

Nicor Gas

# Nicor Gas Energy Efficiency Plan 2011-2014



## Energy Efficiency Program

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**USING ENERGY WISELY FOR A BETTER FUTURE<sup>SM</sup>**

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**Table 1. Glossary of Terms**

<b>Term</b>	<b>Acronym</b>	<b>Definition</b>
Administrative Costs – Internal Administration		Costs associated with labor, time, materials and other direct costs necessary to manage the overall portfolio, internal to the utility.
Alliance to Save Energy	ASE	A non-profit coalition that supports energy efficiency.
American Council for an Energy Efficient Economy	ACEEE	A non-profit organization that provides technical and policy analysis on energy efficiency issues.
American Society of Heating, Refrigerating, and Air-Conditioning Engineers	ASHRAE	A leading professional organization which develops equipment standards and technical resources
Annual Fuel Utilization Efficiency	AFUE	A rating that reflects how efficiently a gas furnace or boiler converts fuel to energy. A larger number is more efficient.
Avoided Costs		The costs a utility would incur to generate the next increment of capacity.
Building Operator Certification	BOC	A nationally recognized professional certification for facilities operations and maintenance staff, which trains building professionals to maintain their buildings in the most energy efficient way.
Building Owners and Managers Association	BOMA	A network of professionals involved in building ownership, management, development, and leasing.
Center for Neighborhood Technology	CNT	A local organization which promotes sustainable communities.
Commercial & Industrial	C&I	All retail business customers.
Commonwealth Edison	ComEd	A local electricity provider serving most of Nicor Gas' service territory.
Compact fluorescent light bulb	CFL	A fluorescent light bulb that uses less electricity for the same lumen output than the typical incandescent light bulb.
Consortium for Energy Efficiency	CEE	A non-profit public benefit corporation that works to promote the use of energy efficient products, technologies, and services.
Day Type		A description of the consumption patterns exhibited by customers differing by day of the week and season.
Department of Commerce and Economic Opportunity	DCEO	Illinois State agency.
U.S. Department of Energy	DOE	Federal energy agency.
Demand-Side Management	DSM	Actions that help customers to reduce their energy consumption.

<b>Term</b>	<b>Acronym</b>	<b>Definition</b>
Discount Rate		The rate by which future values are converted to today's dollars.
Emerging Technology		Those activities related to exploring and testing new technologies that are not yet widely deployed, demonstrating market readiness, and establishing pilot projects to test customer and market acceptance
Energy Efficiency	EE	The process of reducing energy consumption while maintaining or improving productivity.
Energy Efficiency Plan	EEP	Nicor Gas' proposed energy efficiency portfolio for 2011 through 2014.
Evaluation, Measurement & Verification	EM&V	The process of confirming that energy efficiency installations, as well as calculated energy savings, are at the levels reported.
Environmental Costs		A quantification of the cost to society of environmental degradation from greenhouse gases (NO <sub>x</sub> , CO <sub>2</sub> ) emitted while acquiring and burning fossil fuels.
Environmental Protection Agency	EPA	Federal environmental agency
Energy Service Company	ESCO	A third-party who works on behalf of or in conjunction with the utility to design, administer, or implement energy efficiency programs.
Experimental Design		A methodology that analyzes energy usage of program participants compared to a control group to determine actual energy savings based on meter data that normalizes for all relevant exogenous factors affecting energy use.
Free-Rider		A factor to account for those customers who participate in an energy efficiency program, but would have implemented the measure regardless; represented as a percent between 0 and 100%.
Gallon per minute	GPM	The flow rate of water through a faucet aerator or showerhead.
Gas Technology Institute	GTI	A non-profit energy efficiency research and development organization.
Gross Therm Savings		Natural gas savings as estimated using deemed savings or engineering calculations.
Heating Degree Day	HDD	The number of hours in a day where the local outside temperature is below 65°F.

<b>Term</b>	<b>Acronym</b>	<b>Definition</b>
Heating, Ventilation, and Air Conditioning	HVAC	The collection of space heating and cooling equipment typically installed as a bundle.
Home Energy Rating System	HERS	A standardized system for rating the energy-efficiency of homes, which results in the HERS Index score for each home. A home built to code scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0. Each 1-point decrease in the HERS Index corresponds to a 1% reduction in energy consumption compared to the reference home.
Home Performance with ENERGY STAR	HPwES	An energy efficiency program developed by ENERGY STAR for the home retrofit market.
Illinois Commerce Commission	Commission	Illinois regulatory agency.
Impact Evaluation		An evaluation which reviews program achievements to ensure that deemed savings and engineering assumptions are accurate based on actual program participants.
Implementation Vendor		The third-party or parties hired to administer certain energy efficiency programs.
Incremental Costs		The price difference between a standard product and an energy efficiency product.
Installation Contractor		The third-party or parties hired to install energy efficiency measures in homes or businesses.
Leadership in Energy and Environmental Design	LEED	One of many green building programs that encourage architects, designers, and builders to construct resource efficient new buildings.
Load Shape		The time-of-use pattern of customer or equipment energy use. This pattern can be over 24 hours or over a year (8,760 hours).
Market Potential Study	MPS	An evaluation of the amount of energy efficiency available over a certain time period in a specific geographic area.
Measure Life		An estimate of the number of years that a piece of equipment or service will perform if properly maintained
Midwest Energy Efficiency Alliance	MEEA	A collaborative network of utilities, non-profits, policymakers, manufacturers, and other energy professionals who advance energy efficiency in the Midwest.



<b>Term</b>	<b>Acronym</b>	<b>Definition</b>
Net Therm Savings		Natural gas savings corrected for NTG.
Net-To-Gross	NTG	A factor representing the percent of gross energy savings that are attributable to the utility's energy efficiency program efforts. This factor may account for free-ridership, spillover, or naturally-occurring DSM.
Participant		A customer who installs energy efficiency measures in return for an incentive or receives energy efficiency services from Nicor Gas.
Portfolio Management		Costs of internal and external administration resources to manage the overall portfolio.
Process Evaluation		An evaluation which assesses how a program operates and the processes it uses; conducted to help programs run as smoothly and efficiently as possible.
Program Management Tool	PMT	A software package that will help Nicor Gas to manage its programs and program achievements.
Program Year	PY	The 12 months over which the program is offered. This means the year in which measures are installed and incentives are paid.
Request for Proposal	RFP	The competitive bidding process by which third-parties will apply for certain external administrative roles.
Retail Energy Rate		The natural gas rates paid by customers.
Rider 29		The tariff rider that allowed Nicor Gas to begin to offer energy efficiency programs in 2010.
Section 8-104		The Illinois law that requires gas utilities to meet certain energy consumption reductions beginning in 2012.
Stakeholder Advisory Group	SAG	A group of parties interested in energy efficiency in Illinois that reviews and provides advice on energy efficiency plans and related issues.
Tax Increment Financing	TIF	A public financing method used for redevelopment and community improvement projects.
Technical Reference Manual	TRM	A consistent set of documentation regarding the assumptions about energy savings measures.

Term	Acronym	Definition
Thermal Efficiency	TE	The efficiency of a boiler or furnace after you subtract out the energy lost up the flue, and the energy thrown off (and lost) by the jacket of the boiler/furnace itself.
Total Resource Cost	TRC	A cost-effectiveness test that assesses the benefits and costs of an efficiency measure, product, or program based on the total cost to both the participant and the utility.
Utility Gas Supply Costs		The value paid by Nicor Gas to purchase its next incremental therm of natural gas at market price, rather than as part of a long-term contract.

# 1 Executive Summary

## 1.1 Introduction to the Plan

Nicor Gas is pleased to present its first three-year Energy Efficiency Plan (EEP) as part of the requirements of Section 8-104 of the Public Utilities Act (the Act or Section 8-104). This EEP represents an opportunity for the Company to offer cost-effective energy efficiency programs to its customers, vendors, and trade allies. This EEP provides a set of opportunities for all customers to decrease their energy use, improve their finances, and reduce the impact of energy use on the environment. The Company hopes that this plan provides lasting societal benefits in the form of green jobs creation, higher productivity, and reduced emissions.

Nicor Gas is the fourth largest natural gas distribution company in the United States. Currently, the Company distributes and sells natural gas to nearly 2.2 million customers in 643 communities in northern and central Illinois, over an area of approximately 17,000 square miles. Ninety-six percent of homes in Nicor Gas' territory use natural gas. About 44% of Nicor Gas deliveries are provided under traditional transportation services for customers purchasing their natural gas from other suppliers. The other 56% of natural gas volume is supplied by Nicor Gas.

Over the next three years, Nicor Gas will engage over 500,000 of its customers to reduce their energy use by over 50 million therms, or the equivalent of the annual natural gas use of over 45,000 single family households in the Nicor Gas service territory. To build the necessary market infrastructure, as well as to encourage and educate customers to achieve this level of energy efficiency, the EEP budget will reach \$150 million during this three-year plan. At this level of investment, Nicor Gas hopes to stimulate the market place, encourage the stocking and purchase of energy efficiency products and services, and provide the stability of funding to promote new green jobs. A national report authored by the Natural Resources Defense Council, using U.S. Department of Commerce data, suggests that an average of 16.7 jobs are created for every \$1 million invested in clean energy.<sup>1</sup> Using this estimate, by Program Year 3, Nicor Gas' EEP could stimulate the creation of more than 1,100 jobs.

Nicor Gas will offer six residential programs and seven business programs in the first year of its plan (Program Year 1). Certain programs will be launched on a pilot basis in Program Year (PY) 1 and grow into full scale programs in PY2 and PY3. Nicor Gas' proposed programs will address all customer segments, with the exception of those segments that are specifically set aside for the Department of Commerce and Economic Opportunity (DCEO) and those defined as "self-directed" in Section 8-104(m) of the Act. By the third year of this EEP, Nicor Gas will have provided tangible energy efficiency services to over 500,000 customers and will have exceeded the 2% rate cap specified in Section 8-104(d) of the Act during the third year, but not the three-year portfolio rate cap.

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<sup>1</sup> A copy of the report may be downloaded from: <http://www.greenforall.org/resources/green-prosperity>.

**Table 2. Three-Year Goals and Budgets by Customer Segment**

<b>Customer Segment</b>	<b>Participation</b>	<b>Net Therm Savings</b>	<b>Budget</b>
<b>PY1</b>			
Residential	89,000	3,642,612	\$13,507,460
Business	4,586	3,193,551	\$7,644,780
Emerging Tech			\$870,000
DCEO*		1,705,463	\$7,340,746
<b>PY1 Sub-Total</b>	<b>93,586</b>	<b>8,541,626</b>	<b>\$29,362,986</b>
<b>PY2</b>			
Residential	157,712	6,029,356	\$20,942,263
Business	9,562	7,623,370	\$15,210,728
Emerging Tech			\$1,480,000
DCEO*		3,410,926	\$12,544,330
<b>PY2 Sub-Total</b>	<b>167,274</b>	<b>17,063,652</b>	<b>\$50,177,322</b>
<b>PY3</b>			
Residential	233,808	8,955,848	\$30,142,608
Business	15,681	11,510,232	\$20,837,056
Emerging Tech			\$2,120,000
DCEO*		5,116,389	\$17,699,888
<b>PY3 Sub-Total</b>	<b>249,489</b>	<b>25,582,469</b>	<b>\$70,799,553</b>
<b>Residential Total</b>	<b>480,520</b>	<b>18,627,816</b>	<b>\$64,592,331</b>
<b>Business Total</b>	<b>29,829</b>	<b>22,327,153</b>	<b>\$43,692,564</b>
<b>Emerging Tech Total</b>			<b>\$4,470,000</b>
<b>Nicor Gas Total</b>	<b>510,349</b>	<b>40,954,969</b>	<b>\$112,754,895</b>
<b>DCEO Total</b>		<b>10,232,777</b>	<b>\$37,584,965</b>
<b>EEP Portfolio Total</b>	<b>510,349</b>	<b>51,187,746</b>	<b>\$150,339,860</b>

\*Includes Nicor Gas' estimate of DCEO's goals and budgets.

