

Appendix A

*Natural Gas Energy Efficiency and Conservation Program Details
for Natural Gas Distributors in Select Jurisdictions in the U.S.,
Great Britain, New Zealand , and Australia*

March 19, 2010



California: Natural Gas Conservation – Existing Residential Programs

- **Multi Family Energy Efficiency Retrofit Program (“MFEER”)** - A rebate program for residential multifamily property owners, home owner associations and mobile home park associations aimed at encouraging SoCalGas customers to replace existing inefficient gas measures with current, efficient measures.
- **Advanced Home** - A demonstration program aimed at encouraging builders to incorporate the newest technologies in model homes and showcasing these homes to educate and encourage other developers, builders and subcontractors to use these technologies in their projects.
- **Mobile Home Project** - This program aims to treat 10,000 mobile/manufactured homes over a 3-year period with 100% quality installations of Duct Seal work, improving heating efficiency.
- **Single Family Home Energy Efficiency Rebate Program** - A program designed to assist SoCalGas residential customers reduce their natural gas energy usage with rebates for replacing less efficient gas-fired equipment with new energy-efficient equipment and weatherization.
- **Affordable Housing Program** - Provides energy audits to Housing Authorities, owners of multifamily affordable housing units and owners of supportive housing projects in order to identify inefficiencies, recommend solutions, and offer incentives to encourage the implementation of these recommendations. EnergySmart Paks, containing educational information and some energy saving devices, will also be distributed.



California: Natural Gas Conservation – Existing Commercial Programs

- **Local Business Energy Efficiency** - Offers prescriptive rebates for appliance replacement and incentives for the installation of new high efficiency gas-fired technology.
- **Express Efficiency** - Designed to encourage nonresidential customers to replace their inefficient equipment with high efficient models that exceed established efficiency standards by offering rebates.
- **Coin Op Laundry Program** - Proposed replacement of 22,000 coin op clothes washers (with gas heated hot water) with efficient washers.
- **Constant Volume Retrofit Program** - Replaces constant volume HVAC systems in office buildings with variable air volume systems.
- **Value and Energy Stream Mapping (“VESM”)** - Helps manufacturers streamline processes and implement energy efficient methods and technologies using VESM, a lean manufacturing methodology.
- **Savings by Design** - Provides the nonresidential developers with technical and financial resources to aid in designing new facilities to cost-effective energy efficiency standards. The program emphasizes intervention with no-cost design assistance and analysis early in the planning and design process and offers a wide range of customized services including education, building calculated owner incentives and design team incentives.
- **Cypress Gas Cooling Program** - This program is available to residential and small business customers who currently own a gas powered AC unit. Older AC units are replaced with newer, more energy efficient models.



Connecticut: Natural Gas Conservation – Residential Programs

The 2009 Annual Natural Gas Conservation Plan consists of the following Residential programs:

- **Low-Income Weatherization & Heating** - Insulation, infiltration and water heating measures as well as cleaning, tuning and testing heating system and providing energy efficiency education.
- **Home Energy Solutions** – Offers a complete on-site home energy assessment including analysis of air duct leakage and air duct sealing, dwelling air infiltration reduction and water heating measures, insulation rebates, consumer education.
- **High Efficiency Water Heating** - \$300 rebates offered to customers who have a high efficiency water heating system (either indirect systems connected to ENERGY STAR natural gas boilers, or on-demand tankless water heaters) installed by a licensed contractor.
- **New Construction** – Prescriptive incentives paid to builders who install equipment meeting thermal performance criteria in new homes. Energy efficient water heater rebates and HVAC rebates are also offered to builders. Projects where residents will be of limited-income receive 150% of incentives.



Connecticut: Natural Gas Conservation – C&I Programs

The 2009 Annual Natural Gas Conservation Plan consists of the following Commercial/Industrial programs:

- **Energy Conscious Blueprint** - Maximize energy savings for "lost opportunity" projects at the time of initial construction/major renovation, or when equipment needs to be replaced or added. Energy efficiency opportunities are evaluated and incentives are provided to encourage customers to select the most energy efficient option.
- **Energy Opportunities** - Captures retrofit opportunities at existing facilities by 1) exchanging functioning yet inefficient equipment with higher efficiency equipment; 2) retrofitting existing equipment with energy-saving devices, modifications, or controls; and 3) improving a facility's performance.
- **Operations & Maintenance** - Help customers improve the electrical and thermal efficiency of their operations by modification and repair, rather than through capital intensive investments. Provides customers with the knowledge and the means to maintain equipment efficiency on an on-going basis.



