FES") to develop and implement the Plan.

# 2. Executive Summary

North Shore Gas and Peoples Gas, wholly-owned subsidiaries of Peoples Energy Corporation, which is a wholly-owned subsidiary of Integrys Energy Group, Inc., propose to implement a portfolio of natural gas energy efficiency programs and On-Bill Financing to meet the requirements of SB1918 (the "Plan"). The overriding objectives of this Plan are to achieve the annual SB1918 goals as cost-effectively as possible and to provide programs to residential and commercial/industrial ("C&I") customers at approximately the same proportion as the revenues they contribute to the customer base. The Companies have designed flexible, scalable, best practice programs that allow for partnering with neighboring electric utilities, streamlining administration and delivery while maximizing customer participation. The Companies worked with neighboring gas utilities Ameren and Nicor to provide consistency in program design where possible.

In addition, the Companies have had numerous planning sessions with Commonwealth Edison Company ("ComEd"). ComEd provides electric service in the North Shore Gas and Peoples Gas service territories. As a result of these planning sessions, the Companies plan to offer four programs jointly with ComEd. The Companies will continue to look for opportunities to collaborate on the other programs.

The proposed budgets and caps are based on 2009 throughput and are as follows:

**Table 1: Statutory 2% Cap on Recoveries from Customers**

| | NORTH SHORE GAS | PEOPLES GAS |
|---|---|---|
| Total Retail Natural Gas Service | $267,753,024 | $1,355,867,881 |
| Total 2% Statutory Budget Cap | $5,355,060 | $27,117,358 |

The proposed budget and savings estimates are illustrated below. The budgets are consistent with the statutory cap on costs.

**Table 2A. Gas Energy Efficiency Plan Overall Goals and Budgets – North Shore Gas**

| NORTH SHORE GAS | PY1 | PY2 | PY3 |
|---|---|---|---|
| Gas Savings - Goal (Therms) | 397,886 | 795,771 | 1,193,657 |
| Gas Savings - Proposed (Therms) | 439,855 | 841,844 | 1,232,243 |
| Gas Savings - Goal (Percent) | 0.20% | 0.40% | 0.60% |
| Gas Savings - Proposed (Percent) | 0.22% | 0.42% | 0.62% |
| **Budget** | | | |
| Total Program Budget | $828,015 | $1,413,653 | $1,963,089 |
| Program Start Up | $38,230 | $0 | $0 |
| IT Expenses | $22,500 | $1,500 | $1,500 |
| Outreach and Memberships | $21,750 | $22,500 | $23,250 |
| Stakeholder Advisory Group | $7,500 | $7,875 | $7,875 |
| 1st Triennial Period Plan Development | $58,968 | $0 | $0 |
| 2nd Triennial Period Plan Development | $0 | $27,000 | $63,000 |
| 1st Triennial Period Plan Evaluation Review (Startup) | $9,750 | $0 | $0 |
| 1st Triennial Period Plan Evaluation Plan Dev | $13,500 | $0 | $0 |
| 2nd Triennial Period Plan Evaluation Plan Dev | $0 | $0 | $9,000 |
| Potential Study | | $250,000 | |
| Subtotal | $1,000,212 | $1,722,528 | $2,067,714 |
| DCEO Budget | $333,404 | $574,176 | $689,238 |
| Subtotal w/DCEO | $1,333,616 | $2,296,703 | $2,756,952 |
| OBF - Program Management | $49,795 | $20,835 | $21,060 |
| OBF - Program Management (Financial Institution) | $16,500 | $10,500 | $12,000 |
| OBF - Evaluation | $7,300 | $969 | $1,022 |
| **TOTAL w/DCEO and OBF** | **$1,407,211** | **$2,329,007** | **$2,791,034** |

**Table 2B. Gas Energy Efficiency Plan Overall Goals and Budgets – Peoples Gas**

| PEOPLES GAS | PY1 | PY2 | PY3 |
|---|---|---|---|
| Gas Savings - Goal (Therms) | 1,822,895 | 3,645,790 | 5,468,684 |
| Gas Savings - Proposed (Therms) | 2,008,730 | 3,765,524 | 5,469,566 |
| Gas Savings - Goal (Percent) | 0.20% | 0.40% | 0.60% |
| Gas Savings - Proposed (Percent) | 0.22% | 0.41% | 0.60% |
| **Budget** | | | |
| Total Program Budget | $4,741,137 | $7,659,485 | $10,201,306 |
| Program Start Up | $216,634 | $0 | $0 |
| IT Expenses | $127,500 | $8,500 | $8,500 |
| Outreach and Memberships | $123,250 | $127,500 | $131,750 |
| Stakeholder Advisory Group | $42,500 | $44,625 | $44,625 |
| 1st Triennial Period Plan Development | $334,149 | $0 | $0 |
| 2nd Triennial Period Plan Development | $0 | $153,000 | $357,000 |
| 1st Triennial Period Plan Evaluation Review (Startup) | $55,250 | $0 | $0 |
| 1st Triennial Period Plan Evaluation Plan Dev | $76,500 | $0 | $0 |
| 2nd Triennial Period Plan Evaluation Plan Dev | $0 | $0 | $51,000 |
| Potential Study | | $250,000 | |
| Subtotal | $5,716,921 | $8,243,110 | $10,794,181 |
| DCEO Budget | $1,905,640 | $2,747,703 | $3,598,060 |
| Subtotal w/DCEO | $7,622,561 | $10,990,813 | $14,392,242 |
| OBF - Program Management | $282,173 | $118,062 | $119,337 |
| OBF - Program Management (Financial Institution) | $93,500 | $59,500 | $68,000 |
| OBF - Evaluation | $41,369 | $5,492 | $5,794 |
| **TOTAL w/DCEO and OBF** | **$8,039,603** | **$11,173,867** | **$14,585,373** |

The Companies' proposed portfolio meets 80% of the statutory requirement, using no more than 75% of the budget, with DCEO responsible for 20% of the required savings and with the ability to use 25% of the budget. While North Shore Gas and Peoples Gas have a common parent corporation, the savings and budgets are not combined and each utility plans to meet its portion of the requirements within its budget.

The proposed portfolios have many programs that incentivize customers to become more energy efficient. These offerings are integrated with energy efficiency awareness and education efforts designed to encourage customers to make more informed energy use decisions. Section 2.1 summarizes the Companies' proposed portfolios.

## 2.1 Program Portfolio

When considering the objectives of the portfolio, the Plan represents a portfolio that:

- Is cost-effective at both the measure and program levels.[2]
- Uses several implementation approaches aimed at maximizing program participation and minimizing program administration and delivery costs.
- Is easily modifiable and adaptable to market conditions.

[2] See Section 3.1.2 for a description of the benefit cost tests.

- Is scalable to ramp up or down as markets, technologies, and opportunities evolve.
- Offers a variety of programs making energy efficiency opportunities available to all customer classifications.
- Provides for an independent evaluation of effectiveness.
- Represents a cost-effective mix of programs aimed at ensuring overall portfolio success.

The North Shore Gas and Peoples Gas portfolios are split into two broad categories based on customer sector - residential and business (also called C&I). The residential sector programs have elements intended to provide a variety of energy efficiency programs for residential and multifamily units. The business sector programs have provisions intended to provide a range of energy efficiency programs for the multitude of commercial and industrial customers in their territories. The following table summarizes the portfolio being proposed by the Companies, segmented by sector.

**Table 3: North Shore Gas / Peoples Gas Energy Efficiency Portfolio Summary**

| Residential Energy Efficiency Programs | |
|---|---|
| Residential Prescriptive Rebate | This program provides residential customers incentives that cover a portion of the measures' incremental costs for the installation of high efficiency equipment and other technologies which reduce natural gas usage. |
| Residential Home Energy Reports | This behavior change program provides homeowners in single family dwellings with feedback on their energy use, comparisons to similar homes in their neighborhood, and targeted tips to achieve energy savings. This program helps to motivate customers toward energy conservation in their homes. |
| Residential Multifamily Direct Install | This program provides direct installation of low cost space heating and water heating saving measures in multifamily buildings. It also provides an audit to identify potential improvements to space heating and water heating systems. |
| Residential Whole-House Retrofit | This program approaches energy efficiency from a whole-house perspective, starting with a comprehensive audit and improvement plan to assisting implementation of major building shell measures through qualified contractors. |
| **Business Energy Efficiency Programs** | |
| C&I Prescriptive Rebates | This program provides commercial and industrial customers who install, replace or retrofit qualifying natural gas heating systems, water heating equipment, and food service equipment with rebates that cover a portion of the incremental costs. |

| | |
|---|---|
| C&I Custom Rebates | This program provides commercial and industrial customers with rebates for the installation of natural gas related energy improvements that are not specified in the prescriptive rebate program. Eligible projects will receive a calculated incentive aimed at improving the financial viability to the customer. |
| C&I Retro-Commissioning | This program provides commercial and industrial buildings with a service that commissions the buildings systems to their designed efficiency relative to the current use of the facility. |
| Small Business Efficiency | This program provides harder to reach small business owners with immediate energy savings through the direct installation of a variety of low cost gas saving measures, as well as advice, assistance, and financial incentives related to additional improvements that could be implemented. |

Tables 4A and 4C provide a summary of the TRC, savings and budget by program for North Shore Gas and Peoples Gas respectively. Tables 4B and 4D provide a more detailed budget for each program for North Shore Gas and Peoples Gas respectively.

**Table 4A. Program Savings and Budget Summary – North Shore Gas**

| NORTH SHORE GAS | | | PY1 | | PY2 | | PY3 | |
|---|---|---|---|---|---|---|---|---|
| Sector | Program Name | TRC | Therm Savings | Budget | Therm Savings | Budget | Therm Savings | Budget |
| Res | Residential Prescriptive Rebates | 1.53 | 216,096 | $482,057 | 367,959 | $756,217 | 511,509 | $1,020,838 |
| Res | Residential Home Energy Reports | 1.09 | 0 | $0 | 79,380 | $77,513 | 158,760 | $101,338 |
| Res | Multifamily Direct Install | 3.08 | 42,370 | $86,638 | 84,740 | $170,792 | 127,110 | $255,086 |
| Res | Residential Whole-House Retrofit | 1.55 | 0 | $0 | 0 | $0 | 16,000 | $74,705 |
| Com | C&I Prescriptive Rebates | 2.50 | 52,222 | $88,302 | 97,581 | $150,699 | 149,802 | $200,166 |
| Com | C&I Custom Rebates | 2.73 | 32,400 | $49,966 | 70,200 | $91,931 | 102,600 | $121,432 |
| Com | C&I Retro-Commissioning | 1.77 | 55,680 | $64,663 | 83,520 | $95,591 | 111,360 | $126,519 |
| Com | Small Business Efficiency | 3.69 | 41,087 | $50,170 | 58,464 | $64,691 | 55,102 | $56,786 |
| | **TOTAL** | **2.05** | **439,855** | **$821,797** | **841,844** | **$1,407,435** | **1,232,243** | **$1,956,871** |

*Notes for Tables 4A-4D:*
*"PY" means program year. For example, PY1 is the period June 1, 2011, through May 31, 2012.*

*"TRC" means Total Resource Cost. It is a benefit cost test and is described in Section 3.1.2 below. The portfolio-wide TRC benefit cost ratio is estimated at 2.05 for North Shore Gas and 2.24 for Peoples Gas. Because the projected mix of measures within a program may be different for North Shore Gas and for Peoples Gas, the TRC test results for any specific program and the total portfolio may be different for the two utilities.*

## Table 4B. Program Budget Details – North Shore Gas

| NORTH SHORE GAS | PY1 | | | | PY2 | | | | PY3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program | Pg Mgmt/ Impl/Mktg | Incentive | EM&V | Total | Pg Mgmt/ Impl/Mktg | Incentive | EM&V | Total | Pg Mgmt/ Impl/Mktg | Incentive | EM&V | Total |
| Residential Prescriptive Rebates | $130,095 | $337,500 | $14,462 | $482,057 | $154,031 | $579,500 | $22,687 | $756,217 | $186,213 | $804,000 | $30,625 | $1,020,838 |
| Residential Home Energy Reports | $0 | $0 | $0 | $0 | $75,188 | $0 | $2,325 | $77,513 | $98,298 | $0 | $3,040 | $101,338 |
| Multifamily Direct Install | $84,039 | $0 | $2,599 | $86,638 | $165,668 | $0 | $5,124 | $170,792 | $247,433 | $0 | $7,653 | $255,086 |
| Residential Whole-House Retrofit | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $22,464 | $50,000 | $2,241 | $74,705 |
| C&I Prescriptive Rebates | $39,528 | $46,125 | $2,649 | $88,302 | $59,081 | $87,097 | $4,521 | $150,699 | $60,939 | $133,222 | $6,005 | $200,166 |
| C&I Custom Rebates | $21,467 | $27,000 | $1,499 | $49,966 | $30,673 | $58,500 | $2,758 | $91,931 | $32,289 | $85,500 | $3,643 | $121,432 |
| C&I Retro-Commissioning | $62,723 | $0 | $1,940 | $64,663 | $92,723 | $0 | $2,868 | $95,591 | $122,723 | $0 | $3,796 | $126,519 |
| Small Business Efficiency | $42,415 | $6,250 | $1,505 | $50,170 | $55,751 | $7,000 | $1,941 | $64,691 | $47,333 | $7,750 | $1,704 | $56,786 |
| **% of Yearly Total** | **46%** | **51%** | **3%** | **100%** | **45%** | **52%** | **3%** | **100%** | **42%** | **55%** | **3%** | **100%** |
| **Total** | **$380,268** | **$416,875** | **$24,654** | **$821,797** | **$633,115** | **$732,097** | **$42,223** | **$1,407,435** | **$817,693** | **$1,080,472** | **$58,706** | **$1,956,871** |

## Table 4C. Program Savings and Budget Summary – Peoples Gas

| PEOPLES GAS | | | PY1 | | PY2 | | PY3 | |
|---|---|---|---|---|---|---|---|---|
| Sector | Program Name | TRC | Therm Savings | Budget | Therm Savings | Budget | Therm Savings | Budget |
| Res | Residential Prescriptive Rebates | 1.65 | 944,263 | $2,914,644 | 1,468,458 | $4,217,877 | 1,873,518 | $5,312,070 |
| Res | Residential Home Energy Reports | 1.07 | 0 | $0 | 476,280 | $439,240 | 952,560 | $574,248 |
| Res | Multifamily Direct Install | 2.92 | 245,005 | $490,951 | 490,010 | $967,819 | 735,015 | $1,445,486 |
| Res | Residential Whole-House Retrofit | 1.45 | 0 | $0 | 0 | $0 | 96,000 | $440,512 |
| Com | C&I Prescriptive Rebates | 2.29 | 261,108 | $468,681 | 469,994 | $773,113 | 731,102 | $1,021,723 |
| Com | C&I Custom Rebates | 2.51 | 162,000 | $264,583 | 378,000 | $503,932 | 540,000 | $652,549 |
| Com | C&I Retro-Commissioning | 1.62 | 250,560 | $294,260 | 320,160 | $371,579 | 361,920 | $417,971 |
| Com | Small Business Efficiency | 2.30 | 145,794 | $272,785 | 162,622 | $350,691 | 179,450 | $301,515 |
| | **TOTAL** | **2.24** | **2,008,730** | **$4,705,904** | **3,765,524** | **$7,624,252** | **5,469,566** | **$10,166,073** |

## Table 4D. Program Budget Details – Peoples Gas

| PEOPLES GAS | PY1 | | | | PY2 | | | | PY3 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program | Pg Mgmt/ Impl/Mktg | Incentive | EM&V | Total | Pg Mgmt/ Impl/Mktg | Incentive | EM&V | Total | Pg Mgmt/ Impl/Mktg | Incentive | EM&V | Total |
| Residential Prescriptive Rebates | $737,205 | $2,090,000 | $87,439 | $2,914,644 | $872,841 | $3,218,500 | $126,536 | $4,217,877 | $1,055,208 | $4,097,500 | $159,362 | $5,312,070 |
| Residential Home Energy Reports | $0 | $0 | $0 | $0 | $426,063 | $0 | $13,177 | $439,240 | $557,020 | $0 | $17,227 | $574,248 |
| Multifamily Direct Install | $476,222 | $0 | $14,729 | $490,951 | $938,785 | $0 | $29,035 | $967,819 | $1,402,121 | $0 | $43,365 | $1,445,486 |
| Residential Whole-House Retrofit | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $127,296 | $300,000 | $13,215 | $440,512 |
| C&I Prescriptive Rebates | $223,996 | $230,625 | $14,060 | $468,681 | $334,795 | $415,125 | $23,193 | $773,113 | $345,322 | $645,750 | $30,652 | $1,021,723 |
| C&I Custom Rebates | $121,646 | $135,000 | $7,938 | $264,583 | $173,814 | $315,000 | $15,118 | $503,932 | $182,972 | $450,000 | $19,576 | $652,549 |
| C&I Retro-Commissioning | $285,432 | $0 | $8,828 | $294,260 | $360,432 | $0 | $11,147 | $371,579 | $405,432 | $0 | $12,539 | $417,971 |
| Small Business Efficiency | $240,352 | $24,250 | $8,184 | $272,785 | $315,920 | $24,250 | $10,521 | $350,691 | $268,220 | $24,250 | $9,045 | $301,515 |
| % of Total | **44%** | **53%** | **3%** | **100%** | **45%** | **52%** | **3%** | **100%** | **43%** | **54%** | **3%** | **100%** |
| **Total** | **$2,084,852** | **$2,479,875** | **$141,177** | **$4,705,904** | **$3,422,649** | **$3,972,875** | **$228,728** | **$7,624,252** | **$4,343,591** | **$5,517,500** | **$304,982** | **$10,166,073** |

# 3. The Portfolio of Programs

The creation of this Plan adhered to a rigorous planning process, beginning with market analysis and culminating in program design.

The market potential assessment was performed using the Companies' customer class data, data on participation from the Chicagoland programs[3] and Census data. An analysis of potential based upon primary data collection (such as a residential appliance saturation study or commercial/industrial building baseline study) was not conducted because of time constraints and Franklin Energy's confidence that the SB1918 goals for the first triennial period could be achieved cost-effectively without doing this research.

The Companies anticipate conducting such an analysis for the next triennial period. The budgets detailed in Tables 2A and 2B include amounts sufficient to allow this analysis during the first program period.

During the triennial period, programs will be improved and refined on an ongoing basis, particularly as program evaluation and reporting activities identify opportunities for program enhancement.

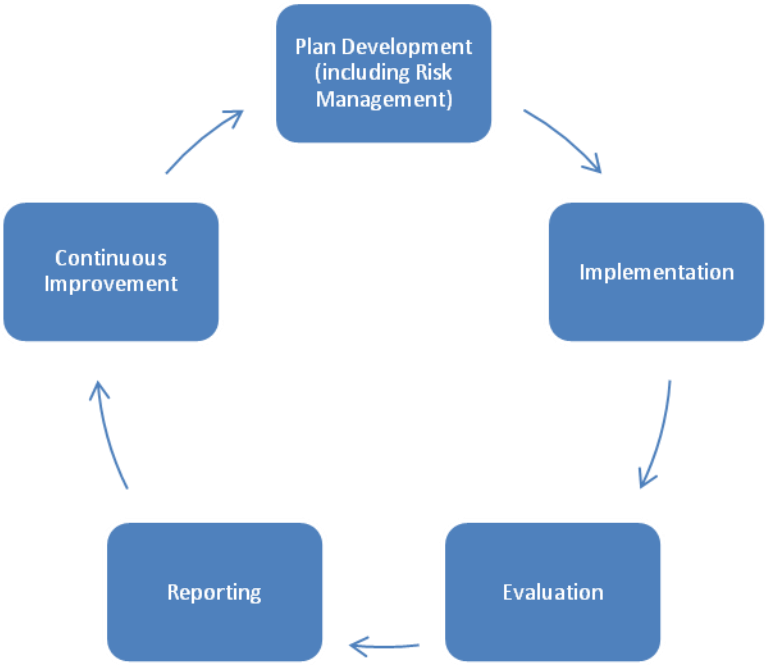



**Figure 1**

[3] The "Chicagoland programs" refers to energy efficiency programs currently available in North Shore Gas' and Peoples Gas' service territories. The Commission approved cost recovery mechanisms (Rider EEP) for these programs in Docket Nos. 07-0241/07-0242 (Cons.). A Governance Board, comprised of the Companies and four stakeholders, each having an equal vote, manage the programs. The Commission Staff is a non-voting participant.

The diagram in Figure 1 above is a broad overview of the energy efficiency planning process and coincides with the topics in the balance of this section.

## 3.1 Plan Development

Plan development incorporates a number of tasks that help structure the portfolio design process and the steps that follow (implementation, evaluation, reporting and continuous improvement).

- The first task when designing a program portfolio is development of a database of energy saving measures including estimated costs, energy savings compared to standard efficiency equipment and measure life. These energy savings measures are compared to baseline conditions – current practices if available or, alternatively, minimum standards. Also used as a guide in developing programs are experiences shared by other utilities, consultants, program implementation contractors and information on generally accepted best practices. This is then put into the context of the Companies' market to ensure participants are available and the measures will meet their needs. (See Section 3.1.1 below)

- Once measure characterization is complete, measures are screened for cost-effectiveness based on specific avoided cost and other data. Measures that pass screening are bundled into programs that are logical and facilitate participation from the customers' perspectives. Best practices and the experiences of other program administrators and implementers are taken into consideration when developing the program design. Program level budgets are prepared and the program is screened for cost-effectiveness. All programs are bundled into one portfolio and the portfolio is screened for cost-effectiveness. (See Section 3.1.2 below for information on benefit cost analysis)

- Finally, risk analysis is performed and risk mitigating measures are identified. (See Section 3.2 below)

### 3.1.1 Market Analysis/Research

Integrys Energy Group, Inc. is a holding company based in Chicago, Illinois with eight operating subsidiaries. North Shore Gas and Peoples Gas are the two Illinois utility subsidiaries and the demographics of their territories (outlined in Figure 2) are the focus of this Plan.