## 1.2 Nicor Gas Energy Efficiency Strategy

Nicor Gas' strategy is to create an environment where energy efficiency becomes the norm when customers are making energy decisions. The Company plans to offer customers innovative programs that expand energy efficiency opportunities and technologies in Illinois, while operating efficiently and helping customers save money. Nicor Gas recognizes that it will require time, program consistency, and funding continuity to achieve this vision. In order to meet its legislative goals and to deliver successful energy efficiency programs to its customers, Nicor Gas will employ five straight-forward strategies, discussed in more detail below:

- Customer Characterization;
- Infrastructure Development;
- Collaboration;

- Staged Implementation; and
- Regional and National Engagement in the energy efficiency industry.

### 1.2.1 Customer Characterization

In order to best serve its customers, Nicor Gas must first understand their customers' energy characteristics, including the types of natural gas equipment and appliances they use in their homes and businesses, when this equipment is used, and how old, or inefficient it is. To gather this information, Nicor Gas contracted with Bass & Company<sup>2</sup> to perform an energy efficiency market potential study (MPS). Over 1,000 customers and trade allies representing all segments were surveyed. The trade allies represent companies who may be called upon in the future to provide equipment specifications, installations, maintenance, or other services as part of Nicor Gas' EEP. The MPS was intended to provide data to assist in the development of Nicor Gas' new energy efficiency programs presented in this plan, and to provide a baseline from which future improvements in energy efficiency can be compared.

The results of the market potential study greatly expanded Nicor Gas' knowledge about its customers, their energy use, and the potential for energy efficiency in its service territory. They were used in the decision process of which programs and measures to offer, as well as the setting of program- and measure-level goals and incentives. They will continue to be one of the primary resources that feeds into Nicor Gas' customer engagement strategy throughout this initial three-year EEP and beyond.

A second aspect of the customer characterization will be to test new efficiency products, marketing and delivery strategies, and program design before they are placed in the market. Nicor Gas plans to utilize a series of demonstration and pilot projects as part of its EEP portfolio to examine and refine the technical aspects and market readiness of newer program concepts and marketing approaches as early in the program planning process as possible. Nicor Gas is considering the following technologies for possible demonstration projects: High Efficiency Rooftop Heating Units, Monitoring-Based Commissioning, Tankless On-Demand Water Heating, Solar Thermal Water Heating, and Advanced Commercial & Industrial Heat Recovery Systems, but others may be identified over the course of the three-year plan. In addition, innovative strategies such as financing, advertising and education, or other novel ideas not specific to equipment may also be demonstrated under this portion of the portfolio. These potential projects are described further in the Emerging Technology<sup>3</sup> section of the plan.

Nicor Gas has designed a broad portfolio that provides a sustainable program foundation over time. As the classic energy efficient technology mainstays (high efficient furnaces, hot water heaters, and boilers) continue to become even more efficient via changes in codes and standards, the Company will need to turn to alternative sources for therm reductions in the future. In order to prepare the foundation for this growth and transition over time, Nicor Gas

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<sup>2</sup> In August 2010, Bass & Company was acquired by CSC, a global leader in providing technology-enabled solutions and services.

<sup>3</sup> In this plan, emerging technology refers to those activities related to exploring and testing new proven technologies that are not yet widely deployed, demonstrating market readiness, and establishing pilot projects to test customer and market acceptance.

will begin now to explore, test, and pilot those innovative ideas. An example of this is the eventual transition to residential building shell measures as discovered in the Market Potential Study. Through the demonstrations and pilots, Nicor Gas will gain a better understanding of emerging technologies, as well as customer interest in more innovative program concepts, prior to full program launch.

### **1.2.2 Infrastructure Development**

To operate and manage an innovative portfolio of energy efficiency programs, Nicor Gas will require significant internal and external infrastructure in the form of software (a program management tool) as well as human resources (program administration and oversight). This infrastructure will not be created overnight, but rather is something that will be developed over time through thoughtful, cost-effective investments.

#### **1.2.2.1 Program Management Tool**

In order to most effectively implement its EEP, Nicor Gas will develop a series of business processes to support energy efficiency program administration, as well as the tools to manage these processes. The integrated business system, known as the Program Management Tool (PMT), will have the functionality necessary to support the full energy efficiency management life cycle, including:

- Planning (forecasting, design and budgeting);
- Marketing (communications and outreach);
- Delivery (enrollment, order processing, incentive payment, customer contact and data management); and
- Evaluation (program assessment, results analytics, and management reporting).

When fully implemented, this PMT will have the capability to support each of these process areas, while retaining the data required for analysis and reporting of results of the energy efficiency portfolio.

##### **1.2.2.1.1 Required Functionality**

Internally, Nicor Gas will build not only the capability to track program results, process incentive payments, report on results, and transact business on the web, but also the business processes to utilize these new capabilities. The high level functionality to be provided by the PMT will include:

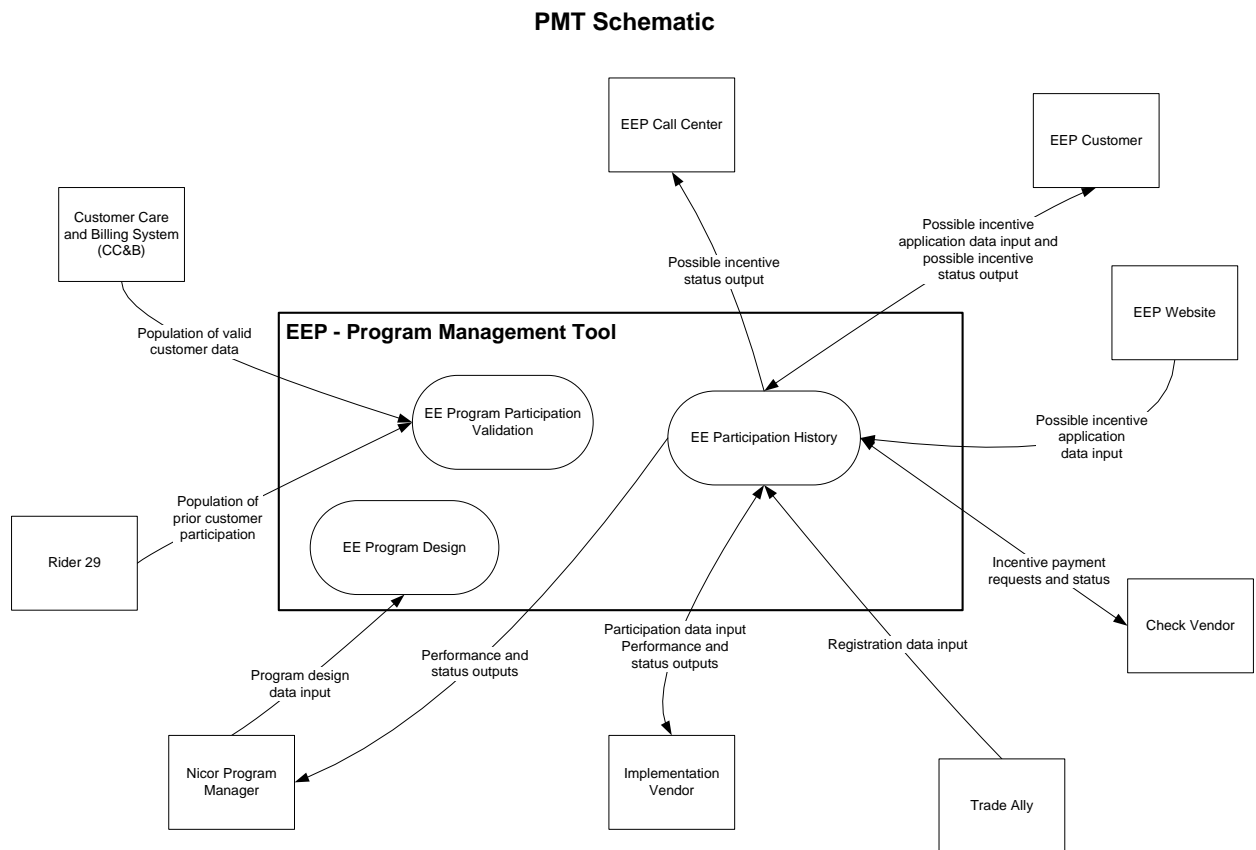
- Program Design – The PMT will maintain a database (or library) of energy efficiency measures, including equipment type, estimated savings for each measure, and historical effectiveness of that measure. This database will assist Nicor Gas in the development of future energy efficiency programs. The PMT will also have the capability to simulate the impact of potential programs (groupings of measures) on the goals and results of the overall energy efficiency portfolio.

- Program Management – The PMT will provide the capability to manage the day-to-day performance and cost of the energy efficiency programs. This will include providing access to the current status of specific applications, as well as reporting of results at the measure- and program-level. Both process metrics (processing times, error rates, etc.) as well as program metrics (costs, energy savings achieved, etc.) will be supported.
- Workflow Management – Certain energy efficiency programs involve many steps in the application and management of installation activities, typically organized as a project. The PMT will provide the capability to manage the workflow of these projects, including development of the work steps using a standard template, assignment of responsibility for each step, updating of the status of each step and the completion of the energy efficiency project. A historical record of the project will be maintained for future analysis and reporting.
- Incentive Processing – A key element of program management is the efficient processing of incentive payments to customers and trade allies who have participated in an energy efficiency program. The PMT will track application submissions, information related to the equipment installation, approval of the application for payment, and processing of the payment in a controlled and auditable fashion.
- Vendor Management – Nicor Gas will use implementation vendors and installation contractors to administer many of its energy efficiency programs. The PMT will assist the Company in managing those vendors by tracking and reporting vendor effectiveness through service level agreements, transaction volumes, accuracy and achieved savings.
- Management Reporting – The PMT will provide reporting capabilities, including:
  - Executive/Management– High-level reporting of key statistics on the performance of EEP and the EE programs. Reports may use scorecards with a graphical design to give a quick overview of various status points.
  - Program Management – Detailed reports to allow managers to determine if programs are on track.
  - Process Management – Process reports will help Nicor Gas to monitor and manage the effectiveness of its energy efficiency processes.
  - Regulatory – These reports will provide reliable/auditable data to support EEP performance against approved plans.

Upon EEP approval, this functionality will be refined as program process designs are finalized and technical requirements are determined.

The required functionalities and approach are illustrated in Figure 1 below.

**Figure 1. EEP Project Management Tool Functionalities and Interdependencies**



#### 1.2.2.1.2 Project Approach

Nicor Gas intends to engage vendors experienced in energy efficiency to bring these capabilities to fruition. The Company plans to purchase pre-packaged software to meet the requirements of the PMT, as available. The Company will contract with a third-party vendor to host and support the application, but will also develop the necessary interfaces with internal systems such as accounting, vendor management, and reporting. Nicor Gas' energy efficiency business processes will follow industry best practices, wherever possible, and conform to standard functionality typically provided by off the shelf software. The Company also intends to leverage the learning of other utilities whose experiences provide numerous lessons in the development of needed information technology systems to operate an effective energy efficiency "back office". Nicor Gas expects that this will provide the most cost-effective approach to managing its energy efficiency portfolio.

Nicor Gas will develop a more detailed implementation plan for its Program Management Tool upon Commission approval of the EEP. All costs for the PMT and associated infrastructure upgrades have been included within the portfolio management budgets for the individual programs described in this plan.



#### **1.2.2.2 Program Administration**

In preparation for its EEP, Nicor Gas hired Bass & Company to assist in a strategic analysis of the current Nicor Gas existing capabilities, infrastructure readiness, and how other peer companies had staffed internally to meet EEP goals. As a result of this study, Nicor Gas has developed a three-pronged program administration strategy. First, the Company intends to increase staff over the three-year period, increasing the energy efficiency team from two to 18 internal full-time incremental employees. Second, the Company will contract with third-party program administrators wherever possible to supplement the internal team and bring in additional skills where needed. Third, the Company has, and will continue to, collaborate with the other utilities, municipalities, community groups, as well as the Illinois Department of Commerce and Economic Opportunity, to take advantage of possible cost savings and shared customer leads available through jointly-offered programs. The following sections describe these efforts in more detail.