Iowa: Existing Natural Gas DSM – Residential Programs

- **Residential Equipment** - Provides customers with incentives to help them purchase energy-efficient heating, cooling, water heating, and appliance measures from an extensive network of trade allies.
- **Residential Audit** - Helps existing homeowners improve energy efficiency through three different program options:
 - **HomeCheck**, which provides participants with an on-site energy audit, direct installation of simple energy efficiency measures and financial incentives for installation of insulation, infiltration and windows measures
 - **HomeCheck Online**, through which customers can perform Internet-based audits of their own homes and
 - **Home Performance with ENERGY STAR (HPwES)**, which includes a subsidized, comprehensive energy audit, eligibility for all of the financial incentives available to HomeCheck participants and incentive bonuses for meeting performance targets.
- **Residential New Construction** - Provides builders and developers with financial incentives and marketing support in return for meeting ENERGY STAR certification or completing the program requirements in the Builder Option Package (BOP).



Iowa: Existing Natural Gas DSM – Commercial Programs

- **Nonresidential Equipment** - Provides customers with financial incentives to help them purchase energy-efficient heating, cooling, water heating, motor, commercial kitchen and insulation measures.
- **Nonresidential Custom** - Provides customers with financial incentives and technical support to help them adopt efficient equipment and practices that do not fit within other nonresidential programs
- **Small Commercial Energy Audit** - Provides professional energy audits for small business customers that include advice on efficient energy usage, installation of lighting and water heating measures and recommendations for additional measures that may be eligible for incentives. Customers can also perform Internet-based audits of their own facilities through *BusinessCheck Online*.
- **Nonresidential Energy Analysis** - Helps larger customers develop comprehensive energy efficiency action plans that improve their facilities energy efficiency and their companies' financial competitiveness. Rebates are also provided to bring the cost of implementing the energy plan with customers' investment guidelines.



Iowa: Existing Natural Gas DSM – Multiple Sector Programs

- **Low Income** - Provides free weatherization services, including installation of lighting, water heating and insulation measures and replacement of inefficient furnaces, water heaters, refrigerators and freezers. The program also distributes thousands of free energy efficiency kits to qualifying customers and provides energy efficiency services to multifamily and institutional housing projects.
- **Multifamily** - Provides a comprehensive set of services and financial incentives to help multifamily property owners, property managers, landlords and renters improve the efficiency of existing buildings.
- **Agriculture** - Promotes the purchase of high-efficiency equipment by agricultural customers in both existing and new facilities.
- **Third-Party** - Encourages third-party contractors to compete for project funding to implement projects that capitalize on untapped energy efficiency potential from new markets, technologies or approaches. IPL completed its first year with a redesigned Performance Contracting Program in 2007, which included a bidding process and a new independent third-party administrator. The program had a 20% increase in the number of projects completed compared to the previous year, however, energy savings decreased by 36% for gas.
- **Education** - Promotes energy efficiency education through activities organized into four general areas: customer awareness, trade ally awareness, training and school curriculum.
- **Trees** - Encourages community reforestation by making residential landscape trees more affordable. The trees help energy efficiency by providing wind-breaks and offering shade. Trees also improve air quality and help nourish the soil.



Maine: Natural Gas Conservation – Residential Programs

Northern Utilities’ “Partners In Energy” program includes the following Residential measures:

- **Conservation Services Program** – An educational/informational program offering rebates for home energy assessments, information on selecting a contractor, etc.
- **Custom Measures Program** – Custom measures including insulation, ductwork leakage testing/sealing, air infiltration measurement/sealing
- **Low-Income Weatherization** – Weatherization measures targeting customers with annual incomes below 150% of the federal poverty guidelines.
- **Self-Install Weatherization Rebate** – Targets Existing residential heating customers that purchase and self-install low cost weatherization and water savings materials.
- **High Efficiency Heating Equipment Rebate** – Rebates for existing residential heating customers that purchase and self-install low cost weatherization and water savings materials.
- **High Efficiency Water Heating Equipment Rebate** – Rebates for indirect water heaters and tanks connected to natural gas fired boilers, high efficiency on-demand water heaters.
- **ENERGY STAR Thermostat Rebate** – Rebates provided to customers, landlords, builders, and contractors that install ENERGY STAR-labeled programmable thermostats.
- **ENERGY STAR Windows Rebate** – Rebates to customers as well as manufacturers and distributors of certain ENERGY STAR-labeled windows.
- **ENERGY STAR Homes** – Consulting services to builders and buyers of certified ENERGY STAR homes.
- **Multi-Family Custom Measures** – Weatherization and other customer- and/or site-specific consulting services.



Maine: Natural Gas Conservation – C&I Programs

Northern Utilities’ “Partners In Energy” program includes the following C&I measures:

- **Small C&I Custom Measures** – Incentives and consulting services for weatherization, equipment replacement, etc.
- **Large C&I Custom Measures** - Incentives and consulting services for weatherization, equipment replacement, etc.
- **High Efficiency Heating Equipment Rebate** – Rebates for existing residential heating customers that purchase and self-install low cost weatherization and water savings materials.
- **High Efficiency Water Heating Equipment Rebate** – Rebates for indirect water heaters and tanks connected to natural gas fired boilers, high efficiency on-demand water heaters.
- **High Efficiency Infrared Heating Equipment Rebate** – Rebates for customers installing or manufacturers and distributors that bring natural gas-fired, low intensity infrared units to market.
- **ENERGY STAR Thermostat Rebate** – Rebates provided to customers, landlords, builders, and contractors that install ENERGY STAR-labeled programmable thermostats.
- **C&I Efficient Food Service Equipment Rebate** – Rebates to C&I customers that install ENERGY STAR-labeled high efficiency hot oil fryers.