<u>Residential</u>:

<u>North Shore Gas</u>

North Shore Gas is a regulated natural gas utility established in 1900 serving 54 communities in Lake and Cook counties in northeastern Illinois. The population in these suburban Chicago communities totals nearly 645,000. In addition to the utility's 146,000 residential customers, North Shore Gas serves 11,000 commercial customers, and 900

industrial customers, bringing its total to nearly 158,000 customers. Its design peak day throughput for calendar year 2009 was 427,005 dekatherms ("Dth").

**Figure 2**

There are 203,000 residential dwellings in these communities and an estimated 74% of these suburban dwellings are owner-occupied with the remainder being renter-occupied. However, a large variance exists within the 54 communities ranging from a low of 2% to a high of 64% for renter-occupied dwellings.

While the utility serves an affluent population overall, there is still a wide range in household income and home prices across the 54 communities in its service territory. For example, in the town of Russell, the median single family home price is $145,884, while in Bannockburn, the median home price is $1,400,577. Comparatively, the statewide median single family home price is $270,454. Six of the wealthiest communities in the service area have median single family home prices over $925,000. They account for nearly 53,000 total residents in over 16,000 dwellings representing about 10% of the utility's customers.

<u>Peoples Gas</u>

Peoples Gas is a regulated natural gas utility established in 1855. It is the second largest natural gas utility in the state behind Northern Illinois Gas Company d/b/a Nicor Gas Company. It serves over 817,000 customers in the City of Chicago with over 766,000 residential, 50,000 commercial, and 675 large industrial customers. The design peak day throughput for calendar year 2009 was 2,184,175 Dth.

In the City of Chicago there are 2,853,114 residents living in 1,061,921 dwellings. Fifty-six percent of these dwellings are renter-occupied, which is greater than the state average of 33%.[4]

The Peoples Gas service territory differs substantially from North Shore Gas in its housing density. The City of Chicago has 5,076 houses/condos per square mile, whereas the North Shore Gas service area averages only 833 houses/condos per square mile. Once again, there is a high variance around this average. For example,

[4] All population and housing-related data were obtained from the U.S. Bureau of Census. Data for North Shore Gas were compiled for each of the 43 zip codes comprising its service territory and aggregated to derive representative statistics.

the community of Highwood has a density of 2,513 houses/condos per square mile while the tiny community of Old Mill Creek has only 12 houses/condos per square mile.

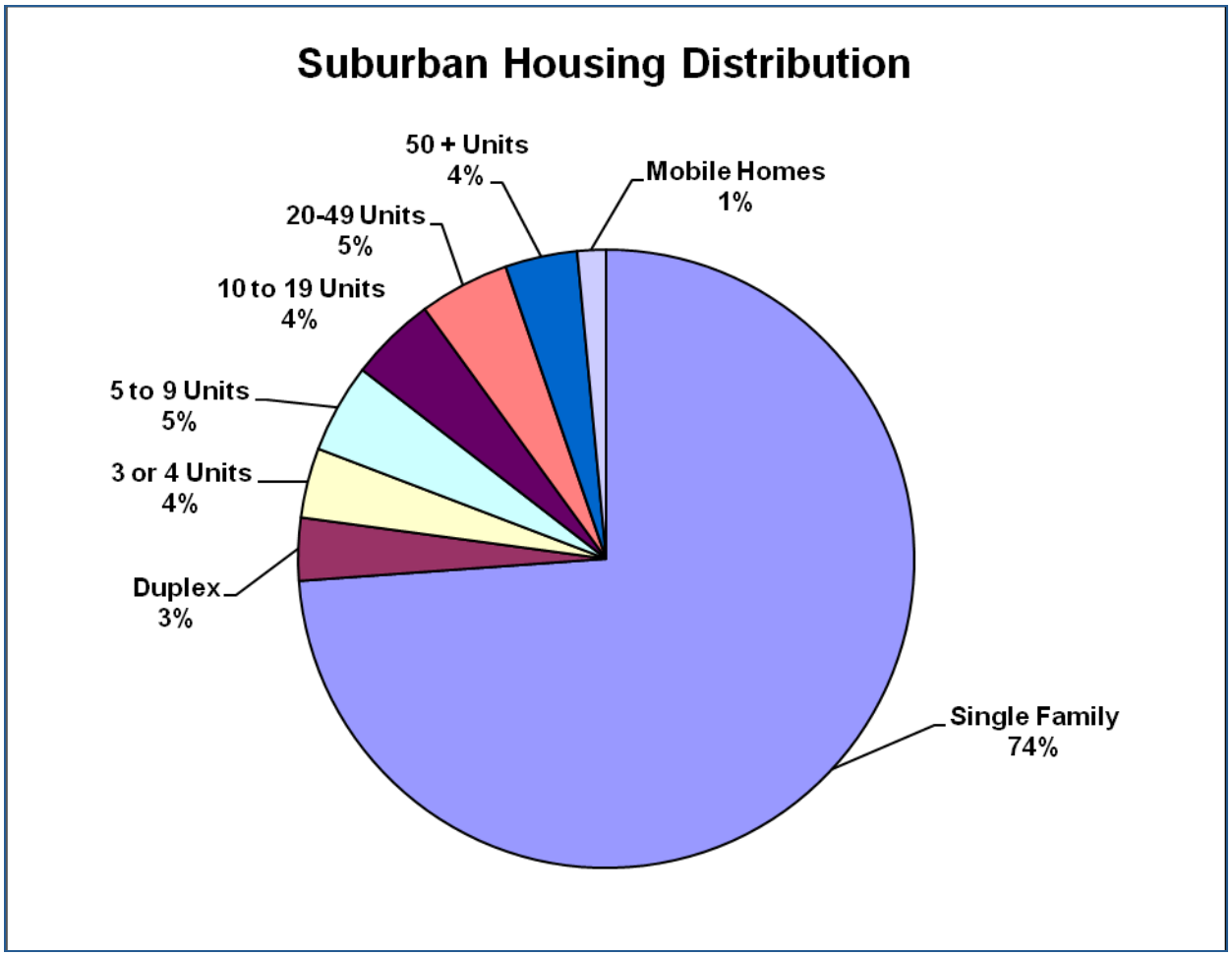



**Figure 3**

As expected, the two service territories also differ in housing distribution. In the City of Chicago, 28% of dwellings are single family detached homes, while in the suburban communities of North Shore Gas, the average is 74%. Likewise in the city, 16% of dwellings are in buildings with more than 50 units, while there are only 4% of these dwellings in suburban communities. Not surprisingly however, there is one factor that is similar. North Shore Gas and Peoples Gas have virtually no mobile homes, at 1% and 0% respectively. (See Figures 3 and 4)

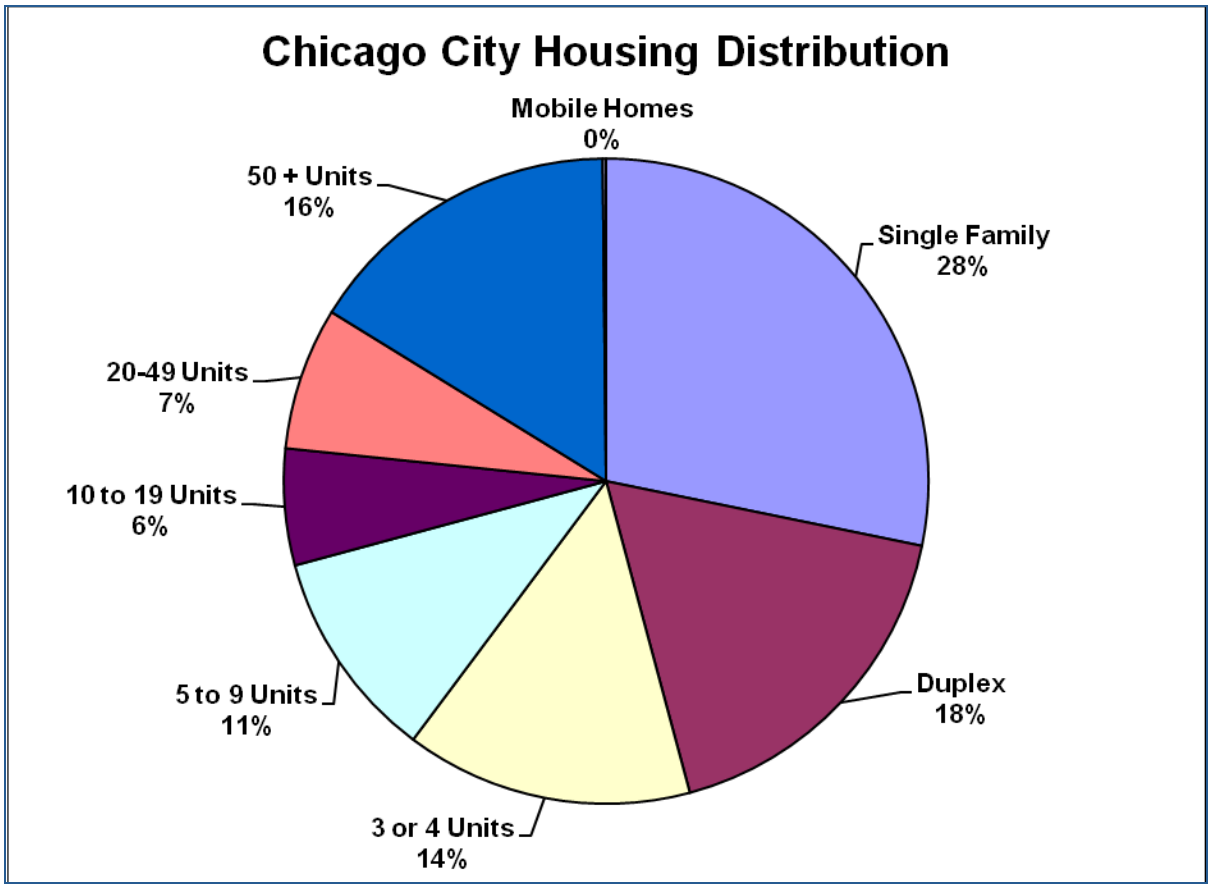



**Figure 4**

Housing vintage is another characteristic where the City of Chicago and its suburban areas diverge.

Figure 5 below not only clearly depicts that the housing stock in the city is much older than that of the suburbs, but it also shows the sheer volume of older residential dwellings.

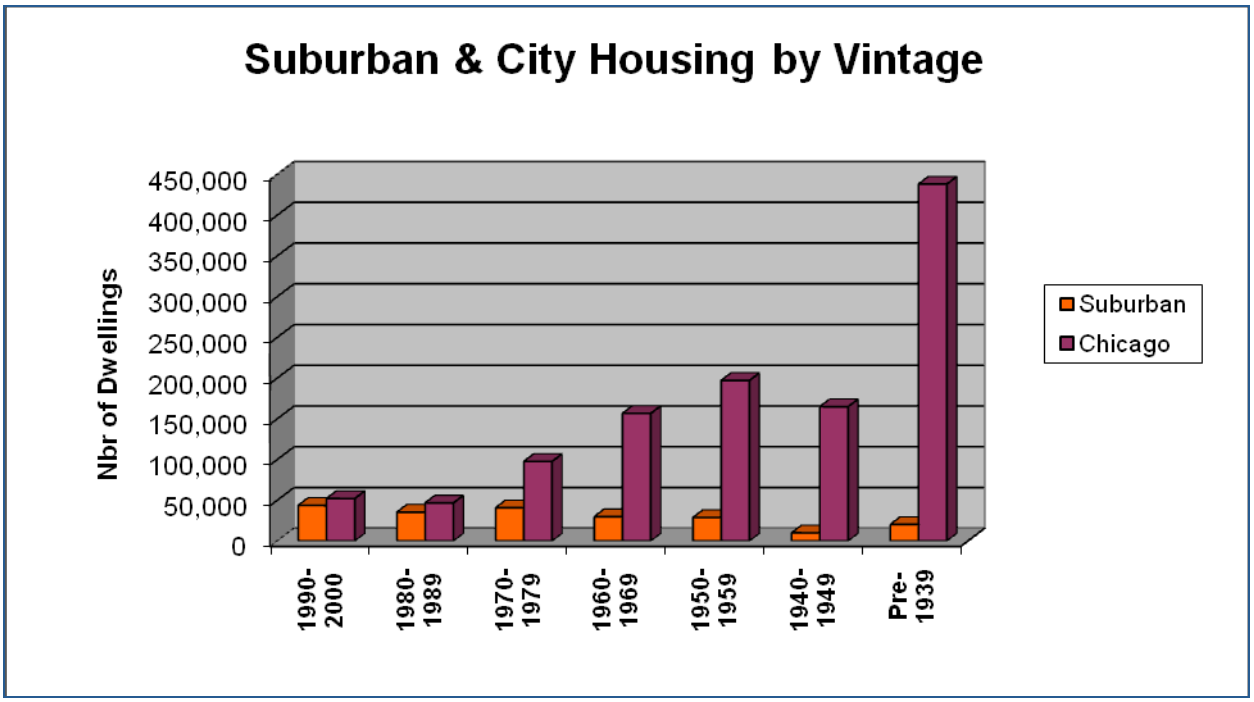



**Figure 5**

Heating with natural gas is quite common for the residents in both service territories. The average saturation rate for natural gas heating across the suburban communities served by North Shore Gas is a remarkable 93% for single family homes and 74% for apartments. Similarly in the City of Chicago, the natural gas heating saturation rate is 90% for non-apartment dwellings and 78% for apartments.

In its 2009 Annual Report on Electric, Gas, Water and Sewer Utilities (ICC Annual Report), the Commission reports that the residential rate for Peoples Gas averaged $1.30 per therm in 2008. The average residential rate for North Shore Gas was $1.20 per therm for the same year. (ICC Annual Report, Table 2-2, pg 19). The average North Shore Gas small residential sales customer can expect to use 1,250 therms annually with an average monthly bill of $95.37, excluding add-on taxes and state add-on charges (based on rates in effect as of August 2010). The average Peoples Gas small residential sales customer can expect to use 932 therms annually with an average monthly bill of $80.66, excluding add-on taxes and state add-on charges (based on rates in effect as of August 2010).

Commercial & Industrial:

North Shore Gas

There are 43 zip codes comprising the 54 communities of the North Shore Gas service territory. Data has been aggregated at the zip code level from the U.S. Census Bureau to provide a picture of the industrial and commercial businesses served by North Shore Gas. The most recent year of available data at this level is 2007. Although space and

water heating saturation rates for these sectors is undetermined, understanding the types of business operations conducted is still important as it reveals the activities and processes undertaken in the area.

There are a total of 23,809 industrial and commercial enterprises in the North Shore Gas service area including 27 associated with farming activities and 4 involved in mining. Figure 6 presents the number of businesses by employee size. Small businesses are predominant with 86% of establishments having less than 20 employees. On the other end of the spectrum, there are 88 businesses with more than 500 employees. Nine percent, or 2,265, of all businesses are construction-related. Not surprisingly, 84% of these businesses have less than 10 employees. The food service industry is similar with 1,542 establishments, representing 6% of the total. Nearly half of food service establishments employ less than 10 people.

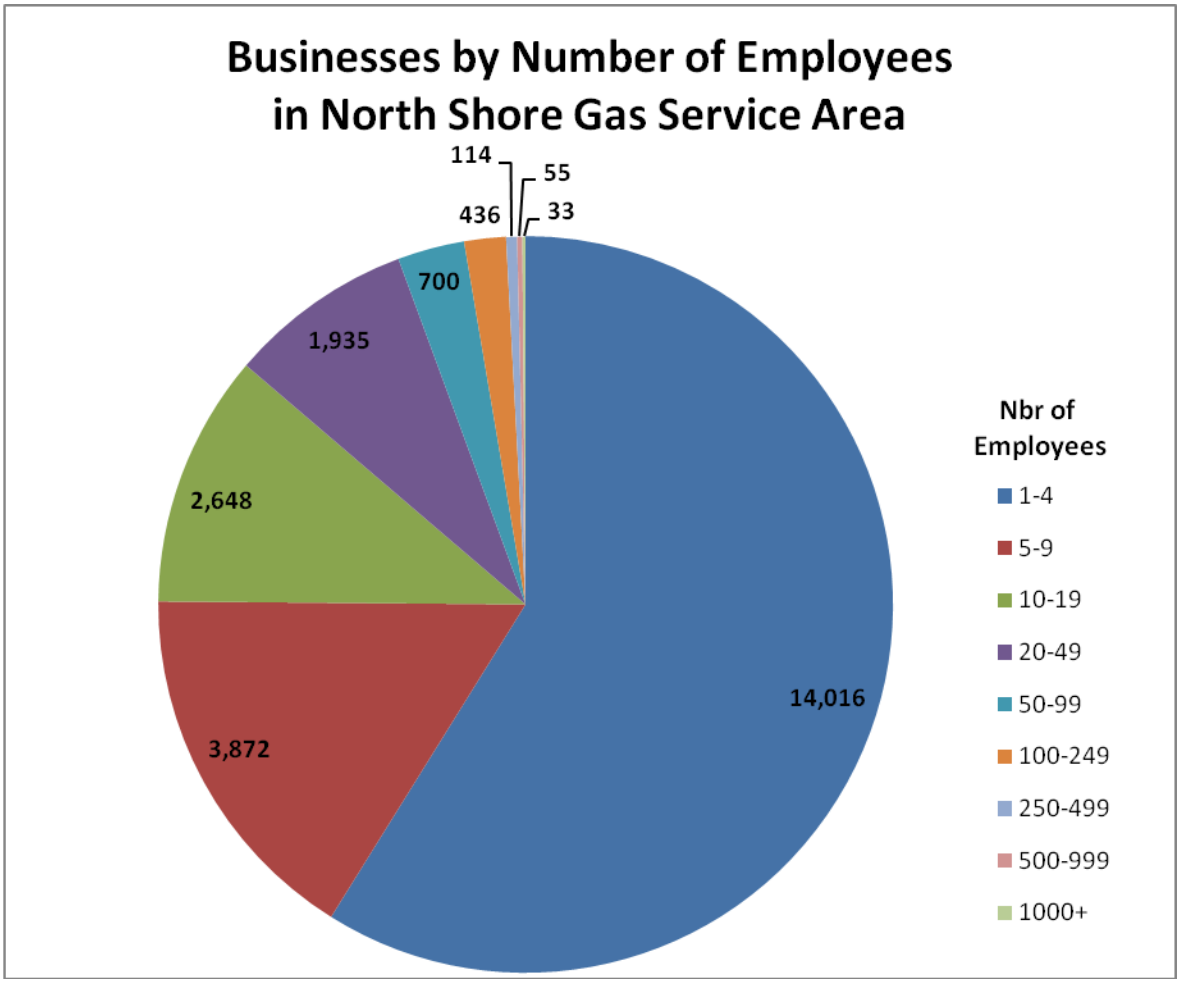



**Figure 6**

Source: U.S. Census Bureau

Table 5 lists categories of businesses within the North Shore Gas service territory to provide an overview of the type and nature of business operations. Although Retail is the largest single category with 2,765 establishments, the combination of the two categories: Legal, Tax, Real Estate & Engineering Services and Financial Services & Insurance exceeds it with a combined total of 4,065 businesses.

**Table 5: North Shore Gas Business Categories**

| Top Business Categories | Number of Businesses |
|---|---|
| Retail Enterprises | 2,765 |
| Construction | 2,265 |
| Legal, Tax, Real Estate & Engineering Svcs | 2,248 |
| Wholesale Enterprises | 1,835 |
| Financial Services & Insurance | 1,817 |
| Health Professionals' Offices | 1,597 |
| Food Service, Caterers & Bars | 1,542 |
| Manufacturing | 1,291 |
| Religious Facilities | 378 |
| Educational Facilities | 357 |
| Personal Care Services | 345 |
| Charitable, Advocacy, Social & Political Orgs | 263 |
| Category Total | 16,703 |
| Percent of Total Businesses | 70% |

Source: U.S. Census Bureau

Peoples Gas

Within the Chicago city limits, there are 55 zip codes. U.S. Census Bureau data associated with these zip codes were used to identify the number and type of businesses served by Peoples Gas. According to 2007 data, there are 59,525 commercial and industrial establishments in Chicago. Figure 7 shows the breakdown by number of employees. Similar to the North Shore Gas service area, the majority of businesses have less than 20 employees and there are only 244 businesses with more than 500 employees.

