

New York State - Energy Efficiency Portfolio Standard  
Working Group 2 – Program Summaries

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**Residential Programs**

**Program Name:** Low Income Weatherization Program

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Residential - Low income qualification income level is 60% of the state median income.

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$4,411,765	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	444,729 (est.)	1.24

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

The Residential Low-Income program 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. Small energy-related repairs for eligible heating units can also be performed, excluding asbestos removal and electrical work. Homes with heating units that do not qualify for a program heating system measure, may be eligible for air sealing and general heat waste measures. 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. Administered by AEA for NGG/Keyspan.

**Relationship to Staff Preliminary Proposal:**

“Low Income Residential Energy Efficiency and Weatherization program (electric & gas” was considered for fast track expansion. This program complements the existing WAP as well as EmPower low income programs.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

***Supply-Side and Mid-Market (Infrastructure) Barriers***

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- Limited funding for weatherization assistance providers (WAP) and community action program (CAP) agencies
- Limited supply of qualified residential weatherization contractors
- Lack of knowledge among weatherization and related professionals on effectively selling their services
- Lack of financing for making improvements to low-income properties

### ***Demand-Side Barriers***

- Limited resources (financial and informational) of income eligible customers to address energy efficiency in their homes
- Split incentives (the tenant pays the energy bills, and would benefit from lower energy costs, but is reluctant to make permanent investments in energy efficiency measures or improve the property in other ways).
- Lack of consideration of operation and maintenance costs compared to first-cost outlays (multifamily building owners)
- Cost of making energy efficiency improvements in existing homes
- Limited awareness and knowledge by income eligible consumers about the potential energy and financial savings, as well as other non-energy benefits, associated with energy efficiency in the home
- Lack of reliable information on energy efficient practices in existing homes
- Reluctance of consumers to purchase and/or install high efficiency equipment and/or consider new technologies
- Limited awareness by income eligible customers of weatherization, fuel assistance, and other discount services related to energy use in the home
- Limited awareness by customers of KeySpan's income eligible, and other, energy efficiency programs and how they can help them reduce their energy costs

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

Some limitations may exist with AEA resources when the program ramps up to \$30 million.

### **Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the low income population to improve their quality of life and provides an opportunity for them to have a healthier and better life while saving them money. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

### **Other issues/considerations:**

N/A

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**Program Name:** Residential Weatherization Program

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Residential – all firm heating customers

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 520,544	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	374,141 (est.)	2.77

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

The Residential Weatherization program 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. The maximum rebate available to a customer under this program is \$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. Do-it-yourself work will not be allowed through the program. Administered by EFI for KeySpan / National Grid.

**Relationship to Staff Preliminary Proposal:**

“Residential Retrofit Program (gas only)” was considered for fast track expansion. Such programs provide simpler, lower cost option than the Home Performance with Energy Star (whole house) approach. The Residential Weatherization fits this description and offers simple options to the customers.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

**Supply-Side and Mid-Market (Infrastructure) Barriers**

- Building contractors do not regard energy efficiency as a value-added feature

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- Lack of residential building contractor awareness concerning energy efficiency of existing homes and their associated energy and environmental benefits
- Lack of building contractor experience on retrofitting homes to make them more energy efficient or how to do so cost-effectively
- Limited supply of qualified residential weatherization professionals
- Lack of knowledge among weatherization and related professionals on effectively selling their services

### ***Demand-Side Barriers***

- Limited awareness and knowledge by consumers about the potential energy and financial savings, as well as other non-energy benefits, associated with energy efficiency in the home
- Lack of reliable information on energy efficient practices in existing homes
- Reluctance of consumers to purchase and/or install efficiency measures and/or consider new technologies
- Limited awareness by customers of KeySpan's energy efficiency programs and how they can help them reduce their energy costs
- Cost of conducting energy efficiency improvements in existing homes

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

It will take increased awareness and education for customers to see the benefits of energy efficiency measures in existing homes.

### **Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the customers to improve their quality of life and provides an opportunity for them to have a healthier and better life, and save them money. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

### **Other issues/considerations:**

N/A

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**Program Name:** Residential High Efficiency Heating programs

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Residential – all firm heating customers

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$1,214,603	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	575,889 (est.)	2.12

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

Heating equipment is typically the largest energy user in the home. If a natural gas furnace or boiler is more than 20 years old, it is probably running very inefficiently compared to today's models. One way to help offset the rising cost of energy and significantly reduce heating costs is to replace an old furnace or boiler with new high-efficiency heating equipment. A cash REBATE of up to \$800 is available 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. Administered by EFI for KeySpan / National Grid.