##### **1.2.2.2.1 New Employees**

Nicor Gas intends to increase its internal energy efficiency staff over the three-year program period. Leading up to and through the end of Program Year 1 in 2012, the Company will add 12 employees, to bring the energy efficiency team to a total of 14. In Program Years 2 and 3, the Company will add employees each year, to bring the team to 18 internal employees by 2014. These new employees will perform strategic-level tasks, such as to:

- Develop vendor management templates;
- Manage vendor relationships and performance;
- Produce monthly and annual forecasts for each program;
- Oversee and coordinate marketing initiatives for programs;
- Coordinate and collaborate on jointly implemented programs with utilities;
- Review and approve high-value projects;
- Oversee large projects and emerging technology projects;
- Propose changes to program parameters to improve performance; and
- Provide outreach and account management for large customers.

Although Nicor Gas will hire third-party implementation vendors to perform the majority of day-to-day program administration tasks, it will be important for the Company to have an internal workforce to oversee and choreograph its energy efficiency efforts.

##### **1.2.2.2.2 Third-Party Implementation Vendors**

Nicor Gas will select, through a competitive RFP process, one or a number of third-party implementation vendors to oversee most of the EEP programs. These vendors will administer the programs and perform most of the day-to-day program-related activities. Specifically, the implementation vendor(s) may be asked to:

- Identify customers for participation in the various programs;
- Register, train, and/or hire trade allies, including manufacturers, equipment vendors, installation contractors, and suppliers;

- Obtain customer approval and agreement to perform energy efficiency audits and installations at their homes or businesses;
- Track relevant program-related data, and report to Nicor Gas on a weekly or monthly basis;
- Direct customers to installation resources so that they may continue their energy efficiency improvements;
- Perform building or home energy audits, or employ a sub-contractor to perform such audits;
- Maintain program quality control and prevent fraud.

The implementation vendors will play a vital role in Nicor Gas' energy efficiency programs, and so it will be important to hire responsible, experienced vendors wherever possible.

### **1.2.3 Gas and Electric Program Coordination**

Nicor Gas will coordinate its energy efficiency programs with the other gas and electric utilities, wherever possible, in order to provide seamless program delivery from the customer's perspective, to simplify participation for customers, and to increase energy savings in a cost-effective manner. During the development of this plan, Nicor Gas has engaged the other Illinois gas and electric utilities and the Department of Commerce and Economic Opportunity, program administrators, energy efficiency organizations, trade allies, and other interested stakeholders to ensure that its plan accommodates a broad range of energy efficiency interests. While not an official member, Nicor Gas participated in the electric Stakeholder Advisory Group (SAG) meetings and gained valuable insights through that participation. Nicor Gas will continue to work through the various issues associated with program integration in a collaborative fashion with the other Illinois utilities, municipalities, and DCEO throughout its three-year Plan.

Nicor Gas intends to participate in the development of a natural gas Stakeholder Advisory Group. The natural gas SAG will provide a forum for consumer and environmental stakeholders to share their expertise and collaborate with the Company and other natural gas utilities on issues related to the utilities' energy efficiency programs. The natural gas SAG will be structured to facilitate coordination with the electric SAG.

Nicor Gas has experience collaborating with ComEd from its Rider 29 programs<sup>4</sup>, and this collaboration has improved the delivery of both companies' energy efficiency programs. These joint efforts help make the programs most cost-effective and help stretch the energy efficiency budgets of all the utilities. More importantly, however, collaboration on program delivery benefits the customers directly through a one stop process where they are able to access both gas and electric measures simultaneously.

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<sup>4</sup> In 2008, Nicor Gas filed with the Illinois Commerce Commission for approval of Rider 29, which would allow the Company to implement, on a pilot basis, an energy efficiency portfolio for residential and commercial customers. Rider 29 represents Nicor Gas' first energy efficiency offerings to customers.

Nicor Gas will continue to work with ComEd throughout its three-year EEP with the objective of effectively designing a single set of integrated programs to ensure that its programs (including Custom Business):

- (1) provide a whole building assessment so that the customer is made aware of all cost-effective efficiency opportunities;
- (2) provide customers with a single point of contact; and
- (3) ensure ComEd's implementation staff are apprised of the electric savings opportunities and vice versa, while providing service to a customer that leverages both utilities offerings, and not just indicate the existence of the other utility's program.

In addition, there will be areas of collaboration with local and community groups and non-profit organizations such as the Midwest Energy Efficiency Alliance (MEEA), Gas Technology Institute (GTI), Center for Neighborhood Technology (CNT), and others. Also, Nicor Gas will continue to seek out partnerships and opportunities to leverage its funds with manufacturers and other groups that have secured Federal funding, e.g., the Better Building Program (formerly Chicago Retrofit Ramp-Up), MEEA's Illinois Home Performance with ENERGY STAR (HPwES), and GTI's Partnership for Advanced Residential Retrofit (PARR) program, which will support funding for education, awareness, and other support activities that can enable Nicor Gas programs to be even more effective.

#### ***1.2.3.1 Joint and Cooperative Efforts***

Strategies for achieving integration between the utilities may vary among programs. In determining which programs would be delivered jointly, which programs would be cooperatively, and which programs would be delivered independently, Nicor Gas applied the following definitions developed by the Illinois utilities for Joint and Cooperative efforts:

- Joint Efforts – those programs for which there is a high potential to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost effectiveness of the overall program for both utilities and their customers.
- Cooperative Efforts – those programs for which there are both electric and gas measures that would benefit the customer. For these programs, offerings will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of and educating customers on the benefits of energy efficiency.

By ensuring that customers understand all of the opportunities for energy efficiency available to them through both gas and electric program offerings, Nicor Gas believes that customers will be encouraged to implement a more comprehensive package of measures, thereby increasing energy savings. The potential benefits of integration and coordination of gas and electric programs include:

- Enhanced customer service, including multi-fuel recommendations and priorities for energy savings and simplified application processes;

- Simplified consistent messaging to customers and other market actors;
- Economies and efficiency in program delivery;
- Capturing more comprehensive savings at participating facilities;
- Improved cost-effectiveness analysis that ensures all energy and non-energy benefits are identified and accounted for; and
- Improved benefit-cost ratios (BCRs) that reflect benefits of both gas and electric measures.

Nicor Gas, ComEd, and Integrys have held biweekly meetings for approximately a year to develop a framework for this coordinated effort. The Companies worked through many key logistical issues related to managing joint programs. These issues included which programs to offer jointly, in which markets to offer the programs, the size of the programs, the measures to be included and rebated, and the appropriate funding levels from the gas and electric counterparts. In part from these discussions, Nicor decided to offer the following programs in partnership with the other utilities:

**Table 3. Program Collaborations**

<b>Nicor Gas Portfolio</b>	<b>Type</b>
<b>Residential Programs</b>	
Heating & Appliance Incentive	Cooperative
Single Family Retrofit	Joint
Multi-Family Retrofit	Joint
New Construction	Cooperative
Elementary Energy Education	Cooperative
Behavioral Energy Savings Pilot	Cooperative
<b>Business Programs</b>	
Business Incentive	Cooperative
Custom Business	Cooperative
Economic Redevelopment	Cooperative
Retro-Commissioning	Joint
Small Business Direct Install	Joint
New Construction	Joint
Building Performance with ENERGY STAR	Joint

These programs are described more fully later in this plan. During the first program year, all of Nicor Gas' programs will be offered either jointly or cooperatively with other utilities. Over the course of the three-year plan, 34% of Nicor Gas' energy savings will come from programs delivered jointly with other utilities. Nicor Gas has also engaged with interested municipalities and cooperatives to discuss strategies for jointly providing efficiency opportunities for areas served by these electric providers.

Nicor Gas will work closely with the other utilities to provide coordinated program launches, as well as synchronicity between the programs. In order for the coordination of these programs to be transparent to customers, it will be important for the joint and cooperating utilities to closely align their program communications, timelines, and incentives.

Integration and coordination efforts are time-intensive processes, given the number of programs involved and the number of program design elements (measures, incentives, delivery mechanisms) that must be addressed. Nicor Gas has worked diligently with the other utilities to match and coordinate offerings. While Nicor Gas supports integration and coordination, there needs to be a general recognition of the substantial time required to accomplish these objectives.

As integration and coordination efforts increase, it is important that customers (especially large C&I customers) retain the ability to contact their dedicated account executive for help in identifying the customized services that best meet their needs. Indeed, to ensure maximum customer uptake, multiple customer channels should be preserved, including direct contact with Nicor Gas. The Company account executives have established strong, long-term relationships with customers, and maintain a robust understanding of their business requirements; this provides a natural opportunity to promote programs in a customized fashion that is meaningful to customers, particularly large customers. Nicor Gas will leverage these important relationships in the delivery of energy efficiency services, but will also ensure that regardless of the point of entry, customers will have available to them a seamless program offering without the need to contact multiple parties.

Nicor Gas, the other Illinois utilities, and DCEO have developed certain programs and strategies that can be delivered to customers in an integrated fashion and that support seamless service. Yet there will be some areas or initiatives where diversity in approach is appropriate based on unique service territory characteristics, or will be useful in supporting local economic and infrastructure development objectives or developing a longer term approach. Nonetheless, Nicor Gas is committed to the ongoing process of collaboration and integration in a manner that will ultimately result in program offerings for customers that offer as much “one-stop shopping” as is practically feasible.

Program administrators require the flexibility to continue to create innovative processes and programs. Increased integration should in no way inhibit innovation, particularly with respect to the development and implementation of pilot programs. Program administrators should be able to propose innovative demonstration projects that are not fully coordinated or integrated with other activities. Indeed, a key goal of such demonstrations is that they yield data as to whether the approach being explored should be implemented on a larger scale.

Nicor Gas has also worked closely with the DCEO in the development of processes needed to avoid duplication of services in Nicor Gas’ service territory, as well as in the development of DCEO programs. Nicor Gas has assisted the DCEO by sharing program concepts, market information, and cost-effectiveness model information, and providing DCEO access to Nicor Gas’ consultants to understand information developed for Nicor Gas’ EEP. To be successful at meeting their respective Section 8-104 energy efficiency requirements, it will be essential for Nicor Gas and DCEO to work collaboratively and effectively over the entire three-year energy efficiency period. Nicor Gas looks forward to building an ongoing and successful relationship with DCEO. A summary of DCEO’s proposed plan will be provided by DCEO.

Finally, Nicor Gas is committed to ongoing engagement with respect to best practices both within and outside of Illinois. So doing will allow Nicor Gas to maximize expected savings and will provide new information on those measures that are seeing success in the marketplace. Nicor Gas will continue to research best practices throughout the three-year period and will review current studies and findings to inform the Company in making substantive programmatic changes and developing its next three year plan.

#### **1.2.4 Staged Implementation**

In order to build the internal and external infrastructure as quickly and efficiently as possible, Nicor Gas is utilizing three primary approaches. First, the initial year of this EEP will robustly leverage Nicor Gas' Rider 29 programs. It is essential that there be a thoughtful transition from Rider 29 to the significantly larger activities required under Section 8-104 so that customers and trade allies who have become aware of Nicor Gas' energy efficiency efforts remain fully engaged. Nicor Gas intends to leverage the trade ally networks from existing Rider 29 programs fully during the transition period, especially for residential programs.

Second, Nicor Gas intends to launch its programs through a staggered implementation schedule. Some programs will continue with certain modifications from Rider 29. Others will launch June 1, 2011. Yet others will launch later in Program Year 1.

Third, Nicor Gas has built in a start-up phase for its programs. The Company recognizes that some of its programs will take longer to generate achievements than others. Certain programs, particularly those targeted towards large projects, will have longer lead times and require larger initial investments to stimulate interest. Nicor Gas has developed its goals and budgets with these factors in mind and believes that the steady increase from Program Year 1 to Program Year 3 will assist program growth.

Finally, as discussed earlier in the plan, Nicor Gas will be offering programs in three different phases of development: full-implementation, pilot, and demonstration. The Company recognizes that most of its programs, particularly the ones building off of Rider 29, will be ready for full-implementation launch at the beginning of the three-year plan. Other programs, such as those that have never been offered in Nicor Gas' territory before, may require further study in order for the Company to have the confidence that they can be rolled out to the entire customer population. These programs will be offered as pilots. There will also be projects offered under the emerging technology portion of the plan. These would be projects demonstrating technologies with significant energy savings potential that are not yet tested in the market place. Nicor Gas believes that offering these three types of programs will allow it to offer its customers the widest range of energy savings technologies in a measured and prudent way, while offering a broad portfolio that will provide a sustainable program foundation for years to come. In all cases, those programs that are offered in a joint or cooperative manner will have their launch schedule coordinated with the other utilities.