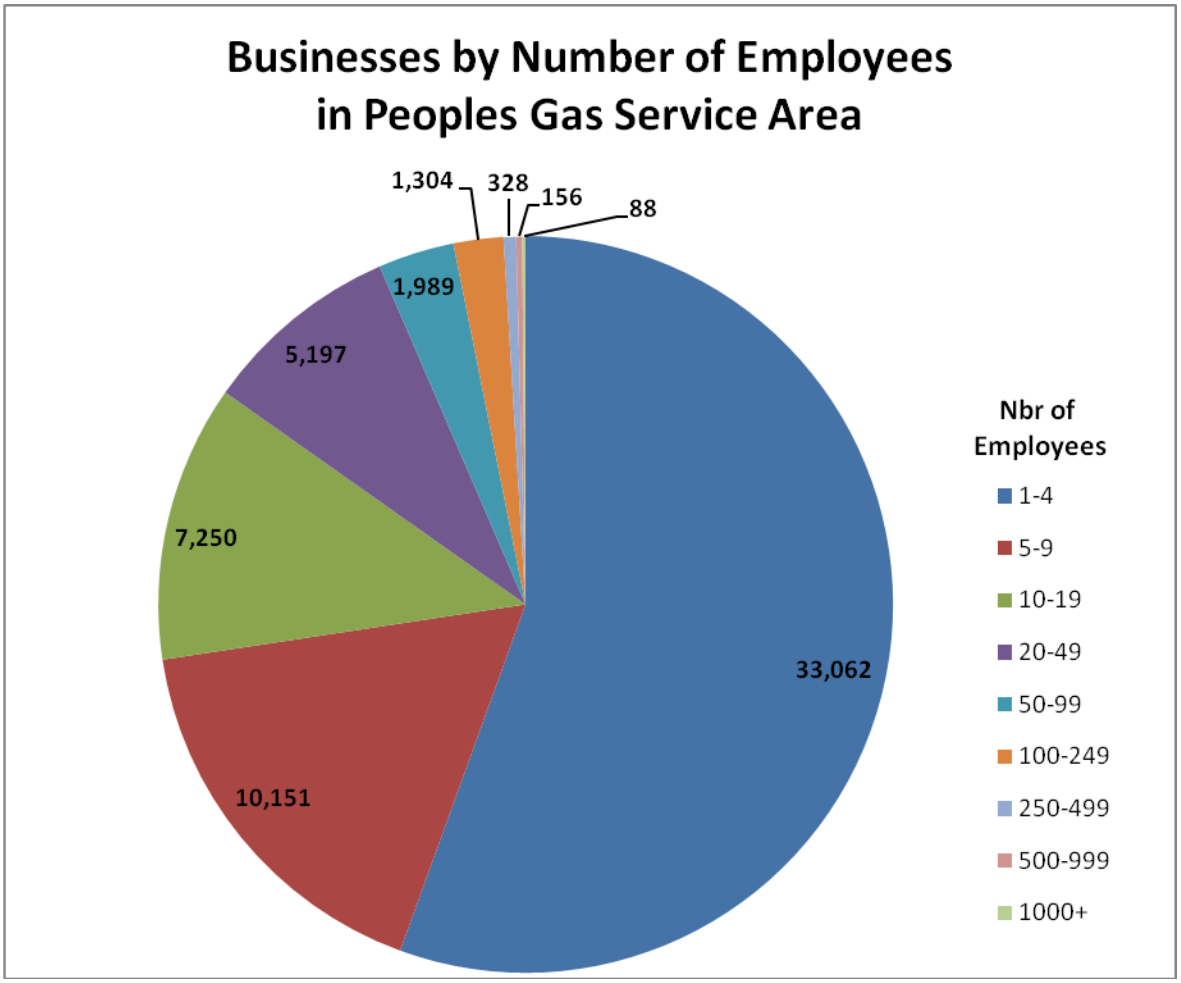



**Figure 7**

Source: U.S. Census Bureau

With nearly 60,000 commercial/industrial establishments, Peoples Gas has over twice as many businesses in its service territory as North Shore Gas. Similar to North Shore Gas, retail businesses are a major component of all establishments. Yet unlike North Shore Gas, the Peoples Gas service area has a slightly smaller percentage of wholesale businesses and manufacturing operations. Table 6 below lists the number of businesses in these major categories.

**Table 6: Peoples Gas Business Categories**

| Top Business Categories | Number of Businesses |
|---|---|
| Retail Enterprises | 7,323 |
| Legal, Tax, Real Estate & Engineering Svcs | 6,893 |
| Financial Services & Insurance | 5,339 |
| Food Service, Caterers & Bars | 5,044 |
| Health Professionals' Offices | 3,574 |
| Construction | 3,261 |
| Wholesale Enterprises | 2,890 |
| Manufacturing | 2,276 |
| Charitable, Advocacy, Social & Political Orgs | 1,658 |
| Religious Facilities | 1,034 |
| Educational Facilities | 889 |
| Personal Care Services | 727 |
| Category Total | 40,908 |
| Percent of Total Businesses | 69% |

Source: U.S. Census Bureau

### 3.1.2 Benefit Cost Analysis

There are many methods used to assess the cost-effectiveness of an energy efficiency measure. SB1918 prescribes the TRC test as the primary method to determine cost-effectiveness. The TRC test is a widely-accepted methodology that has been used over the past three years in Illinois and across the United States for over twenty-five years.

TRC measures the net costs of a demand-side management ("DSM") program as a resource option based on the total costs of the program, including both the participants' and the utility's costs. This test represents the combination of the effects of a program on both customers participating and those not participating in a program. The benefits calculated in the TRC test are the avoided supply cost -- the reduction in transmission, distribution, commodity and capacity costs valued at marginal cost for the periods when there is a reduction in usage of natural gas. The costs in this test are the program costs paid by the utility and the participants plus the increase in supply costs for the periods in which demand is increased. Thus, all equipment costs, operation and maintenance, cost of removal and administration costs, no matter who pays for them, are included in this test.

The benefit cost ratio resulting from the application of this test is the ratio of the discounted total benefits of the program to the discounted total costs over a specified time period. A benefit cost ratio above one indicates that the program is beneficial to the utility and its ratepayers on a total resource cost basis.

Even though the TRC test is the test prescribed by SB1918, there are four other cost-effectiveness tests that analyze the programs from different perspectives. The four additional tests are the Participant test, the Ratepayer Impact Measure ("RIM") test, the Utility or Program Administrator Cost test, and the Societal test.

The Participant test is the quantifiable benefits and costs to the customer due to participation in a program from the participant's perspective. The benefits include reduction in the participant's bill, and incentives paid to them. The costs in this test are out-of-pocket expenses incurred as a result of participation in the program plus any increases to utility bills.

The RIM test measures what happens to customers' bills or rates due to changes in utility revenues and operating costs caused by a program. The benefits in the RIM test are the savings from avoided supply costs. The costs for this test are the program costs incurred by the utility and/or other entities for creating or administering the program, incentives paid to the participant, decreased revenues for any periods for which demand decreased, and increased supply costs for instances when demand increased.

The Utility or Program Administrator Cost test measures the net costs of a program as a resource option based on the costs incurred by the program administrator, excluding any net costs incurred by the participant. The benefits are the avoided supply costs of energy and demand (similar to the TRC benefits). The costs are the program costs incurred by the administrator, the incentives paid to the customers, and the increased supply costs for the periods in which demand is increased.

The Societal test is a variant of the TRC that includes the effects of externalities and uses a different discount rate. The Societal test is intended to determine the effects of the program on society as a whole. The benefits are the avoided supply costs and externalities (including environmental benefits, increased national security, etc.). The costs are the program costs paid by the utility and the participants plus the increase in supply costs for the periods in which demand is increased.

To determine energy efficiency measures that should be considered opportunities for achievable energy savings in the Companies' service areas, a comprehensive benefit cost analysis was conducted on a wide range of measures that affect natural gas consumption across all customer classes. The benefit cost tests were performed using data specific to the Companies. When the TRC test results produce a value greater than one for any given measure or bundle of measures, it is judged to be a cost-effective application, implying that it is more beneficial to implement the energy efficient technology. Measures passing the TRC test become eligible for inclusion in programs. Cost-effective measures are grouped into programs and budget amounts are allocated. Then the TRC test is run again on each program, or bundle of measures, to determine cost-effectiveness. Tables 4A and 4C in Section 2.1 above included the TRC test results for each proposed program and the total portfolio.

### 3.1.3 Current and Future Coordination with Stakeholders

The Companies recognize the importance of obtaining agreement among stakeholders in all phases of the Plan life cycle from planning and program design, to implementation, evaluation, tracking and cost recovery. Throughout the Plan development, the Companies engaged stakeholders to obtain input on issues that were important to each stakeholder. Discussions were held with Commission Staff, the Illinois Attorney General's Office, Citizens Utility Board, The City of Chicago and the Environmental Law and Policy Center. These discussions focused on many different issues including:

- The application of net-to-gross ("NTG") assumptions at the measure level.
- Deemed savings.
- Statewide impact evaluation.
- Programs directed at providing education in schools.
- Coordinating with energy efficiency programs offered by other organizations.
- Offering effective programs that would target lower income customers.
- Leveraging the accomplishments and infrastructure of the Companies' current Chicagoland programs.

All stakeholder input was considered in the preparation of this Plan. Most suggestions were incorporated into the Plan as long as they did not deviate from the two primary objectives - maximum cost-effectiveness and proportionate spending among customer segments.

Going forward, the Companies and stakeholders discussed forming a Stakeholders Advisory Group ("SAG") similar to the group that currently exists for the Illinois electric utilities. The Companies could support the formation of an Illinois natural gas SAG and would fully participate in this group but urge potential participants to carefully define the group's scope.

### 3.1.4 Coordination with Department of Commerce and Economic Opportunity (DCEO)

The Companies have communicated with and supported DCEO throughout the planning process. The Companies provided data to DCEO on the markets it serves, budgets, goals and inputs for the TRC screening analysis. In-person meetings and weekly conference calls were conducted throughout the planning process with DCEO. Based on numerous meetings and discussions with DCEO, all spending and savings for the low income sector will be DCEO's responsibility. The Companies have not designed or budgeted for any programs targeting low income customers who pay directly for their own gas heating or water heating.

### 3.1.5 Foundation for Evaluation

Evaluation is the process of determining and documenting the results, benefits, and lessons learned from an energy efficiency program. Energy efficiency evaluations are conducted to estimate actual energy savings compared to predicted estimates. An

evaluation should be viewed as one part of an on-going process to improve planning and implementation in order to maximize the effectiveness of the program.

There are two types of evaluation that are generally undertaken for energy efficiency programs. These are process and impact evaluations. A process evaluation focuses on the effectiveness of program delivery, marketing, achievement of participation goals, customer satisfaction and other qualitative (non-therm) goals.

An impact evaluation is primarily concerned with measuring the therm savings that programs achieve. This can include estimating net-to-gross ratios (free ridership and spillover[5]) if such estimates can be determined with reasonable accuracy at a reasonable cost. Impact evaluation would ensure that measure level estimates of energy savings are made consistently with the approved methodologies. Evaluations are discussed more in Section 3.4.

During its stakeholder meetings, the Companies were made aware of the desire for statewide evaluation. The Companies believe that the primary benefit of statewide evaluation would be the use of consistent evaluation techniques for similar programs among all the gas utilities. However, this benefit is more than offset by the many logistical issues that would occur with a single statewide evaluator. These issues include data integration, differences in program designs and timing of program delivery, and the differences in the size of evaluation budgets and the ability of one evaluator to allocate each utility's budget to only their programs. A better solution would be the formation of a gas evaluation working group whose mission would be to formulate common evaluation methodologies for each basic program type that all the utilities would use. This would achieve the desired consistency in approach without all of the logistical issues that a statewide evaluator would be faced with.

The Companies also discussed in detail with the stakeholders how impact evaluation results would be applied. The Companies strongly recommend that evaluation results be applied in a forward looking fashion to support the next triennial filing. This is important for a number of reasons, but most importantly for the following reasons:

- First, the Companies plan to enter into a performance-based agreement with their implementation contractor. This cannot be done if impacts for measures are not agreed upon at the start of the program.
- Second, changing impacts retrospectively can be disruptive to effective program implementation. To avoid retrospective application of evaluation results, the

[5] A free rider is a program participant who would have installed the program measure or equipment without the utility's program or offering. Spillover (also known as free driver) is a non-participant who implemented a particular efficiency measure or practice as a result of a utility program but either did not request the incentive or did not increase the efficiency of the adopted measure enough to meet the utility's requirement.

Companies are recommending deemed savings including NTG ratios[6] for the full triennial period.

The plan review process will ensure that all measure level estimates utilize the best information available. The programs, measures and markets that this portfolio is designed around are well established and thus suitable for deemed savings.

## 3.2 Risk Management

The objective of risk management is to limit the liability to the Companies and develop a proactive plan to identify and resolve the most critical and/or most likely potential risk events. It is particularly important in the planning and development stages to document risks and identify mitigation and contingency options that can be applied to risks. Risks are identified and carefully managed throughout planning and implementation of the plan.

The Companies define a risk as any factor (event) that may potentially interfere with success of the portfolio in reaching its objectives. A risk is not a problem; a risk is the possibility that a problem might occur. By recognizing potential problems, the Companies can attempt to avoid a problem through proper actions, or risk responses.

The process of risk management can be broken down into three steps: 1) identification of risk, 2) analysis and ranking of risk, and 3) determination of risk response based on ranking. Risk identification consists of determining risks that are likely to affect the success of the plan and documenting the characteristics of those risks. No attempt should be made to identify all possible risks that might affect the project, but anything likely to occur should be included in the analysis. Risks are then prioritized to determine how they should be addressed. Critical or highly probable risks should be addressed with a risk response. Risk responses are formulated based on the Companies' risk tolerance.

The most common risk responses are: avoid, transfer, mitigate, or accept. Mitigation means to take action now to prevent a risk event from occurring. Contingency planning involves the preparation of prescribed actions should a risk event be triggered. So, effectively the Companies needed to decide if a risk event is important enough to address now by establishing mitigation plans, or waiting until a risk is triggered, in which case it can be addressed with a prepared contingency plan.

The Companies' assessment of the portfolio concluded that there are currently five main risks that require responses. These risks are:

[6] NTG ratios are defined as gross savings adjusted for participant free ridership, participant and non-participant spillover and in service or utilization rates. Impact evaluations conducted after the program has had at least one full year of activity can estimate NTG ratios. However, the type of evaluation methodology can influence the NTG estimate and even similar methodologies can produce relatively high variability between different utilities or the same utility for different time periods.

1. Performance risk: The risk that the programs do not deliver expected results.
2. Market risk: The risk that the program participation will suffer as a result of poor economic conditions.
3. Technology risk: The risk that certain technologies or measures fail to deliver expected savings.
4. Evaluation risk: The risk that independent evaluation, measurement and verification ("EM&V") will conclude that either deemed savings, plan assumptions, or estimates fall short of what implementers have estimated.
5. Regulatory risk: The risk that achievements are not recognized and cost recovery is affected.

The Companies' risk responses to these identified risks are:

- Transfer performance related risk by entering into a performance-based contract with an experienced program implementer with a proven track record, Franklin Energy.
- Mitigate technology and market risks by designing a diversified portfolio that does not rely heavily on one single program or technology.
- Mitigate market risks by designing programs that help overcome many of the market challenges and barriers.
- Mitigate technology risk by incorporating technologies and measures based on market research and technologies with proven results in similar markets.
- Mitigate evaluation risk by deeming savings and NTG ratios for the first 3 years and only using EM&V results for the next triennial filing.
- Mitigate regulatory risk by clearly stating objectives, expectations and assumptions in the plan and obtaining approval of these expectations and assumptions.

Risk management is a recurring event; it is not performed once and then set aside. Risk identification, management, and resolution continue after the portfolio is launched. New risks will develop as the programs evolve and external and internal situations change. The risk management plan summarized in this Section 3.2 is only a snapshot of the more critical current risks.

## 3.3 Implementation

Implementation of the energy efficiency portfolio outlined in the Plan requires additional detailed planning and refinement prior to portfolio launch. The purpose of the individual program descriptions in Section 3.9.1 is to provide sufficient detail on program concept and design to allow for adequate stakeholder and Commission review. This section outlines the tasks and schedule related to the implementation of the planned portfolio and the introduction of these programs into the market place in a cost-effective way.

Before finalizing a successful implementation plan, it is important to understand the projected portfolio launch requirements by program for market introduction. The following chart depicts the targeted market launch of each program for 2011:

| Residential Energy Efficiency Programs | |
|---|---|
| Program: | Projected Launch: |
| Residential Prescriptive Rebate | June 2011 |
| Residential Home Energy Reports | June 2012 |
| Residential Multifamily Direct Install | June 2011 |
| Residential Whole-House Retrofit | June 2013 |
| **Business Energy Efficiency Programs** | |
| Program: | Projected Launch: |
| C&I Prescriptive Rebates | June 2011 |
| C&I Custom Rebates | June 2011 |
| C&I Retro-Commissioning | June 2011 |
| Small Business Efficiency | June 2011 |

Furthermore, implementation planning involves a continual assessment of program and measure mix to assure that the portfolio is on track to meet goals. As a result, in subsequent years, the Companies may add/subtract measures or modify the scope of a program based on market data, changes in technology, or other relevant information.

Finally, in addition to understanding the schedule and ensuring that the Companies reach savings and budget goals in a cost-effective way, some of the key goals identified in implementation planning are:

- Ensure a smooth and rapid transition from Chicagoland programs to North Shore Gas and Peoples Gas Energy Efficiency Portfolio.
- Coordinate with DCEO.
- Initiate a trade ally network that will drive the performance of many new programs.
- Coordinate with ComEd's complementary electric energy efficiency offerings.

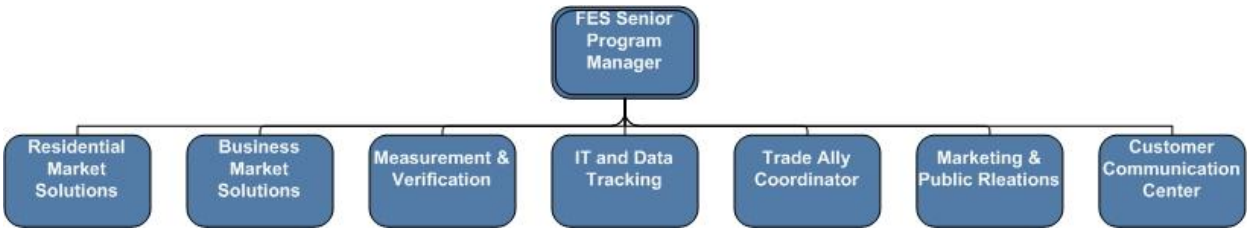
### 3.3.1 Overall Implementation Strategy

The first component of an implementation plan is to determine the implementation strategy. Franklin Energy will be providing turnkey energy efficiency implementation services for North Shore Gas and Peoples Gas. The required work for implementation is divided into 3 distinct phases: Finalize Program Design, Start Up Tasks / Implement Portfolio Infrastructure, and Launch the Portfolio.

#### 3.3.1.1 Finalize Program Design

The finalization of program design aligns closely with the regulatory approval process. During and/or shortly after regulatory approval, Franklin Energy will form implementation planning work groups to organize and assign resources to complete detailed implementation planning. The implementation plan is intended to provide a comprehensive roadmap for program delivery with the goal of finalizing detailed program design. This roadmap will identify activities to put the people, processes and systems in place to deliver, administer, and launch the program portfolio and execute On-Bill Financing.

The implementation planning work groups will represent the following areas:




The proposed implementation planning work groups are designed to represent the offerings and functions identified to administer the portfolio.

#### 3.3.1.2 Start Up Tasks / Implement Portfolio Infrastructure

Once regulatory approval is received, the vast majority of implementation begins. Depending on timing of approval, some critical tasks may be initiated prior to approval without assuming any major risks in an effort to avoid program launch delays. The key tasks for implementation and program delivery are:

- Recruit, staff, and develop training support materials.
- Coordinate with utility and risk management planning.
- Set up local, regional office(s) to support the programs.
- Establish Call Center services.
- Initiate trade ally relationships.
- Develop marketing and communications strategy.
- Create processes and tools to support incentive fulfillment and implementation services.
- Develop data tracking and other information technology functionality.
- Implement Quality Assurance/Quality Control (“QA/QC”) plan.
- Coordinate efforts with the evaluation team.

The goal is to begin implementation of the portfolio infrastructure (e.g. recruiting, hiring local staff needed to support program implementation) by early 2011 to avoid compromising the portfolio launch schedule.

#### 3.3.1.3 Launch the Portfolio

The launch of the portfolio is both the communication of program availability and the initial testing of the quality of the processes that were designed to administer the portfolio. Orchestrating the launch of multiple programs simultaneously is no small task. However, it is the Companies' preference to have a smooth transition between Chicagoland and the new portfolio with continuous offerings. This is especially important for trade ally partners. Therefore, the Companies plan to launch most of their programs June 2011 or as soon thereafter as possible.

The tasks involved in executing the Marketing/Communication component of the launch are:

- Develop and produce specific marketing materials.
- Communicate with and train trade ally groups.
- Coordinate public relations efforts.
- Develop and launch website.