**Relationship to Staff Preliminary Proposal:**

“Residential Efficient Appliances and Equipment Purchase Program (gas only)” was considered for fast track expansion. This program would promote efficient furnaces, boilers, water heaters, solar hot water and other technologies. Residential High Efficiency Heating program fits this description focusing primarily on high efficiency heating equipment.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

**Supply-Side and Mid-Market (Infrastructure) Barriers**

- A customer who is converting from oil to gas cannot take advantage of this program (in Gas EE Collaborative discussions to be included in the longer-term programs)
- Building contractors do not regard energy efficiency as a value-added feature

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- Lack of residential building contractor awareness concerning energy efficiency of existing homes and their associated energy and environmental benefits
- Lack of building contractor experience on retrofitting homes to make them more energy efficient or how to do so cost-effectively
- Limited supply of qualified residential weatherization professionals
- Lack of knowledge among weatherization and related professionals on effectively selling their services

### ***Demand-Side Barriers***

- Limited awareness and knowledge by consumers about the potential energy and financial savings, as well as other non-energy benefits, associated with energy efficiency in the home
- Lack of reliable information on energy efficient practices in existing homes
- Reluctance of consumers to purchase and/or install efficiency measures and/or consider new technologies
- Limited awareness by customers of KeySpan's energy efficiency programs and how they can help them reduce their energy costs I don't think this applies to our new programs
- Cost of conducting energy efficiency improvements in existing homes

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

It will take increased awareness and education for customers to see the benefits of energy efficiency measures in existing homes.

### **Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the customers to improve their quality of life and provides an opportunity for them to have a healthier and better life, and save them money. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

### **Other issues/considerations:**

N/A

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**Program Name:** Residential High Efficiency Water Heating programs

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Residential – all firm heating customers

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$208,217	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	46,731 (est.)	1.47

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keysponsorsaves.com/>

Indirect water heaters use the home’s boiler or furnace as the heat source. In boiler systems, hot water from the boiler is circulated through a heat exchanger in a separate insulated tank. In the less common furnace-based systems, water in a heat exchanger coil circulates through the furnace to be heated, then through the water storage tank. Since hot water is stored in an insulated storage tank, the boiler or furnace does not have to turn on and off as frequently, improving its fuel economy. Indirect water heaters, when used in combination with new, high-efficiency boilers or furnaces, are an efficient way to provide hot water. KeySpan customers installing an indirect water heater are eligible for a \$300 rebate. On-demand tankless hot water systems are changing the way modern homes meet their hot water needs. Tankless systems use a high capacity gas burner and automatic controls to heat water on demand. Unlike standard water heaters that have a reservoir of water which is constantly reheated, tankless systems start the heating process only when the unit senses a demand for hot water. The Company will provide an incentive of \$300 for tankless water heaters with an Energy Factor of 0.82 or greater and an electronic ignition. Administered by EFI for KeySpan / National Grid.

**Relationship to Staff Preliminary Proposal:**

“Residential Efficient Appliances and Equipment Purchase Program (gas only)” was considered for fast track expansion. This program would promote efficient furnaces, boilers, water heaters, solar hot water and other technologies. Residential High Efficiency Water Heating program fits this description focusing primarily on high efficiency water heating equipment.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

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**Barriers, challenges, gaps:**

***Supply-Side Barriers***

- A customer who is converting from oil to gas cannot take advantage of this program (in Gas EE Collaborative discussions to be included in the longer-term programs)
- Price differential between the indirect water heater, the tankless systems and standard, stand alone water heater systems

***Mid-Market (Infrastructure) Barriers***

- Lack of product knowledge among plumbing and heating contractors, supply houses, and other market actors regarding the benefits of high efficiency versus standard water heating systems
- Lack of industry-sponsored product training on high efficiency water heating systems
- Lack of plumbing and heating contractor experience with installing, selling and servicing indirect and tankless water heating systems

***Demand-Side Barriers***

- Limited awareness and knowledge by consumers about the potential energy and financial savings, as well as other non-energy benefits (convenience, comfort) associated with high efficiency water heating
- Limited availability of reliable information on high efficiency water heating
- Reluctance of consumers to purchase and/or install high efficiency water heating systems and/or consider new technologies
- Limited customer awareness of KeySpan's energy efficiency programs and how they can help them reduce their energy costs
- Higher initial purchase price of high efficiency water heating systems

**Ramp-up potential, limitations, where help is needed to fulfill potential:**

It will take increased awareness and education for customers to see the benefits of energy efficiency measures in existing homes. .

**Co-benefits (e.g. environmental, health & safety, economic development):**

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the customers to improve their quality of life and provides an opportunity for them to have a healthier and better life, and save them money. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

**Other issues/considerations:**

N/A

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**Program Name:** Residential Energy Audit/Home Performance Program

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Residential – all firm heating customers

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 694,059	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	498,854 (est.)	2.77

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

There are two levels (tiers) of service provided by this program. Tier One screening offers referrals to educational web sites and information about DSM programs and captures requests for literature such as the DOE “Energy Savers” booklet. 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. The tool provides the customer service representative (CSR) with discussion points along the way that allows her/him to engage the customer in a dialog that may lead to a better understanding of that particular customer’s needs. For example, a customer may call to request an in home assessment when all he/she really needs is the list of contractors who participate in the Company’s Weatherization program because he/she knows the home needs air sealing and insulation and plans to install them. Ultimately, the combination of information collected by Tier One staff and customer requests may result in a referral to Tier Two services. 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. Referral to the Company’s other energy efficiency programs will be provided at the time of audit. Customer follow-up will also occur post-audit in order to help drive implementation percentages higher.

