

**Energy Efficiency Program** 

Rider 30 Nicor Gas Energy Efficiency Program Summary Plan Year 2 (June 1, 2012 - May 31, 2013)

August 20, 2013

# Table of Contents-

Program Summary	3
Heating & Appliance Incentives (Home Energy Efficiency Rebates)	7
Single-Family Retrofit (Home Energy Savings)	9
Multi-Family Retrofit (Multi-Family Home Energy Savings)	12
Residential New Construction	14
Elementary Energy Education (Think! Energy)	16
Behavior Energy Savings Pilot – Energy Buzz	18
Business Energy Efficiency Rebate	21
Business Custom Incentive Program	27
Economic Redevelopment	29
Retro-Commissioning	32
Small Business Direct Install (Small Business Energy Savings)	34
Business New Construction	37
Building Performance with ENERGY STAR <sup>®</sup>	39
Emerging Technology	41

## Introduction

Nicor Gas managed 14 distinct and unique energy efficiency programs during Plan Year 2 ("PY2"); June 1, 2012 through May 31, 2013; as part of its Energy Efficiency Program ("EEP"). The table below provides a summary of the regulatory and marketing names for each of these programs categorized by those that address the residential, business and emerging technology customer markets. Contained within this report are more detailed descriptions of each of these programs along with a summary of activity for each program during PY2.

Programs offered jointly with Commonwealth Edison ("ComEd") have joint program management and shared budgets. Programs offered cooperatively are managed solely by Nicor Gas, but coordinated, when appropriate, with ComEd's program management staff for similar programs.

Unless otherwise noted, all discussions, descriptions, analyses and results presented in this document represents Nicor Gas' EEP program efforts and don't reflect the efforts expended by the Department of Commerce and Economic Opportunity ("DCEO").

Program	Regulatory Name	Marketing Name	Coordination
Residentia	l Programs		
1	Heating & Appliance Incentive	Home Energy Efficiency Rebates	Cooperative
2	Single Family Retrofit	Home Energy Savings	Joint
3	Multi-Family Retrofit	Multi-Family Home Energy Savings	Joint
4	New Construction	Residential New Construction	Joint
5	Elementary Energy Education	Think! Energy	Joint
6	Behavioral Energy Savings Pilot	Energy Buzz	Cooperative

## Energy Efficiency Programs

Program	Regulatory Name	Marketing Name	Coordination
Business P	rograms		
7	Business Incentive	Business Energy Efficiency Rebates	Coordinated
8	Custom Business	Business Custom Incentives	Cooperative
9	Economic Redevelopment	Economic Redevelopment	Cooperative
10	Retro- Commissioning	Retro-Commissioning	Joint
11	Small Business Direct Install	Small Business Energy Services	Joint
12	Business New Construction	Business New Construction	Joint
13	Building Performance with ENERGY STAR	Building Performance with ENERGY STAR	Cooperative

Emerging Technology Program		Coordination	
14	Emerging Technology	NA	Cooperative

# Collaboration Efforts:

Nicor Gas' EEP is actively pursuing opportunities to work together with other entities to further promote its programs and benefit its customers. In addition to our ongoing joint collaboration on seven energy efficiency programs with ComEd, Nicor Gas has also reached out to Energy Impact Illinois ("EI2"), other utilities and municipalities to work together to best utilize available EI2 funds and resources to help promote retrofits and other residential energy-saving measures for homeowners in northern Illinois.

The efforts with EI2 have helped develop new program delivery ideas that were implemented in July 2012 to provide a quick deployment of available dollars to the residential market by leveraging the existing utility delivery infrastructure, minimizing additional administrative overhead, and maximizing existing trade ally relationships to allow rapid uptake of the enhanced offerings. Nicor Gas is optimistic that these activities will assist in building awareness and generating additional momentum in the home retrofit market to propel the utility programs forward beyond the EI2 grant period.

Nicor Gas is coordinating efforts with the Illinois Municipal Electric Agency ("IMEA") and DCEO to promote joint residential programs in non-ComEd municipal service territories such as Naperville, St. Charles, and Winnetka. The DCEO Energy Efficiency Trust Fund has available monies for residential programs that can provide funding for electrical measures and costs. Proposed residential programs include Multi-Family Home Energy Savings and Complete Systems Replacement. A complete system replacement consists of replacing the complete central heating and cooling system in the home with select high-efficiency equipment. The IMEA/DCEO funding will support all electric savings costs for these programs Nicor Gas otherwise offers with ComEd in the other portions of the service territory.

## **Plan Year 2 Results**

During PY2, over 64,000 customers participated in all programs and received over \$22 million in incentives and rebates.

## Net Therm Energy Savings

During PY2, Nicor Gas' EEP achieved approximately 71% of its program year net therm savings goal as originally filed in 2011. Approximately 9,710,000 net therms were saved through residential and business programs compared to the filed goal of 13,653,000 therms. Performance fell short of expectations due to implementing the state-wide Technical Reference Manual factors and lower evaluated Net-To-Gross ratios for PY2. Customer general awareness and education of the trade allies continued to ramp-up over PY2, however, these efforts are ongoing and require further time and effort to fully achieve goals. The following table illustrates therms saved by both the residential and business programs compared to goal.

Energy Savings (Net Therms) (1)				
Program	Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved	
Residential	3,210,265	6,029,356	53.2%	
Business	6,500,128	7,623,370	85.3%	
Total	9,710,393	13,652,726	71.1%	

#### **EEP Revenues and Expenses**

During PY2, Nicor Gas' EEP collected from residential and business customers approximately \$53.3 million and spent approximately \$41.3 million resulting in an over-collect of about \$12 million. The table below illustrates revenues, expenses and revenue to be recovered or refunded by residential and non-residential rate classes.

EEP Revenues and Expenses (\$) (2)				
Description	Residential	Small Non- Residential (3)	Large Non- Residential (4)	Total
Revenue	\$24,898,559	\$18,797,681	\$9,635,110	\$53,331,350
Expenses (5)	\$19,370,130	\$15,761,017	\$6,175,697	\$41,306,844
Revenue to be Recovered or (Refunded)	\$(5,528,429)	\$(3,036,664)	\$(3,459,413)	\$(12,024,506)

- (1) Energy Savings (Net Therms) represent Nicor Gas' energy efficiency program efforts and don't reflect the efforts expended by DCEO.
- (2) EEP Revenues and Expenses include the efforts expended by DCEO.
- (3) Small non-residential customers are defined as customers receiving utility service under Nicor Gas rates 4, 5, 74 and 75.
- (4) Large non-residential customers are defined as customers receiving utility service under Nicor Gas rates 6, 7, 17, 19, 76 and 77.
- (5) Includes on-bill financing expenses.

# Heating & Appliance Incentives (Home Energy Efficiency Rebates)

### **Objective**

Produce long-term natural gas energy savings in the residential sector by promoting the purchase and installation of high-efficiency space and water-heating equipment and other targeted prescriptive cost-effective measures by customers who would not have done so in the absence of the program. The program's goal is to encourage customers who are planning to purchase the targeted equipment to upgrade to high-efficiency units or measures.