The tasks involved in ensuring Process Readiness are:

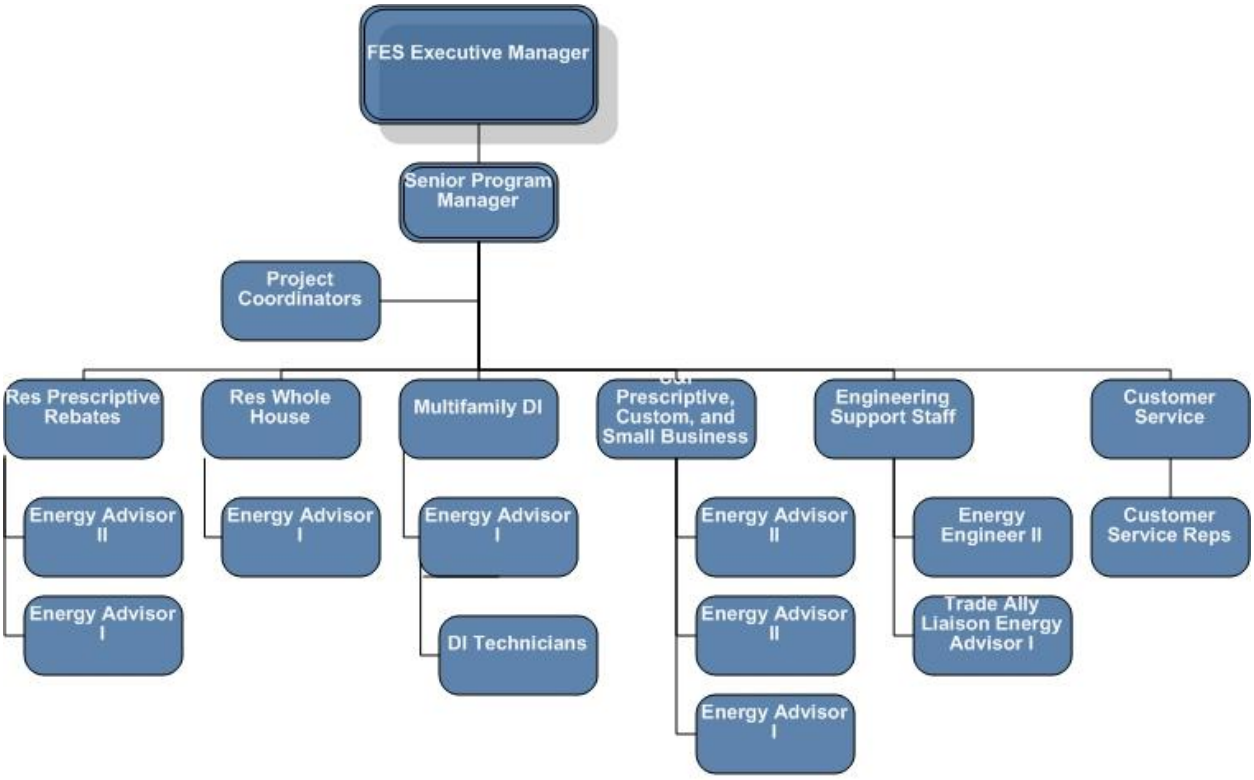
- Design and produce applications and other customer forms.
- Train Call Center personnel.
- Train field staff.
- Develop tight QC to closely monitor and address process issues.

The success of the portfolio market launch is highly dependent on effective marketing, a positive customer service experience, and error-free service delivery including processing of program applications and incentives. A more detailed roadmap for these critical operations is addressed later in this section.

### 3.3.2 Overall Management Strategy

The final component of the implementation plan is the determination of the implementation management strategy. The initial management strategy, as mentioned above, is to establish an implementation planning team. As the turn-key program implementation contractor, Franklin Energy will solidify key positions for the permanent ongoing management of the portfolio. Franklin Energy envisions a program staffing structure similar to the organization chart presented below. Franklin Energy's Executive Manager and Senior Program Manager hold key positions during the final implementation planning and Start Up phases. Franklin Energy's Senior Program Manager will be responsible for organizing the work groups discussed above, and providing direction to new Franklin Energy staff (Energy Advisors, Customer Service Representatives) who will be dedicated to the North Shore Gas and Peoples Gas program effort. The key is to immerse staff in the programs during Start Up to ensure the smooth transition to ongoing program management. Additional staffing will occur as program implementation plans are finalized. The following is the proposed

organizational chart to support the on-going management of North Shore Gas and Peoples Gas Energy Efficiency Portfolios. This chart will evolve over time (adding or eliminating some positions) to ensure goal attainment and customer/trade ally satisfaction.




Franklin Energy's Executive Manager and Senior Program Manager will be responsible, with the approval of the Companies, for:

- Portfolio and program strategy.
- External and internal coordination.
- Budget and financial management.
- QA/QC design / internal EM&V.
- Marketing and communication strategy.

Franklin Energy staff, working under the direction of the Senior Program Manager, will be responsible for:

- Implementation planning.
- Process design and implementation.
- Program implementation.
- Management of third party vendors.
- Day-to-day operations and oversight.

- Tracking and reporting.
- Internal QA/QC checks.

### 3.3.3 Overall Timeline

The first schedule presents the pre-launch activities which include the finalization of program design and the implementation of program infrastructure.

| Pre-Launch Activities | Jan-2011 | Feb-2011 | Mar-2011 | April-2011 | May-2011 | June-2011 | July-2011 |
|---|---|---|---|---|---|---|---|
| Recruitment, Staffing, and Training & Development | | | | | | | |
| Utility Coordination and Risk Management Planning | | | | | | | |
| Set-up Offices | | | | | | | |
| Call Center Support | | | | | | | |
| Trade Ally Coordination | | | | | | | |
| Communication & Marketing Material Development | | | | | | | |
| Establish Incentive Fulfillment Process | | | | | | | |
| Data Tracking, System Requirements and Testing | | | | | | | |
| QA/QC | | | | | | | |
| Coordination with Evaluation Team | | | | | | | |

The second schedule documents a proposed program launch or market introduction schedule based on Commission approval.

| Program Launch Schedule | June-2011 | Q3-2011 | Q4-2011 | Q1-2012 | Q2-2012 | Q3-2012 | Q4-2012 | 2013 |
|---|---|---|---|---|---|---|---|---|
| Residential Prescriptive Rebate | | | | | | | | |
| Residential Home Energy Reports | | | | | | | | |
| Residential Multifamily Direct Install Program | | | | | | | | |
| Residential Whole House Retrofit | | | | | | | | |
| C&I Prescriptive Rebates | | | | | | | | |
| C&I Custom Rebates | | | | | | | | |
| C&I Retro-Commissioning | | | | | | | | |
| Small Business Efficiency | | | | | | | | |

### 3.3.4. Communications/Marketing

Each program in the portfolio has a specific marketing and communication strategy to recruit customers in the target audience for the services being delivered. However, at the portfolio level, a broad communication plan will be developed that addresses program branding, communication and collateral standards, messaging, and customer service standards for all implementation contractors. Franklin Energy will lead a marketing group made up of North Shore Gas and Peoples Gas staff, program managers, and call center staff to complete an overall communication plan as well as a detailed plan for individual programs. Utility staff will provide branding guidelines including trademarks, communications styles and color palettes.

Assisted by the Companies' marketing staff, Franklin Energy will determine market drivers for both North Shore Gas and Peoples Gas. This will allow Franklin Energy to finalize broad marketing strategies, messaging, and specific unique program tactics. In general, the goals of the communication plan are to:

- Deliver a clear, consistent, compelling message about the benefits of energy efficiency and provide a call to action.
- Build awareness and encourage participation among targeted customers.
- Build a strong marketing channel through the trade allies.
- Manage expectations regarding program availability, offerings, and incentives.
- Achieve participation goals while maintaining cost-effectiveness.
- Coordinate closely with other energy efficiency programs and other utilities.

A multi-pronged marketing communication approach will be utilized to establish awareness of the energy efficiency portfolio offered by North Shore Gas and Peoples Gas. Franklin Energy plans to utilize the following primary channels to build overall program awareness:

- Mass Communications Outlets – Franklin Energy will coordinate use of low cost communications vehicles with utility marketing staff. The existing billing process and website allow low cost promotion of energy efficiency programs. Bill messaging, bill inserts, e-bill messaging, newsletters, and website promotions are a few of the existing low cost mass communication vehicles available to build program awareness.

- Program Field Staff – Franklin Energy staff will be the field marketing team, conducting targeted outreach to relevant customer groups and industry associations in addition to working with the customers daily.

- Stakeholder Account Managers – Franklin Energy will leverage the existing relationships utility account managers have with larger customers. Utility account managers will serve as the conduit to inform customers regarding energy

efficiency programs. Franklin Energy will support account managers to further develop their customer relationships.

- Trade Allies – Franklin Energy will engage this channel as early as possible to increase the ability to reach customers through existing relationships and at an appropriate time so that the program can influence a buying decision. Franklin Energy will provide training to ensure trade allies understand the various programs available, terms and conditions to which they must comply, and required procedures. Marketing materials will be provided to trade allies to distribute to their customers.

- Direct Delivery – Franklin Energy's marketing group will develop marketing materials that are incorporated into program training sessions, mailed directly to customers, and distributed at events.

- Targeted Relationship Marketing – Franklin Energy will develop strategies by sector, region, business type, or end-use to target specific audiences to increase the effectiveness of promotional activities.

During program launch, initial efforts will focus on a wide broadcast of energy efficiency programs. Franklin Energy will use the above channels to educate customers and trade allies on energy efficiency technologies and opportunities to conserve energy. Marketing effectiveness will be closely monitored so that marketing strategies and tactics can be altered based on program performance and marketplace opportunities.

### 3.3.5 Customer Service/Call Center/Fulfillment

The program fulfillment and call center operations are critical operational components of the energy efficiency portfolio.

Franklin Energy is responsible for setting up, staffing, and reporting on call center activities to support the North Shore Gas and Peoples Gas programs. The call center goals are to:

- Support the portfolio of energy efficiency programs.
- Minimize impact on the utility call center.
- Facilitate regular communication between call centers to cultivate smooth relationship management.
- Respond to customer inquiries on the energy efficiency programs.
- Enable and encourage participation in the energy efficiency programs.

Franklin Energy will establish a new call center and a regional office in the Chicago metro area. Call center staff will handle inquiries about customer and measure eligibility, completing program applications, requests for participating in programs, scheduling, and

supporting documentation requirements. Each person handling tele-services will be proficient in North Shore Gas and Peoples Gas offerings, customer qualification, program business rules, paperwork and procedures. Furthermore, call center staff will complete introductory training on all core technologies which will make up the majority of trade ally and customer inquiries. Call center staff will have access to Spanish speaking staff to communicate with customers as needed.

During final operation design, Franklin Energy will coordinate a call center work group to meet the expectations regarding North Shore Gas and Peoples Gas customer care protocol and call center standards.

Preliminarily, the call center operations will be designed to:

- Support hours of operation between 7:00 AM to 5:00 PM central time.
- Provide an abandon call rate of less than 3%.
- Maintain an average speed of answer less than 45 seconds.
- Accommodate overflow call routing to a Franklin Energy backup call center.

Furthermore, during portfolio and program launches, metrics are closely followed to provide the best customer experience. Call volumes, wait times and callback turnaround will be monitored closely. Franklin Energy's call center staff in New Berlin, Wisconsin will be utilized as backup as needed to assist with incoming program and technical calls on a live transfer or automated pickup basis to ensure this new center launches successfully and meets the agreed upon metrics.

Franklin Energy will also be responsible for processing incentive payments, or rebate fulfillment, on behalf of North Shore Gas and Peoples Gas. Prior to program implementation, Franklin Energy will ensure that staff is properly trained on the fulfillment process and various eligibility rules associated with each program. All fulfillment transactions must be uniform, documented, and auditable. Franklin Energy does not plan on developing an online application with automated payment processing due to the challenges of receiving, validating, and storing supporting application documentation. Thus, hardcopy applications by mail will be the only method of submitting an incentive request. However, participant forms will be available for printing on the Companies' website.

The general workflow of the fulfillment process is as follows:

- Receive application and supporting documentation.
- Verify the completeness of the application package.
- Determine customer/program eligibility (account/premises).
- Determine measure/project eligibility.
- Input customer, measure, and energy savings data.
- Request approval for and issue incentive payment.

Franklin Energy will coordinate all QC reviews related to fulfillment processing. They will track failed or flawed applications to understand and incorporate process improvements to application forms or program design.

### 3.3.6 QA/QC

The quality of an energy efficiency program is ultimately a function of the program staff's ability to deliver results on time, within budget, and to properly track customer and trade ally participation without compromising program specifications.

QA, Quality Assurance, is defined as procedures intended to ensure that a program, product, or performed service under development meets specified requirements. QC, Quality Control, is defined as procedures intended to ensure that a program, product, or performed service adheres to a defined set of quality criteria or meets the requirements of the utility, regulators, or customer.

The goal of Quality Assurance is to prevent errors, rework, process problems, fraud, and other quality risks from occurring. Creating quality processes upfront reduces the risk of errors, ultimately ensures better customer/trade ally satisfaction and minimizes the cost of program administration. During the process of product development and program finalization, Franklin Energy will make every effort to design quality into the program or process to prevent non-conformance. As a part of the QA strategy, Franklin Energy will:

- Qualify internal employees, providers, and sub-contractors by ensuring proper background checks, verifying credentials, and addressing provider performance in both requests for proposals and contracts.
- Provide clear standard qualifications/credentials of providers and partners to assure quality workmanship.
- Ensure proper tools, forms, training, and materials are available for employees and other implementers.
- Make every effort to ensure errors are not repeated by identifying errors/ exceptions in testing and providing solutions for errors prior to launching. This includes multiple independent checks and balances built into processes.
- Incorporate anti-fraud protocols specified or approved by the Companies that protect both systems and customer data.
- Utilize common QA tools to meet program specifications. Some of these tools are benchmarking, best practices, process flow charts, design for quality, and lessons learned documentation.
- Conduct periodic inspections for compliance with QA protocols.

The goal of Quality Control is to inspect work to ensure it has met the defined program quality standards. The defined quality standards for North Shore Gas and Peoples Gas energy efficiency programs are:

- Execute programs in accordance with the business rules established for each program with minimal mistakes and customer service issues.
- Protect utilities' customer data and prevent program fraud, either internal or external.
- Ensure work claimed and charged has been performed as described to meet the requirements of each program through various periodic Quality Control inspections.

During the detailed implementation planning process, Franklin Energy will develop a QC plan that meets these standards, increasing the likelihood that customers and trade allies have a positive experience with the energy efficiency programs. When developing QC protocols, Franklin Energy will consider the following on a program by program basis:

- Decide which specific standards and key performance indicators the product, service or provider must meet from a customer, measure, and provider perspective.
- Determine what QC techniques best determine a product, process, provider, or application failure. Common techniques include data audits/reviews, field inspections, product sampling, invoice reconciliation, contractor reviews, process testing, trade ally surveys and program surveys.
- Collect, track, and analyze key performance indicators and determine the proper corrective action to resolve process failures, improve processes, and provide implementer feedback.
- Determine reporting frequency on key performance indicators customized to the needs of each program.

The QC process is ongoing. This ensures that remedial efforts produce satisfactory results and immediately detect recurrences or new program issues. It also lays the ground work for continuous process improvement.

Franklin Energy's Engineering Department conducts all internal process audits, QA/QC reviews and assists with implementation of field work. Franklin Energy's program manager is responsible for overall implementation of the program. The project coordinator is responsible for day-to-day office activities of the program. They will assist field staff in scheduling activities and reviewing project applications. Energy advisors are responsible for customer visits and audits. They are responsible for ensuring the technical review of customer applications are performed properly and accurately. It is their priority to ensure a quality experience for the customer. Franklin Energy's Training Department is responsible for ensuring that all staff members are properly trained for their positions.

### 3.3.7 Data Management/System

Franklin Energy's data tracking database is built upon the Salesforce.com development platform that leverages the customer relationship management ("CRM") capability of Salesforce.com. This system has been enhanced to provide a robust and comprehensive DSM program data management solution. This tracking system provides top-tier security, reliability, and functionality. It captures and manages data at all levels of the implementation effort, from program planning data through program delivery and review.

Franklin Energy's tracking system provides real-time access and visibility into energy efficiency projects and applications at every stage, while providing consistent tracking of projected energy savings and other key program information such as marketing leads, outbound marketing campaign success rates, and trade ally activity. In addition to tracking completed projects, Franklin Energy is able to closely monitor the "pipeline" of projects moving forward in order to estimate contributions from upcoming marketing and promotion campaigns. Franklin Energy will be tracking multiple metrics and can report against a plan by location, zip code, or other demographic.

## 3.4 Evaluation

### 3.4.1 Impact Evaluation

The primary objective of the impact evaluation is to estimate gross and net energy savings for the Companies' programs. These results will be used to validate program-claimed savings and to adjust estimates of savings to improve their accuracy.

Although the plan is to evaluate the most important measures offered in the programs, not all measures will be evaluated with the same level of rigor. An important part of the planning will be to prioritize the programs and their measures and define the level of rigor that will be applied to the evaluation for each component.

A variety of approaches will be used to estimate gross and net savings and NTG ratios. The general approach for conducting these analyses is discussed below. A more detailed description of impact evaluation activities is provided in the program details section of this Plan.

Gross Savings:
Gross savings are the change in energy use as a direct result of a program without discounting for actions participants may have taken without the program. Available methods for estimating gross savings include end-use monitoring, calibrated simulation models, calibrated engineering analysis, engineering review, on-site surveys and billing analysis. Factors that must be considered in matching these approaches to different measures and programs include:

- Size of the expected impact.
- Degree of site-by-site variation in per unit savings.
- Aggregate size of the measure's impact at the program and portfolio levels.
- Cost of applying the savings estimation method.
- Sampling size and associated sampling error.
- Reliability of the measured data.
- Length of the evaluation and its timing relative to implementation (e.g., to assess whether billing analysis is feasible).

End-Use Monitoring. Principally for large projects that are site specific, end-use monitoring is the only reliable approach. For other types of projects and measures, end-use monitoring can make important contributions and is often the most reliable method available. Due to high cost, this method should be deployed strategically.

Calibrated Building Simulation Models. For complex measures where individual engineering algorithms are inadequate, where billing analyses are inappropriate due to expected "noise" in the data and a comparatively small measure impact, and where direct measurement is either too expensive or otherwise not desirable as an exclusive method, calibrated engineering simulation models will be used to estimate the impacts.

On-Site Calibrated Engineering Analysis. For some measures, where monitoring and building simulation modeling is not feasible or cost-effective, on-site data will be collected and used to update or calibrate the models.

Engineering Review. For the lower priority measures, a thorough review of the current models used to estimate impacts will be conducted. This may result in refinements to the current algorithm or an entirely new engineering model.

Billing Analysis. While not appropriate for every evaluation, billing analysis can be an extremely effective and, at times, the most convincing of the available evaluation methods. It is best when there is at least one year of post-installation billing data. Billing analyses can be sensitive to sample sizes and the relative sizes of the savings in relation to total customer consumption.

Deemed Savings. If some measures are approved by the Commission for deemed savings, the evaluation will still have a responsibility to perform research to help improve the accuracy of the deemed savings values over time.

Net Savings and NTG Analysis:
The net savings analysis requires the evaluator to assess the influence of the Companies' programs versus other factors on the customer's decision to install energy efficiency measures through the programs. These program influences could include free-riders, free-drivers (i.e., non-participant spillover), and/or participant spillover. Evaluation

efforts for this Plan will be targeted primarily at measuring free rider and participant spillover.

Approaches to analyze net savings range from self report analysis to regression analysis. The most commonly used approach is the self report method, which relies on participating customer and trade ally survey results and, in some cases, non-participant survey data. Projects and measures are differentiated based on their complexity and importance to the portfolio and a NTG rigor level is assigned based on these considerations. More complex and important measures/projects are assigned a Standard or Enhanced Rigor Level and warrant a more comprehensive NTG inquiry consisting of participating customer interviews, trade ally interviews, and integration of other market intelligence.

### 3.4.2 Process Evaluation

Timely process evaluations are critical for ensuring (1) that the appropriate information is being tracked and (2) that the program is being implemented effectively and efficiently. By incorporating process evaluation activities in data collection and analysis for the impact evaluation, we will be able to leverage the available funds and provide actionable process evaluation findings on most programs.

The process evaluation efforts will provide insights and recommendations to improve the future of each program as well as to ensure the reliability of inputs to the impact evaluation. Where relevant (particularly where a program is expected to go beyond energy savings to influence various aspects of a market), we will also conduct research to understand and document the relevant market.

The primary objective of this effort will be to help program designers and managers structure their programs to achieve cost-effective savings while maintaining high levels of customer satisfaction. We have also provided a more detailed description of process evaluation activities in the program-specific discussions later in this section.

The process evaluation for each program will include in-depth qualitative interviews with the Companies' staff and program implementers. These interviews will be used to develop a complete understanding of the final design, procedures, and implementation strategies for each program. Through these interviews, available program materials, including marketing and outreach materials such as web-based promotional content, point of purchase (POP) materials, print and radio advertising copy, and any cooperative marketing materials developed, will be collected.

Interviews with key contractors and the Companies' account executives will also be conducted to understand and document program ramp up, marketing, and recruitment. Interviews with participating customers will be used to better understand customer intake, customer service, and customer satisfaction. Finally, where relevant, interviews

with non-participating trade allies or customers will be conducted to better understand the market, spillover, and how the program can increase its effects in the market.

## 3.5 Reporting

Program reporting serves two key objectives:

- Provide information to regulators needed to assess the programs and their achievements.
- Provide timely information to program implementers needed to manage the programs including progress towards goals and expenses versus budgets.

Monthly, quarterly and annual reports will be prepared that meet these objectives. Program evaluation also requires that the information needed to properly evaluate a program is tracked and reported. Each of these items is discussed further below.

### 3.5.1 Importance of Accurate Reporting

Accurate reporting is essential to the successful administration of a program. Program reporting reflects the progress or results of the programs, helps determine program changes that need to be made, and is a key tool used in the decision-making process. Program changes made as a result of reporting can have financial implications, which add to the importance of accurate reporting.

Accurate reporting is also important because it provides needed information to track whether mandated requirements are being met. Most energy efficiency programs have specific goals and benchmarks that must be achieved by certain dates. Accurate reporting provides the vehicle to evaluate whether these goals and benchmarks are being achieved cost-effectively in the allotted time frame and whether goals or programs need to be adjusted.

Providing information for the program evaluation is also an important aspect of reporting. Evaluation is a key aspect in gauging the success of the programs because it:

- Reports if a program has met its goals.
- Presents reasons why a program has succeeded or failed.
- May be used for compliance with regulations.

Evaluation relies heavily on data tracking and reporting in order to be comprehensive, reliable, and robust.

### 3.5.2 Reported Savings and Data Tracking

At the outset of the programs and for planning purposes, all savings are deemed values. Deemed values are estimates of energy and demand savings that have been developed from data sources and analytical methods to determine appropriate net savings for each program and measure. Going forward, savings values may change on a prospective basis due to ongoing evaluation of the programs. The evaluation work will feed into the

existing deemed savings values to determine if adjustments need to be made in the prospective reporting of program savings.