Administered by CSG for KeySpan / National Grid.

**Relationship to Staff Preliminary Proposal:**

“Home Performance with Energy Star (electric & gas)” was considered for fast track expansion by more than doubling current efforts over the five-year period with an increased focus on measures that produce natural gas savings. This program will take advantage of this "lost opportunity".

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

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This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

### **Barriers, challenges, gaps:**

#### ***Supply-Side Barriers***

- Shortage of qualified auditors performing in-house audits

#### ***Demand-Side Barriers***

- Promoting in-house audits for no or little cost can create a high demand and ultimately a backlog for this service since there is a shortage for qualified staff
- Cost of installing recommended efficiency measure through a whole-house approach is very costly, even though the customer receives financial benefits. Thus, customers may not want to commit to whole house approach, but have an option to pursue only the most immediate measures and do others at later time.

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

A limited number of In-house audits can be performed at this time due to the shortage of qualified audit professionals in the region. Coordination is underway to work out the details on coordinating with NYSERDA on Home Performance programs (Whole house approach) to provide one complementary offer to the customer.

### **Co-benefits (e.g. environmental, health & safety, economic development):**

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the customers to improve their quality of life and provides an opportunity for them to have a healthier and better life, and save them money. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

### **Other issues/considerations:**

N/A

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**Program Name:** Residential ENERGY STAR® Products  
**Working Group Contact:** Matt Dugan / Janja Lypse  
**Administering Entity:** National Grid / KeySpan  
**Targeted Sector:** Residential – all firm heating customers

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 413,753	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	413,752 (est.)	1.79

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)  
<http://www.keyspansaves.com/>

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.. Eligible participants must be residential heating customers who have installed ENERGY STAR labeled windows with an U-factor of .35 or less.<sup>1</sup> When applying for the window rebate, customers are required to submit the rebate application with proof-of-purchase and a copy of the National Fenestration Rating Council (“NFRC”) label(s) from the window(s) which were purchased and installed. In order to ensure that prospective windows are installed as reported, the Company conducts inspections of the first two installations per new participating installation contractor, as well as random inspections of self-installations at 20% of the program’s participation rate.

**Relationship to Staff Preliminary Proposal:**

“Residential Efficient Appliances and Equipment Purchase Program (gas only)” was considered for fast track expansion. Promotion and installation of these products fits the fast track proposal.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

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<sup>1</sup> U-Factor = Measurement of thermal conductivity. A lower U-factor indicates a higher level of window insulation.

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This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

#### **Barriers, challenges, gaps:**

##### *WINDOWS*

##### ***Supply-Side and Mid-Market (Infrastructure) Barriers***

- Price differential between ENERGY STAR and standard windows
- Limited product knowledge among consumers, retailers, builders, and architects concerning identification of ENERGY STAR windows and the energy, financial and non-energy benefits associated with them
- Dissimilar, poorly enforced, and inconsistent building codes
- Limited industry-sponsored technical training on ENERGY STAR windows
- Limited builder and architect experience with installing and selling ENERGY STAR windows

##### ***Demand-Side Barriers***

- Limited awareness and knowledge by consumers about the potential energy and financial savings, as well as other non-energy benefits, associated with ENERGY STAR windows
- Higher initial purchase price of ENERGY STAR windows
- Limited availability of reliable information on ENERGY STAR windows
- Limited customer awareness of KeySpan's energy efficiency programs and how they can help reduce energy costs

##### *THERMOSTATS*

##### ***Supply-Side Barriers***

- Price differential between programmable and standard thermostats

##### ***Mid-Market (Infrastructure) Barriers***

- Lack of product knowledge among plumbing, electric, and heating, ventilation and air conditioning (HVAC) contractors regarding the benefits of programmable versus standard thermostats
- Lack of experience among plumbers, electricians, and HVAC contractors with installing and selling programmable thermostats
- Fragmentation of the retail market in the NY metropolitan market (*i.e.*, small hardware stores vs. big box home centers)
- Limited stocking of ENERGY STAR thermostats due to constraints on shelf space in smaller stores
- Lack of industry-sponsored training on programmable thermostats

##### ***Demand-Side Barriers***

- Limited awareness and knowledge by consumers about the potential energy and financial savings, as well as other non-energy benefits (convenience, comfort), associated with programmable thermostats
- Reluctance of consumers to purchase and/or install programmable thermostats and/or consider new technologies
- Perception of complicated programming requirements and other operational related confusion
- Limited awareness by customers of KeySpan's energy efficiency programs and how they can help them reduce their energy costs
- Higher purchase price of programmable thermostats

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- Limited availability of reliable information on programmable thermostats

**Ramp-up potential, limitations, where help is needed to fulfill potential:**

Coordination in LI with LIPA; Cost-sharing mechanism is being worked out

**Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the customers to improve their quality of life and provides an opportunity for them to have a healthier and better life, and save them money. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