## **Program Description**

The program is managed by Resource Solutions Group ("RSG") as the implementation contractor. The program is in its fourth year, having evolved from a similar pilot program offered under Rider 29.

The program influences the purchase and installation of high-efficiency space heating and waterheating technologies through a combination of market push and pull strategies. These efforts stimulate demand while simultaneously increasing market provider investment in stocking and promoting high-efficiency products.

The program promotes high-efficiency natural gas furnaces and boilers using a tiered approach (furnaces at 92%/95%/97% AFUE and boilers at 90%/95% AFUE).

The program began offering a joint measure with ComEd, the Complete System Replacement rebate, on January 23, 2012. This effort offers additional rebates to joint customers of Nicor Gas and ComEd who install a qualified furnace and air conditioner at the same time. The goal of this offering is to increase program participation for both utilities during the "off-seasons" when customers are installing the coordinating unit (i.e. increasing air conditioner sales in the winter when customers are installing furnaces). Note: ComEd does not offer a stand-alone air conditioning rebate.

The target market for this program is residential customers who are planning to install new natural gas furnaces, boilers, and/or water-heating equipment. Products installed in new and existing single-family homes and multi-family dwellings of three units or less will be eligible for incentives. Individually metered multi-family dwellings containing four units or more will also be considered.

### Implementation Strategy

## **Overall Strategy**

The driving force behind the program strategy is effective outreach to market actors (e.g., trade allies) and to communities to support and increase their constituent's engagement in the program. The Heating & Appliance Incentives program relies on these market actors to promote and

# Heating & Appliance Incentives (Home Energy Efficiency Rebates)

deliver the program to Nicor Gas' end use customers. The program builds upon the strong relationships that were developed during the pilot year of the program (Rider 29) with over 2,000 active trade allies. There will be a strong focus on continuous monitoring of the market and market responses to our outreach efforts. Enhancements to the strategy are made as needed depending upon the responses received. Not only is this monitoring process critical to the success of the program, but it will augment quality assurance and ensure a clear, concise message to the market.

Incentives Offered			
Measure	Minimum Eligibility Requirements	Incentive	
Furnace 1	92% - 94.9% AFUE	\$200	
Furnace II	95%+ AFUE	\$250	
Furnace III	97% + AFUE	\$500	
Boiler, Tier 1	90% - 94.9% AFUE	\$350	
Boiler, Tier II	95%+ AFUE	\$450	
Storage Water Heater	.67 energy factor	\$200	

#### **Plan Year 2 Results**

In PY2, the program had almost 17,200 participants that received over 22,400 separate rebates.

Heating and Appliance Incentives Energy Savings (Net Therms)			
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved	
1,965,139	2,235,590	87.9%	

# Single-Family Retrofit Program (Home Energy Savings)

## **Objective**

Generate residential natural gas and electric energy savings by offering homeowners instant savings measures installed at the time of a home energy assessment. Customers are also offered incentives to install recommended weatherization measures that will be completed by participating Building Performance Institute ("BPI") -certified and trained subcontractors as well as preparing the marketplace for a home performance contracting model in the future.

## **Program Description**

The program is operated jointly with ComEd, and managed by Conservation Services Group ("CSG") as the implementation contractor. The program is in its fourth year, having evolved from a similar pilot program offered under Rider 29, although that program was managed by a different implementation contractor team.

CSG energy advisors conduct home energy assessments that include a visual inspection and may include use of infrared cameras and boroscopes to assess air sealing and insulation opportunities. Combustion safety testing is also performed to ensure natural gas burning equipment is working properly and safely. The customer is typically charged \$99 for the assessment; however, the price was reduced to \$49 for the month of October as a promotional incentive to customers. Beginning in July, 2012 the program also partnered with Energy Impact Illinois ("EI2") to offer an additional \$500 to Nicor Gas' existing incentive. As a result of the discounted assessment cost, additional EI2 contribution, CSG's direct mail program and a Nicor Gas marketing campaign launch, participation was significantly increased in the second part of the program year. This momentum is expected to carry into PY3.

During the home energy assessment, BPI certified energy advisors install compact fluorescent lamps ("CFLs"), high-efficiency aerators and showerheads, water heater pipe insulation, perform programmable thermostat education for existing thermostats and also recommend turning down the water heater to a lower temperature. Upon request, discounted programmable thermostats are installed to replace non-programmable thermostats during the assessment. A customized report listing the recommended energy-savings work and a proposal for the work are provided to the homeowner at the end of the assessment.

Customers are eligible to receive an instant rebate of 50% off, up to \$1,250 (70% off, up to \$1,750 with EI2 funding), for performing the recommended work such as insulation, air sealing, and duct sealing. All work is installed by BPI certified CSG subcontractors, which allows CSG energy advisors to offer homeowners firm weatherization pricing at the time of the assessment. After the weatherization work is completed, the contractor gives the participant an instant rebate and the customer only pays the contractor the remaining balance due. CSG then reimburses the contractor the incentive amount. All single family Nicor Gas and ComEd joint customers were eligible for assessments and weatherization work. Nicor Gas customers who are served by a

# Single-Family Retrofit Program (Home Energy Savings)

municipal electricity utility company were not eligible during PY2, however, a gas-only offering in several communities was launched in PY3.

### Implementation Strategy

### **Overall Strategy**

CSG maintains relationships developed with contractors under the Rider 29 program, as well as conducting outreach to attract additional contractors. BPI certification is required as a condition for contractor participation in the program. Marketing has targeted gas space heat and central air conditioning customers to optimize energy savings for both Nicor Gas and ComEd. Marketing efforts occur in intervals to create consistent, growing demand without causing customer backlogs. The assessment generates instant energy savings through the installation of energy efficiency measures, and customers are incentivized to contract for weatherization measures for deeper savings. To ensure quality, roughly 15% of weatherization work is subject to field inspections. Working with EI2, efforts to test a "house party" network marketing approach was used, and was incorporated into the program when EI2 outreach ended at the end of the year. A contractor house party model was developed and is currently being offered by the program contractors.

Measure	Eligibility Requirements	Incentive
Programmable Thermostat	Non-programmable thermostat	50% of unit cost
Faucet aerator (Kitchen)	Existing aerator > 1.5 gal/minute	Installed as part of the \$99 (or $$40$ ) assessment for
Faucet aerator (Bath)	Existing aerator > 1.0 gal/minute	\$49) assessment fee
High-efficiency Showerhead	Existing showerhead > 1.5 gal/minute	
Hot-water Pipe Insulation	Pipe insulation not present	
Hot Water Temp Turndown	Set above 120 degrees	

## Measures

Measure	Eligibility Requirements	Incentive	
9 watt CFL	40 w incandescent replacement		
14 watt CFL	60 w incandescent replacement		
19 watt CFL	75 w incandescent replacement		
23 watt CFL	100 w incandescent replacement		
Weatherization job*		50% off total job cost, up to \$1,250 (with EI2 funding is 70% off, up to \$1,750)	
*May include the following measures: Attic Air Sealing, Attic Insulation, Duct Sealing and Insulation, Wall and Basement Insulation, and Floor Insulation. All installed to BPI standards			

# Single-Family Retrofit Program (Home Energy Savings)

#### **Plan Year 2 Results**

Single-Family Retrofit Program Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
242,416	545,466	44.4%

# Multi-Family Retrofit Program (Multi-Family Home Energy Savings)

#### **Objective**

The program seeks to reduce the consumption of natural gas through the direct installation of measures, adjustment of water heaters and education of residents in multi-family housing units.