In order to accurately report program results, the proper data must be tracked and verified. The critical areas to track data are expenses, energy savings, and program participation levels. The key pieces of data to track may vary by program; however, for the most part, in each category they are:

- Expenses: Reported for installed, completed, and committed measures/projects.
  - Start up costs.
  - Administration/delivery (rebate processing, technical analysis and audits, direct installations, inspections, and other quality control).
  - Marketing/Outreach and Education.
  - Incentives (rebates that offset incremental costs for customers).
  - Evaluation and related research.
- Energy Savings: Reported for installed and committed measures/projects in the program.
  - Annual Gas Savings: the yearly (12 months) savings that will result from a measure/project installed or committed during the program year.
  - Lifetime Gas Savings: the savings to be accrued over the expected life of a measure/project installed or committed to during the program year.
  - Cumulative Portfolio Gas Savings: the savings that will accrue during the expected life of all measures/projects installed or committed to during the current and all previous program years.
- Program Participation: Reported for all installed, completed, and committed measures/projects.

### 3.5.3 Important Data to Track

The most important data pieces to track are the total annual energy savings and the total yearly participation. These two data points are the benchmark for all goals and targets. Each program has specific participation and savings values which are expected to be achieved in order for the program to be considered successful.

Program reporting provides the link between the three phases of program design: planning, implementation, and evaluation. Accurate reporting for all three phases is essential in order to be able to make informed decisions on the success of the program and in determining if any changes are necessary.

### 3.5.4 Coordination with EM&V Contractor

The Companies have selected Navigant Consulting, Inc. (“Navigant”) to be the Third Party EM&V Contractor. This Plan has been shared with Navigant. Navigant has reviewed the draft document, and provided input on the EM&V Requirements sections of individual program plans and on the overall discussion of evaluation in Section 3.4. Navigant has communicated its preference for collection of assumptions and data during

implementation for evaluation purposes, where practical, and will work with the implementer to identify priority data.

## 3.6 Closing the Loop/Commitment to Continuous Improvement

The Companies are committed to continuously improve the design and delivery processes for its programs. As such, the Companies will review program operations, results and processes on a continual basis. This will allow for mid-stream adjustments to program implementation plans, marketing plans, forecasts, budget allocations and, if warranted, savings calculations.

## 3.7 Potential Pilots

The Companies are not proposing any pilots at this time. However, SB1918 allows for no more than 3% of the total budget to be used for research and/or pilot programs. The Companies will consider potential pilot programs and may implement a pilot program during the first plan period or propose a pilot in a future plan period.

## 3.8 Proposed Program Details

This section provides details on the programs that the Companies propose to include in their initial gas energy efficiency portfolio. This portfolio is the baseline planning tool from which more detailed implementation planning will evolve. The program detail templates are intended to provide sufficient information on program concepts and designs to allow for adequate stakeholder and Commission review.

The Companies are committed to meeting the energy savings targets within the budget allocations in the most cost-effective way. To this end, the Companies request the latitude to reallocate funding between programs, to add or delete cost-effective measures, and increase or decrease incentive amounts, at their discretion, to ensure performance criteria are met. The Companies envision the nature of the portfolio adjustments would relate to specific designs in response to customer/implementer feedback and/or rebalancing the portfolio based on individual program performance or emerging market/technology opportunities. Lastly, as the Companies learn from the market response to the initial set of their and other utility programs, additional programs may be added to enhance the portfolio performance.

The proposed portfolio is a comprehensive set of proven programs that reach all customer classes. All of the measures in the Companies' proposed portfolio screened as cost-effective. Furthermore, all programs are scalable, meaning they can easily expand to incorporate additional cost-effective measures in the future.

The DCEO will be implementing energy efficiency programs designed specifically for the low income and public sector, as defined in SB1918. Programs that address these markets are not included in the Companies' portfolio because DCEO is filing its own plan. However, North Shore Gas and Peoples Gas intend to continue to cooperate with DCEO to help build awareness and encourage participation in their offerings.

The Residential Energy Efficiency programs provide a variety of options that allow customers to participate in multiple ways. In general, these programs are broad based offerings aimed at a variety of market segments, from single family to multifamily, with technologies applicable to both existing homes and new construction. They range from an end use to a whole house basis for the program, providing options to customers to fit their needs. All programs will include an educational component for customers and trade allies and will leverage each other for promotional activities. Detailed program information is provided in section 3.8.1 below.

Proposed residential programs are:

3.8.1.1 – Residential Prescriptive Rebate Program
3.8.1.2 – Residential Home Energy Reports Program
3.8.1.3 – Residential Multifamily Direct Install Program
3.8.1.4 – Residential Whole House Retrofit Program

The Commercial and Industrial Energy Efficiency programs provide a variety of options that allow customers multiple points in participating in the Companies' programs. These programs are aimed at multiple segments, from broad-based offerings to those geared to specific markets from small businesses to industrial customers. Within these programs are end uses that will allow the Companies to target specific markets such as restaurants. Detailed commercial and industrial program information is provided in section 3.8.2 below.

Proposed C&I programs are:

3.8.2.1 – C&I Prescriptive Rebates Program
3.8.2.2 – C&I Custom Rebates Program
3.8.2.3 – C&I Retro-Commissioning Program
3.8.2.4 – Small Business Efficiency Program

Savings estimates for individual measures or programs have been developed in various manners. This includes calculating impacts using generally accepted engineering algorithms based on a set of reasonable assumptions to input variables, building simulation modeling, and reference to existing data sources where such values have already been calculated. Because of the diversity in equipment and energy consumption patterns across multiple building types and end-uses, there exists a variability in these savings estimates as they relate to program design and target markets, particularly at the planning stage of these programs. With this in mind, each of the savings estimates has been compared to several other sources including those developed by the other gas utilities. A collaborative effort throughout the planning process between the utilities allowed for comparison of the measures and has led to a consistency in approach, even if the saving values differed. Where possible, the use of local references was given priority over the use of data from neighboring states or national data. Some of these references include the Midwest Residential Market Assessment and DSM Potential

Study by the Midwest Energy Efficiency Alliance and the existing energy efficiency program run by Chicagoland. A similar approach was taken in the development of project costs used in the analysis and in the development of proposed rebate levels keeping in mind that there are already incentive amounts available from Chicagoland.

Details on each program are provided in the following pages.

### 3.8.1 Proposed Program Details - Residential Programs

| PROGRAM | 3.8.1.1 - RESIDENTIAL PRESCRIPTIVE REBATE PROGRAM |
|---|---|
| Sector – Target Market | This program is targeted to two types of customers with natural gas heating: 1) those in homes with individual heating systems and individually metered residences (e.g. single family, duplexes) and 2) those in large multifamily buildings with a central system and a central meter. In general, this describes customers taking service under Service Classification ("S.C.") No. 1, Small Residential Service and S.C. No. 2, General Service. Customers must be an active North Shore Gas or Peoples Gas residential customer. All premises, single family and multifamily, owner occupied or rental, are eligible provided the purpose of the premise is for a residential dwelling. |
| Description | This program provides residential customers incentives for the installation of measures that improve the heating efficiency of the premises.<br><br>Incentives for heating systems are proposed based on the size and efficiency of the heating system. For residential furnaces and boilers (defined as systems of less than 225 MBtu/hr input rating for furnaces and less than 300 MBtu/hr input rating for boilers), a set prescriptive rebate will be offered for the efficiencies listed below. The saturation of high efficiency heating systems has been lower in the Peoples Gas service territory than in the North Shore Gas service territory. The Companies propose higher rebates for the Peoples Gas service territory to move the market toward higher efficiency heating systems. Rebates are based on approximately 50% of the incremental cost difference between standard or minimum code efficiency and high efficiency equipment.<br><br>For large multifamily buildings that are heated with a central heating system, a rebate will be calculated based on the size and efficiency of the boiler and be calculated on a $ per MBtu basis. These commercial sized boilers are defined as systems greater than 300 MBtu/hr input rating.<br><br>In addition to heating system rebates, this program will offer rebates for attic insulation for the Peoples Gas service territory only. The Peoples Gas territory has older homes with a higher need for additional insulation. Insulation contractors will be strongly encouraged to seal all accessible attic bypasses prior to adding insulation to the attic. |
| Utility Collaboration | It is the intent of the Companies and ComEd to cooperate in the offering of this program. There are some measures that could benefit both the gas and electric energy use and joint offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of and educating customers and trade allies on the benefits of energy efficiency. |
| Program Duration | The initial program implementation period is three years, commencing on June 1, 2011 and continuing through May 31, 2014. |

**Eligible Measures**

Incentives – North Shore Gas

| Measure | Per Unit Incentive |
|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | $2/MBtu |
| Boilers ≥ 300 MBtu ≥ 90% TE | $4/MBtu |
| Furnace ≤ 225 MBtu ≥ 92% AFUE | $200 |
| Furnace ≤ 225 MBtu ≥ 95% AFUE | $250 |
| Boiler Reset Controls | $100 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | $350 |
| Boilers ≤ 300 MBtu ≥ 95% AFUE | $450 |

Incentives – Peoples Gas

| Measure | Per Unit Incentive |
|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | $2/MBtu |
| Boilers ≥ 300 MBtu ≥ 90% TE | $4/MBtu |
| Furnace ≤ 225 MBtu ≥ 92% AFUE | $350 |
| Furnace ≤ 225 MBtu ≥ 95% AFUE | $400 |
| Boiler Reset Controls | $100 |
| Attic Insulation R-38 | $500 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | $500 |
| Boilers ≤ 300 MBtu ≥ 95% AFUE | $600 |

The Companies request authority to revise eligible measures and incentives as driven by current market conditions, changes to codes and standards, technology, EM&V results, and program management knowledge.

This program will be implemented in PY1 due to its high market potential and cost-effectiveness. The strategy will focus on mass marketing efforts to the target audience with a strong trade ally partnership.

**Implementation Strategy**

Program Finalization

Upon approval of the program, Franklin Energy will:

- Finalize and document all program policies, business rules, and procedures, process flowcharts, training materials, and marketing collateral for customers and for trade allies including possible point of purchase materials, customer application forms, and web content. The goal is to ensure clarity and ease of participation for all stakeholders.
- Develop processes for collaborating with ComEd on rebates for measures that impact both electric and gas savings.
- Identify opportunities to partner with ComEd on residential energy efficiency promotion and awareness.

Operational Set-up

- Establish a customer communication center to field customer questions and guide customers through eligibility and the application process.
- Set up a process to track questions received and utilize them as a feedback mechanism to clarify communication materials and application forms. This will contribute to continuous

| | |
|---|---|
| | improvement and enhanced ease of participation for customers.<br>• Establish a system for qualifying, processing and tracking rebate transactions. This system should allow the Companies to track reasons for incomplete or otherwise flawed applications and will be used as a tool to improve processes. This system will also track key metrics for reporting purposes.<br>• Recruit and train trade allies on program rules, installation standards, and verification requirements.<br>• Train staff on program requirements, system processing, and call handling procedures. Frequently Asked Questions ("FAQs"), scripting, and other training tools will be developed to ensure consistent information is provided.<br>• Finalize website design, develop web content and conduct testing.<br>• Develop process for the payment of incentives on qualifying equipment. The Companies do not anticipate a need for a reservation system for rebates for the Peoples Gas service area. One may be needed for the North Shore Gas service area to track requested incentives and budget commitments in the future.<br><br>Marketing Launch<br>• Support the marketing launch with a bill insert campaign.<br>• Implement trade ally strategies to build customer awareness of the residential prescriptive rebate program.<br>• Launch website in conjunction with program launch.<br><br>QC<br>• Field inspections will be used to confirm installation and eligibility on a maximum of 5% of rebated equipment.<br>• Transaction surveys will be used to measure customer satisfaction and identify potential program and process improvements.<br>• Trade ally surveys will be used to ensure the process is easy to work with and helpful to trade allies in selling high efficiency equipment. This will also provide feedback on the facility with which they can refer customers to on-bill financing. |
| Milestones | January 2011: Complete detailed implementation plan<br>May 2011: Complete operational set up<br>June 2011: Full launch<br>May 2014: End of current program |
| Exit Strategy | The measures in the program will be tracked individually and removed from the portfolio when EM&V and tracking suggest 80% or greater market penetration. In the event the entire program is to be discontinued, the Companies will first notify all trade allies of the end date of the program. The Companies will also include information of the end date in customer communications. After the end date, all applications that are received will be returned to the customer with a letter of explanation. Discontinuation of this program should not cause any major disruption to the portfolio. |

| | |
|---|---|
| Marketing Strategy | The marketing strategy for the residential prescriptive rebates will be to build awareness in the launch year. Messaging will be aimed at two audiences: 1) at property owners and 2) at heating dealers, distributors, and other trade allies. The campaigns directed at the home owners will include bill inserts, bill insert newsletter, public relations, and other special events, all supported by the Companies' websites.<br><br>The tactics for trade ally involvement will be to provide marketing support and periodic trade ally incentives. Trade ally support and engagement in these programs is a key element to the success of energy efficiency programs. Franklin Energy will establish trade ally working groups to educate and ultimately champion this program. Marketing activities will expand to capture measures that target retail outlets providing point of purchase marketing materials for retailers. |
| EM&V Requirements | An impact evaluation will be conducted no later than six months after two full years of operation. The evaluation contractor will review the program methodology and assumptions. Billing analysis may be completed for participants and a control group before and during implementation. The evaluation contractor will verify installation and retention of measures and assess free riders and program spillover using a telephone survey of participants. Billing analysis will assess net impact by comparing the energy use for participants in PY1 with new participants in PY2. Gross and net energy savings will be assessed for each program year.<br><br>For the process evaluation, in-depth interviews with program managers and the implementation contractor will be conducted to review outreach, customer education, and training strategies; develop a complete understanding of program activities and program logic; review tracking systems and quality assurance procedures; and develop the surveys.<br><br>Participants and trade allies will be surveyed to assess program awareness and knowledge, participant satisfaction, and program effectiveness in mitigating market barriers. Program marketing and outreach materials of all media (web, POP, print, and radio) will be reviewed to provide detailed findings and recommendations for program improvements.<br><br>Furthermore, participating wholesalers will be surveyed, in confidence, by the implementer and in coordination with the evaluator, to assess pre and post sales data and market share of the targeted efficiency technologies to determine the program's influences on market share. |
| Program Management Requirements | Franklin Energy will be responsible for final design, marketing strategy, and program management. This includes marketing materials development, program promotions, project management, QA/QC activities, program tracking and reporting, and overall program performance. |

**Estimated Participation**

Estimated Participation – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 5 | 10 | 20 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 15 | 30 | 40 |
| Furnace ≤ 225 MBtu ≥ 92% AFUE | 530 | 750 | 1,050 |
| Furnace ≤ 225 MBtu ≥ 95% AFUE | 600 | 1,100 | 1,500 |
| Boiler Reset Controls | 20 | 25 | 30 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 50 | 80 | 100 |
| Boilers ≤ 300 MBtu ≥ 95% AFUE | 60 | 120 | 180 |
| **TOTAL** | **1,280** | **2,115** | **2,920** |

Estimated Participation – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 20 | 50 | 80 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 25 | 60 | 90 |
| Furnace ≤ 225 MBtu ≥ 92% AFUE | 1,500 | 2,250 | 2,850 |
| Furnace ≤ 225 MBtu ≥ 95% AFUE | 1,700 | 2,550 | 3,100 |
| Boiler Reset Controls | 100 | 150 | 200 |
| Attic Insulation R-38 | 1,000 | 1,500 | 2,000 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 250 | 400 | 500 |
| Boilers ≤ 300 MBtu ≥ 95% AFUE | 300 | 460 | 550 |
| **TOTAL** | **4,895** | **7,420** | **9,370** |

**Estimated Budget**

Estimated Budget – North Shore Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $130,095 | $154,031 | $186,213 |
| Incentives | $337,500 | $579,500 | $804,000 |
| Evaluation | $14,462 | $22,687 | $30,625 |
| **TOTAL** | **$482,057** | **$756,217** | **$1,020,838** |

Estimated Budget – Peoples Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $737,205 | $872,841 | $1,055,208 |
| Incentives | $2,090,000 | $3,218,500 | $4,097,500 |
| Evaluation | $87,439 | $126,536 | $159,362 |
| **TOTAL** | **$2,914,644** | **$4,217,877** | **$5,312,070** |

**Energy Savings Targets**

Per Unit Savings – North Shore Gas:

| Measure | Per unit therm savings |
|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 902 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 1,278 |
| Furnace ≤ 225 MBtu ≥ 92% AFUE | 144 |
| Furnace ≤ 225 MBtu ≥ 95% AFUE | 169 |
| Boiler Reset Controls | 53 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 104 |
| Boilers ≤ 300 MBtu ≥ 95% AFUE | 148 |

Per Unit Savings – Peoples Gas:

| Measure | Per unit therm savings |
|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 902 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 1,278 |
| Furnace ≤ 225 MBtu ≥ 92% AFUE | 185 |
| Furnace ≤ 225 MBtu ≥ 95% AFUE | 217 |
| Boiler Reset Controls | 53 |
| Attic Insulation R-38 | 153 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 134 |
| Boilers ≤ 300 MBtu ≥ 95% AFUE | 190 |

*Note: North Shore Gas and Peoples Gas use different NTG for small furnaces and boilers, which accounts for the differing Per Unit Savings*.

Energy Savings Targets – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 4,512 | 9,024 | 18,048 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 19,176 | 38,352 | 51,136 |
| Furnace ≤ 225 MBtu ≥ 92% AFUE | 76,055 | 107,625 | 150,675 |
| Furnace ≤ 225 MBtu ≥ 95% AFUE | 101,220 | 185,570 | 253,050 |
| Boiler Reset Controls | 1,056 | 1,320 | 1,584 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 5,215 | 8,344 | 10,430 |
| Boilers ≤ 300 MBtu ≥ 95% AFUE | 8,862 | 17,724 | 26,586 |
| **TOTAL** | **216,096** | **367,959** | **511,509** |

Energy Savings Targets – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 18,048 | 45,120 | 72,192 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 31,960 | 76,704 | 115,056 |
| Furnace ≤ 225 MBtu ≥ 92% AFUE | 276,750 | 415,125 | 525,825 |
| Furnace ≤ 225 MBtu ≥ 95% AFUE | 368,730 | 553,095 | 672,390 |
| Boiler Reset Controls | 5,280 | 7,920 | 10,560 |
| Attic Insulation R-38 | 153,000 | 229,500 | 306,000 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 33,525 | 53,640 | 67,050 |
| Boilers ≤ 300 MBtu ≥ 95% AFUE | 56,970 | 87,354 | 104,445 |
| **TOTAL** | **944,263** | **1,468,458** | **1,873,518** |

| | |
|---|---|
| Program Metrics | Key metrics will include energy savings, participation rates, number of incomplete/flawed applications, customer satisfaction transaction survey response rate and responses, |

| | |
|---|---|
| | verification of installation, and overall cost per therm saved for this program. These metrics will compare actual to projected results. |
| Cost Effectiveness | Benefit Cost Ratios – North Shore Gas**:** |

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.66 | 4.89 | 1.59 | 1.59 | 1.53 |

Benefit Cost Ratios – Peoples Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.51 | 3.25 | 1.72 | 2.27 | 1.65 |

| PROGRAM | 3.8.1.2 - RESIDENTIAL HOME ENERGY REPORTS PROGRAM |
|---|---|
| Sector – Target Market | This program is applicable to all residential customers, and therefore has a very broad reach. However, this program will be targeted toward single family homes that are in the high-impact savings segments, or high natural gas users. This describes a segment of customers served by S.C. No. 1. The initial target market will be individually metered active residential customers of all socio-economic levels within the service area. Taken as a group, these customers are a very large segment of energy users and will provide the clearest path to short-term savings due to robustness of data available for this market segment. |
| Description | This program provides single family homeowners with consistent feedback on their energy use, comparisons to similar homes in their neighborhood, and targeted tips to achieve energy savings. This program helps to motivate customers toward energy conservation in their homes. The reports are generated four to five times during the heating season.<br><br>The Home Energy Reports uses a software platform that combines energy usage data with customer demographic, housing and GIS data to develop specific targeted recommendations that educate and influence consumers to reduce their energy consumption. This program provides a residential customer a written energy efficiency report supported by a website platform that benchmarks individual customer use compared to use by other homes in the surrounding neighborhood, and uses this energy profile to customize customer target offers, coupons, and rebates. The reports:<br>• Show the customers' gas use compared to the average of 100 neighbors in similar-sized homes and characteristics.<br>• Supply targeted natural gas efficiency recommendations based on analysis of the household's energy use, demographics, and housing characteristics teaching residents how to save and become a more efficient neighbor.<br>• Refer customers to specific programs offered by their utility that can help them become more energy efficient.<br><br>Home Energy Reports is a unique program which employs data analysis and behavioral science to reach a broad customer set. The program educates and motivates customers to take action to reduce their energy use through a variety of means ranging from small lifestyle changes to making home improvements and investments. |
| Utility Collaboration | It is the intent of the Companies and ComEd to cooperate in the offering of this program. There are some measures that could benefit both the gas and electric energy use and joint offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of and educating customers on the benefits of energy efficiency. |
| Program Duration | The initial program implementation period is two years, commencing on June 1, 2012 and continuing through May 31, 2014. |

| | |
|---|---|
| Eligible Measures | Program Eligibility:<br>Customers must be active residential customers with 12 months of usage history at premises. |
| Implementation Strategy | This program is an opt-out program and consequently has no free riders. It will be implemented in PY2. The program complements other residential programs providing for a more robust portfolio.<br><br>Program Finalization<br>Upon approval of the program, Franklin Energy will:<br>• Coordinate the download of customer usage history for analysis.<br>• Provide branding guidelines, review and approval of collateral, overview of other energy efficiency programs for cross promotion, and handling of media relations.<br><br>Operational Set-up<br>The service provider will:<br>• Generate all reports and provide all direct mail services.<br>• Train customer communication center personnel to field customer questions and manage program opt outs.<br>• Provide tracking of savings for participants.<br><br>Marketing Launch<br>• Launch interactive website in conjunction with program launch.<br>• Initiate direct mail campaign to first year's target market.<br><br>QC<br>• Transaction surveys will be used to measure customer satisfaction and identify potential program and process improvements. Follow-up questionnaires will also assess why some customers choose to opt out of the program.<br>• The service provider will utilize various methods to identify and mitigate threats to reliability of the programs' results. |
| Milestones | January 2012: Complete detailed implementation plan<br>March 2012: Data due for analytics<br>May 2012: All systems and reporting are tested<br>June 2012: Full launch<br>May 2014: End of current program |
| Exit Strategy | If it is determined to discontinue this program, the Companies will notify participants in the last one or two reports that they send. Discontinuation of this program should not cause any major disruption to the portfolio. |

**Marketing Strategy**

There is no marketing of this program per se. The strategy to gain participants for this program is to analyze the customer population to identify high end energy users in a single family home to target participation. It is supported by 4-5 direct mail letters over the heating season. Customers opt out from the program rather than opt in.