**Other issues/considerations:**

N/A

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**Program Name:** Residential ENERGY STAR® Homes

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Residential – new construction homeowners / builders

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 280,306	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	129,082 (est.)	1.48

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

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 STAR Homes are nationally recognized for lower operating costs and energy consumption, increased durability, comfort, safety and greater resale value. ENERGY STAR Homes feature some of the industry’s best building practices and technologies, including increased insulation levels, high-efficiency heating and air conditioning equipment, superior duct systems, and high performance windows. All segments of the housing market are eligible to participate in this program, including new as well as existing residential single family and multifamily dwellings, townhouses and condominium developments. Participants in the program receive design and technical support services, testing and inspection of energy efficiency measures, and an ENERGY STAR Homes certification following the passing of the ENERGY STAR Homes rating test.

**Relationship to Staff Preliminary Proposal:**

“ENERGY STAR Homes Program” was considered as fast track expansion programs; identified as "lost opportunity".

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

**Supply-Side Barriers**

- Limited availability of and access to experienced energy efficient home builders
- Perceived price differential between energy efficient homes and those built to the current energy code

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### ***Mid-Market (Infrastructure) Barriers***

- Lack of builder and related contractor awareness concerning ENERGY STAR homes and their associated energy and environmental benefits
- Lack of builder and related contractor knowledge on how to build above-code or ENERGY STAR homes
- Lack of builder and related contractor direct experience building energy efficient homes and how to do so cost-effectively
- Lack of builders' and other relevant market actors' knowledge and experience in selling energy efficient homes
- Builders do not regard energy efficiency as a value-added feature
- Limited supply of HERS raters to certify ENERGY STAR homes
- Limited availability of building-related products associated with constructing high-efficiency homes (e.g., construction-grade air sealants, high efficiency ventilation fans, LESSCO boxes)

### ***Demand-Side Barriers***

- Limited awareness and knowledge by consumers about the potential energy and financial savings, as well as other non-energy benefits, associated with energy efficient homes
- Lack of reliable information on energy efficient new homes
- Reluctance of consumers to purchase and/or install high efficiency equipment and/or consider new technologies
- Limited awareness by customers of KeySpan's energy efficiency programs and how they can help them reduce their energy costs
- Higher initial purchase price of efficient homes

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

These programs need to be coordinated with LIPA in LI. Cost-sharing mechanism need to be worked out. In the City, discussions on coordination are underway with NYSERDA to provide one complementary offer to the customer.

### **Co-benefits (e.g. environmental, health & safety, economic development):**

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the customers to improve their quality of life and provides an opportunity for them to have a healthier and better life, and save them money. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

### **Other issues/considerations:**

N/A

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**Program Name:** Residential Energy Analysis: Internet Audit

**Working Group Contact:** Matt Dugan / Janja Lypse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Residential – all firm heating customers

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 69,406	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	n/a	n/a

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

Residential customers will be directed to [www.freeenergyanalysis.com/keysan](http://www.freeenergyanalysis.com/keysan) 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. The tool will help customers identify more ways to save by answering questions about their heating and cooling equipment, weatherization, hot water, kitchen appliances, lighting, and more. Customers will receive energy saving tips, simple pay backs using the offset in their energy bills, and direction to take advantage of KeySpan’s energy saving rebates. The program will also be offered in Spanish as well at [www.freeenergyanalysis.com/keysanspanish](http://www.freeenergyanalysis.com/keysanspanish)

**Relationship to Staff Preliminary Proposal:**

Not considered.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

**Supply-Side Barriers**

- None addressed by this program (targets end-use customers and associated demand-side barriers)

**Mid-Market (Infrastructure) Barriers**

- Limited consumer exposure to energy efficiency professionals

**Demand-Side Barriers**

- Limited awareness and knowledge by consumers about the potential energy and financial savings, as well as other non-energy benefits, associated with energy efficient equipment, practices, and other measures

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- Lack of reliable information on energy efficient equipment and practices
- Reluctance of consumers to purchase and/or install high efficiency equipment and/or consider new technologies
- Limited awareness by customers of KeySpan's energy efficiency programs and how they can help them reduce their energy costs
- Higher initial purchase price of efficient equipment and items/measures

### ***Other Potential Barriers***

- Access to home computers

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

The customers have to have a home computer or access to a computer.

### **Co-benefits** (e.g. environmental, health & safety, economic development):

Online Home Energy Analyzer is a free, easy and convenient to use tool which provides customers with the following benefits:

- Learn how the way you use energy affects your utility bills
- Find ways to save energy and money specific to your home
- Get information about energy efficiency programs and incentives
- Sign up to receive e-efficiency news
- and more...

It is available in Spanish.