Massachusetts: Natural Gas Conservation – Residential Programs

- **Residential High Efficiency Heating Rebate Program** - Promotes the installation of ENERGY STAR-rated high efficiency gas furnaces, hot water boilers and energy efficient steam boilers in residential homes via direct rebates. Rebates range from \$200-\$1,600.
- **Residential High Efficiency Water Heating Rebate Program** – Offers rebates for installation of efficient water heating equipment for new construction and replacement equipment. Rebates range from \$50-\$700.
- **Residential New Construction** – Encourages construction of efficient homes by offering incentives for partially and fully qualified ENERGY STAR-rated homes. Targets designers and homebuilders, offering rebates ranging from \$225-\$8,000 per installation of qualifying equipment. ENERGY STAR compliance mandates meeting the EPA’s ENERGY STAR qualification, and demonstrating thermal efficiency improvement of 30-60% (depending on rebate levels) over a Massachusetts home that meets basic housing code.
- **Single Family Home Weatherization** – Rebates on installation of qualifying thermal insulation and weatherproofing hardware. Currently, incentives are 75% of total cost up to \$2,000.
- **Multifamily Retrofit** – Installation of thermal efficiency equipment (similar to above) targeted at multifamily residence buildings. Program will supply a whole building assessment of potential retrofits, means to calculate potential incentives, project-specific funding, and low interest financing.
- **Residential Programmable Thermostat Rebate** – Offers rebates for installation of ENERGY STAR programmable thermostat. This program has been offered since 2004. Rebate is \$25 per thermostat, max allowable two per customer.
- **High Efficiency Heating Rebate Early Retirement** – The Early Retirement program is being considered as an additional measure to be added on to both the high efficiency heating and water heating initiatives. Rebates would be in addition to other rebates but customers can only apply for the early retirement for space heating or water heating (i.e. not both).
- **Low Income Single Family and Multifamily Retrofit** – Installation of thermal efficiency hardware. Targets customers who earn annual income less than or equal to 60% of the Massachusetts’ median income level (>50% of residents must qualify for multifamily residences). Similar programs have been in place since 1998 with budgets expanding annually.



Massachusetts: Natural Gas Conservation – C&I Programs

- **Commercial & Industrial Prescriptive Programs** – Offer rebates for installation of efficient thermal equipment. The measures are focused on inclusion of efficient technology in new C&I construction of small to medium-sized businesses. The program will be targeted at food service businesses, and businesses/landlords that heat space or water with natural gas. Rebates range from \$25 for thermostats to \$1,600 for Combined Boiler and Water Heating units. The program was started in 1998.
- **Commercial & Industrial Custom Program** – Offers financial assistance for custom audits to existing and planned businesses. Audits range from site-specific reviews to engineering assessments for new construction. Customers are then provided possible implementations of relevant technologies. Typical efficiency implementations / efficiency targets include building enveloping and glazing practices, commercial space heating, buildings that require large amounts of fresh air, heat intensive manufacturing processes, steam related businesses, energy management controls, and CHP equipment. This program has existed in similar form since the mid 1990's.



Minnesota: Existing Natural Gas DSM – Residential Programs

- **Efficient Showerhead Program**
- **ENERGY STAR Homes** - Provides rebates to homebuilders for installing energy efficient appliances
- **Heating / Water Heating Rebates**
- **Insulation / Air Sealing Rebates**
- **Home Performance with ENERGY STAR** - Rebate program for SFH that require multiple efficiency upgrades (gas and electric)
- **Residential Quick Fix Efficiency Service** - Utility assesses customer needs and implements recommendations, same day (customer pays for the installed items; utilities pay for installation).
- **School Education Kits** - Provides 6th graders with training and kits for promoting energy efficiency at home.
- **Home Energy Reports** - Uses Positive Energy software to develop specific, targeted recommendations that educate and motivate consumers to reduce their energy consumption.
- **Electric Ignition Hearth Rebate Program** - Provides rebates for customers who replace pilot lights with electric ignition systems.
- **Low Income Weatherization (< 50% of Median Household per Federal HHA)**
- **Non-Profit Affordable Housing** - Provides Habitat for Humanity and other non profits with rebates for energy efficient measures.