### **Program Description**

The Multi-Family Retrofit program operates under the marketing name of Multi-Family Home Energy Savings Program. The program is jointly operated by Nicor Gas and ComEd. The program is designed to affect the installation of low-flow water fixtures (i.e., showerheads and faucet aerators) and adjust the temperature setting of hot water heaters in multi-family units to substantially reduce the consumption of hot water and thus reduce natural gas use for water heating. The program also calls for the installation of programmable setback thermostats to capture home heating savings and installation of CFLs.

The Program is intended to offer property owners free turnkey services for reducing energy and water use in natural gas master-metered living units (i.e., Rate 4 commercial), as well as to help residents reduce energy and water use in natural gas individually-metered units (i.e., Rate 1 residential).

Honeywell Smart Grid Solutions ("Honeywell") served as the implementation contractor until March 4, 2013 and was replaced by Franklin Energy Services, LLC ("Franklin"). Both Honeywell and Franklin where responsible for installing low-flow water-saving devices in individual living units at no cost to the property manager or tenant, including 1.5 GPM massage showerheads, 1.5 GPM kitchen faucet aerators, 1.0 GPM bathroom faucet aerators and programmable setback thermostats, as well as turning back water heater temperatures where applicable. Franklin/Honeywell, under a separate contract with ComEd, will also install CFLs in each unit.

Franklin/Honeywell also identified comprehensive savings opportunities for common areas and central plants, and transferred all applicable leads primarily to the small business implementation contractor, or other implementation contractors as appropriate. These highly effective measures include boiler tune-ups, boiler controls, steam traps for centrally heated buildings, as well as lighting retrofits. Incentives and savings from the lighting and central plant opportunities were delivered and tracked through other programs, including the Heating and Appliance Incentive, Business Incentives, Custom Business, and Small Business Direct Install programs. A new comprehensive approach to multi-family energy efficiency is being launched in PY3.

# Multi-Family Retrofit Program (Multi-Family Home Energy Savings)

#### Measures

Measure	Eligibility Requirements	Incentive
Low-Flow Shower Head	Must have existing higher GPM equipment to receive installation (i.e., 2.5 GPM)	Installed free of charge
Low-Flow Swivel Aerator	Must have existing higher GPM equipment to receive installation (i.e., 2.0 GPM)	Installed free of charge
Low-Flow Fixed Aerator	Must have existing higher GPM equipment to receive installation (i.e., 1.5 GPM)	Installed free of charge
Domestic Hot Water Heater Temperature Setback	If current temperature is set higher than 130 degrees Fahrenheit and if customer approves setback	Setback free of charge
Programmable Thermostat	Must have existing non- programmable thermostat	Installed free of charge

### **Plan Year 2 Results**

Multi-Family Retrofit Program Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
625,195	2,225,025	28.1%

# **Residential New Construction Program**

### **Objective**

To provide Homebuilders with an incentive to increase the energy efficiency of newly constructed single-family homes beyond current building codes.

### **Program Description**

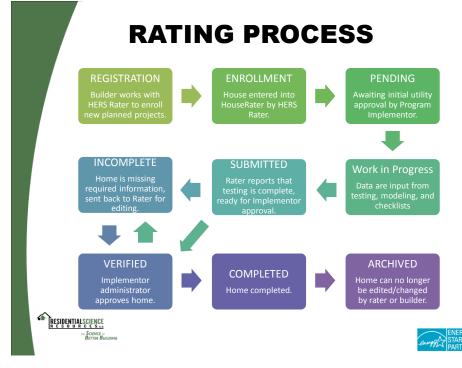
Homebuilders and qualified Building Performance Consultants (RESNET-accredited HERS Raters) work together to build homes in Illinois that are safer, more comfortable, more durable, and more energy efficient than homes built to the state building code in effect during PY2, the International Energy Conservation Code 2009 ("2009 IECC").

The program provides monetary incentives for Builders and Building Performance Consultants as a means to not only promote energy efficient new construction, but also accelerate the adoption of new technologies.

The Residential New Construction Program ("RNCP") is jointly offered by Nicor Gas and ComEd as this program benefits both gas and electric customers. This program uses a whole house approach to capture both gas and electric savings.

### Implementation Strategy

The implementation Contractor, Residential Science Resources, LLC ("RSR") builds upon the existing framework of Nicor Gas and ComEd ("the utilities") and the local market to successfully develop and implement RNCP, using strategies designed to increase the penetration



of the initiative by focusing on the HERS Rater network. Homebuilders, and other interested and necessary parties. Additionally, RSR coordinates with the program administrator, utilities and other interested parties such as the Northern Illinois Home Builders Association ("NIHBA"). The implementation

# **Residential New Construction Program**

contractor performs the recruiting, training, and contracting of local Building Performance Consultants by demonstrating the value of the program and the associated benefits, while showcasing the brand reputation that the utilities have to offer.

RSR uses its proprietary software, called HouseRater®, to efficiently and effectively track all data input by field Raters. HouseRater also generates status reports and provides up-to-date details on progress and completions.

The software is also used to schedule site visits, track participation, energy savings, and generate monthly reports. The Raters upload data directly into HouseRater via pdf reports created in the REM/*Rate*® energy modeling software. The information from the reports is read straight from the pdf reports, thus greatly reducing the time to enter the data and the process ensures 100% accuracy of reports.

All pertinent information is made accessible to the appropriate parties based on user permission and roles. Billing reports are generated and used to capture energy savings data to manage and determine rebate payments.

#### Incentives

Measure	Rater Incentive	Builder Incentive Gas	Total Incentive
10% or more Efficient than Code	\$500	\$300	\$800

#### **Plan Year 2 Results**

The RNCP was under development during the majority of PY1 and launched in May of 2012. Therefore, no energy savings were captured during PY1. Consequently, the PY1 filed savings goal therms, participation goals and the remaining PY1 budget were transferred to PY2.

Residential New Construction Program Energy Savings (Net Therms)		
Net Therms SavedPlanned Goals as Filed (PY1 and PY2)Plan Year Percentage Achieved		
193,690	68,813	281.5%

# **Elementary Energy Education Program (Think! Energy)**

## **Objective**

Utilizing an interactive education program delivered through Illinois schools, the objective of the Elementary Energy Education Program is to promote the more efficient and wise use of natural gas in Nicor Gas-serviced households, and produce long-term natural gas energy savings, both through the direct installation of home water savings devices and through behavior modification of household occupants.

## **Program Description**

The Elementary Energy Education Program instructs and motivates students to take specific actions to make their homes more energy efficient in the use of natural gas. National Energy Foundation ("NEF") serves as implementation contractor, responsible for all aspects of program design, marketing, and delivery.