### **1.2.5 Regional and National Engagement in the Energy Efficiency Industry**

Nicor Gas' energy efficiency plan has been developed through collaboration with other Illinois utilities, and it incorporates leading program concepts and best practice approaches to energy efficiency delivery. The Company expects that its programs and practices will evolve over time as higher efficiency products and efficiency measures are adopted by customers, even higher efficiency products are developed by manufacturers, and updates are enacted to energy codes and appliance standards.

Nicor Gas intends to keep current with these changes and play a role in shaping the future of gas energy efficiency in the region by actively participating in organizations and associations that represent the collective interests of energy efficiency program administrators, both regionally and nationally. Examples of organizations where Nicor Gas will be active include: the Alliance to Save Energy, the American Council for an Energy Efficient Economy, the Consortium for Energy Efficiency, E Source, the Gas Technology Institute, and the Midwest Energy Efficiency Alliance. These organizations are described in more detail below.

#### ***1.2.5.1 Alliance to Save Energy ([www.ase.org](http://www.ase.org))***

The Alliance to Save Energy (ASE) is a non-profit coalition of business, government, environmental and consumer leaders. ASE supports energy efficiency as a cost-effective energy resource under existing market conditions and advocates energy efficiency policies that minimize costs to society and individual consumers, and that lessen greenhouse gas emissions and their impact on the global climate. To carry out its mission, the Alliance to Save Energy undertakes research, educational programs, and policy advocacy, designs and implements energy efficiency projects, promotes technology development and deployment, and builds public-private partnerships, in the U.S. and other countries.

#### ***1.2.5.2 American Council for an Energy Efficient Economy ([www.aceee.org](http://www.aceee.org))***

The American Council for an Energy Efficient Economy is a non-profit organization dedicated to advancing energy efficiency as a means of promoting economic prosperity, energy security, and environmental protection. ACEEE carries out its mission by conducting in-depth technical and policy analyses; advising policymakers and program managers; working collaboratively with businesses, government officials, public interest groups, and other organizations; convening conferences and workshops, primarily for energy efficiency professionals; assisting and encouraging the media to cover energy efficiency policy and technology issues, and educating businesses and consumers.

#### ***1.2.5.3 Consortium for Energy Efficiency ([www.cee1.org](http://www.cee1.org))***

The Consortium for Energy Efficiency (CEE) is a non-profit, public benefit corporation that works with its members to promote the use of energy efficient products, technologies, and services. CEE members are energy efficiency organizations, including: electric, gas and water utilities; research and development organizations; state energy offices; and regional energy programs. CEE brings these energy efficiency organizations together, providing a forum to discuss, network and exchange information with their peers. CEE members work



together on committees that address specific program areas, such as residential HVAC and appliances, industrial motor systems, commercial buildings, etc. When there is significant opportunity and member interest, CEE develops national initiatives that can be used as templates for individual energy efficiency programs.

#### ***1.2.5.4 E Source ([www.esource.com](http://www.esource.com))***

E Source provides independent research, advisory, and information services to utilities, major energy users, and other key players in the retail energy marketplace. Its mission is to increase the effectiveness of its members' energy efficiency operations, utility customer satisfaction, program design, marketing, customer management, and sustainability, while supporting the efficient and environmentally sound use of energy.

#### ***1.2.5.5 Gas Technology Institute ([www.gastechnology.org](http://www.gastechnology.org))***

The Gas Technology Institute (GTI) is a non-profit Research and Development (R&D) organization. GTI provides economic value to the energy industry and its customers, while supporting government in achieving policy objectives. GTI programs have resulted in nearly 500 products, 750 licenses, and more than 1,200 associated patents.

#### ***1.2.5.6 Midwest Energy Efficiency Alliance ([www.mwalliance.org](http://www.mwalliance.org))***

The Midwest Energy Efficiency Alliance (MEEA) is a collaborative network advancing energy efficiency in the Midwest to support sustainable economic development and environmental preservation. With over 100 members, MEEA represents a range of sectors and diverse energy stakeholders including utilities, non-profits, government and policymakers, manufacturers, retailers, consultants and other energy professionals.

### **1.3 Regulatory Framework**

#### **1.3.1 History of Rider 29**

On April 29, 2008, Nicor Gas filed with the Illinois Commerce Commission revised tariff sheets and five new riders. Included with that filing was Rider 29, which allowed the Company to implement an energy efficiency pilot program for its residential and commercial customers. On November 7, 2008, the parties and Commission Staff filed pre-hearing memoranda, and an evidentiary hearing was held from November 17 to 19, 2008. The Commission conducted a public hearing on February 24, 2009. Rider 29 was approved by the Commission on March 25, 2009 with an initial plan period from June 1, 2009 to December 31, 2009. Each succeeding Plan Period would begin on January 1 and cover the calendar year, ending on December 31. On December 16, 2009, the Commission approved Nicor Gas' request to modify the Plan Period from the current calendar year to a heating season year covering the period July 1 to June 30.

The final order called for Nicor Gas to create an independent Energy Efficiency Program Advisory Board (Advisory Board) to advise Nicor Gas in the initial EEP program offerings.



Nicor Gas, who is responsible for the performance and fiscal integrity of the EEP, is assisted by its Advisory Board, and a Plan Administrator.

Nicor Gas launched its Rider 29 energy efficiency programs to customers on May 1, 2010. The Nicor Gas Rider 29 Energy Efficiency Program (EEP) includes up to \$13 million in annual expenditures for natural gas energy efficiency programs. Rider 29 directs Nicor Gas to collect and allocate seventy percent of the up to \$13 million annual expenditures to Rate 1 (residential) and thirty percent to the non-residential Rates 4 and 74 service classifications. The portfolio of residential and small commercial customer programs includes:

<b>Residential Programs</b>	<b>Business Programs</b>
Residential Prescriptive	Business Prescriptive
Existing Home Retrofit	Custom Business Solutions
Multi-Family Direct Install Retrofit	
Elementary Education Program	
Low/Moderate-Income Weatherization	

### **1.3.2 History of Section 8-104**

On July 10, 2009, Governor Pat Quinn signed Senate Bill 1918, which established energy efficiency targets for Illinois natural gas utilities, resulting in a cumulative reduction of 8.6% of natural gas use by 2020. Senate Bill 1918, which became Section 8-104 of the Public Utilities Act, requires Nicor Gas and other gas utilities in Illinois to implement cost-effective energy efficiency measures to reduce the total amount of gas delivered to retail customers, excluding those customers described in the law as “Self Directing Customers”. Specifically, Section 8-104 requires Nicor Gas to deliver the following reductions below 2009 retail sales:

- 0.2% reduction in 2009 sales by May 31, 2012;
- an additional 0.4% by May 31, 2013, increasing total savings to 0.6%;
- an additional 0.6% by May 31, 2014, increasing total savings to 1.2%;
- an additional 0.8% by May 31, 2015, increasing total savings to 2.0%;
- an additional 1.0% by May 31, 2016, increasing total savings to 3.0%;
- an additional 1.2% by May 31, 2017, increasing total savings to 4.2%;
- an additional 1.4% by May 31, 2018, increasing total savings to 5.6%;
- an additional 1.5% by May 31, 2019, increasing total savings to 7.1%;
- an additional 1.5% in each 12 month period thereafter.

Section 8-104 balanced these savings targets against a rate cap. Natural gas utilities are to limit the estimated average increase in the amounts paid by retail customers in connection with natural gas service to no more than 2% in the applicable three-year reporting period. Nicor Gas has determined the applicable savings and rate cap for the first three-year period commencing on June 1, 2011 and ending on May 31, 2014 as presented in the table below:

**Table 4. Nicor Gas Goals and Rate Cap During EEP<sup>5</sup>**

<b>Period Ending</b>	<b>Percent Reduction</b>	<b>Therm Reduction</b>	<b>Rate Cap</b>
May 31, 2012	0.2%	8,527,314	\$56,329,215
May 31, 2013	0.4%	17,054,628	\$56,329,215
May 31, 2014	0.6%	25,581,942	\$56,329,215
Three-Year Total June 1, 2011 – May 31, 2014	1.2%	51,163,884	\$168,987,646

Within this framework, DCEO is responsible for achieving 20% of Nicor Gas' EEP energy savings goal, or approximately 10 million therms, over the three years. In addition, DCEO will receive twenty-five percent of Nicor Gas' energy efficiency budget for the DCEO programs. Through the surcharge, Nicor Gas' customers will provide funding to DCEO of nearly \$37.6M over the three years to provide for the energy efficiency needs of Nicor Gas' low-income and public sector customers.

With this filing, Nicor Gas presents its 2011-2014 Energy Efficiency Plan, which is designed to cost-effectively meet the goals while meeting the spending requirements set forth in Section 8-104. The Company will continue to offer its Rider 29 energy efficiency programs until such time as it has approval by the Illinois Commerce Commission and can launch its new programs proposed under Section 8-104. Nicor Gas plans a smooth transition from Rider 29 programs to Section 8-104 programs during 2011, as described further below.

In addition to its energy efficiency provisions, Section 8-104 approved a number of other related provisions including: a Percentage of Income Payment Plan for low-income households; an "on-bill financing program" (OBF) for energy efficiency upgrades by utility customers; a mechanism for the annual adjustment for incremental bad debt; and new reforms for the Illinois Commerce Commission.

### **1.3.3 EEP Transition from Rider 29**

Nicor Gas views Rider 29 as its initial opportunity to introduce local customers, vendors, and trade allies to energy efficiency and to learn from customer response which approaches best incent customers to implement energy efficiency measures. The Company's Section 8-104 EEP will build upon the expertise being developed in its Rider 29 program. The Company will continue to offer, in some form, all of the programs offered under Rider 29 in its Section 8-104 EEP. In addition, Nicor Gas will maintain the trade ally relationships it has developed under Rider 29 and expand upon them in Section 8-104. Even with these efforts, it will take some time before customers are fully aware of, and become comfortable with, all of the energy efficiency opportunities that Nicor Gas presents. The Company's programs have been designed and will be launched in a structured process with the intent to maintain a quality program delivery and build customer awareness through education, while allowing

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<sup>5</sup> See Appendix C for the calculation of the Annual Energy Efficiency Reduction Requirements

Nicor Gas personnel to apply lessons learned from earlier program launches. This first three-year plan will serve as a solid foundation from which to build for years to come.

## **1.4 Energy Efficiency Potential in Nicor Gas' Service Territory**

In preparation for its Section 8-104 EEP, Nicor Gas conducted an energy efficiency market potential study of its service territory<sup>6</sup>. The goals of the study were to:

- Ascertain the current market saturation levels of energy-using end-uses (the percentage of units and applications found in the service territory at this point in time) and the qualities of the facilities in which they are installed within the Nicor Gas service territory;
- Compute the magnitude of the possible energy efficiency available in the service territory through efficient upgrades; and
- Address the need for enhanced market data used for energy efficiency program planning and to assess the state of the current Nicor Gas customer data within the company databases.

### **1.4.1 Market Potential Study Methods**

To achieve these goals, Bass & Company conducted primary data collection that included 1,058 completed telephone surveys with Nicor Gas customers (residential, commercial, industrial) and trade allies. The surveys included questions regarding customers' gas use and building (or housing) envelope characteristics, building occupancy demographics and energy usage profiles, and trade perspectives on energy efficiency measures that could be or are available in the Nicor Gas marketplace.

Using the survey results and available market data, the study assessed a comprehensive set of gas energy efficiency measures applicable to Illinois and the Nicor Gas service territory. The market potential study served as the foundation for Nicor Gas' current and future energy efficiency efforts. The study provides information that will contribute to:

- Program Design Input – The information contained in this study will provide key inputs to the design of Nicor Gas' initial Energy Efficiency Programs. Program selection and design will be informed by the quantitative data contained within this study;
- Baseline for Measurement – This study will set a baseline from which to measure program performance and overall portfolio effectiveness; and
- Customer Baseline Database – On a longer-term basis, the study will inform decisions made by Nicor Gas' energy efficiency staff as they modify the program portfolio, select and target market campaigns, and develop additional information on their customers to compare to the original study to determine success in meeting needs over time.