### **Other issues/considerations:**

N/A

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**Program Name:** Residential Building Practices and Demonstrations

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Residential – all firm heating customers

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 69,406	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	14,264 (est.)	2.19

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

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. In the first year, the Building Practices and Demonstration Program will work to identify which technologies or building techniques would be well suited for use and installation. Eligible participants in this program will include home owners, landlords, as well as home builders. Each participant may be asked to allow monitoring of the installation and/or results, provide tours of the installation by potential users or other interested stakeholders, and publication of the results in case study format.

**Relationship to Staff Preliminary Proposal:**

Not considered.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

**Supply-Side and Mid-Market (Infrastructure) Barriers**

- Limited awareness of business sector-specific energy needs and new high-efficient procedures, processes and gas-saving technologies that are available to meet those needs
- Uncertainty regarding the definition of high efficiency and associated savings, reliability, or performance of new gas saving technologies
- Lack of knowledge among architects, engineering firms, plumbing, heating and specialty contractors, and equipment vendors regarding new energy efficient procedures, processes and technologies

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- High search costs to obtain reliable information about expected savings, reliability and to acquire the necessary specification, installation operation and service/repair knowledge and experience
- Limited awareness by mid-market actors of KeySpan's efficiency programs and how they can help demonstrate and promote broader use of new energy efficient procedures, processes and high-efficient, gas-saving technologies
- Overall perception of risk due to uncertainty and lack of information, or experience (*i.e.*, reliability, cost/complexity of repairs)
- Lack of number of contractors and other mid-market actors who are qualified to specify, install and service new high-efficient, gas- saving technologies
- Limited availability of new high-efficient, gas-saving technologies in the marketplace

### ***Demand-Side Barriers***

- Lack of knowledge by consumers of new high-efficient, gas-saving technologies
- Lack of awareness and knowledge by consumers of the potential energy and financial savings, as well as other non-energy benefits, associated with utilization of new high-efficiency equipment and services
- Limited awareness by consumers of KeySpan's efficiency programs and how they can help to demonstrate new technology applications while reducing risks and lowering their energy costs
- Reluctance of consumers, architects, engineers, and contractors to purchase, specify, and/or install and/or consider new technologies due to uncertainty of savings, reliability, or performance
- Limited availability of reliable information about the complexity of energy use within customer facilities, new high-efficient, gas-saving equipment options and associated savings and reliability

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

Limited funding available at this time.

### **Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the customers to improve their quality of life and provides an opportunity for them to have a healthier and better life, and save them money. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

### **Other issues/considerations:**

N/A

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## Commercial and Multifamily Sector Programs

**Program Name:** Commercial Energy Efficiency Program

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Commercial – all **firm** heating and non-heating (processing) customers (excludes customers on a TC and interruptible rates)

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 1,111,786	n/a	<i>Launched Sept 1<sup>st</sup>, currently reviewing expenditures</i>	n/a	2,310,732 (est.)	2.94

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

The Commercial Energy Efficiency Program provides support services and financial incentives that encourage the Company’s 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 Company program offering, may be eligible for a rebate under this program. The program is open to all firm gas customers on a commercial tariff. Rebate incentives provided through the program must be pre-approved by the Company and/or the administrative vendor prior to delivery or installation of product (s) or service(s).

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.

**Relationship to Staff Preliminary Proposal:**

“Flex Tech including Industrial process Improvements (electric & gas)” was considered for fast track expansion. Under this program customers are provided with objective and customized information to facilitate wise energy efficiency procurement and financing decisions. It also walkthrough energy audits or detailed energy efficiency studies performed by engineers or other experts. The Commercial Energy Efficiency Program fits in the scope of this fast track expansion proposal.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

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### **Barriers, challenges, gaps:**

#### ***Supply-Side and Mid-Market (Infrastructure) Barriers***

- Lack of general product knowledge among plumbing and heating contractors, engineering firms and equipment vendors regarding the perception of increased efficiency versus standard efficiency equipment (*i.e.*, reliability, cost/complexity of repairs)
- Uncertainty regarding the definition of high/increased efficiency and associated savings, reliability, or performance of high/increased efficiency equipment
- Overall perception of risk due to uncertainty and lack of information, or experience
- Lack of number of contractors who are qualified to specify and install increased efficiency equipment (including solar thermal applications)
- Lack of qualified contractors who can service high/increased efficiency equipment
- Search costs to obtain information about expected savings, reliability and to acquire the necessary specification, installation operation and service/repair knowledge and experience
- Limited awareness of business sector-specific energy needs and efficient products and services available to meet those needs
- Lack of industry-sponsored training on high/increased efficiency equipment
- Limited stocking of a sufficient quantity and variety of high/increased efficiency equipment
- Limited awareness by mid-market actors of KeySpan's efficiency programs and how they can help expand product and service offerings, increase customer loyalty and business profit potential