The program's pedagogical foundation is based on the following sequence: 1) teaching students to truly "think!" about energy - learning where it comes from, why we need it, and how we can use it more efficiently; 2) encouraging them to "talk!" about energy, with class members, teachers, their broader community, and ultimately members of their own families; and 3) motivating them to "take action!" about the energy use in their own lives, and in the lives of their family members. The program facilitates the most important "take action!" step by providing high quality energy efficiency hardware for installation in their homes.

The target market for the program includes Nicor Gas-territory schools, teachers, students, and families. Based on correlations to the Illinois state learning standards, the specific grade level target for the program is 5<sup>th</sup> grade. In terms of generating natural gas energy savings from the program, the households of individual students are the key audience, in terms of both installations of devices and behavior modification.

Key features of the Elementary Energy Education Program include a school presentation delivery methodology, the provision of energy efficiency kits for participating students and teachers, and a rigorous data collection and tracking process used in compiling, analyzing, and reporting estimated natural gas energy savings that accrue due to program implementation.

## Implementation Strategy

## **Process Flow**

The primary delivery mechanism for the program was a series of approximately 175 school presentations - presented in elementary, intermediate, and/or middle schools located in the Nicor Gas service territory. Through these presentations, the program was intended to reach 15,000 total participants (including students and teachers), with an approximate distribution of 25 students per teacher. The program focuses on natural gas-related energy efficiency.

# **Elementary Energy Education Program (Think! Energy)**

#### Measures

Measure	Eligibility Requirements	Incentive
Low-flow shower head	1.5 gpm	Free
Kitchen faucet aerator	1.5 gpm	Free
Bathroom faucet aerator	1.0 gpm	Free
CFLs (for gas/electric kits)	14-watt	Free

The above measures are considered to be "eligible measures" because NEF attributes therm (and kWh) savings to these devices when they have been installed. Additional measures in the kit that can have an impact on behavior changes in the home (and potentially create additional energy savings) include a shower timer and a digital thermometer.

#### Plan Year 2 Results

Elementary Energy Education Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
171,542	207,900	82.5%
Participants Reached		
Participants Reached	Planned Goals as Filed	Plan Year Percentage Achieved
15,004	15,000	100%

## **Behavior Energy Savings Pilot Program - Energy Buzz**

Nicor Gas launched its Behavioral Energy Savings Pilot Program, "Energy Buzz," in August of Plan Year 2.

#### **Objective**

The objectives of the Behavioral Energy Savings Pilot Program are:

- Use the MyEnergy platform as a tool to track natural gas usage, to learn about implementing energy efficiency measures and to explore energy efficiency tips.
- Reward behavior changes with a simple point-redemption process.
- Encourage participation in other Nicor Gas energy efficiency programs
- Give Nicor Gas customers a fun, interactive and user-friendly experience that includes the option of competing with friends and groups. The expectation is that this experience will lead to an ongoing conversation about energy efficiency and natural gas usage.

#### **Program Description**

The Behavioral Energy Savings Pilot Program is designed to produce energy savings through customer engagement and behavioral change strategies. Nicor Gas customers track their energy use by logging on to myenergy.com – a website that retrieves utility data and gives participants a unique opportunity to learn about their energy use by interacting in a fun, educational and rewarding platform. The MyEnergy platform (branded by Nicor Gas as "EnergyBUZZ") incorporates an "opt-in" approach, that requires customers to become informed about and engage with (sign up for) the online tool on their own. After sign up, the customer is required to "connect" their utility accounts to EnergyBUZZ. Once their accounts are connected, participants are provided with monthly feedback on the website dashboard, as well as via email, as to how their current consumption compares to their prior year's consumption. EnergyBUZZ also allows customers to invite friends to participate or join "teams" to compare usage categorized by location or group participation. Energy-saving tips and incentives are listed on the site to encourage and promote additional activities. If the participant's energy use is lowered, they accumulate points that can be redeemed for rewards provided by recruited businesses.

#### **Implementation Strategy**

### **Overall Strategy**

The implementation contractor, CSG, and its subcontractor, MyEnergy, have designed EnergyBUZZ to produce energy savings for Nicor Gas through the behavioral change strategies. This approach involves various marketing channels and techniques intended to persuade Nicor Gas customers to enroll in EnergyBUZZ.

## **Behavior Energy Savings Pilot Program - Energy Buzz**

Enrollment acquisition efforts included:

- Google AdWords
- Cross promotion with other energy efficiency programs
- Media and Community Outreach
- Mass Marketing bill inserts, online ads, e-blasts, etc.

Once enrolled, customers are provided monthly feedback relative to how their current consumption compares to prior year consumption on both a raw and a weather-adjusted basis. Rewards are available to participants based upon the amount of points they accrue due to lowering natural gas consumption on a year-over-year basis that result from energy efficiency actions taken. Participants can also access "tips" on how they can reduce their energy usage, including lifestyle changes and direct actions that may include participation in other Nicor Gas energy efficiency programs. Upon completion of specific tips or participation in other programs, MyEnergy will continue to engage customers in order to maximize short- and long-term energy savings.

### **Plan Year 2 Results**

### Program Changes for Plan Year 3

When the behavioral pilot was originally designed, it was anticipated that the opt-in approach would be popular with customers and therefore an optimistic therm-savings goal was established. To date, participation has been less than anticipated which is reflected in the PY2 results. The reasons for this lower performance include a late PY2 start in promoting EnergyBUZZ to Nicor Gas customers and a below-average percentage of customers that connect their accounts to EnergyBUZZ after sign up when compared with original estimates. In PY3, these two issues are being addressed.

To bolster PY3 behavioral therm-saving efforts, Nicor Gas has engaged with Opower, which utilizes a proven "opt out" approach. Opower's software creates individualized Home Energy Reports for utility customers that analyze energy usage and offer recommendations on how to save energy and money by making changes to a participant's energy consumption.

Therefore, Nicor Gas will be utilizing both the current opt-in program and the new opt-out approach in promoting energy efficiency to its customers in PY3.

# **Behavior Energy Savings Pilot Program - Energy Buzz**

Behavior Energy Savings Pilot Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
12,284	769,500	1.60%

### **Objective**

Produce long-term natural gas energy savings in the business sector by promoting the purchase and installation of cost effective and energy efficiency measures, tune-ups and upgrades.

### **Program Description**

This program is managed by RSG as the implementation contractor.

The energy efficiency rebate component influences the purchase and installation of highefficiency space heating and water heating technologies, food service technologies, as well as other prescriptive cost-effective measures through a combination of market push and pull strategies. These efforts stimulate demand, while simultaneously increasing market provider investment in stocking and promoting high efficiency products.

When appropriate, the Business Energy Efficiency Rebates program promotes equipment, such as high-efficiency natural gas furnaces and boilers, using a tiered approach (90%/ 92%/ 95% AFUE). Boiler measures are divided into hydronic, condensing, and steam boilers of varying size categories. Also included as prescriptive measures are boiler tune-ups, boiler reset controls, steam traps, programmable thermostats, high-efficiency spray valves, infrared heaters, water heaters, unit heaters, pool covers, pipe insulation and an assortment of food service equipment.

The target market for this program is business customers using 60,000 therms or more per year who are planning to replace equipment in their existing business, and customers doing major renovations or new construction. Products installed in businesses, other than those public customers served by DCEO, are eligible for incentives.