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<sup>6</sup> Nicor retained Bass & Company Management Consultants, a utility consulting firm, to conduct the market potential study.

### 1.4.2 Identified Market Potential

Results of the study showed that there is significant achievable energy savings across all segments of Nicor Gas' customer base. According to the study, there are approximately 278 million therms of achievable potential, which equates to approximately 6% of the total gas deliveries by Nicor Gas. The majority of savings potential resides in the Commercial and Industrial Segments. As a percentage of deliveries, there is significantly more potential in the industrial (10% of deliveries) and commercial (7%) segments than there is in the residential segment (4%).

There are several reasons for this variance across market sectors. First, the most common residential measures, such as furnaces, hot water heaters, and other appliances, have historically been the subject of more appliance energy efficiency standards. Second, many residential measures may save energy, but alone are not cost-effective due to their high cost, for example, replacement windows. Finally; heating systems in the commercial and industrial sectors are older than the typical residential furnace or hot water heater in the territory, yielding higher savings per unit replaced. In total, nearly 70% of the market potential identified in the study is from non-residential customers.

**Figure 2. Nicor Gas' Estimated Market Potential and Related Percent of Gas Deliveries**



### 1.4.3 Highest Potential Measures

In addition to portfolio-level market potential, the MPS identified specific measures with the highest achievable potential. The following table outlines the five measures in each customer segment with the highest achievable potential, as determined by the market potential study.

**Table 5. Achievable Potential of Top Five Measures in Each Customer Segment**

	<b>Top Five Measures By Segment</b>	<b>Achievable Potential (millions of therms)</b>	<b>Modified<sup>7</sup> TRC</b>
Residential	Duct Sealing	20.1	3.8
	Programmable Thermostats	12.9	3.7
	Air Sealing	10.3	2.0
	Multi-Family Corridor Ventilation	5.9	5.7
	High Efficiency Gas Furnace	5.6	5.4
Commercial	Destratification Fan	14.7	2.0
	Demand Control Ventilation	12.8	4.7
	Ozone Laundry	11.3	14.0
	HVAC Controls	9.5	1.0
	Solar Hot Water Heater	7.1	1.2
Industrial	Heat Recovery to Hot Water	11.6	11.9
	Hot Water Temperature Reset	5.7	6.9
	Vent Damper	5.4	2.8
	Power Burner	4.6	1.0
	Process Boiler Insulation	3.3	180.0

Another major finding from the market potential study is that the highest potential, cost-effective measures for residential customers relate to weatherization and building shell improvements, rather than high efficiency appliance replacements. As a result, this plan places greater emphasis on building shell improvements compared to the appliance efficiency focus of Rider 29.

Taking into consideration the results of the market potential study, Nicor Gas has developed this EEP to reflect a gradual shift in the energy savings goals from the residential market emphasis of Rider 29 to a greater emphasis on the commercial and industrial market sectors. Residential programs will continue to be critical and their budgets will increase over the three-year plan because the residential market sector and residential customers still represent a significant market for energy savings. However, Nicor Gas will need to build the capability to support the commercial and industrial customer base if it is to meet the goals of Section 8-104.

### **1.5 Energy Efficiency Plan Goals and Budgets**

The overall goals and budgets for Nicor Gas' EEP are in direct alignment with the goals in Section 8-104. Nicor Gas believes that, based on comparisons to other utilities, these goals are substantial, especially for a utility that is just beginning its energy efficiency programs. By the time Nicor Gas begins its second three-year plan in 2014, its goals will be on par or above those of other large gas utilities who have had many years of experience running and managing gas energy efficiency programs. For example, Nicor Gas' PY1 proposed

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<sup>7</sup> Note that the "Modified TRC" from the MPS Report does not include program costs, and thus, is likely a higher value than it would be with program costs included.

expenditures of \$29 million are higher than the proposed 2009 budget of all but five energy efficiency organizations<sup>8</sup> in the Consortium for Energy Efficiency's analysis of results.

Nicor Gas' budgets were developed through a combination of top-down and bottom-up approaches. The top-down approach evaluated the costs and budgets necessary to achieve natural gas energy savings from other utility plans with overall goals similar to those of Nicor Gas. A set of scenarios was developed to provide a range of possible outcomes. The primary variables for these scenarios were the cost per therm saved by market segment and the mix of savings from each market segment. Based on the experience of other utilities around the country, residential savings typically cost two to three times more than C&I savings.

The bottom-up approach involved developing a detailed budget for each program, as well as the portion of the budget set aside for DCEO. The resulting overall portfolio budget is shown in Table 6, and the program budgets and goals are shown in Table 7.

**Table 6. Nicor Gas' Proposed Goals and Budgets for EEP<sup>9</sup>**

<b>Annual Goals*</b>	<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>Total</b>
Participation (customers)	93,586	167,274	249,489	510,349
Savings (therms)	8,541,626	17,063,652	25,582,469	51,187,746
Budget (\$)	\$29,362,986	\$50,177,322	\$70,799,553	\$150,339,860
Cost Per Therm (\$)	\$3.44	\$2.94	\$2.77	\$2.94

\*Includes Nicor Gas' estimate of DCEO's goals and budgets.

### **1.5.1 Budget Categories and Administration Allocation**

Nicor Gas has included in its annual EEP budgets the administrative costs associated with designing, developing, and implementing its Section 8-104 energy efficiency programs. The Company used the following budget categories in the development of its energy efficiency budgets:

- **Portfolio Management** – includes the costs for internal and external administration resources working on the plan before launch, incremental employees to oversee Nicor Gas' energy efficiency programs, and the costs for memberships with energy efficiency-related associations. Nicor Gas adopts the definition of administrative costs as those costs associated with labor, time, materials and other direct costs

<sup>8</sup> Pacific Gas & Electric, San Diego Gas & Electric, Southern California Gas Company, New Jersey Office of Clean Energy, and New York State Energy Research and Development Authority. Source: Consortium for Energy Efficiency. 2010. "Budgets and Expenditures by Organization 2009." March. Boston MA: Consortium for Energy Efficiency. Retrieved from: <http://www.cee1.org/ee-pe/2009AIR.php3>.

<sup>9</sup> See Appendix D for the Overall Plan Cost Summary including start-up and On-Bill Financing (Rider 31) costs

necessary to manage the overall portfolio, internal to the utility. These costs will be separately accounted for in the records. Internal labor costs were allocated to each energy efficiency program based on its expected therm savings. All other Portfolio Management costs were allocated based strictly on therms saved.

- IT Costs – includes the costs of implementing and maintaining the Program Management Tool and associated internal infrastructure. These costs were allocated across the programs based on the expected therms saved.
- Vendor Implementation – includes the costs associated with third-party implementation vendors who will be hired to administer the energy efficiency programs. The implementation vendor costs were determined on a program-by-program basis, depending on the anticipated level of involvement of the third-party.
- Incentives – includes the costs of rebates paid to customers who participate in Nicor Gas' energy efficiency programs. These costs were determined on a per-unit, per-customer, or per-project basis, depending on the program.
- Advertising & Promotion – includes the costs of marketing the energy efficiency programs and educating customers about new opportunities. Nicor Gas assumed that these costs would make up 8% of its PY1 budget, 7% of its PY2 budget, and 5% of its PY3 budget. Costs were calculated at the program-level.
- Evaluation, Measurement & Verification – includes the costs associated with monitoring savings, confirming energy efficiency installations, measuring and verifying program and project savings, and evaluating programs and projects once completed. Nicor Gas assumed that these costs would make up 3% of each program budget.

### **1.5.2 EEP Energy Goals**

Nicor Gas' portfolio-level goals were developed to be closely aligned with the Section 8-104 savings requirements. Once the portfolio-level goals were established, the Company determined a target proportion of Commercial & Industrial to Residential savings that it hoped to model for each program year, shifting gradually from 30:70 in Rider 29 to 56:44 in Program Year 3. From that point, Nicor Gas was able to establish program-level savings targets based on the market potential determined to be available for each included measure. Although the Company's goals are gradually shifting from majority Residential savings to majority Commercial & Industrial savings, these changes still result in a net increase in savings year over year in the Residential Segment. It is the reality of the Section 8-104 goals that the Company must obtain savings from all available sectors, and, based on the results of the market potential study, the Commercial & Industrial Segment offers the majority of the achievable market potential.



### **1.5.3 Budget and Goal Flexibility**

The Company believes that its proposed program-level goals are entirely appropriate and achievable given its current knowledge of its customers and the market. However, the Company also recognizes that numerous factors, such as customer response rates to program marketing, changes in the economic climate, commercial and industrial project timing, trade ally acceptance and promotion of energy efficiency, among others, may increase or decrease actual participation, savings and program costs. To the extent these factors are experienced, Nicor Gas plans to move program funds in order to achieve the overall savings goals cost-effectively. Nicor Gas will inform the Stakeholder Advisory Group if it intends to significantly modify its Plan. The Company will fully discuss with the SAG prior to initiating the change, any shift in the budget that results in a 20% or greater change to any program's budget, or that eliminates or adds a program. Further, the Company will not shift more than 10% of spending between residential and business sectors without Commission approval, and the Company will not modify its EEP such that it no longer meets the statutory requirements for allocations to the low income and state and local government markets.

Further, the Company will provide the SAG with updates on its program throughout the three-year EEP and discuss issues of interest to the SAG, including the issues surrounding the Company's proposed marketing and administrative costs. The Company will report annually on administrative costs and marketing costs for each of its residential and business programs and will make the report available for SAG members to review.

In all cases, the Company will document any significant changes and the results of the Company's discussions with the SAG in its required quarterly reports to the Commission. Where the changes are substantial, the Company will also inform Commission Staff so that they are aware of the changes in a timely fashion.



**Table 7. Nicor Gas' EEP Goals and Budgets by Program**

EEP Proposed Programs	Program Year 1									
	Portfolio Management	IT Costs	Vendor Implementation	Incentives	Advertising & Promotion	EM&V	Total Budget	Net Therm Savings	\$/Therm Savings	Participation
<b>Residential Programs</b>										
Heating & Appliance Incentive	\$541,769	\$54,177	\$1,221,350	\$3,150,000	\$447,057	\$173,259	\$5,587,612	1,459,670	\$3.83	16,700
Single-Family Retrofit	\$81,926	\$8,193	\$871,649	\$692,620	\$148,895	\$57,705	\$1,860,988	220,729	\$8.43	2,100
Multi-Family Retrofit	\$525,533	\$52,553	\$3,295,389	\$0	\$348,613	\$135,107	\$4,357,194	1,415,925	\$3.08	35,000
New Construction	\$8,513	\$851	\$214,214	\$170,000	\$35,422	\$13,728	\$442,728	22,938	\$19.30	200
Elementary Energy Education	\$51,443	\$5,144	\$618,375	\$0	\$60,747	\$23,543	\$759,251	138,600	\$5.48	10,000
Behavioral Energy Savings	\$142,803	\$14,280	\$287,129	\$0	\$39,979	\$15,494	\$499,686	384,750	\$1.30	25,000
<b>Residential Total</b>	<b>\$1,351,987</b>	<b>\$135,199</b>	<b>\$6,508,105</b>	<b>\$4,012,620</b>	<b>\$1,080,712</b>	<b>\$418,836</b>	<b>\$13,507,460</b>	<b>3,642,612</b>	<b>\$3.71</b>	<b>89,000</b>
<b>Business Programs</b>										
Business Incentive	\$368,044	\$36,804	\$277,741	\$819,500	\$135,188	\$52,393	\$1,689,670	991,607	\$1.70	3,310
Custom Business	\$379,231	\$37,923	\$500,600	\$1,402,813	\$208,851	\$80,941	\$2,610,360	1,122,250	\$2.33	67
Economic Redevelopment	\$44,539	\$4,454	\$75,580	\$288,000	\$37,132	\$14,391	\$464,095	120,000	\$3.87	8
Retro-Commissioning	\$215,778	\$21,578	\$200,691	\$960,619	\$125,880	\$48,785	\$1,573,332	581,364	\$2.71	21
Small Business Direct Install	\$62,848	\$6,285	\$443,769	\$162,959	\$60,828	\$23,574	\$760,263	169,329	\$4.49	1,140
New Construction	\$70,149	\$7,015	\$108,568	\$262,500	\$40,341	\$15,634	\$504,207	189,000	\$2.67	38
Building Performance with ENERGY STAR	\$7,423	\$742	\$9,930	\$20,000	\$3,429	\$1,329	\$42,853	20,000	\$2.14	2
<b>Business Total</b>	<b>\$1,148,013</b>	<b>\$114,801</b>	<b>\$1,616,880</b>	<b>\$3,916,391</b>	<b>\$611,648</b>	<b>\$237,047</b>	<b>\$7,644,780</b>	<b>3,193,551</b>	<b>\$2.39</b>	<b>4,586</b>
<b>Emerging Technology</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$870,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Nicor Gas Sub-Total</b>	<b>\$2,500,000</b>	<b>\$250,000</b>	<b>\$8,124,985</b>	<b>\$7,929,011</b>	<b>\$1,692,360</b>	<b>\$655,883</b>	<b>\$22,022,239</b>	<b>6,836,163</b>	<b>\$3.22</b>	<b>93,586</b>
<b>DCEO Programs</b>										
Municipals (10%)							\$2,936,299			
Market Transformation (5%)							\$1,468,149			
Low-Income (10%)							\$2,936,299			
<b>DCEO Total (25%)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$7,340,746</b>	<b>1,705,463</b>	<b>\$4.30</b>	<b>0</b>
<b>Total</b>	<b>\$2,500,000</b>	<b>\$250,000</b>	<b>\$8,124,985</b>	<b>\$7,929,011</b>	<b>\$1,692,360</b>	<b>\$655,883</b>	<b>\$29,362,986</b>	<b>8,541,626</b>	<b>\$3.44</b>	<b>93,586</b>