Minnesota: Existing Natural Gas DSM – Commercial Programs

- **Commercial Heating Efficiency**
- **Commercial Real Estate Program** - Provides CRE owners with consulting and incentives to install energy efficient measures.
- **Custom Efficiency** - Provides rebates to customers with EE plans “outside the box.” Also, utility will pay up to 75% of project viability studies. Cost effectiveness is considered before rebates are offered.
- **Efficiency Controls** - Encourages customers to install and upgrade building control systems.
- **Energy Design Assistance / Energy Efficient Buildings** - The program offers design assistance in support of integrated design process by providing computer modeling of the planned design, funding to offset the cost of design time associated with the increased energy analysis, financial incentives to improve the cost effectiveness of a package of energy-efficient measures, and field verification to ensure that the strategies are installed per the design intent.
- **Furnace Efficiency**
- **Process Efficiency** - Holistic energy consultation for large industrial customers.
- **Recommissioning** - Diagnoses and implements energy savings measures for non-residential customers. Rebates are offered for installed improvements.



New Jersey: Natural Gas Conservation – Residential Programs

- **Residential HVAC – Combined Electric and Gas** – Promotes the installation of ENERGY STAR-rated high efficiency gas furnaces, hot water boilers and energy efficient steam boilers in residential homes via direct rebates, with the end goal of transforming the market to one in which quality installations of high efficiency equipment is commonplace. New Jersey combines their electric and gas initiatives for this program. The 2008 Program Budget was \$18.5 million, with actual expenditures totaling \$11.4 million.
- **Residential New Construction (NJ ENERGY STAR® Homes)** – Designed to increase the efficiency of new construction, employing building incentives to meet standards, marketing assistance to NSTAR builders, technical assistance, NSTAR certifications, and technical trainings on code implementation, and support to organizations to foster market based implementation mechanisms. The 2008 Program Budget was \$37.1 million, with actual expenditures totaling \$11.3 million. This program achieves gas and electric savings.
- **Energy Efficient Products** – Promotes the sales and purchases of ENERGY STAR-rated products through education, retail infrastructure advancement, trainings, and small targeted rebates and promotions. The 2008 Program Budget was \$20.1 million, with actual expenditures totaling \$14.5 million. This program achieves gas and electric savings.
- **Home Performance with ENERGY STAR** – Offers residents access to contractors that deliver efficiency improvements to their homes. As of 4Q 2009, 45 contractors had attained BPI-accreditation with 163 projects completed and 94 in progress. The 2008 Program Budget was \$9.8 million, with actual expenditures totaling \$5 million. This program mostly gas savings.



New Jersey: Natural Gas Conservation – Low-Income and C&I

Low-Income Conservation Measures New Jersey combines savings data for all of their Low Income programs.

- **Comfort Partners** – Fully reimbursed direct installation of cost effective energy efficiency measures. This includes implementations addressing both gas and electrical savings.
- **Low Income Weatherization** – Assists elderly, handicapped and low-income persons in weatherizing their homes, improving their heating system efficiency and conserving energy.
- **Weatherization, Rehabilitation & Asset Preservation (WRAP)** – Although the program is approved by the PSC, it remains in a developmental phase.

Commercial and Industrial Measures (Report update indicates that a slow rebate process had a negative impact on participation rates in 2008)

- **Commercial New Construction** – Incentives for installation of applicable equipment during new commercial construction.
- **Commercial Retrofit** – Financial incentives for replacement of dated and inefficient equipment
- **School New Construction and Retrofit** – Financial incentives for installation or retrofitting schools with efficient heating and water heating units.
- **Combined Heat and Power** - Provides financial incentives for combined heat and power installations that enhance energy efficiency via on-site power generation with recovery and productive use of waste heat, thereby reducing existing and new demands on the electric power grid.



New York: Energy \$mart – Residential/Low-Income Programs

Residential Programs

- **Single Family Home Performance (1-4 Units)** – For existing homes, the Home Performance with ENERGY STAR Program provides an assessment of your home, recommends and provides cost estimates for efficiency improvements, and program partners can do the work. For new homes, the ENERGY STAR Homes Program allows builders to have homes evaluated—using computer-based energy analysis, inspections, and certification testing—and certified as ENERGY STAR Homes.
- **Multi-Family Performance (5+ Units)** - Connects building owners, property managers and other housing organizations to improve the energy efficiency of the building to reduce energy costs for tenants and provide a more comfortable living environment. This program provides a customized approach to energy efficiency using a Multifamily Performance Partner that can guide the building owner through every step of the process.
- **Market Support** - Provides support services to the building performance and low-income programs by increasing the availability of energy efficient products and by increasing consumer demand. There are three major components to the Market Support Program: 1) the ENERGY STAR Products Initiative, which seeks to increase the availability and sales of residential ENERGY STAR appliances; 2) the Program Marketing Initiative, which provides marketing for the building performance programs, as well as marketing assistance to mid-stream partners; and 3) the GetEnergySmart.org website, which provides consumers with information about programs, names of contractors and retailers, and energy efficiency tips, provides potential program partners with participation information, and serves as a communication tool with current partners.