### Implementation Strategy

## **Overall Strategy**

The driving force behind the execution strategy is effective outreach to market actors such as trade allies, business trade associations, directly to Nicor Gas business customers and to communities that support these programs. These business programs rely heavily on the market actors to promote and deliver the program to Nicor Gas' end-use customers.

This program builds upon the strong relationships that have developed since the pilot year (Rider 29) and there is continued focus on monitoring of the market and market responses to outreach efforts. Enhancements to the strategy are made as needed depending upon the responses received. Not only is this monitoring process critical to the success of the program but it also augments quality assurance and ensures a clear, concise message to the market. A trade ally outreach plan was developed around this strategy as well as a trade ally management plan that outlines program participation requirements and procedures.

### **Business Energy Efficiency Rebate Incentives**

Measure	Minimum Eligibility Requirements	Unit of Measure	Incentive
Boiler Reset Control (retrofit) <sup>1</sup>	Retrofit	МВН	\$0.50
Boiler Tune-up		Unit	\$350
Boiler, Condensing -<300	90% AFUE	Unit	\$500
Boiler, Condensing -<500	90% AFUE	Unit	\$1,500
Boiler, Condensing -<1000	90% AFUE	Unit	\$2,500
Boiler, Condensing -<1700	90% AFUE	Unit	\$5,000
Boiler, Condensing -<2000	90% AFUE	Unit	\$7,500
Boiler, Hydronic -<300	85% AFUE	Unit	\$400
Boiler, Hydronic -<500	85% AFUE	Unit	\$1,000
Boiler, Hydronic -<1000	85% AFUE	Unit	\$1,250
Boiler, Hydronic -<1700	85% AFUE	Unit	\$1,750
Boiler, Hydronic -<2000	85% AFUE	Unit	\$2,500
Boiler, Steam -<300	85% AFUE	Unit	\$325
Boiler, Steam -<500	80% AFUE	Unit	\$100
Boiler, Steam -<1000	80% AFUE	Unit	\$175
Boiler, Steam -<1700	80% AFUE	Unit	\$325

<sup>&</sup>lt;sup>1</sup> Measure UOM and Incentive Revision for PY2

Nicor Gas – Rider 30 Energy Efficiency Program Summary Plan Year 2 (June 1, 2012-May 31, 2013). Page 22

Measure	Minimum Eligibility Requirements	Unit of Measure	Incentive
Boiler, Steam -<2000	80% AFUE	Unit	\$450
Boiler combined with DWH <sup>2</sup>	90% Boiler	Unit	\$1,600
Combined Oven, HE <sup>3</sup>		Unit	\$900
Steamer – Commercial <sup>3</sup>	E>38%, Energy Star	Unit	\$950
Condensing Unit Heaters <sup>4</sup>	<u>&gt;</u> 90% TE <u>&lt;</u> 300 MBH	МВН	\$2.50
Oven - Convection <sup>5</sup>	E>44%, Energy Star	Unit	\$400
Finned-Bottom Stock Pot <sup>6</sup>		Unit	\$25
Fryer	E>50%, Energy Star	Unit	\$500
Fryer – Large Vat <sup>7</sup>		Unit	\$550
Furnaces – Tier 1	92% AFUE	Unit	\$200
Furnaces Tier 2	95% AFUE	Unit	\$250
Griddle	Energy Star	Unit	\$250
Infrared Charbroiler		Unit	\$500
Infrared Heaters		Unit	\$700
Infrared Rotisserie Oven		Unit	\$500

<sup>&</sup>lt;sup>2</sup> Measure Removed for PY2

<sup>&</sup>lt;sup>3</sup> Measure Incentive Revision for PY2

<sup>&</sup>lt;sup>4</sup> Measure UOM and Incentive Revision for PY2 <sup>5</sup> Minimum Eligibility Requirement and Incentive Revision for PY2 <sup>6</sup> New Measure for PY2

<sup>&</sup>lt;sup>7</sup> New Measure Tier for PY2

Nicor Gas – Rider 30 Energy Efficiency Program Summary Plan Year 2 (June 1, 2012-May 31, 2013).

Measure	Minimum Eligibility Requirements	Unit of Measure	Incentive
Infrared Salamander Broiler		Unit	\$500
Infrared Upright Broiler		Unit	\$500
Large Conveyor Oven $\geq$ 25 in, HE <sup>8</sup>		Unit	\$1,000
Large Conveyor Oven < 25 in, HE <sup>9</sup>		Unit	\$500
Pasta Cooker		Unit	\$200
Pipe Insulation – Indoor HWS <u>&gt;</u> 1"		Linear Foot	\$4
Pipe Insulation – Outdoor HWS <u>&gt;</u> 2"		Linear Foot	\$8
Pool Heating Boilers, < 500 MBH <sup>10</sup>	<u>≥</u> 84%	Unit	\$400
Pool Heating Boilers, < 1000 MBH	<u>≥</u> 84%	Unit	\$750
Pool Heating Boilers, <u>&lt;</u> 1700 MBH	<u>≥</u> 84%	Unit	\$1,350
Pool Heating Boilers, <u>&lt;</u> 2000 MBH	<u>≥</u> 84%	Unit	\$1,850
Pool Heating Boilers, < 4000 MBH	<u>≥</u> 84%	Unit	\$3,000
Pool Heating Boilers, < 500 MBH	≥ 88%	Unit	\$1,200
Pool Heating Boilers, < 1000 MBH	≥ 88%	Unit	\$2,250
Pool Heating Boilers, <u>&lt;</u> 1700 MBH	≥ 88%	Unit	\$4,050
Pool Heating Boilers, $\leq$ 2000 MBH	≥88%	Unit	\$5,550
Pool Heating Boilers, $\leq$ 4000 MBH	<u>≥</u> 88%	Unit	\$9,000
Programmable Thermostat		Unit	\$50

<sup>&</sup>lt;sup>8</sup> Measure Incentive Revision for PY2 <sup>9</sup> New Measure Tier for PY2

<sup>&</sup>lt;sup>10</sup> New Measure and Tiers for PY2 (All Pool Boiler tiers)

Nicor Gas – Rider 30 Energy Efficiency Program Summary Plan Year 2 (June 1, 2012-May 31, 2013). Page 24

Measure	Minimum Eligibility Requirements	Unit of Measure	Incentive
Rack Oven/Double Oven, HE		Unit	\$1,400
Rack Oven/Single Oven, HE <sup>11</sup>		Unit	\$700
Spray Valves, HE <sup>12</sup>	<u>≤</u> 1.25 gpm at 60 psi	Unit	\$25
Steam Trap – Industrial, High Press <sup>13</sup>	<u>&gt;</u> 75 psig to <u>&gt;</u> 250 psig	Unit	\$250
Steam Trap – Industrial, Med Press <sup>11</sup>	≥ 15psig to < 75 psig	Unit	\$200
Steam Trap, Commercial		Unit	\$50
Swimming Pool/Spa Covers - Indoor <sup>14</sup>		Square Foot	\$1.25
Swimming Pool/Spa Covers – Outdoor <sup>12</sup>		Square Foot	\$0.75
Water Heater, Storage	0.67 EF	Unit	\$200
Water Heaters, Condensing	88% TE	Unit	\$150

 <sup>&</sup>lt;sup>11</sup> New Measure Tier for PY2
<sup>12</sup> Minimum Eligibility Requirement Incentive Revision for PY2
<sup>13</sup> Measure Retroactive Tiers and Incentive Revision for PY2

<sup>&</sup>lt;sup>14</sup> Measure Incentive Revision for PY2 (based on PY1 table in this document – no change from PY1 to PY2)

Nicor Gas – Rider 30 Energy Efficiency Program Summary Plan Year 2 (June 1, 2012-May 31, 2013).