**EM&V Requirements**

This program's EM&V approach uses a scientific test and control method and identifies energy savings delivered by the program.

An impact evaluation will be conducted to quantify the savings attributable to program efforts based on how the program is actually operating.

This approach is as follows:

1. Set up test and control groups: Divide targeted population into two statistically equivalent groups.
2. Verify groups: Verify no historical difference in usage between test and control groups.
3. Deploy reports: Send reports and provide online portal access to test group only; no action taken with control group.
4. Measure impact: Compare average energy use pre- and post-reports for both groups.

Navigant will review the methodology used for this impact evaluation. Billing analysis may be completed for participants and a control group before and during implementation.

The process evaluation will assess the effect of the program structure and implementation on program performance and customer satisfaction. Central to this evaluation is a survey of 70 randomly selected participants; this survey will assess participant satisfaction and actions taken to achieve energy savings.

**Program Management Requirements**

Franklin Energy will have general oversight of the program. A service provider will be responsible for development of the reports and website, QA/QC activities, program tracking and reporting, and overall program performance.

**Estimated Participation**

Estimated Participation – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Home Energy Reports | 0 | 5,000 | 10,000 |

Estimated Participation – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Home Energy Reports | 0 | 30,000 | 60,000 |

**Estimated Budget**

Estimated Budget – North Shore Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $0 | $75,188 | $98,298 |
| Incentives | $0 | $0 | $0 |
| Evalulation | $0 | $2,325 | $3,040 |
| **TOTAL** | **$0** | **$77,513** | **$101,338** |

*Note: PY2 includes startup*

Estimated Budget – Peoples Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $0 | $426,063 | $557,020 |
| Incentives | $0 | $0 | $0 |
| Evalulation | $0 | $13,177 | $17,227 |
| **TOTAL** | **$0** | **$439,240** | **$574,248** |

**Energy Savings Targets**

Per Unit Savings:

| Measure | Per unit therm savings |
|---|---|
| Residential Home Energy Reports | 16 |

Energy Savings Targets – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Home Energy Reports | 0 | 79,380 | 158,760 |

Energy Savings Targets – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Home Energy Reports | 0 | 476,280 | 952,560 |

**Program Metrics**

Key metrics will include energy savings, opt-out rates, customer satisfaction transaction survey responses, and overall cost per therm saved for this program. These metrics will compare actual to projected results.

**Cost Effectiveness**

Benefit Cost Ratios – North Shore Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.45 | 1.08 | 1.14 | N/A | 1.09 |

Benefit Cost Ratios – Peoples Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.39 | 1.07 | 1.12 | N/A | 1.07 |

| PROGRAM | 3.8.1.3 – RESIDENTIAL MULTIFAMILY DIRECT INSTALL PROGRAM |
|---|---|
| Sector – Target Market | This program is targeted to residential customers who live in multifamily buildings and multifamily building owners/property managers. Some multifamily buildings have individual heating systems and are individually metered while others are centrally heated and have a central meter. Both are eligible to participate. In general, this describes customers served under S.C. No. 1 and S.C. No. 2. Customers must be an active North Shore Gas or Peoples Gas customer.<br><br>Community Development housing projects not served by DCEO and Federally-owned multifamily housing structures will be a target market sector. Assisted living and nursing homes may also be possible market targets. |
| Description | This program's primary objective is to secure energy savings by installing low cost hot water and space heating saving measures. It strives to overcome the traditional 'split incentive' problem common to the multifamily market. Landlords normally pass through natural gas costs to tenants and have no incentive to save energy. Tenants do not own the property and seldom see a direct impact in their rent from conserving energy. Consequently, they have no incentive to invest in energy saving measures. This program provides end-use customers and building owners/managers with a quick and easy way to start saving natural gas immediately through the direct installation of specific measures, including low flow shower heads, faucet aerators, pipe insulation and programmable setback thermostats.<br><br>A second objective of this program is to define larger energy saving measures, i.e. space heating or water heating system replacements, boiler tune-ups, steam trap replacement/repairs, commonly needed for large central systems. |
| Utility Collaboration | It is the intent of the Companies and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers. |
| Program Duration | The initial program implementation period is three years, commencing on June 1, 2011 and continuing through May 31, 2014. |
| Eligible Measures | Incentives: There are no "incentives" for this program. The measures that will be installed under this program are as follows: |

| Measure |
| --- |
| Showerheads |
| Aerators |
| Pipe Insulation |
| Programmable Thermostat |

**Implementation Strategy**

This program will be implemented in PY1 due to its high market potential and cost-effectiveness. The strategy will focus on mass marketing efforts to the target audiences.

Program Finalization

Upon approval of the program, Franklin Energy will:

- Finalize and document all program policies, business rules, and procedures, process flowcharts, training materials, and marketing collateral for customers and for building owners/property managers, and web content. The goal is to ensure clarity and ease of participation for all stakeholders.

Operational Set-up

- Establish a customer communication center to field customer questions and guide participants through eligibility and the scheduling process. Set up a process to track questions received and utilize them as a feedback mechanism to clarify communication materials. This will contribute to continuous improvement and enhanced ease of participation for participants.
- Establish a system for qualifying and scheduling buildings for participation. This system should allow the Companies to track progress and key metrics for reporting purposes.
- Recruit and train employees (or trade allies if help is outsourced) on program rules, installation standards, and verification requirements.
- Train staff on program requirements, system processing, and call handling procedures. FAQs, scripting, and other training tools will be developed to ensure consistent information is provided.
- Design a website and provide information pertinent to the program, including FAQs, for interested parties. If applicable, online requests for on-site visits will be designed and tested.
- Finalize processes and cost sharing methods for jointly offering the program with ComEd, including direct installation of measures, common area and large system audits, and building program awareness.

Once marketing has begun, outbound follow-up calls will be conducted to answer any questions customers, building owners, and property managers may have. Franklin Energy will schedule initial site visits which entail in-unit direct installation and the audit which outlines standard measures with guaranteed pricing and readily scheduled installs or customized measures. Franklin Energy will also assist customers in obtaining quotes from vendors and rebates through the C&I Prescriptive or Custom Rebate programs.

QC

- Field Inspections to confirm installation and eligibility on a maximum of 5% of installations

| | |
|---|---|
| | will be conducted when the program is launched. After the program is stabilized, field inspections will occur on a maximum of 3% of installations.<br>• Transaction surveys will be used to measure customer satisfaction and identify potential program and process improvements.<br>• Trade ally surveys will be conducted to measure trade ally satisfaction and identify potential program and process improvements. |
| Milestones | January 2011: Complete detailed implementation plan<br>May 2011: Complete operational set up<br>June 2011: Full launch<br>May 2014: End of current program |
| Exit Strategy | In the event the entire program is to be discontinued, the Companies will first notify ComEd and building owners/property managers of the end date of the program. All projects in the pipeline will be completed and no additional projects will be accepted once the notification has been sent. Discontinuation of this program should not cause any major disruption to the portfolio. |
| Marketing Strategy | This program will be marketed primarily through building owners and property managers. Direct mail and one-on-one contact will be instrumental in reaching this audience. Franklin Energy will also work with HVAC and plumbing contractors to introduce the service to multifamily building owners and property managers with whom these firms work.<br><br>Case studies and testimonials, initially from nearby states but later from Illinois participants, will be provided to prove success and encourage participation. |
| EM&V Requirements | For the impact evaluation, gross savings for each program measure will be estimated by verifying each impact using industry standard impact algorithm sources and a follow-up phone survey with a sample of participants. The survey will cover pre-installation baseline conditions, installation of audit-recommended measures that do not receive a rebate, persistence (are the measures still installed?), and free ridership and spillover.<br><br>The process evaluation will include interviews with the utility representatives, implementation contractor, participating building managers and customers. Interviews with program staff will cover strategies for marketing, implementation, and quality assurance and controls.<br><br>As this program will be offered jointly with ComEd, evaluation activities will be coordinated with ComEd as well. |
| Program Management Requirements | Franklin Energy will be responsible for final design, marketing strategy, implementation, and program management. This includes marketing materials development, program promotions, project management, QA/QC activities, program tracking and reporting, and overall program performance. |

**Estimated Participation**

Estimated Participation – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Units | 1,250 | 2,500 | 3,750 |

*Note: Participation represents quantity of residential apartment units retrofitted. 100 showerheads, 200 aerators, 15 pipe insulation projects and 10 thermostats were assumed for every 100 apartments.*

Estimated Participation – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Units | 7,250 | 14,500 | 21,750 |

**Estimated Budget**

Estimated Budget – North Shore Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $84,039 | $165,668 | $247,433 |
| Incentives | $0 | $0 | $0 |
| Evalulation | $2,599 | $5,124 | $7,653 |
| **TOTAL** | **$86,638** | **$170,792** | **$255,086** |

Estimated Budget – Peoples Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $476,222 | $938,785 | $1,402,121 |
| Incentives | $0 | $0 | $0 |
| Evalulation | $14,729 | $29,035 | $43,365 |
| **TOTAL** | **$490,951** | **$967,819** | **$1,445,486** |

**Energy Savings Targets**

Per Unit Savings:

| Measure | Per unit therm savings |
|---|---|
| Showerheads | 20 |
| Aerators | 5 |
| Pipe Insulation | 12 |
| Programmable Thermostat | 25 |

Energy Savings Targets – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Units | 42,370 | 84,740 | 127,110 |

Energy Savings Targets – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Units | 245,005 | 490,010 | 735,015 |

**Program Metrics**

Key metrics will include the number of residential multifamily units that were retrofitted and the corresponding deemed energy savings, the number of buildings that participated, and the number of measures installed. Key metrics will also include the number of units in each

| | |
|---|---|
| | multifamily building and the number of building owners/property managers who participate in the program. |
| Cost Effectiveness | Benefit Cost Ratios – North Shore Gas: |

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.58 | 2.41 | 2.83 | N/A | 2.71 |

Benefit Cost Ratios – Peoples Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.48 | 2.29 | 2.69 | N/A | 2.57 |

| PROGRAM | 3.8.1.4 - RESIDENTIAL WHOLE-HOUSE RETROFIT PROGRAM |
|---|---|
| Sector – Target Market | This program is targeted to existing single family homes heated with natural gas. In general, this describes a segment of customers served under S.C. No. 1. Customers must be an active North Shore Gas or Peoples Gas residential customer. |
| Description | Currently, there is discussion about an Illinois Home Performance with Energy Star ("HPwES") pilot program. At this time, the result of that initiative is unknown. Therefore, while the Companies are supportive of the home performance-type of program in general, this program is proposed as a placeholder and is subject to adjustment in the future. In addition, this program's planned participation will be adjusted based on results from other core programs at the time this program is scheduled to launch.<br><br>The Companies anticipate this program will provide a range of technical and financial assistance to help residential customers identify and install comprehensive energy solutions. The program will provide energy audits that identify potential retrofit projects, directly install certain low cost measures as part of the energy audits, utilize the network of trade allies qualified to install insulation and air sealing measures, coordinate installations of additional measures offered through other programs, offer a range of behavioral recommendations that further improve energy efficiency, and provide quality assurance.<br><br>This program leverages the national HPwES program, which is delivered through local program sponsors who agree to meet certain program requirements. The HPwES program sponsor for Illinois is DCEO, through its contractor the Midwest Energy Efficiency Alliance (MEEA). The Companies will deliver the program in coordination with DCEO and MEEA as well as ComEd.<br><br>The program will also leverage professional standards developed by the Building Performance Institute ("BPI"), which has developed certification standards for building professionals in a range of building science areas, as well as technical standards for installations of building science improvements (such as insulation and air sealing). Trade allies participating in the program must employ professionals certified within one or more of BPI's technical areas, and retrofit projects must meet BPI's technical standards, including provisions for diagnostic tests and safety requirements before and after installation.<br><br>Franklin Energy will work with BPI certified or other recognized trade allies who have been trained and/or certified to perform quality retrofit work. The trade allies will be required to sign a participation agreement and will be required to maintain a high level of quality to stay on the list. The list of trade allies will be constantly monitored. Those not meeting the requirements will be given remedial measures and, if they still do not meet the requirements, will be removed.<br><br>End use equipment improvements, such has heating or cooling systems that are fuel specific, will utilize each utility's residential prescriptive rebate programs. |

| | |
|---|---|
| Utility Collaboration | It is the intent of the Companies and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers. |
| Program Duration | Because this is a more expensive program to implement and requires more upfront building of the infrastructure, this program is slated to start PY3. Therefore, the initial program implementation period is one year, commencing June 1, 2013 and continuing through May 31, 2014. |
| Eligible Measures | Direct Install:<br>The measures that will be directly installed at the time of the audit are low flow showerheads, low flow aerators, and pipe insulation.<br><br>Incentives:<br>The Companies anticipate providing a rebate for the audit, based on the implementation of a recommended improvement. There will be eligibility requirements for each improvement and a maximum rebate per improvement. There will also be a maximum rebate per premises. Measures that will be eligible for a rebate include attic insulation, wall insulation band joist insulation, foundation insulation, floor insulation over unconditioned spaces, duct insulation in unconditioned spaces, air sealing, and duct sealing in unconditioned spaces. Programmable setback thermostats will also be eligible for rebates. Actual rebate amounts and efficiency guidelines will be determined at a later date jointly with key parties to the program. |
| Implementation Strategy | Upon approval of the program, the first step will be to finalize partnership with ComEd and make any needed adjustments to the program design based on the findings of the Illinois HPwES pilot to date. The utilities will then jointly work with MEEA, DCEO and other key parties to the statewide program to leverage the infrastructure and marketing needed for this program, looking to already established statewide entities with ties to BPI and other recognized building performance certifications.<br><br>Franklin Energy will oversee the audit portion of the program and serve as the fulfillment provider for any incentives to be processed. Franklin Energy will coordinate this effort with MEEA who will be responsible for administering the statewide program.<br><br>QC<br>• Field installation inspections are built into the program offering.<br>• Customer eligibility is verified prior to work being completed.<br>• Random review of audit reports to ensure that customers are receiving a consistent quality audit.<br>• Transaction surveys will be used to measure customer satisfaction and identify potential program and process improvements. |

| | |
|---|---|
| Milestones | March 2013: Complete detailed implementation plan<br>June 2013: Full program launch<br>May 2014: End of current program |
| Exit Strategy | In the event the entire program is to be discontinued, the Companies will first notify ComEd and all trade ally partners of the end date of the program. There will be two dates of importance to the trade allies: 1) the date after which no new audits will be eligible for reimbursement and 2) the date by which all measures identified in completed audits must be completed. The exit strategy will allow for the completion of any projects in the pipeline and any installations of measures identified by completed audits, provided the improvements are completed by the specified date. Discontinuation of this program should not cause any major disruption to the portfolio. |
| Marketing Strategy | The marketing strategy for this program is to focus on building customer awareness with both home owners and home improvement contractors. The primary means of marketing this effort will rely on BPI certified trade allies marketing their own whole house energy auditing services, and information provided on the program's webpage.<br><br>As needed, other tactics will be considered if needed to meet participation targets. These possible tactics include:<br>• Trade ally promotions at home show/home improvement events.<br>• Sponsoring home owner workshops and conferences.<br>• Partnering with home improvement associations and contractors.<br>• Direct mail marketing/outbound calling. |
| EM&V Requirements | For the impact evaluation, gross savings will be verified using pre- and post-billing data to establish a unique baseline for each participant rather than for a control group. Data collected through the first post-installation winter will likely be sufficient to identify measure impacts, although a full year of pre- and post-installation data will be used if available. Participant surveys will document customer response to audit recommendations which will inform the initial energy savings estimates used in the billing analysis. Engineering analysis will be used to determine savings for measures such as low flow showerheads and faucet aerators if their savings are found insufficient for the billing analysis to statistically verify. Gross savings will be estimated for small impact installations by verifying each impact using industry standard impact algorithm sources and a follow-up phone survey with a sample of participants.<br><br>In the process evaluation, participant surveys will be used to evaluate both process issues and to estimate net-to-gross ratios. Program managers, trade allies, and service providers will be interviewed. Early program process evaluations will focus on assessing efforts to recruit and train program allies and to establish implementation and tracking processes. Later evaluations will focus on assessing implementation effectiveness.<br><br>As this program will be offered jointly with ComEd, evaluation activities will be coordinated with ComEd as well. |

**Program Management Requirements**

Franklin Energy will have oversight of the program. Since the program is based on the premise of gaining synergies by aligning with ComEd's programs, the likely scenario would to use independent BPI certified or other certified contractors to do the actual audit and retrofit work. Franklin Energy would administer the program screening, scheduling, and rebate incentive fulfillment.

**Estimated Participation**

Estimated Participation – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Whole-House Retrofit | 0 | 0 | 50 |

Estimated Participation – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Whole-House Retrofit | 0 | 0 | 300 |

The estimated participation are provided as placeholders. The Companies request authority to revise the participation levels based on the final statewide program design.

**Estimated Budget**

Estimated Budget – North Shore Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $0 | $0 | $22,464 |
| Incentives | $0 | $0 | $50,000 |
| Evalulation | $0 | $0 | $2,241 |
| **TOTAL** | **$0** | **$0** | **$74,705** |

Estimated Budget – Peoples Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $0 | $0 | $127,296 |
| Incentives | $0 | $0 | $300,000 |
| Evalulation | $0 | $0 | $13,215 |
| **TOTAL** | **$0** | **$0** | **$440,512** |

The budgets are provided as placeholders. The Companies request authority to revise the budgets based on the final statewide program design.

**Energy Savings Targets**

Per Unit Savings:

| Measure | Per unit therm savings |
|---|---|
| Residential Whole-House Retrofit | 320 |

Savings Targets – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Whole-House Retrofit | 0 | 0 | 16,000 |

Savings Targets – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Residential Whole-House Retrofit | 0 | 0 | 96,000 |

The savings targets are provided as placeholders. The Companies request authority to revise the savings targets based on the final statewide program design.

**Program Metrics**

Key metrics will include energy savings, participation rates, the number of audits performed versus the number of improvements made and rebates paid, and the cost per therm of energy saved. These metrics will compare actual to projected results.

**Cost Effectiveness**

Benefit Cost Ratios – North Shore Gas

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.57 | 2.20 | 1.62 | 2.04 | 1.55 |

Benefit Cost Ratios – Peoples Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.47 | 2.10 | 1.52 | 2.29 | 1.45 |

The screening for this program was based on estimated savings of approximately 320 therms of annual use for an incremental cost of approximately $2,500. These are preliminary estimates and will be revised with updated information from the Illinois pilot.

## 3.8.2 Proposed Program Details - C&I Programs

| PROGRAM | 3.8.2.1 - C&I PRESCRIPTIVE REBATES PROGRAM |
|---|---|
| Sector – Target Market | This program is targeted to all C&I customers. In general, this describes customers in S.C. No. 2. For the prescriptive rebate program, this tends to be smaller C&I customers using common high efficiency space heating, control technologies, water heating, and food service measures. Customers must be an active North Shore Gas or Peoples Gas C&I customer. |
| Description | To encourage the installation of higher efficiency equipment, this program provides C&I customers who install, replace or retrofit qualifying natural gas heating systems, water heating equipment, or food service equipment with rebates that help cover a portion of the incremental costs. Rebates are based on approximately 50% of the incremental cost difference between standard or minimum code efficiency and high efficiency equipment. If common practice is higher than the standard or minimum code efficiency, the higher efficiency number is utilized.<br><br>This program does not require pre-approval for participation. It offers customers a quick and easy way to choose high efficiency equipment options at the time of normal equipment replacement. Partnering with equipment wholesalers and retail contractors will provide these firms with marketing support and potentially incentives designed to influence their stocking, promotion, and sales of targeted high efficiency equipment. The list of targeted equipment can be easily updated as new customer/trade ally suggestions on technologies are uncovered during the day-to-day operations.<br><br>Initially, this program will rely on incentives for end use customers. However, trade ally incentives may be used periodically for limited time promotions. |
| Utility Collaboration | It is the intent of the Companies and ComEd to cooperate in the offering of this program. There are some measures that could benefit both the gas and electric energy use and joint offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of and educating customers on the benefits of energy efficiency. |
| Program Duration | The initial program implementation period is three years, commencing on June 1, 2011 and continuing through May 31, 2014. |

**Eligible Measures**

Incentives:

| Measure | Per Unit Incentive |
|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | $2/MBtu |
| Boilers ≥ 300 MBtu ≥ 90% TE | $4/MBtu |
| Furnace ≥ 92% AFUE | $225 |
| Furnace ≥ 95% AFUE | $400 |
| Programmable Thermostat | $40 |
| Gas Water Heater .62 EF | $50 |
| Gas Water Heater .67 EF | $100 |
| Steam trap repair/replacement | $60 |
| Vent Dampers | $30 |
| Boiler tune-up | $200 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | $500 |
| Boiler Cutout/Reset Control | $250 |
| Unit Heater Condensing | $200 |
| Energy Star Convection Oven | $600 |
| Energy Star Combination Oven | $900 |
| Energy Star Fryer | $750 |
| Infrared Upright Broiler | $500 |
| Infrared Charbroiler | $500 |
| Conveyer Oven | $1,000 |
| Pasta Cooker | $200 |
| Infrared Rotisserie Oven | $500 |
| Infrared Salamander Broiler | $500 |
| Pre Rinse Sprayers | $28 |
| Energy Star Steamer | $950 |

Measures listed above may be phased in, rather than all being available for rebates from year 1. The Companies request authority to revise eligible measures and incentives as driven by current market conditions, changes to codes and standards, technology, EM&V results, and program management knowledge.