#### ***Demand-Side Barriers***

- Lack of general product knowledge by consumers of commercial energy efficient equipment (including solar thermal and Green buildings)
- Lack of awareness and knowledge by consumers of the potential energy and financial savings, as well as other non-energy benefits, associated with high/increased efficiency equipment and services
- Lack of reliable information on high/increased efficiency equipment
- Search costs to obtain reliable information about the complexity of energy use within customer facilities, high efficiency equipment options and associated savings and reliability
- Reluctance of consumers, architects, engineers, and contractors to purchase, specify, and/or install high/increased efficiency equipment and/or consider new technologies due to uncertainty of savings, reliability, or performance
- Higher initial purchase price, undervaluing the benefits of high/increased efficiency equipment and associated items/measures
- Limited awareness by customers of KeySpan's efficiency programs and how they can help them reduce their energy costs

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

#### **Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the business customer to reduce energy usage and expenditures, while increase their profits. While the business uses less energy, it emits less CO2, improving the community environment. These programs can foster economic development

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and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

**Other issues/considerations:**

N/A

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**Program Name:** Economic Redevelopment

**Working Group Contact:** Matt Dugan / Janja Lypse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Commercial – all **firm** heating and non-heating (processing) customers (excludes customers on a TC and interruptible rates)

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 705,485	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	266,536 (est.)	2.80

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

This program 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. Participation is limited.

**Relationship to Staff Preliminary Proposal:**

Not considered.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

**Supply-Side and Mid-Market (Infrastructure) Barriers**

- Limited experience with the process of developing or re-habbing a property with a unique mix of people involved in the project.
- Lack of general product knowledge among plumbing and heating contractors, engineering firms and equipment vendors regarding the perception of high efficiency versus standard efficiency equipment (*i.e.*, reliability, cost/complexity of repairs) and associated benefits
- Limited awareness by mid-market actors of KeySpan’s efficiency programs and how they can help expand product and service offerings, increase customer loyalty and business profit potential

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- Overall perception of risk due to uncertainty and lack of information, or experience
- Search costs to obtain reliable information about expected savings, reliability and to acquire the necessary specification, installation operation and service/repair knowledge and experience
- Lack of access to financing for energy efficiency-related elements of larger economic development/capital improvement projects
- Limited focus on energy efficiency by architects, engineering firms, plumbing, heating and other specialty contractors and equipment vendors when working on projects in designated economic target areas
- Lack of number of contractors who are qualified to specify, install and service high efficiency equipment

### ***Demand-Side Barriers***

- Lack of general product knowledge by consumers in designated economic target areas of commercial energy efficient equipment and associated potential energy and financial savings, as well as other non-energy benefits
- Limited awareness by consumers of KeySpan's efficiency programs and how they can help them to foster the rehabilitation of buildings, storefronts and neighborhoods while also helping to improve energy efficiency and reduce energy costs
- Higher initial purchase price, undervaluing the benefits of efficient equipment and associated items/measures
- Search costs to obtain reliable information about the complexity of energy use within customer facilities, high efficiency equipment options and associated savings and reliability
- Reluctance of consumers, architects, engineers and contractors to purchase, specify, and/or install high efficiency equipment and/or consider new technologies as part of economic development projects due to unavailability of financing and uncertainty of savings, reliability, or performance
- Split incentives between developers, building owners (specifying the economic development projects to be done) and tenants (who will be paying the energy bills after the projects are completed)

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

#### **Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the business customer to reduce energy usage and expenditures, while increasing their profits. While the business uses less energy, it emit less CO2, improving the community environment. These programs can foster economic development in designated Empire Zones / Economic targeted areas as well as foster job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

#### **Other issues/considerations:**

N/A

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**Program Name:** Commercial High-Efficiency Heating

**Working Group Contact:** Matt Dugan / Janja Lypse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Commercial – all **firm** heating and non-heating (processing) customers (excludes customers on a TC and interruptible rates)

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 1,362,539	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	940,329 (est.)	1.97

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keysplansaves.com/>

The Commercial High-Efficiency Heating program offers rebates to commercial, industrial, governmental, institutional, non-profit and multifamily facilities that install high-efficiency heating equipment. The rebates are provided 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. The Commercial High-Efficiency Heating Rebate Program efficiency ratings for smaller heating equipment (up to 300,000 btu input) are measured using AFUE ratings. Efficiency ratings for larger heating equipment, which exceeds the size ranges for AFUE, will be measured using a thermal efficiency or steady state rating. The Company reserves the right to negotiate a lower rebate amount per-unit for multiple installations at a single site. This practice ensures that rebate dollars are helping participants reduce the true incremental costs of installing high-efficiency heating equipment.