Low-Income Programs

- **EmPower** – Offered by National Grid and Consolidated Edison. Expands the delivery of natural gas efficiency services—improved insulation, heating system upgrades, draft reduction, and conversion to gas appliances/water heaters—to low-income customers at no cost.

Note: Only Energy \$mart programs that produce natural gas savings are listed



New York: Energy \$mart – Commercial/Industrial Programs

Commercial & Industrial Program

- **Existing Facilities** – Offers pre-qualified incentives (\$/unit) for efficiency measures—HVAC, water heating, kitchen equipment, etc.—up to \$30,000. Additionally, higher, performance-based incentives are offered to certain customers or ESCOs working on large-scale efficiency projects (Gas Projects – National Fuel Gas, Con Edison customers; CHP Projects – Upstate and Con Edison customers). These incentives but are based on an engineering analysis and are potentially subject to measurement and verification requirements.
- **FlexTech Technical Assistance** - Engineering firms, competitively selected through an RFP process, provide a variety of technical assistance services to commercial and industrial customers, on a cost-shared basis and custom-tailored to their energy-related needs. Services offered include energy audits, engineering, retro-commissioning, technical and feasibility studies, and the development of long-term capital budget strategies for efficiency upgrades.
- **Energy \$mart Loan Fund** - Provides an interest rate reduction (up to 4.0%) off a participating lender's normal interest rate on loans for a term of up to 10 years to finance certain eligible energy efficiency improvements and/or renewable technologies.

Note: Only Energy \$mart programs that produce natural gas savings are listed



New York: Interim Gas Efficiency Programs – KeySpan

Residential/Low Income

Low Income - Allows eligible customers to receive up to \$4,500 in qualifying measures. The measures eligible to be provided through the program include an energy audit, attic insulation, wall insulation, air sealing, heating system repair/replacement (on a qualifying basis), and safety inspections. Single family homes are eligible for up to three hours of professional air sealing and general heat waste measures. To maximize the services provided, whenever possible program funds are leveraged with DOE weatherization funds.

Weatherization - Provides a rebate of 20% of the cost of installing weatherization measures in a residential heating customer's home built prior to inception of the most recent building energy code (Maximum rebate - \$750). Measures eligible for a rebate under the program include: attic insulation, wall insulation, basement/crawl space insulation, rim joist insulation, duct insulation, heating system pipe insulation, attic ventilation (only in conjunction with attic insulation), ductwork leakage testing, ductwork leakage sealing, air infiltration testing, and air infiltration sealing. To be eligible for a rebate, a KeySpan pre-qualified contractor must be chosen to install program measures.

High Efficiency Heating - Provides cash rebates of up to \$800 to KeySpan's residential heating customers, builders or homeowners who install high-efficiency natural gas heating equipment. To qualify, all equipment, where applicable, must meet the Energy Star guidelines for heating equipment.

High Efficiency Water Heating – Provides \$300 rebate to customers installing an indirect water heater or tankless water heater with an Energy Factor of 0.82 or greater and an electronic ignition.

Energy Audit/Home Performance - Tier One screening offers referrals to educational web sites and information about DSM programs. Technical assistance regarding installation of energy savings measures is also available by phone. The Company has adopted a customized version of the online audit tool to guide the customer through Tier One. Tier Two services consist of a Home Energy Assessment (HEA) and installation of high quality, low cost energy efficiency Instant Savings Measures (ISMs) that have an average total value of \$20 to \$30. Recommendations will be made to customers on which major measure installations should be undertaken in order to achieve cost effective energy savings.

ENERGY STAR® Products - The ENERGY STAR Products program provides home heating customers with a rebate for the purchase and installation of ENERGY STAR labeled programmable thermostats. Through this program, customers are eligible for a \$25 mail-in rebate for installation of up to two ENERGY STAR qualified programmable clock thermostats. Eligible thermostats may be installed by homeowners, heating contractors, or energy auditors. In addition to mail-in rebates, instant rebates in the form of point-of-sale discounts are available through heating contractors and energy auditors. The program will also provide customers who install boiler reset controls to their home heating system with a \$100 rebate. In addition, the Company will provide customers who install ENERGY STAR Replacement Windows with a \$10 mail-in rebate per window.

ENERGY STAR® Homes - The ENERGY STAR Homes Program offers incentives to home buyers and home builders to promote the construction of homes which meet national ENERGY STAR Home's energy efficiency standards.

Energy Analysis: Internet Audit - Residential customers will be directed to www.freeenergyanalysis.com/keyspan to log on and receive a quick assessment of their home's energy use, how it compares to homes similar to theirs, and tips on how to save energy. Users can choose to continue on to complete a more comprehensive analysis and get more detailed recommendations.