**Table 7: Nicor Gas' EEP Goals and Budgets By Program**

EEP Proposed Programs	Program Year 2									
	Portfolio Management	IT Costs	Vendor Implementation	Incentives	Advertising & Promotion	EM&V	Total Budget	Net Therm Savings	\$/Therm Savings	Participation
<b>Residential Programs</b>										
Heating & Appliance Incentive	\$417,564	\$167,025	\$2,102,700	\$4,846,550	\$602,707	\$260,369	\$8,396,916	2,235,590	\$3.76	32,112
Single-Family Retrofit	\$101,882	\$40,753	\$1,550,456	\$1,711,325	\$272,353	\$117,657	\$3,794,427	545,466	\$6.96	5,200
Multi-Family Retrofit	\$415,590	\$166,236	\$4,988,685	\$0	\$445,641	\$192,517	\$6,208,670	2,225,025	\$2.79	55,000
New Construction	\$8,569	\$3,427	\$254,914	\$340,000	\$48,553	\$20,975	\$676,438	45,875	\$14.75	400
Elementary Energy Education	\$38,832	\$15,533	\$909,830	\$0	\$77,136	\$33,323	\$1,074,652	207,900	\$5.17	15,000
Behavioral Energy Savings	\$143,727	\$57,491	\$508,624	\$0	\$56,787	\$24,532	\$791,161	769,500	\$1.03	50,000
<b>Residential Total</b>	<b>\$1,126,163</b>	<b>\$450,465</b>	<b>\$10,315,209</b>	<b>\$6,897,875</b>	<b>\$1,503,177</b>	<b>\$649,373</b>	<b>\$20,942,263</b>	<b>6,029,356</b>	<b>\$3.47</b>	<b>157,712</b>
<b>Business Programs</b>										
Business Incentive	\$378,577	\$151,431	\$345,474	\$1,584,993	\$196,838	\$85,034	\$2,742,347	2,026,860	\$1.35	6,455
Custom Business	\$588,170	\$235,268	\$1,259,290	\$4,271,250	\$508,318	\$219,594	\$7,081,891	3,417,000	\$2.07	204
Economic Redevelopment	\$44,827	\$17,931	\$130,690	\$576,000	\$61,556	\$26,592	\$857,596	240,000	\$3.57	16
Retro-Commissioning	\$191,320	\$76,528	\$266,230	\$1,692,520	\$178,128	\$76,951	\$2,481,678	1,024,308	\$2.42	37
Small Business Direct Install	\$115,197	\$46,079	\$683,172	\$400,250	\$99,576	\$43,017	\$1,387,291	616,753	\$2.25	2,800
New Construction	\$37,067	\$14,827	\$97,307	\$275,625	\$33,986	\$14,682	\$473,493	198,450	\$2.39	40
Building Performance with ENERGY STAR	\$18,678	\$7,471	\$41,121	\$100,000	\$13,382	\$5,781	\$186,432	100,000	\$1.86	10
<b>Business Total</b>	<b>\$1,373,837</b>	<b>\$549,535</b>	<b>\$2,823,285</b>	<b>\$8,900,638</b>	<b>\$1,091,784</b>	<b>\$471,650</b>	<b>\$15,210,728</b>	<b>7,623,370</b>	<b>\$2.00</b>	<b>9,562</b>
<b>Emerging Technology</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,480,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Nicor Gas Sub-Total</b>	<b>\$2,500,000</b>	<b>\$1,000,000</b>	<b>\$13,138,494</b>	<b>\$15,798,514</b>	<b>\$2,594,961</b>	<b>\$1,121,023</b>	<b>\$37,632,991</b>	<b>13,652,726</b>	<b>\$2.76</b>	<b>167,274</b>
<b>DCEO Programs</b>										
Municipals (10%)							\$5,017,732			
Market Transformation (5%)							\$2,508,866			
Low-Income (10%)							\$5,017,732			
<b>DCEO Total (25%)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$12,544,330</b>	<b>3,410,926</b>	<b>\$3.68</b>	<b>0</b>
<b>Total</b>	<b>\$2,500,000</b>	<b>\$1,000,000</b>	<b>\$13,138,494</b>	<b>\$15,798,514</b>	<b>\$2,594,961</b>	<b>\$1,121,023</b>	<b>\$50,177,322</b>	<b>17,063,652</b>	<b>\$2.94</b>	<b>167,274</b>

**Table 7: Nicor Gas' EEP Goals and Budgets By Program**

EEP Proposed Programs	Program Year 3									
	Portfolio Management	IT Costs	Vendor Implementation	Incentives	Advertising & Promotion	EM&V	Total Budget	Net Therm Savings	\$/Therm Savings	Participation
<b>Residential Programs</b>										
Heating & Appliance Incentive	\$493,672	\$176,311	\$3,578,994	\$7,667,700	\$715,001	\$404,214	\$13,035,892	3,549,337	\$3.67	54,908
Single-Family Retrofit	\$118,909	\$42,468	\$2,248,352	\$2,682,731	\$305,548	\$172,736	\$5,570,744	854,920	\$6.52	8,150
Multi-Family Retrofit	\$422,012	\$150,718	\$6,791,358	\$0	\$441,845	\$249,790	\$8,055,723	3,034,125	\$2.66	75,000
New Construction	\$11,964	\$4,273	\$286,841	\$637,500	\$56,435	\$31,904	\$1,028,917	86,016	\$11.96	750
Elementary Energy Education	\$38,555	\$13,770	\$1,212,065	\$0	\$75,863	\$42,888	\$1,383,142	277,200	\$4.99	20,000
Behavioral Energy Savings	\$160,543	\$57,337	\$758,601	\$0	\$58,589	\$33,122	\$1,068,191	1,154,250	\$0.93	75,000
<b>Residential Total</b>	<b>\$1,245,655</b>	<b>\$444,877</b>	<b>\$14,876,211</b>	<b>\$10,987,931</b>	<b>\$1,653,280</b>	<b>\$934,655</b>	<b>\$30,142,608</b>	<b>8,955,848</b>	<b>\$3.37</b>	<b>233,808</b>
<b>Business Programs</b>										
Business Incentive	\$517,220	\$184,722	\$602,958	\$3,146,000	\$267,054	\$150,975	\$4,868,929	3,718,644	\$1.31	11,505
Custom Business	\$640,676	\$228,813	\$1,804,322	\$6,176,563	\$531,022	\$300,205	\$9,681,600	4,941,250	\$1.96	295
Economic Redevelopment	\$41,727	\$14,902	\$162,235	\$720,000	\$56,332	\$31,846	\$1,027,042	300,000	\$3.42	20
Retro-Commissioning	\$157,871	\$56,383	\$290,749	\$1,875,495	\$142,830	\$80,747	\$2,604,075	1,135,044	\$2.29	41
Small Business Direct Install	\$134,261	\$47,950	\$874,792	\$536,050	\$95,583	\$54,036	\$1,742,673	965,294	\$1.81	3,750
New Construction	\$34,772	\$12,419	\$120,717	\$347,222	\$30,908	\$17,473	\$563,511	250,000	\$2.25	50
Building Performance with ENERGY STAR	\$27,818	\$9,935	\$81,490	\$200,000	\$19,155	\$10,829	\$349,226	200,000	\$1.75	20
<b>Business Total</b>	<b>\$1,554,345</b>	<b>\$555,123</b>	<b>\$3,937,264</b>	<b>\$13,001,329</b>	<b>\$1,142,884</b>	<b>\$646,110</b>	<b>\$20,837,056</b>	<b>11,510,232</b>	<b>\$1.81</b>	<b>15,681</b>
<b>Emerging Technology</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,120,000</b>	<b>0</b>		<b>0</b>
<b>Nicor Gas Sub-Total</b>	<b>\$2,800,000</b>	<b>\$1,000,000</b>	<b>\$18,813,476</b>	<b>\$23,989,260</b>	<b>\$2,796,164</b>	<b>\$1,580,765</b>	<b>\$53,099,665</b>	<b>20,466,080</b>	<b>\$2.59</b>	<b>249,489</b>
<b>DCEO Programs</b>										
Municipals (10%)							\$7,079,955			
Market Transformation (5%)							\$3,539,978			
Low-Income (10%)							\$7,079,955			
<b>DCEO Total (25%)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$17,699,888</b>	<b>5,116,389</b>	<b>\$3.46</b>	<b>0</b>
<b>Total</b>	<b>\$2,800,000</b>	<b>\$1,000,000</b>	<b>\$18,813,476</b>	<b>\$23,989,260</b>	<b>\$2,796,164</b>	<b>\$1,580,765</b>	<b>\$70,799,553</b>	<b>25,582,469</b>	<b>\$2.77</b>	<b>249,489</b>