**Implementation Strategy**

This program will be implemented in PY1 due to its high market potential and cost-effectiveness. The strategy will focus on mass marketing efforts primarily driven through trade allies to the target audience.

Program Finalization

Upon approval of the program, Franklin Energy will:

- Finalize and document all program policies, business rules, and procedures, process flowcharts, training materials, marketing collateral for customers and for trade allies including possible point of purchase materials, customer application forms, and web content. The goal is to ensure clarity and ease of participation for all stakeholders.
- Identify opportunities to partner with ComEd on commercial and industrial energy efficiency promotion and awareness.

| | |
|---|---|
| | Operational Set-up<br>• Establish a customer communication center and account management team to field customer questions and guide customers through eligibility and application process. Set up a process to track questions received and utilize them as a feedback mechanism to clarify communication materials and the application forms. This will contribute to continuous improvement and enhanced ease of participation for customers.<br>• Establish a system for qualifying, processing and tracking rebate transactions. This system should allow the Companies to track reasons for incomplete or otherwise flawed applications and will be used as a tool to improve processes. This system will also track key metrics for reporting purposes.<br>• Recruit and train trade allies on program rules, installation standards, and verification requirements.<br>• Train staff on program requirements, system processing, and call handling procedures. FAQs and other training tools will be developed to ensure consistent information is provided.<br>• Payment of incentives. Initially, the Companies will not be using a reservation system for the payment of commercial prescriptive rebates.<br><br>Marketing Launch<br>• The marketing launch will initially be driven through trade allies.<br>• Implement trade ally strategies to build customer awareness of the prescriptive C&I rebate program. Trade allies and Franklin Energy staff will promote, train, and recruit participants.<br>• Design and launch website in conjunction with program launch.<br>• Other marketing tactics (case studies, bill inserts, etc.) may also be used.<br><br>QC<br>• Field inspections will be performed on a maximum of 5% of installations with incentives less than $10,000.<br>• Field inspections will be performed on all projects with incentives greater than $10,000. |
| Milestones | November 2010: Complete detailed implementation plan<br>May 2011: Complete operational set up<br>June 2011: Full launch<br>May 2014: End of current program |
| Exit Strategy | The measures in the program will be tracked individually and removed from the portfolio when EM&V and tracking suggest 80% or greater market penetration. In the event the entire program is to be discontinued, the Companies will first notify ComEd and all trade allies of the end date of the program. The Companies will also include information of the end date in customer communications. After the end date, all applications that are received will be returned to the customer with a letter of explanation. Discontinuation of this program should not cause any major disruption to the portfolio. |
| Marketing Strategy | The prescriptive program will market to both end use customers and trade allies. Trade ally support and engagement is a key element to the success of energy efficiency programs. |

| | |
|---|---|
| | Franklin Energy will establish and educate trade ally working groups who will ultimately champion this program. The program will rely on wholesale and retail trade allies to assist in the marketing of this program. Franklin will also evaluate the possible use of direct mail, email, case studies, technical fact sheets, brochures, training sessions, point of purchase materials, collateral materials, and various public relations activities to raise awareness. The Companies will also pursue opportunities to cooperatively promote the program with ComEd. |
| EM&V Requirements | For the impact evaluation, the evaluation contractor will review program methodology and assumptions. Gross savings will be evaluated by reviewing implementation contractor field inspections. If necessary, other field inspections will be conducted by the evaluator and additional project documentation will be reviewed to ensure the savings are accurate at a 90/10 level. For each measure implemented, a different analytic and measurement and verification approach will be used. For example, heating measures vary by time and performance and thus will be analyzed with tools that take this into account. Telephone surveys with customers and trade ally participants will provide information on installation rates and program influence (to assess NTG issues). Sampling will provide 90/10 confidence and precision. Net savings will be assessed from participant and trade ally surveys and other sources.<br><br>To assess efforts to recruit trade allies and customers, the process evaluation will include in-depth interviews with the program manager and implementation contractors and a comprehensive review of marketing and outreach materials. Trade allies and commercial customers will also be interviewed to assess interest in promoting the program and to identify barriers to program participation. Once sufficient participation has occurred, the process evaluation will conduct a quantitative telephone survey of program participants (with sample size for 90/10 confidence). The process evaluation will survey program awareness, participant satisfaction, recommendations for changes, and information necessary to estimate free ridership and spillover.<br><br>Furthermore, participating wholesalers will be surveyed, in confidence, by the implementer and in coordination with the evaluator, to assess pre- and post-sales data and market share of the targeted efficiency technologies to determine the program's influences on market share. |
| Program Management Requirements | Franklin Energy will be responsible for final design, marketing strategy, and program management. This includes: marketing materials development, program promotions, project management, QA/QC activities, program tracking and reporting, and overall program performance. |

Estimated Participation

Estimated Participation – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 1 | 2 | 3 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 2 | 4 | 6 |
| Furnace ≥ 92% AFUE | 5 | 9 | 14 |
| Furnace ≥ 95% AFUE | 6 | 11 | 17 |
| Programmable Thermostat | 20 | 36 | 56 |
| Gas Water Heater .62 EF | 4 | 8 | 12 |
| Gas Water Heater .67 EF | 5 | 9 | 14 |
| Steam trap repair/replacement | 50 | 90 | 140 |
| Vent Dampers | 2 | 4 | 6 |
| Boiler tune-up | 40 | 72 | 112 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 12 | 22 | 34 |
| Boiler Cutout/Reset Control | 12 | 22 | 34 |
| Unit Heater Condensing | 12 | 22 | 34 |
| Energy Star Convection Oven | 2 | 4 | 6 |
| Energy Star Combination Oven | 2 | 4 | 6 |
| Energy Star Fryer | 2 | 4 | 6 |
| Infrared Upright Broiler | 2 | 4 | 6 |
| Infrared Charbroiler | 2 | 4 | 6 |
| Conveyer Oven | 2 | 4 | 6 |
| Pasta Cooker | 2 | 4 | 6 |
| Infrared Rotisserie Oven | 2 | 4 | 6 |
| Infrared Salamander Broiler | 2 | 4 | 6 |
| Pre Rinse Sprayers | 30 | 54 | 84 |
| Energy Star Steamer | 2 | 4 | 6 |
| **TOTAL** | **221** | **405** | **626** |

Estimated Participation – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 5 | 9 | 14 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 10 | 18 | 28 |
| Furnace ≥ 92% AFUE | 25 | 45 | 70 |
| Furnace ≥ 95% AFUE | 30 | 54 | 84 |
| Programmable Thermostat | 100 | 180 | 280 |
| Gas Water Heater .62 EF | 20 | 36 | 56 |
| Gas Water Heater .67 EF | 25 | 45 | 70 |
| Steam trap repair/replacement | 250 | 450 | 700 |
| Vent Dampers | 10 | 18 | 28 |
| Boiler tune-up | 200 | 360 | 560 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 60 | 108 | 168 |
| Boiler Cutout/Reset Control | 60 | 108 | 168 |
| Unit Heater Condensing | 60 | 108 | 168 |
| Energy Star Convection Oven | 10 | 18 | 28 |
| Energy Star Combination Oven | 10 | 18 | 28 |
| Energy Star Fryer | 10 | 18 | 28 |
| Infrared Upright Broiler | 10 | 18 | 28 |
| Infrared Charbroiler | 10 | 18 | 28 |
| Conveyer Oven | 10 | 18 | 28 |
| Pasta Cooker | 10 | 18 | 28 |
| Infrared Rotisserie Oven | 10 | 18 | 28 |
| Infrared Salamander Broiler | 10 | 18 | 28 |
| Pre Rinse Sprayers | 150 | 270 | 420 |
| Energy Star Steamer | 10 | 18 | 28 |
| **TOTAL** | **1,105** | **1,989** | **3,094** |

Estimated Budget

Estimated Budget – North Shore Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $39,528 | $59,081 | $60,939 |
| Incentives | $46,125 | $87,097 | $133,222 |
| Evalulation | $2,649 | $4,521 | $6,005 |
| **TOTAL** | **$88,302** | **$150,699** | **$200,166** |

Estimated Budget – Peoples Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $223,996 | $334,795 | $345,322 |
| Incentives | $230,625 | $415,125 | $645,750 |
| Evalulation | $14,060 | $23,193 | $30,652 |
| **TOTAL** | **$468,681** | **$773,113** | **$1,021,723** |

Energy Savings Targets

Per Unit Savings:

| Measure | therm savings |
|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 902 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 1,278 |
| Furnace ≥ 92% AFUE | 216 |
| Furnace ≥ 95% AFUE | 257 |
| Programmable Thermostat | 142 |
| Gas Water Heater .62 EF | 23 |
| Gas Water Heater .67 EF | 46 |
| Steam trap repair/replacement | 219 |
| Vent Dampers | 48 |
| Boiler tune-up | 242 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 176 |
| Boiler Cutout/Reset Control | 44 |
| Unit Heater Condensing | 213 |
| Energy Star Convection Oven | 258 |
| Energy Star Combination Oven | 515 |
| Energy Star Fryer | 404 |
| Infrared Upright Broiler | 871 |
| Infrared Charbroiler | 529 |
| Conveyer Oven | 586 |
| Pasta Cooker | 1,104 |
| Infrared Rotisserie Oven | 443 |
| Infrared Salamander Broiler | 191 |
| Pre Rinse Sprayers | 130 |
| Energy Star Steamer | 1,667 |

Energy Savings Targets – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 902 | 1,805 | 2,707 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 2,557 | 5,114 | 7,670 |
| Furnace ≥ 92% AFUE | 1,080 | 1,944 | 3,024 |
| Furnace ≥ 95% AFUE | 1,541 | 2,825 | 4,366 |
| Programmable Thermostat | 2,848 | 5,126 | 7,974 |
| Gas Water Heater .62 EF | 93 | 186 | 278 |
| Gas Water Heater .67 EF | 228 | 410 | 638 |
| Steam trap repair/replacement | 10,960 | 19,728 | 30,688 |
| Vent Dampers | 96 | 192 | 288 |
| Boiler tune-up | 9,696 | 17,453 | 27,149 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 2,112 | 3,872 | 5,984 |
| Boiler Cutout/Reset Control | 528 | 968 | 1,496 |
| Unit Heater Condensing | 2,554 | 4,682 | 7,235 |
| Energy Star Convection Oven | 517 | 1,034 | 1,550 |
| Energy Star Combination Oven | 1,030 | 2,061 | 3,091 |
| Energy Star Fryer | 808 | 1,616 | 2,424 |
| Infrared Upright Broiler | 1,742 | 3,485 | 5,227 |
| Infrared Charbroiler | 1,058 | 2,115 | 3,173 |
| Conveyer Oven | 1,173 | 2,346 | 3,518 |
| Pasta Cooker | 2,208 | 4,416 | 6,624 |
| Infrared Rotisserie Oven | 886 | 1,773 | 2,659 |
| Infrared Salamander Broiler | 382 | 765 | 1,147 |
| Pre Rinse Sprayers | 3,888 | 6,998 | 10,886 |
| Energy Star Steamer | 3,334 | 6,669 | 10,003 |
| **TOTAL** | **52,222** | **97,581** | **149,802** |

Energy Savings Targets – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Boilers ≥ 300 MBtu ≥ 85% TE | 4,512 | 8,122 | 12,634 |
| Boilers ≥ 300 MBtu ≥ 90% TE | 12,784 | 23,011 | 35,795 |
| Furnace ≥ 92% AFUE | 5,400 | 9,720 | 15,120 |
| Furnace ≥ 95% AFUE | 7,704 | 13,867 | 21,571 |
| Programmable Thermostat | 14,240 | 25,632 | 39,872 |
| Gas Water Heater .62 EF | 464 | 835 | 1,299 |
| Gas Water Heater .67 EF | 1,140 | 2,052 | 3,192 |
| Steam trap repair/replacement | 54,800 | 98,640 | 153,440 |
| Vent Dampers | 480 | 864 | 1,344 |
| Boiler tune-up | 48,480 | 87,264 | 135,744 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 10,560 | 19,008 | 29,568 |
| Boiler Cutout/Reset Control | 2,640 | 4,752 | 7,392 |
| Unit Heater Condensing | 12,768 | 22,982 | 35,750 |
| Energy Star Convection Oven | 2,584 | 4,651 | 7,235 |
| Energy Star Combination Oven | 5,152 | 9,274 | 14,426 |
| Energy Star Fryer | 4,040 | 7,272 | 11,312 |
| Infrared Upright Broiler | 8,712 | 15,682 | 24,394 |
| Infrared Charbroiler | 5,288 | 9,518 | 14,806 |
| Conveyer Oven | 5,864 | 10,555 | 16,419 |
| Pasta Cooker | 11,040 | 19,872 | 30,912 |
| Infrared Rotisserie Oven | 4,432 | 7,978 | 12,410 |
| Infrared Salamander Broiler | 1,912 | 3,442 | 5,354 |
| Pre Rinse Sprayers | 19,440 | 34,992 | 54,432 |
| Energy Star Steamer | 16,672 | 30,010 | 46,682 |
| **TOTAL** | **261,108** | **469,994** | **731,102** |

## Program Metrics

Key metrics will include energy savings, participation rates, number of incomplete/flawed applications, customer satisfaction transaction survey response rate and responses and overall cost per therm saved for this program. These metrics will compare actual to projected results.

## Cost Effectiveness

Benefit Cost Ratios – North Shore Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.66 | 4.98 | 2.61 | 3.35 | 2.50 |

Benefit Cost Ratios – Peoples Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.54 | 4.40 | 2.40 | 3.88 | 2.29 |

| PROGRAM | 3.8.2.2 - C&I CUSTOM REBATES PROGRAM |
|---|---|
| Sector – Target Market | This program is targeted to C&I customers who have energy efficiency projects that are not specified in the C&I Prescriptive Rebates program. In general, these customers are served under S.C. No. 2. This program is available to both the existing and the new construction markets.<br><br>Some of the more common market segments for this program include larger customers in light and heavy manufacturing, steel and metal working, plastics compounding and processing, hospitals, food processing, hotels, commercial laundry, and other process heating intense businesses. They can also include large centrally-heated multifamily buildings and office buildings. Customers must be an active North Shore Gas or Peoples Gas C&I customer. |
| Description | This program provides C&I customers with rebate incentives for the installation of natural gas related energy improvements that are not specified for a prescriptive rebate. Since energy efficiency projects and technologies vary by customer and industry, this program allows customers to install a wide variety of natural gas savings technologies. Eligible projects will receive calculated incentives aimed at improving the financial viability of the energy efficiency improvements.<br><br>All custom rebates will be individually determined and analyzed using the benefit-cost model used to assess all measures in this Plan, to ensure that they pass the TRC test. Any measure that is pre-qualified (assessed for cost-effectiveness prior to being installed) must produce a TRC test result of at least 1.0 or better.<br><br>There will be an initial maximum rebate of $15,000 per customer per year. This limitation will enable as many customers as possible to participate in any one year. However, based on projects in the queue, the program's intent is to maximize energy savings and the limitation may be waived. |
| Utility Collaboration | It is the intent of the Companies and ComEd to cooperate in the offering of this program. There are some measures that could benefit both the gas and electric energy use and joint offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of and educating customers on the benefits of energy efficiency. |
| Program Duration | The initial program implementation period is three years, commencing on June 1, 2011 and continuing through May 31, 2014. |
| Eligible Measures | This project covers all natural gas projects or technologies that pass the TRC test that are not specified under prescriptive rebates. |

| | |
|---|---|
| | Incentives are the lesser of the following:<br>• A buy down to a 1 year payback.<br>• $1.00 per therm saved during the first year.<br>• Full incremental cost. |
| Implementation Strategy | This program will be implemented in PY1 as it provides significant energy savings at a low implementation cost.<br><br>Program Finalization<br>Upon approval of the program, Franklin Energy will:<br>• Finalize and document all program policies, business rules, and engineering validations, process flowcharts, training materials, marketing collateral for customers and for trade allies, customer application forms, and web content. The goal is to ensure clarity and ease of participation for all stakeholders.<br>• Identify opportunities to partner with ComEd on C&I energy efficiency promotion and awareness.<br><br>Operational Set-up<br>• Establish a customer communication center and account management team to field customer questions and guide customers through eligibility and application processes. Set up a system to track questions received and utilize them as a feedback mechanism to clarify communication materials and the application forms. This will contribute to continuous improvement and enhanced ease of participation for customers.<br>• Establish a system for qualifying, processing and tracking rebate transactions. This system will also track key metrics for reporting purposes.<br>• Recruit and train trade allies on program rules, installation standards, and verification requirements. The Companies will work closely with trade allies and customers alike to pre-qualify these large projects.<br>• Train staff on program requirements, system processing, and call handling procedures.<br>• Develop and place relevant content on the website.<br>• Develop processes for fulfillment and payment of incentives. As these C&I Custom Rebates projects are hands-on projects, the Companies will enter them into the reservation system upon confirmation that the project will be implemented.<br><br>Marketing Launch<br>• Implement trade ally strategies to build customer awareness of the C&I Custom Rebates program. Trade allies and Franklin Energy staff will promote the program and recruit participants.<br>• Launch website in conjunction with program launch.<br><br>Program Management<br>• Franklin Energy will provide the oversight and management of this program. As a part of program management, they will make provisions to track and report on program results.<br><br>QC<br>• Field inspections will be performed on a maximum of 5% of projects with incentives less than $10,000. |

| | |
|---|---|
| | • Field inspections will be performed on all projects with incentives greater than $10,000.<br>• The inspections will verify installation, project documentation, energy efficiency specifications, and confirmation of annual operating hours. |
| Milestones | January 2011: Complete detailed implementation plan<br>May 2011: Complete operational set up<br>June 2011: Full launch<br>May 2014: End of current program |
| Exit Strategy | In the event the entire program is to be discontinued, the Companies will first notify ComEd and all trade allies of the end date of the program. The Companies will also include information of the end date in customer communications. After the end date, all applications that are received will be returned to the customer with a letter of explanation. Applications that are in the queue will be honored if the customer has made irrevocable arrangements, e.g. ordered equipment. However, if no such commitment has been made, the project is not in the queue. The Companies will work with each customer to implement the exit strategy for this program. Discontinuation of this program should not cause any major disruption to the portfolio. |
| Marketing Strategy | The Companies will market this program to both end use customers as well as trade allies. End-use customers are primarily reached through large customer account representatives, large customer meetings or one-on-one contacts. Trade ally support and engagement is a key element to the success of this program. Franklin Energy will establish trade ally working groups to educate and ultimately support the promotion of this program. Trade allies will include those who support large customer projects and energy service companies. |
| EM&V Requirements | For the impact evaluation, gross savings will be evaluated by reviewing implementation contractor field inspections. If necessary, other field inspections will be conducted by the evaluator and additional project documentation will be reviewed to ensure the savings are accurate at a 90/10 level. For each measure implemented, a different analytic and measurement and verification approach will be used. For example, heating measures vary by time and performance and thus will be analyzed with tools that take this into account, such as calibrated hourly building energy simulation models. Telephone surveys with customers and trade ally participants will provide information on installation rates and program influence (to assess NTG issues). Sampling will provide 90/10 confidence and precision. Net savings will be assessed using results from participant and trade ally surveys and other sources.<br><br>To assess efforts to recruit trade allies and customers, the process evaluation will include in-depth interviews with the program manager and implementation contractors and a comprehensive review of marketing and outreach materials. Navigant will also interview trade allies and commercial customers to assess interest in promoting the program and to identify barriers to program participation. Once sufficient participation has occurred, the process evaluation will conduct a quantitative telephone survey of program participants (with sample size for 90/10 confidence). The process evaluation will survey program awareness, participant |

satisfaction, recommendations for changes, and information necessary to estimate free ridership and spillover.

**Program Management Requirements**

Franklin Energy will be responsible for final design, marketing strategy, and program management. This includes marketing materials development, program promotions, project management, engineering analysis, program tracking and reporting, QA/QC activities and overall program performance.