Building Practices and Demonstrations - The Building Practices and Demonstration Program for residential markets will explore and demonstrate new and/or underutilized energy efficient procedures and equipment, including renewable energy system processes.



New York: Interim Gas Efficiency Programs – KeySpan

Commercial & Multi-Family

Commercial Energy Efficiency - Provides support services and financial incentives that encourage commercial and industrial customers to install energy efficient related natural gas equipment. Virtually any energy efficient technology or system design that exceeds the minimum requirements of the local energy code and which is not covered by another program offering, may be eligible for a rebate under this program. This program provides no cost energy audits, engineering grant assistance and financial incentives to help fund qualifying energy saving measures. Under this program customers may be eligible to receive up to 50% of the installation costs up to \$100,000 per project.

Economic Redevelopment - Targets commercial properties located in designated economic development areas. Working through Chambers of Commerce and other economic development organizations, KeySpan will fund qualifying energy savings measures that increase the energy efficiency of the building. These projects receive energy efficiency advising through an energy audit or engineering grant process. Projects also receive financial assistance to install qualifying energy saving measures, up to 50% of the installation cost up to a maximum of \$100,000.

Commercial High-Efficiency Heating - Offers rebates to commercial, industrial, governmental, institutional, non-profit and multifamily facilities that install high-efficiency heating equipment to reduce the incremental cost between standard and high-efficiency equipment. Eligible products include furnaces, boilers, infrared heaters and water heaters. Rebate amounts vary according to the size and type of the heating equipment installed with a range of \$150 to \$6000.

Multifamily Housing - Offers energy audits and financial incentives for energy saving measures (Redesign of space/water heating systems, steam system upgrades, building insulation, premium efficiency windows and doors, programmable thermostats, etc.) to multifamily facilities that are on a qualifying commercial rate. Customers will be eligible to receive rebates up to 50% of the installation costs up to \$100,000 to assist with the installation of qualifying energy saving measures.

Building Practices and Demonstrations - KeySpan identifies a few special projects each year to showcase a new or underutilized technology available to the marketplace or a customer's new and innovative building energy operating methodology. The program is designed to promote the installation of new, emerging or underutilized gas related energy efficiency technologies and operating practices. These projects become case study examples for incorporating new technologies or improving practices in the energy efficiency program portfolio. These projects may be eligible to receive up to 50% of project costs up to \$100,000.

Energy Analysis: Internet Audit - Customer who log onto www.freeenergyanalysis.com/keyspanbusiness have the opportunity to learn about energy savings as it relates to both their facility and their industry, the flexibility of addressing energy concerns at their leisure, and the ability to return to the site and review the recommendations.



New York: Interim Gas Efficiency Programs – Con Edison

Proposed Rate Year 3 Program Plan

- **Residential Energy Efficiency Equipment Rebate** - Con Edison will provide information and customer incentives to promote the purchase and installation of high efficiency natural gas space and water-heating equipment, ENERGY STAR rated programmable thermostats, building shell weatherization and controls for furnaces and boilers. Customer incentives will be offered through both Con Edison and NYSERDA. Con Edison's Equipment Rebate Program will provide prescriptive rebates (up to 50 percent of the incremental cost) on cost-effective, market ready, energy efficient technologies and measures.
- **Residential Low Income** - Offers equipment and weatherization assistance in the form of building-shell improvements to low income customers in single family and multi-family homes. Due to its strong market presence and track record of success, Con Edison will deliver its residential low income program through NYSERDA's existing EmPower program. Eligible measures reflected in Con Edison's budget include energy audits; attic, wall, floor, and or pipe insulation; air sealing; and heating-system repair or replacement.
- **Commercial Energy Efficiency Equipment Rebate** - Designed to overcome supply- and demand-side market barriers to the purchase and installation of high efficiency space- and water-heating and other high efficiency equipment. Con Edison will offer its customers financial incentives for a range of high efficiency natural gas technologies. Con Edison will offer two types of equipment rebates to its commercial customers: 1) prescriptive rebates of up to 70 percent of the incremental cost of specific, market-ready equipment measures, such as high efficiency space-heating and water-heating equipment and building shell measures, and 2) a custom incentive to support any cost-effective natural gas equipment that is not included in the prescriptive rebate measures.
- **Pilot Program for Interruptible Customers** – In Con Edison's gas service territory, the interruptible market amounts to nearly 20 million dekatherms. Rebates offered would be identical to those installed by C&I customers participating in the Commercial Equipment Rebate program.