**Table 7: Nicor Gas' EEP Goals and Budgets By Program**

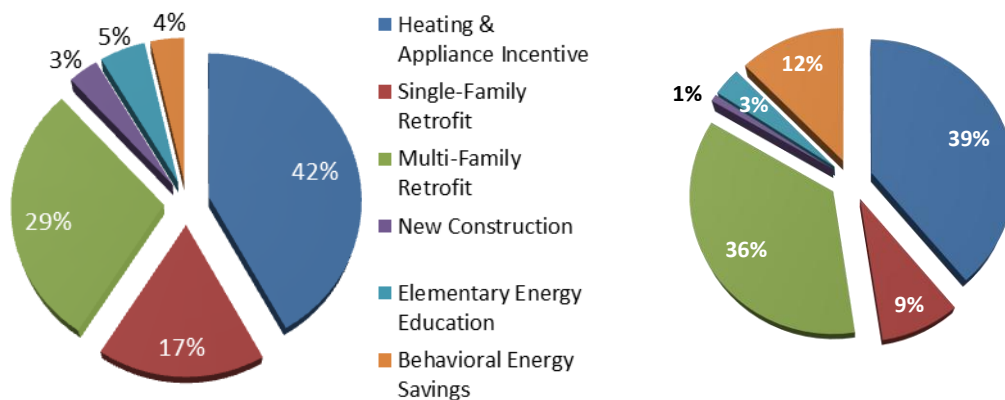
EEP Proposed Programs	EEP Total									
	Portfolio Management	IT Costs	Vendor Implementation	Incentives	Advertising & Promotion	EM&V	Total Budget	Net Therm Savings	\$/Therm Savings	Participation
<b>Residential Programs</b>										
Heating & Appliance Incentive	\$1,453,005	\$397,514	\$6,903,045	\$15,664,250	\$1,764,764	\$837,842	\$27,020,420	7,244,597	\$3.73	103,720
Single-Family Retrofit	\$302,717	\$91,413	\$4,670,458	\$5,086,676	\$726,796	\$348,098	\$11,226,159	1,621,115	\$6.92	15,450
Multi-Family Retrofit	\$1,363,135	\$369,508	\$15,075,432	\$0	\$1,236,099	\$577,414	\$18,621,587	6,675,075	\$2.79	165,000
New Construction	\$29,046	\$8,552	\$755,969	\$1,147,500	\$140,410	\$66,607	\$2,148,083	154,829	\$13.87	1,350
Elementary Energy Education	\$128,829	\$34,447	\$2,740,270	\$0	\$213,746	\$99,753	\$3,217,045	623,700	\$5.16	45,000
Behavioral Energy Savings	\$447,073	\$129,108	\$1,554,353	\$0	\$155,355	\$73,148	\$2,359,038	2,308,500	\$1.02	150,000
<b>Residential Total</b>	<b>\$3,723,805</b>	<b>\$1,030,541</b>	<b>\$31,699,526</b>	<b>\$21,898,426</b>	<b>\$4,237,170</b>	<b>\$2,002,863</b>	<b>\$64,592,331</b>	<b>18,627,816</b>	<b>\$3.47</b>	<b>480,520</b>
<b>Business Programs</b>										
Business Incentive	\$1,263,841	\$372,957	\$1,226,174	\$5,550,493	\$599,080	\$288,401	\$9,300,946	6,737,111	\$1.38	21,270
Custom Business	\$1,608,078	\$502,004	\$3,564,212	\$11,850,625	\$1,248,192	\$600,740	\$19,373,851	9,480,500	\$2.04	566
Economic Redevelopment	\$131,093	\$37,287	\$368,505	\$1,584,000	\$155,019	\$72,829	\$2,348,733	660,000	\$3.56	44
Retro-Commissioning	\$564,970	\$154,489	\$757,670	\$4,528,634	\$446,838	\$206,483	\$6,659,084	2,740,716	\$2.43	99
Small Business Direct Install	\$312,306	\$100,314	\$2,001,734	\$1,099,259	\$255,987	\$120,627	\$3,890,227	1,751,377	\$2.22	7,690
New Construction	\$141,988	\$34,260	\$326,592	\$885,347	\$105,235	\$47,789	\$1,541,211	637,450	\$2.42	128
Building Performance with ENERGY STAR	\$53,919	\$18,148	\$132,541	\$320,000	\$35,965	\$17,938	\$578,511	320,000	\$1.81	32
<b>Business Total</b>	<b>\$4,076,195</b>	<b>\$1,219,459</b>	<b>\$8,377,429</b>	<b>\$25,818,358</b>	<b>\$2,846,315</b>	<b>\$1,354,808</b>	<b>\$43,692,564</b>	<b>22,327,153</b>	<b>\$1.96</b>	<b>29,829</b>
<b>Emerging Technology</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,470,000</b>	<b>0</b>		<b>0</b>
<b>Nicor Gas Sub-Total</b>	<b>\$7,800,000</b>	<b>\$2,250,000</b>	<b>\$40,076,955</b>	<b>\$47,716,785</b>	<b>\$7,083,484</b>	<b>\$3,357,671</b>	<b>\$112,754,895</b>	<b>40,954,969</b>	<b>\$2.75</b>	<b>510,349</b>
<b>DCEO Programs</b>										
Municipals (10%)							\$15,033,986			
Market Transformation (5%)							\$7,516,993			
Low-Income (10%)							\$15,033,986			
<b>DCEO Total (25%)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$37,584,965</b>	<b>10,232,777</b>	<b>\$3.67</b>	<b>0</b>
<b>Total</b>	<b>\$7,800,000</b>	<b>\$2,250,000</b>	<b>\$40,076,955</b>	<b>\$47,716,785</b>	<b>\$7,083,484</b>	<b>\$3,357,671</b>	<b>\$150,339,860</b>	<b>51,187,746</b>	<b>\$2.94</b>	<b>510,349</b>

## 2 Residential Programs

Nicor Gas' Residential Segment will include six programs offering incentives for upgrades to more efficient equipment, elementary energy education, new home construction, behavioral change, and single and multi-family home retrofits. The Company has taken a holistic approach in its program design, encouraging customers to make their entire living environments more energy efficient, rather than replace equipment measure by measure.

The majority of programs described in this section are offered in collaboration with the regional electric utility, Commonwealth Edison, as well as Ameren and other key stakeholders such as municipalities and community groups. Nicor Gas believes that these collaborations will result in increased savings for its customers, by capturing both electric and natural gas measures within the same project, as well as cost savings for both the utilities and their customers.

**Figure 3. EEP Three-Year Total Residential Program Budgets (left) and Savings (right)**



## 2.1 Heating and Appliance Incentive Program

<b>PROGRAM ELEMENT</b>	<b>Heating and Appliance Incentive Program</b>				
<b>Objective</b>	The objective of the Heating and Appliance Incentive Program is to obtain energy savings by overcoming market barriers to the purchase and installation of energy efficient heating and water heating systems and efficient appliances in residential applications.				
<b>Target Market</b>	Owners of single or multi-family residential properties who are installing or replacing natural gas heating and water heating equipment or who are installing appliances that result in the more efficient use of natural gas.				
<b>Program Duration &amp; Milestones</b>	This program will be launched in Program Year 1 and continue through Program Year 3, building on the existing Nicor Gas program offered under Rider 29. Incentives for high efficiency windows are not planned until Program Year 2 based upon market conditions.				
<b>Program Description</b>	This program provides incentives for the purchase and installation of high efficiency gas furnaces and boilers, efficient tank-type water heaters, and high efficiency windows. Customers are encouraged to install the most efficient gas heating equipment and appliances available when replacing older, less efficient equipment or when making equipment purchases for new construction in single or multi-family properties. The program builds on the residential equipment incentives offered under Rider 29. Participants also may be eligible for on-bill financing for their purchases, which reduces the upfront expense to the customer for the energy efficiency purchase.				
<b>Eligible Measures &amp; Incentive Levels</b>	<b>Measure</b>	<b>Gross Annual Savings (therms)</b>	<b>Incremental Cost</b>	<b>Incentive (per unit)</b>	<b>TRC</b>
	92% AFUE <sup>10</sup> Furnace	144	\$1,125	\$200	2.0
	95% AFUE Furnace	178	\$1,650	\$250	1.7
	90% AFUE Boiler	103	\$1,250	\$300	1.4
	95% AFUE Boiler	161	\$1,500	\$400	1.9
	0.67 EF <sup>11</sup> Water Heater	37	\$250	\$100	1.8
	U <sup>12</sup> =0.2 Windows	12	\$111	\$25	3.0

<sup>10</sup> Annual Fuel Utilization Efficiency (AFUE) is a rating that reflects how efficiently a gas furnace or boiler converts fuel to energy. A larger number is more efficient.

<sup>11</sup> The Energy Factor (EF) is a ratio of useful energy output from the water heater to the total amount of energy delivered to the water heater. The higher the EF is, the more efficient the water heater.

<sup>12</sup> The rate of heat loss of a window. Lower values indicate better insulating properties.

<b>PROGRAM ELEMENT</b>	<b>Heating and Appliance Incentive Program (cont'd)</b>
<b>Implementation Strategy</b>	<p>The Heating and Appliance Incentive Program will contract with a third-party implementation vendor through an RFP selection process to launch and implement this program. The implementation vendor will be responsible for communicating with trade allies – manufacturers, equipment vendors, and installation contractors – in order to educate them on energy efficient equipment choices, proper installation, the program application process, and incentive forms.</p> <p>This program provides incentives for eligible equipment purchased by consumers for their own use. Incentive forms will be available from retailers, installation contractors, and the Nicor Gas website. To receive an incentive, the participant may submit the incentive form with proof of purchase via direct mail or the Nicor Gas website. The incentive will initially take the form of a check sent to the customer, but other payment options, such as electronic deposits, gift cards, and Nicor Gas bill credits, are being explored.</p>
<b>Marketing Strategy</b>	<p>To promote this program Nicor Gas will employ integrated communications campaigns to create broad awareness through mass marketing along with targeted direct mail and other campaigns. Communication vehicles will include traditional direct mail advertising with media support, collateral materials, and web-based advertising and email communications. Nicor Gas will leverage existing product market channels to generate program support and develop strong partnerships with trade allies and other stakeholders. Trade ally outreach will include regular trade ally meetings and communications, training and certification classes and events to develop trade ally awareness and support for Nicor Gas' energy efficiency programs.</p>
<b>Utility Coordination</b>	<p>It is the intent of Nicor Gas, ComEd, and other regional electric providers to cooperate in the offering of this program. There are some measures that could reduce both the gas and electric energy use. Coordinated offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of, and educating customers on, the benefits of energy efficiency.</p>
<b>EM&amp;V Requirements</b>	<p>The incentives provided by Nicor Gas in this program are approved based on the submitted application form. The incentive form will require the submission of measure descriptive criteria that can be used to differentiate the deemed savings developed for each measure. Evaluation will include confirmation of the deemed savings for each measure.</p>

PROGRAM ELEMENT	Heating and Appliance Incentive Program (cont'd)																													
EM&V Requirements (cont'd)	<p>The major objective of this program is to stimulate the market and overcome barriers to implementation of energy efficiency that are found in the residential sector. In order to measure its success, Nicor Gas will survey participants and non-participants using the internet and telephone to reach Nicor Gas customers. Questions will include those needed to determine why customers participated or did not participate. Comparison of participants and non-participants will yield data and additional information that defines the barriers to participation and the achievement of market movement towards the higher efficiency levels. Analysis of customer bills and payment/arrearage statistics may be performed to ascertain the effectiveness of the on-bill financing option.</p> <p>In order to assess its Heating &amp; Appliance Incentive Program processes, the EM&amp;V vendor will conduct interviews with the implementation vendor, Nicor Gas, and others. The EM&amp;V vendor may also evaluate program processes using questions in the participant survey.</p>																													
Administrative Requirements	<p>This program will be administered by an implementation vendor selected through an RFP process. The implementation vendor will be responsible for customer inquiries, rebate processing, and database management. The implementation vendor will collect customer data, installation data, measure information, and transaction data, will verify that each product for which incentives are paid meets the program requirements, and will detect and prevent fraud. An inspection vendor will conduct onsite inspections of a statistical sampling of the eligible equipment to verify installation and compliance with program requirements.</p>																													
Estimated Participation, Savings, and Budgets	<table><tr><th></th><th>PY1</th><th>PY2</th><th>PY3</th><th>Total</th></tr><tr><td>Participation (measures)</td><td>16,700</td><td>32,112</td><td>54,908</td><td>103,720</td></tr><tr><td>Net Savings (therms)</td><td>1,459,670</td><td>2,235,590</td><td>3,549,337</td><td>7,244,597</td></tr><tr><td>Budget (\$)</td><td>\$5,587,612</td><td>\$8,396,916</td><td>\$13,035,892</td><td>\$27,020,420</td></tr><tr><td>TRC</td><td>1.6</td><td>1.6</td><td>1.6</td><td>N/A</td></tr></table>						PY1	PY2	PY3	Total	Participation (measures)	16,700	32,112	54,908	103,720	Net Savings (therms)	1,459,670	2,235,590	3,549,337	7,244,597	Budget (\$)	\$5,587,612	\$8,396,916	\$13,035,892	\$27,020,420	TRC	1.6	1.6	1.6	N/A
	PY1	PY2	PY3	Total																										
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Budget (\$)	\$5,587,612	\$8,396,916	\$13,035,892	\$27,020,420																										
TRC	1.6	1.6	1.6	N/A																										
Vendor Selection Process	<p>Nicor Gas currently has an existing vendor relationship through Rider 29. Nicor Gas may negotiate a contract extension with the existing vendor or initiate a new vendor RFP process.</p>																													