**Plan Year 2 Results** 

Business Energy Efficiency Rebate Energy Savings (Net Therms)			
Net Therms SavedPlanned Goals as FiledPlan Year Percentage Achieved			
2,401,682	2,026,860	118.5%	

## **Business Custom Incentive Program**

### **Objective**

Produce long-term natural gas energy savings in the business sector by promoting the purchase and installation of cost effective and energy efficiency measures, tune-ups and upgrades.

#### **Program Description**

This program is managed by RSG as the implementation contractor.

The Business Custom program influences the purchase and installation of ad hoc, nonprescriptive high-efficiency measures through a similar strategy. Custom incentives vary from \$.75 to \$1.00 per therm, based on the total verified first year energy savings.

The target market for this program is business customers using 60,000 therms or more per year who are planning to replace equipment in their existing business, and customers doing major renovations or new construction. Products installed in businesses, other than those public customers served by DCEO, are eligible for incentives.

#### Implementation Strategy

### **Overall Strategy**

The driving force behind the execution strategy is effective outreach to market actors such as trade allies, engineering firms, and business trade associations, directly to Nicor Gas business customers and to communities that support these programs. These business programs rely heavily on the market actors to promote and deliver the program to Nicor Gas' end-use customers.

This program builds upon the strong relationships that have developed since the pilot year (Rider 29) and there is continued focus on monitoring of the market and market responses to outreach efforts. Enhancements to the strategy are made as needed depending upon the responses received. Not only is this monitoring process critical to the success of the program but it also augments quality assurance and ensures a clear, concise message to the market. A trade ally outreach plan was developed around this strategy as well as a trade ally management plan that outlines program participation requirements and procedures.

## **Business Custom Incentive**

### **Plan Year 2 Results**

Business Custom Incentive Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
1,758,087	3,417,000	51.5%

# **Economic Redevelopment**

### **Objective**

The primary objective of the Economic Redevelopment Program is to target existing facilities and properties undergoing major renovation in established "redevelopment areas" and ensure that they incorporate energy efficiency measures into the renovation process. The program provides enhanced incentives to render energy efficiency projects more affordable within economically challenged communities.

## **Program Description**

The program provides financial incentives to customers who implement energy efficiency measures in renovation projects conducted in economically challenged regions. Incentives are more generous than those established in Nicor Gas' other programs for similar efficiency improvements. By providing increased resources to facilitate energy efficiency improvements in those projects that may be marginal financially, Nicor Gas can realize gas energy efficiency opportunities that otherwise would be lost for decades, while creating a positive impact in the community. By working with various Chambers of Commerce, economic development organizations, non-profit organizations, private development corporations, and other businesses, the program leverages energy efficiency funds with other investments that are being made for community improvement purposes. The program also works with community based and not-for-profit organizations to increase the energy efficiency of their facilities and reduce their energy cost burden, allowing the organizations to devote more of their resources to providing essential community services.

Funding focuses on projects that demonstrate a strong positive community impact, including:

- Brown-field site rehabilitation;
- Job creation;
- Provide housing solutions;
- Other projects integral to providing community based programs

### Implementation Strategy

### **Overall Strategy**

The implementation contractor for the program is Energy Center of Wisconsin ("ECW"). Program participants are required to complete an application, which includes the following:

- Description of the redevelopment project;
- Names and background of the sponsoring organizations;
- List of other funding sources;
- Estimated cost of project

## **Economic Redevelopment**

• Estimate of project schedule, and how the project will provide a strong positive community impact.

Applications for program funding are individually validated and assessed. Once the application is reviewed and the organization is considered a viable candidate, a more detailed energy analysis is conducted of the proposed project and the entire building to identify other energy savings opportunities that might exist. The results of this assessment is documented in a report that includes a list of energy efficiency measures, total installation costs, annual energy costs, annual energy savings and simple payback.

The technical assistance provides a holistic approach to identifying gas and electric energy efficiency opportunities. The program advises customers of both gas and electric energy savings opportunities.

### **Plan Year 2 Results**

PY2 ended with 39% of plan goal achieved. The program will be ramped down in PY3 and ended May 31, 2014. While Nicor Gas feels the program had merit, the following barriers prevented the program from succeeding as a stand-alone program.

- Participants who must continuously operate fundraising programs are more apt to pursue only a few improvements, and implement their upgrades in "starts and stops" as they need to replenish funds to complete their projects. They also may decide not to pursue all of the possible improvements identified for their facility. While understandable, the need to "phase" projects (i.e. do part of a project in PY2 and defer the remainder of the project to PY3) or match the scope of their improvements to funds in-hand limits program savings achievement both per Program Year and the long term.
- Participants have mentioned they are maximizing improvements within their existing budgets, which can limit the span of upgrades implemented in one fiscal year.
- When evaluating whether or not to participate, some participants have demonstrated a high level of sophistication regarding energy efficiency programs and consider the ERP incentive level to be disadvantageous in comparison to custom or prescriptive incentives. This would only be exacerbated by other programs increasing their incentives allowing the customer to switch between programs.

## **Economic Redevelopment**

**Plan Year 2 Results** 

Economic Redevelopment Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
92,545	240,000	38.6%

# **Retro-Commissioning**

## **Objective**

The objective of the Retro-Commissioning Program is to identify and implement low-cost tuneups and adjustments to the operating systems, especially the building controls and HVAC systems, of existing buildings in order to improve their efficiency by returning them to their intended operation or design specifications.

## **Program Description**

The program is operated jointly with ComEd and managed by Nexant as the implementation contractor. The program helps commercial and industrial customers identify and implement low and no-cost measures to improve efficiency of existing buildings. Services are delivered through a network of commissioning providers that have been trained in program protocols and processes. For smaller facilities, commissioning providers conduct a targeted assessment of areas with substantial energy savings opportunities such as packaged HVAC units. Larger facilities are eligible to receive a more comprehensive assessment of building systems and controls.

This program includes a strong customer education component to promote the value of retrocommissioning services, targeting senior management decision-makers as well as facility operations and maintenance staff. Such education is provided through program marketing activities, and is also supported through market conditioning efforts, such as Building Operator Certification (BOC) training. Nicor Gas collaborates with other regional utilities to provide a comprehensive program that covers both gas and electric building systems.