**Relationship to Staff Preliminary Proposal:**

“Small business direct installation program (electric & gas)” was considered for fast track expansion. Under this program customers install various energy efficiency measures and are provided either 100% cost coverage of some kind of cost-sharing. The High-Efficiency Heating fits in the scope of this fast track expansion proposal.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

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### ***Supply-Side Barriers***

- A customer who is converting from oil to gas cannot take advantage of this program (in Gas EE Collaborative discussions to be included in the longer-term programs)
- Limited stocking of a sufficient quantity and variety of high-efficiency heating equipment
- Competition with other fuels and types of heating systems

### ***Mid-Market (Infrastructure) Barriers***

- Lack of product knowledge among heating contractors, architects, and engineers regarding the perception of high efficiency versus standard efficiency equipment (*i.e.*, reliability, cost/complexity of repairs)
- Lack of industry-sponsored training on high efficiency equipment
- Lack of number of contractors who are qualified to install high efficiency equipment
- Lack of qualified contractors who can service high efficiency equipment
- Uncertainty regarding the definition of high efficiency

### ***Demand-Side Barriers***

- Higher initial purchase price of efficient heating equipment and associated items/measures
- Limited product awareness by consumers, architects, engineers, equipment vendors, contractors, supply houses, and other market actors (especially for infrared heaters)
- Lack of awareness and knowledge by architects, engineers, contractors, and customers of the potential energy and financial savings, as well as other non-energy benefits, associated with high-efficiency heating equipment
- Reluctance of consumers, architects, engineers, and contractors to purchase, specify, and/or install high efficiency equipment and/or consider new technologies
- Concerns from contractors and consumers that high efficiency equipment will be less reliable and result in more callbacks
- Lack of reliable information on high efficiency equipment
- Limited awareness by customers of KeySpan's high efficiency heating program and how it can help them reduce their energy costs

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

Lack of qualified contractors who can service high efficiency equipment. The company is focusing on providing training / educational materials on High efficiency heating systems and installations. Once the contractors see the need for HEHE installations, more will be interested in providing customers with the choice of HEHE installations.

### **Co-benefits (e.g. environmental, health & safety, economic development):**

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the business customer to reduce energy usage and expenditures while increasing their profits. While the business uses less energy, it emit less CO2, improving the community environment. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

### **Other issues/considerations:**

N/A

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**Program Name:** Multifamily Housing Program

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Multifamily **firm** heating rate customers 5+ units (excludes customers on a TC and interruptible rates)

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 3,068,697	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	5,586,632 (est.)	1.02

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keysplansaves.com/>

The Multifamily Housing Program offers energy audits and financial incentives for energy saving measures to multifamily facilities that are on a qualifying commercial rate. Examples of projects that qualify for funding through this program include redesign of space heating or water heating systems, steam system upgrades, building insulation, premium efficiency windows and doors. Programmable thermostats, heat recovery ventilation systems, digital energy management systems, or sophisticated burners and/or controls for boilers. 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.

**Relationship to Staff Preliminary Proposal:**

“New York City apartment Building Energy Efficient Program design (electric & gas)” was considered for fast track expansion. Targeting high-rise building stock has been identified as an underserved market. This Multifamily program serves this market allowing the customers to install multiple efficiency measures and receive appropriate rebates in return.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

- o Multifamily building owners making a financial commitment to install the recommended efficiency measures can sometime be an issue

**Ramp-up potential, limitations, where help is needed to fulfill potential:**

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It is sometimes hard to convince the owners of the multifamily buildings to look into improving their building to be more energy efficient just because it does require some funding on their part. A need for continued education on benefits of installing energy efficiency measures is critical for this segment.

**Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. Enables the multifamily owner to reduce energy usage and his/her expenditures while saving tenants money on their monthly rents / energy bills. When saving energy, less CO2 is emitted, helping the community have a healthier and cleaner environmental to live. Multifamily tenants living in the city are primarily low income eligible families for which the Low income program would apply as well, as long as 50% or more of the entire tenant is low income eligible. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

**Other issues/considerations:**

N/A

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**Program Name:** Commercial - Building Practices and Demonstrations

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Commercial – all **firm** heating and non-heating (processing) customers (excludes customers on a TC and interruptible rates)

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 309,717	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	284,233 (est.)	5.26

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

KeySpan identifies a few special projects each year to participate in the Building Practices and Technology Demonstration Program. Projects either 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. Participation is limited.

**Relationship to Staff Preliminary Proposal:**

Not considered.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

*Supply-Side and Mid-Market (Infrastructure) Barriers*

- o Limited awareness of business sector-specific energy needs and new high-efficient procedures, processes and gas-saving technologies that are available to meet those needs
- o Uncertainty regarding the definition of high efficiency and associated savings, reliability, or performance of new gas saving technologies

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### Working Group 2 – Program Summaries

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- Lack of knowledge among architects, engineering firms, plumbing, heating and specialty contractors, and equipment vendors regarding new energy efficient procedures, processes and technologies
- High search costs to obtain reliable information about expected savings, reliability and to acquire the necessary specification, installation operation and service/repair knowledge and experience
- Limited awareness by mid-market actors of KeySpan's efficiency programs and how they can help demonstrate and promote broader use of new energy efficient procedures, processes and high-efficient, gas-saving technologies
- Overall perception of risk due to uncertainty and lack of information, or experience (*i.e.*, reliability, cost/complexity of repairs)
- Lack of number of contractors and other mid-market actors who are qualified to specify, install and service new high-efficient, gas- saving technologies
- Limited availability of new high-efficient, gas-saving technologies in the marketplace