Oregon: Natural Gas Conservation – Residential and C&I Programs

Residential Programs

- **Energy Reviews** – Audits homes and provides home owners/residents with advice and incentives for improving the energy efficiency of their homes. Compact fluorescent light bulbs (CFL's), efficient showerheads, and sink aerators are installed as a part of this program.
- **Home Energy Analyzer** – Provides online support to homeowners looking for ways to improve their homes' energy efficiency.
- **High Efficiency Clothes Washer** – Provides incentives for energy efficient clothes washers. Helped replace the clothes washers in 11,400 gas heated homes in 2008.
- **Residential Weatherization** – Installs sealed ducts, insulation, high efficiency space heating equipment and energy efficient windows.
- **Residential Retrofits** – Homeowners (and sellers) are provided with incentives to upgrade appliances.
- **Residential New Homes** – Builders are provided with incentives to install Energy Star rated appliances in new homes.
- **Solar Water Heating System Program** – Offers incentives to encourage the installation of solar water heaters. Over 75 gas heated homes took advantage of this program in 2008.

C&I Programs

- **Prescriptive Commercial Rebates** – Offers standard rebates to businesses for standard equipment, like heaters or light bulbs.
- **Solar Water Heating System Program** – Offers incentives to C&I customers to encourage the installation of solar water heaters in buildings.
- **Commercial Building Rebates** – Provides incentives to promote the installation of energy efficient appliances in new buildings, and offers incentives to the retrofit of existing buildings with energy efficient equipment.
- **Custom C&I Rebates** – Works with C&I customers individually, usually manufacturing plants, to create custom plans to reduce energy consumption.



Washington: Natural Gas Conservation – Residential and C&I Programs

Residential Program

- Provides rebates for the installation of certain energy efficient measures in qualifying residential dwellings. The measures offered include floor insulation, ceiling insulation, wall insulation, gas hearth upgrades, Energy Star clothes washers, tankless water heaters, high efficiency gas furnace upgrades, and duct sealing. The program offers these measures individually as standalone items, or in packages designed for specific types of homes.

Low Income Weatherization

- Provides rebates for ceiling insulation, wall insulation, floor insulation, duct sealing, and infiltration reduction to qualifying, low-income customers.

C&I Programs

- Offers standard rebates for commercial and industrial equipment, including HVAC unit heaters, insulation, hot water tanks, tankless water systems, boilers, gas fryers, convection ovens, griddles, and clothes washers. Companies may propose customer measures. Custom measures must not exceed \$1 per therm saved to be considered. Rebates for these programs are based on 25% of the avoided cost of the measure, providing that this does not exceed 50% of the incremental cost of the measure.



Wisconsin: Natural Gas Conservation – Residential Programs

- **Apartment & Condo Efficiency Services** – Offers free evaluations of building energy performance and assistance with maintenance costs associated with boilers and steam trap replacement. Provides owners and developers of new multi-unit residential construction with information, technical expertise and financial incentives. Offers custom and prescriptive incentives for such projects as high efficiency heating and cooling equipment, design and technical assistance, and building shell insulation and air-sealing.
- **Efficient Heating and Cooling Program** - Cash-back rewards are offered for HVAC equipment such as boilers, central ACs, furnaces, geothermal heat pumps, programmable thermostats, and water heaters.
- **ENERGY STAR Appliances** - Cash-back rewards are offered for the purchase of ENERGY STAR appliances.
- **Home Performance with ENERGY STAR** - Expert consultants conduct in-home inspections of all the systems to identify inefficiencies. Owner receives a report of the findings and a list of recommended solutions. Includes a post-performance inspection to ensure the improvements are effective. Rebates are available for many types of work, including insulation and air sealing. Low-income residences qualify for additional assistance under the Targeted Home Performance program.
- **Wisconsin ENERGY STAR Homes** – Builders can work with construction partners trained to help build more efficient homes through measures such as insulation, ventilation, combustion safety and moisture control.



Wisconsin: Natural Gas Conservation – Business Programs

- **Commercial** - Small and large commercial business owners learn to improve the energy efficiency of their facilities. Focus on Energy works with retail stores to provide instant incentives on ENERGY STAR appliances. Businesses may also qualify for a free Hometown Energy Audit. Focus on Energy also offers incentives on a wide range of different types of energy-efficient equipment.
- **Industrial** - Owners and managers of industrial manufacturing facilities of all sizes work with experts to reduce energy use, increase profitability and enhance productivity and cost effectiveness. Work with manufacturers to improve both existing facilities and construct more efficient new ones. Focus on Energy also offers incentives to reduce the cost of efficient new lights, motors and other types of equipment.
- **Agricultural** - Farmers and agricultural processors work with energy experts to reduce energy, increase profits and maintain animal comfort and productivity.
- **Schools & Governments** – Schools and local governments learn ways to save energy and reduce energy costs while keeping occupants comfortable and productive. Focus on Energy works with schools and local governments to improve existing buildings and install new energy-efficient lighting, heating and cooling equipment.



Great Britain: Natural Gas Conservation Program – Overview

Natural gas conservation in Great Britain is primarily regulated by the Office for Gas and Electric Markets (“Ofgem”). The agency’s two main conservation programs are designed to reduce the Greenhouse Gas emissions profile of the energy industry in the country.