## Implementation Strategy

## **Overall Strategy**

Nexant oversees activities conducted by participating commissioning providers, reviews studies and provides independent evaluation of savings estimates, and post-installation verification. Nexant's responsibilities include: working with the utilities on final program element design, developing marketing materials, marketing the program and performing outreach activities, managing the project, administering quality assurance / quality control activities, fraud detection and prevention, customer and contractor dispute resolution, tracking and reporting, and program goal achievement. Other key elements of program implementation include:

- Customer recruitment and application pre-screening to determine if the project qualifies under the program criteria;
- Initial project assessment: Nexant staff meets with the customer to determine if sufficient potential savings exist to merit participation;

## **Retro-Commissioning**

- Formal agreement: In this agreement, the customer commits to spend a certain amount to implement a bundle of measures such that the complete project has a payback of 1.5 years or less. The customer must complete the project within 120 days after the agreement is signed.
- Retro-commissioning study: The commissioning provider conducts an in-depth analysis of the measures selected by the customer to generate the Diagnostic and Calculation Report.
- Implementation: the customer implements the measures according to the report. Nicor Gas doesn't provide an incentive to assist with implementation costs.
- M&V: the commissioning service provider or Nextant returns to the project site to verify savings. If measures are not implemented in accordance with the agreement, then the customer is responsible for repayment of all study costs and incentives received.

### **Plan Year 2 Results**

This program was designed to leverage efforts made by the implementation contractor, Nexant, in their electric-only program that had been launched by ComEd previously. Because retrocommissioning projects have an inherent long lead startup time (often projects require 9 - 12 months before they deliver therm savings), the trade ally network (retro commissioning service providers – "RSPs") has been established, thus allowing the Nicor Gas EEP and customers to benefit from an infrastructure already in place. The lead time to establish new RSPs and initiate projects resulted in a slower start to the program than anticipated. However, due to a strong pipeline of projects the combined PY2 and PY3 goals are anticipated to be exceeded.

Retro-Commissioning Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
405,300	1,024,308	39.6%

# Small Business Direct Install (Small Business Energy Savings)

### **Objective**

Produce long-term natural gas energy savings in the small commercial/industrial sector by ensuring that customers receive the education and assistance they require to make cost-effective decisions in their installation of high-efficiency gas saving equipment and other targeted prescriptive cost-effective measures.

## **Program Description**

The Small Business Direct Install Program is operated jointly with ComEd and managed by Nexant as the implementation contractor. The program is designed to achieve energy savings goals by educating ComEd and Nicor Gas non-residential customers about natural gas savings opportunities. This is done through on-site surveys and providing immediate savings through direct installation of specific products and offering incentives for select natural gas and electric energy efficiency measures.

The program promotes direct installation of low-flow faucets and showerheads, pre-rinse spray valves and hot water reset measures.

Additionally, the Direct Install Program offers incentives for several low-cost energy efficiency measures including: programmable thermostats, steam traps, boiler tune-up, boiler-reset controls, furnaces of at least 92% AFUE, water heaters of at least 88% TE, and furnace tune-ups. Customer education is used as a primary tool to stimulate action of following-through on installation of recommended measures.

The target market for this program is those Nicor Gas commercial/industrial customers using up to 60,000 therms of gas, annually. Those customers most likely to be approved to participate in the program and realize the biggest savings include those with:

- Long building operational hours (e.g. 10 hours or more (Monday through Friday) and/or operation on weekends)
- Facilities built prior to 2007

### Implementation Strategy

### **Overall Strategy**

The implementation of energy efficiency measures by small businesses is challenging. A primary objective of the programs is to develop processes and capabilities that ensure that small business customers receive the education and assistance they require to make cost-effective decisions in their installation of energy efficiency measures. The Small Business Direct Install Program focuses on the following components:

# Small Business Direct Install (Small Business Energy Savings)

- Marketing plan and implementation tactics focused on reaching and educating the small business customer.
- A simple-to-follow and streamlined process to performing energy assessments and equipment upgrades, retrofits and tune-ups designed to target known small business market barriers
- Project facilitation supported by an experienced, well-educated, and motivated team of trade allies and engineers to ensure recommended energy efficiency projects are completed and installed correctly.
- Knowledgeable and accessible customer support/call center staff capable of directly addressing customer and trade ally inquiries, and escalating and directing other inquiries as necessary.
- Transparent tracking and reporting system that allows the customer (and ComEd and Nicor Gas) to track their project progress and view next steps from the initial energy assessment through delivery of incentives.
- Cost effective quality assurance and verification activities to ensure installed savings are realized and defensible.

## Measures

The following table contains the list of natural gas measures included in the program.

Measure	Eligibility Requirements	Incentive	Incentive Strategy
Showerhead (labor and materials)	n/a	\$34.00	Direct Installation - 100% of cost
Aerator-Bath (labor and materials)	n/a	\$21.00	Direct Installation - 100% of cost
Aerator-Kitchen (labor and materials)	n/a	\$25.00	Direct Installation - 100% of cost
Pre-Rinse Sprayer (labor and materials)	n/a	\$63.00	Direct Installation - 100% of cost
Hot Water Reset	n/a	\$17.00	Direct Installation - 100% of cost
Steam Trap	n/a	\$300.00	100% of cost
Boiler Tune-up	n/a	\$150.00	50% of cost

## Small Business Direct Install (Small Business Energy Savings)

Measure	Eligibility Requirements	Incentive	Incentive Strategy
Boiler Reset Control	See Prescriptive application	\$550.00	50% of cost
Condensing Furnace	92% AFUE	\$200.00	n/a
Water Heater (Large)	88% TE	\$300.00	n/a
Programmable Thermostat	See Prescriptive application	\$200.00	100% of cost
Furnace Tune-Up, 110-250 MBtu	See Prescriptive application	\$73.00	26% of cost

### **Plan Year 2 Results**

Small Business Direct Install Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
1,717,744	616,753	278.5%

## **Business New Construction**

#### **Objective**

The objective of the Business New Construction program is to capture efficiency opportunities during the design and construction of new buildings, major renovations of existing buildings, and tenant build-outs in the commercial and industrial market.

### **Program Description**

The program promotes energy efficiency through a comprehensive effort to influence building design practices. By securing energy efficiency opportunities in new construction projects, it is necessary to overcome barriers such as designer community resistance to adopting new ideas, increased first cost for efficient options, and the common practice of designing for worst-case conditions rather than efficiency over the range of expected operating conditions.

The program uses a comprehensive track for whole-building improvements. The program provides participants with design assistance, including: energy modeling of potential efficiency upgrades, financial incentives to cover a portion of the incremental costs premium for efficient design practices, and a quality assurance process to certify that buildings are completed according to the efficient design specifications.

The program is delivered by the ECW. The program is delivered in jointly with ComEd to capture both gas and electric savings. Now in its second year, the program was new to Nicor Gas in Rider 30, but leverages a similar program already implemented by ComEd.

#### Implementation Strategy

### **Overall Strategy**

The program promotes energy efficiency and implements measures through education and outreach to building owners, design professionals, building contractors and other trade allies, as well as, providing design and technical assistance.

The program uses a comprehensive track for large projects early in the design process and offers a higher level of technical assistance and consultation on building design. Program services assess comprehensive efficiency opportunities and system interaction and provide incentives based on whole-building energy simulation and achievement of whole-building performance. Incentives are based on energy savings and paid by ComEd and Nicor Gas.

A key element for program success is securing the involvement of the professional design community. To encourage participation within the designer community and to offset the costs of considering multiple design options, a multi-tier incentive is offered to the project's design team(s).