#### ***Demand-Side Barriers***

- Lack of knowledge by consumers of new high-efficient, gas-saving technologies
- Lack of awareness and knowledge by consumers of the potential energy and financial savings, as well as other non-energy benefits, associated with utilization of new high-efficiency equipment and services
- Limited awareness by consumers of KeySpan's efficiency programs and how they can help to demonstrate new technology applications while reducing risks and lowering their energy costs
- Reluctance of consumers, architects, engineers, and contractors to purchase, specify, and/or install and/or consider new technologies due to uncertainty of savings, reliability, or performance
- Limited availability of reliable information about the complexity of energy use within customer facilities, new high-efficient, gas-saving equipment options and associated savings and reliability

#### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

Customers are asking more and more about solar thermal technologies and thus this budget for demonstration projects is small compared to the total. If the need continue to grow, there may be a need to re-think the funding levels and allocate more funding for such projects. At the same time, other technologies may have to be considered (e.g., geothermal, etc.) as the demand for such technologies increases.

#### **Co-benefits** (e.g. environmental, health & safety, economic development):

This program provides ways to reduce the impact of global warming and CO2 reductions while guaranteeing ratepayers access to *affordable, efficient and reliable energy supplies*. These programs can foster economic development and job growth by encouraging in-state technology advances to deliver energy efficiency programs to consumers. While the programs provide energy savings and thus ultimately reduction in gas usage, it allows the company to avoid capital investments to upgrade the systems for increased gas load.

#### **Other issues/considerations:**

N/A

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**Program Name:** Commercial - Energy Analysis: Internet Audit

**Working Group Contact:** Matt Dugan / Janja Lupse

**Administering Entity:** National Grid / KeySpan

**Targeted Sector:** Commercial – all **firm** heating and non-heating (processing) customers (excludes customers on a TC and interruptible rates)

Funding years	Funding Source	Total Budget (Millions)	Cumulative Funds Spent (Millions)	Current Annual Expenditures (Year Millions)	Energy Savings		Total Resource Cost (TRC) Results*
					Cumulative (therms)	Current Annual (therms)	
8-1-07 – 4-30-08*	SBC (ratepayers)	\$ 559,717	n/a	Launched Sept 1 <sup>st</sup> , currently reviewing expenditures	n/a	n/a (est.)	n/a

\* Programs are based on a PSC approval for Interim program rollout of \$15 million for NY/LI (residential and commercial customers), ramping up to an overall \$30 million annual budget in the next five years, as agreed by all signatory parties.

**Program Description** (include links to on-line documents as appropriate):

[http://www.dps.state.ny.us/New\\_NaturalGas.html](http://www.dps.state.ny.us/New_NaturalGas.html)

<http://www.keyspansaves.com/>

Customer who log onto [www.freeenergyanalysis.com/keyspanbusiness](http://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. The tool allows customers to input their utility data or use simulated data to generate results. The tool also provides customers a vehicle to identify which energy saving rebates they may be eligible for from KeySpan Energy Delivery. In addition to the energy saving recommendations, customers will receive simple pay backs using the projected offset in their energy bills and be directed to take advantage of the energy efficiency rebates for qualifying measures.

**Relationship to Staff Preliminary Proposal:**

Not considered.

**Current status** (include statement on where this program is in its life cycle/MT timeline, current trends, projections, whether the program is over/under/fully subscribed, customers served)

This program is in infancy stage, but it is a mirror of the national award winning gas energy efficiency programs in MA/NH, which have been in place for over 15 years.

**Barriers, challenges, gaps:**

**Supply-Side Barriers**

- None addressed by this program (targets end-use customers and associated demand-side barriers)

**Mid-Market (Infrastructure) Barriers**

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- Limited consumer exposure to energy efficiency professionals

### ***Demand-Side Barriers***

- Limited awareness and knowledge by consumers about the potential energy and financial savings, as well as other non-energy benefits, associated with energy efficient equipment, practices, and other measures
- Lack of reliable information on energy efficient equipment and practices
- Reluctance of consumers to purchase and/or install high efficiency equipment and/or consider new technologies
- Limited awareness by customers of KeySpan's energy efficiency programs and how they can help them reduce their energy costs
- Higher initial purchase price of efficient equipment and items/measures

### ***Other Potential Barriers***

- Access to computers at the business / multifamily building

### **Ramp-up potential, limitations, where help is needed to fulfill potential:**

In particular the business owner / multifamily owner will not take the time to go through this process on-line, they would want a walk through audit performed instead, which the company provides as well. But this would be a first step in evaluating their business / building energy usage and what are some next step recommendations for installation of energy efficiency measures.

### **Co-benefits (e.g. environmental, health & safety, economic development):**

The Business Energy Analyzer is a convenient, on-line self managed audit tool that offers customers customized and practical recommendations for saving energy.

The Business Energy Analyzer provides:

- an opportunity to learn about energy savings as it relates both to your facility and your industry
- the flexibility of addressing energy concerns at your leisure
- the ability to return to the site and review recommendations
- the ability to identify KeySpan energy saving incentives for which you may be eligible

### **Other issues/considerations:**

N/A