Carbon Emissions Reduction Target (“CERT”) – Under CERT, gas and electric utilities above a certain size are required to reduce CO₂ emissions by a certain amount through the implementation of a set of Ofgem-approved conservation measures.

- Utility CO₂ mitigation obligation is determined by a formula based on number of customers served.
- Each utility may pursue whatever portfolio of conservation measures it chooses, so long as each program element has been approved by Ofgem.
- Distribution utilities are permitted to recover all costs through rates, but because customers are able to freely move from one gas supplier to another, there is a natural pressure to choose cost-effective programs and to keep costs as low as possible while meeting program objectives.

Community Energy Savings Programme (“CESP”) – CESP is specifically designed to address the energy efficiency challenges of low-income populations. Smaller in scope than CERT, the CESP program encourages utilities to take a whole-house, whole-block, whole-neighborhood approach to enhancing the efficiency profile of specific geographic areas.

- As with CERT, each utility’s obligation under CESP is determined by a formula based on the number of customers served.
- Regions of Great Britain with the highest density of low-income residents are the primary program target.
- Rewards (compliance credits) are awarded when utilities address a suite of efficiency challenges in a particular home, a threshold number of homes in a neighborhood, etc.



Great Britain: Natural Gas Conservation – CERT & CESP Programs

- Eligible measures each have a pre-determined (Ofgem-approved) carbon score, based on expected lifetime savings, and set on the basis of technical advice from industry experts. Utilities are encouraged to promote conservation technologies including the following:
 - There are programs to invest in residential building insulation technologies for a variety of home designs that will attenuate the loss of heat to the outside environment:
 - Solid wall insulation (for older homes)
 - Cavity wall insulation
 - Loft insulation
 - Home heating technology is a particular target of advanced technology initiatives, with innovative solutions including:
 - Fuel switching
 - Boiler replacement
 - Low energy lamps (CFL)
 - Efficient appliances may be discounted, etc.
- A major component of the CESP program is encouraging behavioral changes in the communities targeted by the law:
 - Home energy audits (to determine where energy savings can be found in a given customer residence) are to alert the customer of ways they alter their lifestyle to improve their energy profile and lower their bills.
 - In-home displays (particularly relevant to electric conservation implementations) will provide insight into what appliances and living patterns are causing the greatest energy impact.



New Zealand: Energy Conservation

Natural gas conservation policy does not currently place rigorous requirements on natural gas distribution utilities in New Zealand.

- **Natural gas utilities in New Zealand are regulated by a variety of entities within the federal government.**
 - Gas Industry Company (GIC): An industry-owned organisation that acts as the co-regulator of the gas industry with respect to wholesaling, processing, transmission, distribution and retailing of gas.
 - Commerce Commission: Responsible for price control of monopoly gas transmission and distribution companies.
 - Energy Safety: Part of the Ministry of Economic Development, Energy Safety is responsible for administering natural gas safety regulations.
 - Energy Efficiency and Conservation Authority (EECA): EECA administers minimum energy performance standards and mandatory labelling programs for gas (and other energy) appliances.
- **There are currently no regulatory obligations on natural gas utilities to undertake energy efficiency measures for their customers. Specific requirements have been considered:**
 - 2007 Energy Efficiency and Conservation Strategy document: “An alternative approach is to place regulatory obligations on electricity suppliers, or more broadly energy suppliers, to deliver a specified level of energy efficiency improvements. Under this approach, electricity suppliers (retailers or lines companies) would be obliged to deliver a minimum volume (specified, for example in MWh) of pre-approved efficiency programmes, such as home insulation retrofits or the replacement of old refrigerators”
 - However, there has been a change of government, and this Strategy is now under review.



Australia: Energy Conservation

Natural gas conservation policy does not currently place requirements on natural gas distribution utilities in Australia. Rather, Regulated energy conservation in Australia is primarily focused on the generation and distribution of electricity.

- In 2008 Energy Networks Association published a Regulation & Policy Framework, providing the Australian government with a set of proposed policies and objectives for managing demand on the electricity distribution network throughout the country. Natural gas, however, was not a focus of conservation planning at the time.
- Policies considered for electric demand management include many of those being contemplated for gas by the OEB: recovery of displaced revenue, ex ante v. ex post review of expenditures, target-setting approach, the introduction and market penetration of advanced efficient technologies, etc.
- As with the jurisdictions surveyed in the US and Canada, regulatory policy for electricity DSM in Australian states varies considerably from region to region.
- “D-Factor” – A policy tool used to provide cost recovery of electricity conservation spending by utilities. The D-Factor concept is a regulatory implementation recognizing the adverse incentive for conservation. Under the typical program design, utilities are able to recover conservation expenditures only so long as they are less than or equal to avoided costs.
- The D-Factor regulatory implementations for electricity demand management is strongest in New South Wales (the most populous Australian state), but are under consideration for electricity conservation cost recovery as well.