## **Business New Construction**

### **Plan Year 2 Results**

This program was a new program in PY1 and not an extension from a previous Rider 29 program. ECW was chosen to manage this program as it had performed similar work with ComEd and thus, provided synergies for the two utilities. Business New Construction projects have an especially long lead startup time (often projects require 12 - 24 months before they deliver therm savings), consequently little therm savings were expected to be generated in PY2.

Business New Construction Energy Savings (Net Therms)		
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved
119,628	198,450	60.3%

# **Building Performance with ENERGY STAR®**

### **Objective**

The objective of the Building Performance with ENERGY STAR pilot program is to help customers take holistic, planned approach to increasing the energy efficiency of their existing commercial buildings.

### **Program Description**

In May 2010, the U.S. Environmental Protection Agency ("EPA") launched a pilot effort called Building Performance with ENERGY STAR. The pilot was designed to improve commercial building energy efficiency by strategically pursuing whole-building energy improvements with business customers, modeled after the residential Home Performance with ENERGY STAR program. The commercial program offers a framework for regional efficiency programs to align their financial incentives and technical assistance with a comprehensive approach to building upgrades.

The program was operated by Ecova to provide comprehensive, whole-building energy assessments across all fuels and help business customers strategically plan and implement energy efficiency improvements over time. A key element of the assessment is to benchmark building energy performance against other similar properties. The first two years of the effort was considered to be a pilot; if the pilot proved to be cost-effective and successful in motivating customers to undertake energy efficiency projects, it would then be rolled out as a program.

The program relied on the ENERGY STAR Portfolio Manager model to benchmark performance and strategically plan efficiency improvements. Improvements could be implemented over time, starting with low or no-cost measures that could create savings to fund more expensive capital upgrades. Customers were encouraged to achieve deeper and longer-term savings, while fostering ongoing relationships with Nicor Gas as an advisor and resource for continuous improvements.

This program targeted medium to large commercial buildings, with an initial target market focused on hospitality and assisted living customers.

### Implementation Strategy

The key elements of the pilot program include:

• *Customer Recruitment:* The implementation contractor targets clients and facilities with the highest potential energy savings relative to their peers. They generate and utilize an energy intensity plot of our clients' facilities in Nicor Gas' territory and prioritize customer targets for gas savings based on the results along with insight from their sales and client management teams.

# **Building Performance with ENERGY STAR<sup>®</sup>**

- *Pre-Screening & Customer Commitment:* Customers are pre-screened to determine whether they are appropriate candidates for the pilot. If appropriate, a Program agreement will be signed that outlines the process and the commitments of all parties.
- Whole Building Energy Assessment Report: Comprehensive assessments across all fuels are completed, with reports provided to customers describing all efficiency opportunities identified in the building, including detailed measure costs, savings, and incentives.
- *Action Plan Meeting:* Meetings are held to discuss the financial and engineering results of the report, and how the program can assist with the implementation of recommended measures. Customers are strongly encouraged to implement all low and no-cost measures.
- *Project Implementation:* The implementation contractor provides technical assistance helping customers with the program application process, and working to move projects forward.
- *Education & Training:* The pilot assists customers in identifying building occupant education and facility staff training opportunities.
- *Benchmarking:* During the selection process, two client portfolios and two or more facilities are targeted for participation in the benchmarking services and case studies. Buildings are benchmarked using ENERGY STAR's Portfolio Manager and the score is used as screening criteria for program inclusion. Due to the early cessation of this program, Ecova did not benchmark clients.

## **Plan Year 2 Results**

This program effectively ended at the close of PY2. Four projects were completed with the therms shown below included in other programs that relate to the projects completed.

Barriers to a successful program included the fact that the hospitality segment has fragmented ownership structure which complicates decision-making, and changes in ownership structure that complicate decision making at the facility level are not uncommon.

Building Performance with ENERGY STAR® Energy Savings (Net Therms)			
Net Therms Saved	Planned Goals as Filed	Plan Year Percentage Achieved	
11,912	100,000	11.9%	

# **Emerging Technology**

### **Objective**

The Emerging Technology program works to accelerate the rate of adoption of new gas efficiency technologies into the marketplace by providing incentives, demonstration sites and promotion of lessons learned. This program is intended to support technologies that are commercially viable or available. PY1 focused on the program design. PY2 and PY3 focus on implementation to provide quantifiable results. While there are no savings goals for the program, the program is expected to generate energy savings, and installations will be evaluated and tracked.

## **Program Description**

Nicor Gas selected the Gas Technology Institute ("GTI") through a competitive sourcing process to administer this function throughout the first plan cycle. The program, as operated by GTI, includes both an "Internal" and "External" track. The internal track includes offerings that test improved program designs, new delivery strategies, and new methods to market. These offerings primarily use established technologies and combine multiple requirements into one offer (like a residential deep retrofit) or improve delivery over traditional program designs (like heating system tune-ups). The external track focuses on identifying new or under-utilized technologies and increasing their adoption rate by providing financial incentives to demonstration projects resulting in energy savings. The Emerging Technology program allows Nicor Gas to identify new prescriptive and custom technologies to promote through existing energy efficiency programs. It also identifies new programs required to deliver promising technologies and delivery approaches.

In order to provide a streamline and fair evaluation process for ideas, GTI developed an on-line application process that provides the idea generator the ability to submit ideas and receive immediate feedback on the concept through the system. The "Ready", "Set", "Go" three step process provides an immediate screen at the "Ready" stage. If the idea meets the base standards, it proceeds to the "Set" stage where a deeper evaluation is performed by GTI. Then the product is sent to the ETP Program Manager at Nicor Gas. A market viability test is then completed to determine if there is a sufficiently large market potential and does the product make sense. The last stage, "Go", will result in a fully developed concept with implementation plan for consideration by the EEP to deploy as a pilot.

In addition to conducting pilot studies, key components of the program are to develop case studies based on actual results, highlight demonstration sites, invite trade allies to observe pilots, and promote the program to gain wider acceptance from customers and trade allies. These efforts are essential to educate the market to the emerging technologies identified by the program.

## **Emerging Technology**

### **Plan Year 2 Results**

During PY2, a total of 55 unique projects ideas were submitted for pilot demonstration. 48 projects completed the "Ready" stage and 34 received 4S scoring. 18 projects were further reviewed and 11 were approved for pilots. The table below shows the nine pilot programs selected to be in effect during PY2.

**Emerging Technologies** 

**Projects in pilots** 

- Condensing Rooftop Unit
- Low-Flow Thermostatic Restriction Showerhead
- Multi-family Demand Controls for Central Domestic HW Systems
- Commercial Ozone Laundry
- Residential Combined Space & Water Heating System
- Multi-family Demand Controls for Central Domestic HW Systems
- EcoFactor Home Energy Management System
- Wireless Steam Trap Monitoring System
- Residential Gas Water Heater Timer

While no therm savings are assigned to the program, therm savings are generated from pilot projects. During PY2, the condensing rooftop unit pilot generated 3,906 therm savings and multi-family demand controls project generated 1,236 therm savings for a total of 5,142 therms saved over the period.