**Estimated Participation**

Estimated Participation – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| C&I Custom Rebates | 6 | 13 | 19 |

Estimated Participation – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| C&I Custom Rebates | 30 | 70 | 100 |

**Estimated Budget**

Estimated Budget – North Shore Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $21,467 | $30,673 | $32,289 |
| Incentives | $27,000 | $58,500 | $85,500 |
| Evalulation | $1,499 | $2,758 | $3,643 |
| **TOTAL** | **$49,966** | **$91,931** | **$121,432** |

Estimated Budget – Peoples Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $121,646 | $173,814 | $182,972 |
| Incentives | $135,000 | $315,000 | $450,000 |
| Evalulation | $7,938 | $15,118 | $19,576 |
| **TOTAL** | **$264,583** | **$503,932** | **$652,549** |

**Energy Savings Targets**

Per Unit Savings:

| Measure | Per unit therm savings |
|---|---|
| C&I Custom Rebates | 5,400 |

*Note: Per unit savings of 5,400 therms is used as a proxy and not considered to be a deemed savings. Individual project savings will be determined on a case by case basis and reflect the actual project scope.*

Energy Savings Targets – North Shore Gas

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| C&I Custom Rebates | 32,400 | 70,200 | 102,600 |

Energy Savings Targets – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| C&I Custom Rebates | 162,000 | 378,000 | 540,000 |

**Program Metrics**

Key metrics will include energy savings, verification of installation, project lead times and overall cost per therm saved for this program. These metrics will compare actual to projected results.

**Cost Effectiveness**

Benefit Cost Ratios – North Shore Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.68 | 6.61 | 2.85 | 3.20 | 2.73 |

Benefit Cost Ratios – Peoples Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.55 | 6.02 | 2.63 | 3.66 | 2.51 |

The screening for this program was based on estimated savings of approximately 5,400 net therms per project for an incremental cost of approximately $19,500.

| PROGRAM | **3.8.2.3 - C&I RETRO-COMMISSIONING PROGRAM** |
|---|---|
| Sector – Target Market | This program is targeted to large C&I customers. In general, this describes customers served under S.C. No. 2 and S.C. No. 3 (North Shore Gas) and S.C. No. 4 (Peoples Gas), Large Volume Demand Service. It is anticipated that most customers who participate in this program will have natural gas central heating and water heating. Customers must be an active North Shore Gas or Peoples Gas C&I customer. |
| Description | When buildings are first built and systems installed, a test to ensure that the systems operate as designed is not always completed. Retro-commissioning conducts this test and optimizes system operations in the context of how the building is currently used. Experts will analyze the building and help its energy using systems to operate optimally by identifying no-cost and low cost energy saving improvements, which are then implemented by the customer. It is akin to a tune-up for an automobile and is often referred to as a full-building tune-up. Retro-commissioning focuses on operational and maintenance improvements. Specifically, retro-commissioning can:<br>• Bring equipment to the proper operational state based on the customer's use of the facility.<br>• Reduce complaints, especially as it deals with comfort for those who work in the building, and increase tenant satisfaction.<br>• Reduce energy use.<br>• Increase equipment life.<br>• Improve indoor air quality.<br>• Improve facility operation and maintenance.<br>• Reduce staff time spent on emergency calls.<br><br>North Shore Gas and Peoples Gas have been in discussions with ComEd for joint implementation of this program. This will allow participants to benefit by having their building retro-commissioned for both gas and electric usage. The utilities will benefit by cost sharing. As ComEd already has a program administrator who was selected through a competitive bid process, North Shore Gas and Peoples Gas will be willing to use the same program administrator.<br><br>The implementation cost for this program will include the cost of the retro-commissioning study, evaluation, and administrative oversight (both ComEd and the Companies). In return for funding the study, the customer agrees to spend at least $10,000 or $20,000, depending on the project size, and implement measures with a payback of less than 1.5 years. |
| Utility Collaboration | It is the intent of the Companies and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers. |

| | |
|---|---|
| Program Duration | The initial program implementation period is three years, commencing on June 1, 2011 and continuing through May 31, 2014. |
| Eligible Measures | Incentives: The program provides for the retro-commissioning services at no cost to participants as the incentive to participate in return for the participants' commitment to spend a given amount on the implementation of the measures identified through the study.<br><br>The following are typical measures that are identified during the course of a retro-commissioning study:<br><br>• Supply fan rescheduling.<br>• Reduce duct static pressure set point.<br>• Repair/ enable economizer.<br>• Duct static pressure reset.<br>• Repair/ enable variable frequency drives on fans and pumps.<br>• Supply air temperature reset.<br>• Reduce lighting schedule.<br>• Condenser water temperature reset.<br>• Chilled water supply temperature reset.<br>• Pump scheduling.<br>• Revise air handler control sequence.<br>• Boiler lockout.<br>• Calibrate sensors.<br>• Replace temp/ flow/ pressure sensor.<br>• Reduce differential pressure set point/ relocate sensor.<br>• Reduce actuator cycling.<br>• Trim pump impeller.<br>• Reduce equipment cycling.<br>• VAV flow set points.<br>• Demand control ventilation.<br>• Re-balance water loop.<br>• Hot water supply temperature reset.<br><br>These measures specifically exclude all items for which Prescriptive Rebates are available and capital projects which are eligible for Custom Rebates. |
| Implementation Strategy | This program will be implemented in PY1 due to its high market potential and cost-effectiveness and the fact that ComEd already has this program up and running. Franklin Energy will work with ComEd and its program administrator to ensure this program is fully integrated for gas and electric.<br><br>Program Finalization<br>Upon approval of the program, Franklin Energy will work with ComEd to:<br>• Finalize and document all program policies, business rules, and procedures, process |

| | |
|---|---|
| | flowcharts, training materials, marketing collateral for customers and for service providers, customer application forms, and web content.<br><br>Operational Set-up<br>• Set up a process to track questions received and utilize them as a feedback mechanism to clarify communication materials and the application forms. This will contribute to continuous improvement and enhanced ease of participation for customers.<br>• Train staff on program requirements and system processing procedures. FAQs and other training tools may be developed to ensure consistent information is provided.<br>• Develop processes to ensure benefits for gas and share costs with ComEd.<br><br>Marketing Launch<br>• Implement service provider strategies to build customer awareness of the custom C&I rebate program. Service providers and Franklin Energy staff will promote the program and recruit participants.<br>• Launch website in conjunction with program launch.<br><br>QC<br>• North Shore Gas and Peoples Gas will coordinate with ComEd's existing QC measures. |
| Milestones | January 2011: Complete detailed implementation plan<br>May 2011: Complete operational set up<br>June 2011: Full launch<br>May 2014: End of current program |
| Exit Strategy | In the event the entire program is to be discontinued, the Companies will first notify ComEd and all trade allies of the end date of the program. The Companies will also include information of the end date in customer communications. After the end date, all applications that are received will be returned to the customer with a letter of explanation. Discontinuation of this program should not cause any major disruption to the portfolio. |
| Marketing Strategy | The Companies will market this program jointly with ComEd primarily to end use customers. The Companies will utilize large customer account representatives, large customer meetings or one-on-one contacts to market this program. The program manager and service providers will also market this program. |
| EM&V Requirements | For the impact evaluation, gross savings will be assessed primarily via an engineering review based on as-installed operating conditions. Savings for measures without engineering-based formulas will be evaluated using methods such as billing analysis, building simulation models, or a combination of methods. The impact evaluation expects to examine a census of program participants. Net program savings will be based on evaluation-derived NTG ratios, addressed after 2-3 years of program operation. NTG ratios will be based on participant and trade ally surveys and other sources. |

To assess efforts to recruit trade allies and customers, the process evaluation will include in-depth interviews with the program manager and implementation contractors and a comprehensive review of program marketing and outreach materials. Trade allies and commercial customers will also be interviewed to assess interest in promoting the program and to identify potential barriers to program participation.

As this program will be offered jointly with ComEd, evaluation activities will be coordinated with ComEd as well.

**Program Management Requirements**

Franklin Energy will administer this program on behalf of North Shore Gas and Peoples Gas and will work with ComEd to implement processes for a well run program.

**Estimated Participation**

Estimated Participation – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| C&I Retro-Commissioning | 4 | 6 | 8 |

Estimated Participation – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| C&I Retro-Commissioning | 18 | 23 | 26 |

**Estimated Budget**

Estimated Budget – North Shore Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $62,723 | $92,723 | $122,723 |
| Incentives | $0 | $0 | $0 |
| Evalulation | $1,940 | $2,868 | $3,796 |
| **TOTAL** | **$64,663** | **$95,591** | **$126,519** |

Estimated Budget – Peoples Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $285,432 | $360,432 | $405,432 |
| Incentives | $0 | $0 | $0 |
| Evalulation | $8,828 | $11,147 | $12,539 |
| **TOTAL** | **$294,260** | **$371,579** | **$417,971** |

**Energy Savings Targets**

Per Unit Savings:

| Measure | Per unit therm savings |
|---|---|
| C&I Retro-Commissioning | 13,920 |

Energy Savings Targets - North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| C&I Retro-Commissioning | 55,680 | 83,520 | 111,360 |

Energy Savings Targets – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| C&I Retro-Commissioning | 250,560 | 320,160 | 361,920 |

**Program Metrics**

Key metrics will include number of participants/buildings retro-commissioned, energy savings and overall cost per therm saved for this program. These metrics will compare actual to projected results.

**Cost Effectiveness**

Benefit Cost Ratios – North Shore Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.58 | 2.02 | 1.84 | 13.12 | 1.77 |

Benefit Cost Ratios – Peoples Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.51 | 1.84 | 1.69 | 14.10 | 1.62 |

The screening for this program was based on estimated savings of approximately 14,000 net therms per project, a delivery cost of $15,000 per project for the retro-commissioning study, and an incremental cost of approximately $3,000.

| PROGRAM | **3.8.2.4 - SMALL BUSINESS EFFICIENCY PROGRAM** |
|---|---|
| Sector – Target Market | This program is targeted to all smaller C&I customers. In general, this describes a segment of customers served under S.C. No. 2. As this program will be offered jointly with ComEd, an initial target will be based on an annual usage of 6,000 Dth or less for gas and 100 kW or less for electric. Likely business types include strip malls, main street businesses, and business district establishments, theaters, restaurants, convenience stores, etc. Customers must be an active North Shore Gas or Peoples Gas C&I customer. |
| Description | Small business owners are often time-constrained, unaware of energy efficiency opportunities, and lack dedicated staff who concentrate on the facility's energy use. As such, they are a hard-to-reach target audience. While many owners are also the property owner, some are renting their space and consequently have little motivation to make major improvements to their landlords' premises. This program will offer energy saving measures to the small business person in a variety of ways:<br><br>1. Direct installation of several low cost measures at no cost to the owner or tenant. The gas measures include low flow faucet aerators, showerheads, and pre-rinse sprayers, with vendor misers and CFLs provided by ComEd.<br><br>2. A variety of low cost measures at 30% of the total installed cost to the owner. These measures would most likely be programmable setback thermostats, and other O&M measures. In the event the premises are rented, the program implementer will coordinate with the landlord/property owners, if needed. Local trade allies will be utilized wherever possible to implement the program.<br><br>3. While at the premises, this program will also include a free high-level walk through audit and provide a report to the owner, outlining other energy efficiency improvements that could be installed. This will educate the business owner while providing the benefits of the program through the direct install measures. In the event the owner is interested in installing the suggested improvements, Franklin Energy will help the owner arrange for bids and apply for applicable rebates.<br><br>To maximize cost-effectiveness, this program will be implemented geographically. The Companies will also incorporate the learning gained from the current pilot program between Chicagoland and ComEd. |
| Utility Collaboration | It is the intent of the Companies and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers. |

**Program Duration**

The initial program implementation period is three years, commencing on June 1, 2011 and continuing through May 31, 2014.

**Eligible Measures**

Measures that will be targeted for direct install include:

| Direct Install Measure |
|---|
| Showerheads |
| Aerators |
| Pre Rinse Sprayers |
| Specific Measures Provided by ComEd |

Incentives:
Measures that will be made available with the customer paying 30% of the installed cost and the Companies paying 70% of the installed cost are:

| Cost Shared Measure |
|---|
| Steam trap repair/replacement |
| Boiler tune-up |
| Boiler Reset Control |
| Programmable Thermostat |
| Furnace Tune-Up 110-250 MBtu |

Measures where incentives are available to Small Businesses are:

| Measure | Per Unit Incentive |
|---|---|
| Boilers ≤ 300 MBtu ≥ 90% AFUE | $500 |
| Furnace ≥ 92% AFUE | $225 |
| Unit Heater Condensing | $200 |
| Gas Water Heater .62 EF | $50 |

The Companies request authority to revise eligible measures and incentives as driven by current market conditions, changes to codes and standards, technology, EM&V results, and program management knowledge.

**Implementation Strategy**

This program will be implemented in PY1 due to its high market potential and cost-effectiveness, offered in partnership with ComEd. The strategy will focus on geographically focused marketing efforts to the target audience.

Program Finalization
Upon approval of the program, Franklin Energy will:

- Finalize partnership opportunities with ComEd.
- Finalize, review with ComEd and document all program policies, business rules, and procedures, process flowcharts, training materials, marketing collateral for customers and for trade allies including possible point of purchase materials, customer application forms, and web content. The goal is to ensure clarity and ease of participation for all stakeholders and ensure all utilities' needs are met.

| | |
|---|---|
| | Operational Set-up<br>• Establish a customer communication center to field customer questions and guide customers through eligibility and the application process.<br>• Set up a process to track questions received and utilize them as a feedback mechanism to clarify communication materials and application forms. This will contribute to continuous improvement and enhanced ease of participation for customers.<br>• Establish a system for qualifying, processing and tracking direct install and rebate transactions. This system will be used as a tool to improve processes. This system will also track key metrics for reporting purposes.<br>• Recruit and train trade allies on program rules, installation standards, and verification requirements.<br>• Train staff on program requirements, system processing, and call handling procedures. FAQs, scripting, and other training tools will be developed to ensure consistent information is provided.<br>• Finalize website design, develop web content and conduct testing.<br>• Develop process for the collection of 30% payment on installed measures.<br><br>Marketing Launch<br>• The marketing launch will be coordinated with ComEd and targeted through geographic regions to maximize effectiveness of the program.<br>• Implement trade ally strategies to build customer awareness of the program.<br>• Launch website in conjunction with program launch.<br><br>QC<br>• Transaction surveys will be used to measure customer satisfaction and identify potential program and process improvements. |
| Milestones | May 2011: Complete detailed implementation plan<br>June 2011: Full program launch<br>May 2014: End of current program |
| Exit Strategy | In the event the entire program is to be discontinued, the Companies will first notify ComEd and any trade ally partners of the end date of the program. There will be two dates of importance to participants: 1) the date after which no new direct install visits will be scheduled and 2) the date by which all measures identified in completed audits must be completed. The exit strategy will allow for the completion of any projects in the pipeline and any installations of measures identified by completed audits, provided the improvements are completed by the specified date. Discontinuation of this program should not cause any major disruption to the portfolio. |
| Marketing Strategy | The marketing strategy for this program is to focus on building customer awareness and a call to action with small business owners by geographic region. |

Franklin Energy will work with ComEd to evaluate the following tactics for possible use in reaching small business owners:

- Regionally targeted utility bill inserts.
- Website information.
- Direct mail campaigns.
- Marketing through small business associations and local media targeted toward small businesses by region.

**EM&V Requirements**

For the impact evaluation, gross savings for each program measure will be estimated by verifying each impact using industry standard impact algorithm sources and a follow-up phone survey with a sample of participants. The survey will cover pre-installation baseline conditions, installation of audit-recommended measures that do not receive a rebate, persistence (are the measures still installed?), and free ridership and spillover. The survey results will be fed into the impact algorithms and models to estimate gross and net energy savings.

The process evaluation will study the process, marketing materials, tracking systems, and process forms and will include stakeholder interviews with a representative from each utility, with the program implementer, participating trade allies and customers.

As this program will be offered jointly with ComEd, evaluation activities will be coordinated with ComEd as well.

**Program Management Requirements**

Franklin Energy would administer the program screening, scheduling, implementation and collection of the 30% payment from participants for the North Shore Gas and Peoples Gas.

**Estimated Participation**

Estimated Participation – North Shore Gas

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Steam trap repair/replacement | 20 | 30 | 30 |
| Boiler tune-up | 30 | 40 | 40 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 6 | 9 | 8 |
| Boiler Reset Control | 20 | 30 | 30 |
| Furnace ≥ 92% AFUE | 10 | 10 | 10 |
| Unit Heater Condensing | 4 | 6 | 5 |
| Gas Water Heater .62 EF | 4 | 6 | 5 |
| Programmable Thermostat | 40 | 60 | 50 |
| Pre Rinse Sprayers | 80 | 120 | 110 |
| Showerheads | 40 | 60 | 50 |
| Aerators | 80 | 120 | 110 |
| Furnace Tune-Up 110-250 MBtu | 30 | 44 | 39 |
| **TOTAL** | **364** | **535** | **487** |

Estimated Participation – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Steam trap repair/replacement | 90 | 100 | 110 |
| Boiler tune-up | 140 | 160 | 180 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 20 | 20 | 20 |
| Boiler Reset Control | 50 | 60 | 70 |
| Furnace ≥ 92% AFUE | 30 | 30 | 30 |
| Unit Heater Condensing | 30 | 30 | 30 |
| Gas Water Heater .62 EF | 30 | 30 | 30 |
| Programmable Thermostat | 160 | 180 | 200 |
| Pre Rinse Sprayers | 160 | 180 | 200 |
| Showerheads | 80 | 90 | 100 |
| Aerators | 160 | 180 | 200 |
| Furnace Tune-Up 110-250 MBtu | 140 | 160 | 180 |
| **TOTAL** | **1,090** | **1,220** | **1,350** |

## Estimated Budget

Estimated Budget – North Shore Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $42,415 | $55,751 | $47,333 |
| Incentives | $6,250 | $7,000 | $7,750 |
| Evalulation | $1,505 | $1,941 | $1,704 |
| **TOTAL** | **$50,170** | **$64,691** | **$56,786** |

Estimated Budget – Peoples Gas:

| Budget Categories | PY1 | PY2 | PY3 |
|---|---|---|---|
| Delivery / Pgm Mgmt / Marketing | $240,352 | $315,920 | $268,220 |
| Incentives | $24,250 | $24,250 | $24,250 |
| Evalulation | $8,184 | $10,521 | $9,045 |
| **TOTAL** | **$272,785** | **$350,691** | **$301,515** |

## Energy Savings Targets

Per Unit Savings:

| Measure | Per unit therm savings |
|---|---|
| Steam trap repair/replacement | 260 |
| Boiler tune-up | 288 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 176 |
| Boiler Reset Control | 52 |
| Furnace ≥ 92% AFUE | 216 |
| Unit Heater Condensing | 213 |
| Gas Water Heater .62 EF | 23 |
| Programmable Thermostat | 169 |
| Pre Rinse Sprayers | 154 |
| Showerheads | 20 |
| Aerators | 5 |
| Furnace Tune-Up 110-250 MBtu | 60 |

*Note: A 0.95 NTG was used for direct install measures, non direct install measures use a 0.8 NTG.*

Energy Savings Targets – North Shore Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Steam trap repair/replacement | 5,206 | 7,809 | 7,809 |
| Boiler tune-up | 8,636 | 11,514 | 11,514 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 1,056 | 1,584 | 1,408 |
| Boiler Reset Control | 1,045 | 1,568 | 1,568 |
| Furnace ≥ 92% AFUE | 2,160 | 2,160 | 2,160 |
| Unit Heater Condensing | 851 | 1,277 | 1,064 |
| Gas Water Heater .62 EF | 93 | 139 | 116 |
| Programmable Thermostat | 6,764 | 10,146 | 8,455 |
| Pre Rinse Sprayers | 12,312 | 18,468 | 16,929 |
| Showerheads | 798 | 1,197 | 998 |
| Aerators | 380 | 570 | 523 |
| Furnace Tune-Up 110-250 MBtu | 1,787 | 2,621 | 2,323 |
| **TOTAL** | **41,087** | **59,052** | **54,866** |

Energy Savings Targets – Peoples Gas:

| Measure | PY1 | PY2 | PY3 |
|---|---|---|---|
| Steam trap repair/replacement | 23,427 | 26,030 | 28,633 |
| Boiler tune-up | 40,299 | 46,056 | 51,813 |
| Boilers ≤ 300 MBtu ≥ 90% AFUE | 3,520 | 3,520 | 3,520 |
| Boiler Reset Control | 2,613 | 3,135 | 3,658 |
| Furnace ≥ 92% AFUE | 6,480 | 6,480 | 6,480 |
| Unit Heater Condensing | 6,384 | 6,384 | 6,384 |
| Gas Water Heater .62 EF | 696 | 696 | 696 |
| Programmable Thermostat | 27,056 | 30,438 | 33,820 |
| Pre Rinse Sprayers | 24,624 | 27,702 | 30,780 |
| Showerheads | 1,596 | 1,796 | 1,995 |
| Aerators | 760 | 855 | 950 |
| Furnace Tune-Up 110-250 MBtu | 8,339 | 9,530 | 10,722 |
| **TOTAL** | **145,794** | **162,622** | **179,450** |

## Program Metrics

The key metrics for the free direct install portion of this program are the number of businesses who participated in the program, the measures installed, and the energy saved by those measures.

The key metrics for the installation of measures for which the business pays 30% of the total installed cost are the measures installed, the energy saved by those measures, and the number of direct install participants who proceed to purchase these additional measures.

While rebates will be issued from the C&I Prescriptive or Custom Rebates programs, the number of business owners who implement measures eligible for rebates will be tracked.

In addition, the cost per therm of energy saved for the program will be calculated. These metrics will compare actual to projected results.

**Cost Effectiveness**

Benefit Cost Ratios – North Shore Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.66 | 4.81 | 3.81 | 9.86 | 3.66 |

Benefit Cost Ratios – Peoples Gas:

| Ratepayer Impact Measure Test | Utility Cost Test | Societal Test | Participant Test | Total Resource Cost Test |
|---|---|---|---|---|
| 0.50 | 2.63 | 2.41 | 10.93 | 2.30 |