## 2.2 Single Family Retrofit Program

PROGRAM ELEMENT	Single Family Retrofit Program
<b>Objective</b>	The objective of the Single Family Retrofit Program is to obtain energy savings in existing residential buildings by overcoming market barriers to the installation of energy efficiency measures. The program promotes the installation of cost-effective energy-saving improvements through a comprehensive whole house approach to efficiency which includes an assessment of the building envelope, HVAC/mechanical systems, water heating, appliances, and lighting.
<b>Target Market</b>	Residential gas heating customers in single family homes and multi-family buildings up to four units built prior to 2000.
<b>Program Duration &amp; Milestones</b>	This program will be launched in Program Year 1 and continue through Program Year 3, building on the existing effort offered under Rider 29.
<b>Program Description</b>	<p>The Single Family Retrofit Program will expand upon the weatherization measures developed in Nicor Gas' Rider 29 program by offering three tiers of retrofit measures to single family homes, each tier building on the previous:</p> <ul style="list-style-type: none"> <li>• Tier 1: Participants in this tier will be provided with an energy assessment by a qualified energy auditor who will analyze the building's energy use. A quote for the cost to implement the activities outlined in the audit will be provided at the time of the audit. The auditor will also install instant savings measures such as faucet aerators and low-flow showerheads. The participant will contribute \$50 towards the cost of this tier.</li> <li>• Tier 2: The auditor will facilitate the scheduling and installation of additional weatherization measures during a subsequent visit. Customers will receive an incentive of 50% of the project cost for weatherization measures installed, up to \$1,250 per customer. Installed measures also may be eligible for on-bill financing. Tier 1 activities are a pre-requisite for this Tier.</li> <li>• Tier 3: The auditor will encourage the customer to go beyond the weatherization measures of Tier 2 and complete the full requirements of the Home Performance with ENERGY STAR program, as described on the Department of Energy website.</li> </ul>

PROGRAM ELEMENT	Single Family Retrofit Program (cont'd)				
Eligible Measures & Incentive Levels					

PROGRAM ELEMENT	Single Family Retrofit Program (cont'd)
<b>Implementation Strategy (cont'd)</b>	<p>Two home appointments are required to complete this program. The first site visit is scheduled by the implementation vendor after a customer has expressed interest in the program. During this appointment, an energy auditor will conduct an energy audit, install instant savings measures, and provide the customer with information on Nicor Gas' energy efficiency programs. The results of the audit will be explained to the customer, and the auditor will provide the customer with a copy of the audit recommendations and quote to complete the work. Water saving devices, including low-flow shower heads, faucet aerators, and up to ten compact fluorescent light bulbs (CFLs), will be installed at no cost to the customer where possible during this first visit. It is anticipated that the savings benefit from these measures will exceed the average cost to deliver the initial audit. Customers will be charged \$50 for this initial assessment.</p> <p>The auditor will also provide the customer with a report detailing recommended efficiency measures, available incentives for those measures, their potential annual energy savings, a quote to install these measures, and their simple payback. The auditor will encourage the customer to implement the recommended measures. The customer will have the option to choose which measures, if any, they want to complete, however, the measures must be selected according to a priority order established by Nicor Gas. If the customer chooses to proceed with an installation, a subsequent appointment will be scheduled by the implementation vendor to conduct the installation work. The quote is valid for 30 days from the time of the audit; afterwards the customer would need to ask for a re-quote to take advantage of the program.</p> <p>At the second appointment, the implementation vendor will complete the installation of any further requested energy saving measures. The second visit will be conducted by a qualified contractor trained in the installation of weatherization and other energy efficiency measures. Contractors will be trained, qualified, and scheduled by the implementation vendor. Typical measures would include air infiltration reduction, duct insulation and sealing, attic and/or wall insulation, floor insulation, pipe insulation, installation of additional CFLs, and installation of programmable thermostats. In all cases where the customer has chosen comprehensive air sealing, a blower door test will be performed to measure the reduction in air infiltration. These</p>

<b>PROGRAM ELEMENT</b>	<b>Single Family Retrofit Program (cont'd)</b>
<b>Implementation Strategy (cont'd)</b>	measures will be installed for the customer, and the customer will receive a discount on the completed work of 50% of the project cost, up to \$1,250. <sup>13</sup> Customers proceeding with this second phase will have the \$50 fee of the initial audit credited against their total project cost. Upon completion of the installation, customers will be asked to verify that all measures have been installed. The customer will be invoiced by the implementation vendor for their share of the installed measures; on-bill financing may be available. Any local permit fees will be the financial responsibility of the customer. Customers continuing with Tier 3 will complete the requirements of the Home Performance with ENERGY STAR Program, currently under development for Illinois by MEEA.
<b>Marketing Strategy</b>	Integrated marketing campaigns will be developed to create broad customer awareness using mass media in conjunction with targeted direct mail or other campaigns. Direct mail advertising with media support and collateral as well as web-based advertising and email communications will all be employed. Community-based outreach will be used to build awareness of the program and increase participation. Nicor Gas will leverage existing market channels to generate additional program support by building strong relationships with trade allies and other stakeholders. Ongoing trade ally outreach including meetings, communications, training events and certification will all be employed.
<b>Utility Coordination</b>	It is the intent of Nicor Gas and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers.
<b>EM&amp;V Requirements</b>	This program achieves savings in the single family market by offering on-site delivery of energy saving measures and application of strategies to reduce energy use. Since this program is driven through the initial audit and energy assessment prior to measure installation, the program documentation will include a comprehensive review of the building and appliance characteristics for the participant. The implementation vendor will enter this information into a database, which can be queried to produce overall program impacts and summary reports. Selective customer satisfaction surveys may be employed via phone or internet that also ask questions related to the barriers that were overcome through the program. Process evaluation assessment may be performed through in-person interviews with program staff.

<sup>13</sup> Thus, if the total project costs \$1,000, the customer may receive an incentive up to \$500. If the project costs \$3,000, the customer may receive an incentive of no more than \$1,250.

PROGRAM ELEMENT	Single Family Retrofit Program (cont'd)
<b>Administrative Requirements</b>	<p>This program will be administered by a third-party implementation vendor selected by Nicor Gas through an RFP process. In the case where the program is offered with other Illinois utilities, vendor selection will be coordinated to ensure consistency throughout Illinois and to reduce and share administrative and implementation costs. The program implementation vendor's responsibilities include customer intake and scheduling, technical assistance, achieving savings targets, quality control, customer satisfaction, and database maintenance and reporting.</p> <p>All installation work must meet rigid performance standards established by Nicor Gas and the program implementation vendor, and a systematic approach to home improvement that addresses all aspects of building systems will be employed. Nicor Gas will establish inspection protocols for this program, and all work must meet or exceed Nicor Gas' criteria.</p> <p>The Illinois utilities are in the process of developing a common approach to home energy retrofits using the Home Performance with ENERGY STAR (HPwES) model, and this program may be replaced in the future with that program. The primary objective of the program will be to create energy savings through comprehensive retrofits of existing single-family housing while meeting the EPA's HPwES criteria. Additional objectives will be to build an infrastructure of certified building professionals qualified to perform comprehensive residential retrofits; to provide a coordinated delivery structure among Illinois' utilities and state government that offers seamless service integration to residential customers; and to help customers improve building performance through non-energy measures addressing moisture control, ventilation, safety, comfort, and other features.</p> <p>The HPwES sponsor for Illinois is the Department of Commerce and Economic Opportunity (DCEO), through its contractor the Midwest Energy Efficiency Alliance (MEEA). Nicor Gas will deliver the program in coordination with DCEO and MEEA, and will leverage community college partnerships such as the Illinois Green Economy Network (IGEN) where practical. The program also coordinates with other investor-owned and publicly-owned utilities to meet the needs of customers served by multiple utilities. Through the use of coordination agreements, Nicor Gas and its utility partners have agreed to coordinate the use of implementation contractors, rebate structures, trade ally requirements, quality assurance protocols, marketing strategies, and other program delivery requirements, therefore providing seamless program integration to joint customers.</p>

<b>PROGRAM ELEMENT</b>	<b>Single Family Retrofit Program (cont'd)</b>				
<b>Estimated Participation, Savings, and Budgets</b>					
		<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>Total</b>
	Participation (living units)	2,100	5,200	8,150	15,450
	Net Savings (therms)	220,729	545,466	854,920	1,621,115
	Budget (\$)	\$1,860,988	\$3,794,427	\$5,570,744	\$11,226,159
	TRC	1.0	1.2	1.2	N/A
<b>Vendor Selection Process</b>					
	This program will be jointly offered by Nicor Gas and one or more other utilities. Nicor Gas will consider contracting with the implementation vendor of the existing Rider 29 program.				

## 2.3 Multi-Family Retrofit Program

PROGRAM ELEMENT	Multi-Family Retrofit Program
<b>Objective</b>	The objective of the Multi-Family Retrofit Program is to obtain energy savings in multi-family residential buildings through the direct installation of water-saving measures, resulting in residential natural gas savings in the individual living units, or through master-metered central domestic hot water systems, resulting in commercial natural gas savings in the common areas, and by overcoming market barriers to the installation of energy efficiency measures.
<b>Target Market</b>	Property owners of residential gas heated multi-family buildings of eight or more units built prior to 2000, both apartments and condominiums.
<b>Program Duration &amp; Milestones</b>	This program will be launched in Program Year 1 and continue through Program Year 3, building on the existing effort offered under Rider 29.
<b>Program Description</b>	<p>This program will continue the program developed under Nicor Gas' Rider 29 plan. The Multi-Family Retrofit Program will offer property owners with turnkey services to reduce energy and water use in both residential living units (residential incentives) and common areas (commercial incentives).</p> <p>Implementation vendors will train and schedule installation contractors to retrofit living units in targeted buildings. Contractors will install low-flow water-saving devices (the Water Savings package), including kitchen and bath aerators rated at 1.0 GPM, and showerheads rated at 1.5 GPM, as well as programmable thermostats. They will also turn-down the temperature of water heaters, where applicable. The contractors will install up to six CFLs in each unit under a separate contract with ComEd (or a municipality with the electric distribution authority and funding for electric measures). Educational information about the energy savings associated with these devices will be left in all units. The service is provided at no cost to property owners and occupants.</p> <p>The implementation vendor will also look for opportunities to install energy saving measures in the common areas of multi-family buildings. Highly effective measures, such as boiler tune-ups, boiler controls, and steam traps, will be identified and referred to an installation contractor for follow up. Common area measures will be installed in conformance with Nicor Gas' commercial and industrial prescriptive and custom energy efficiency programs, and will earn the incentives and savings related to those programs.</p>

PROGRAM ELEMENT	Multi-Family Retrofit Program (cont'd)				
Eligible Measures & Incentive Levels					
	Measure	Gross Annual Savings (therms)	Incremental Cost	Incentive (per unit)	TRC
	Energy Audit	N/A	\$37	N/A	N/A
	Low-Flow Showerhead	27	\$22	N/A	6.7
	Faucet Aerator	5	\$5	N/A	3.5
	Water Heater Turn-Down	11	\$5	N/A	1.2
	Programmable Thermostats	26	\$70	N/A	3.1
	<p>This program provides for free: an initial onsite energy assessment, direct installation of instant savings measures, and education regarding program incentives and financing options.</p> <p>Contractors are eligible for incentives for efficiency measures installed in multi-family common areas. The implementation vendor will refer interested property owners to qualified local-area contractor program partners to do the installations. Common area measures will be paid, and resulting savings will be claimed, through Nicor Gas’ applicable commercial programs.</p> <p>Customers eligible for the low-income programs offered through DCEO are not eligible to participate in the Multi-Family Retrofit Program.</p>				
Implementation Strategy	<p>Key elements of the implementation strategy include:</p> <ul style="list-style-type: none"><li>• Targeted outreach to property owners. The implementation vendor will work to build close relationships with property management companies, owners, associations, and their members to recruit participation in the program.</li><li>• In-unit direct installs. The implementation vendor will schedule installation appointments with interested property owners/managers. The crew will leave educational materials in each unit describing the work performed and promoting the energy-saving benefits.</li></ul> <p>All installation work must meet rigid performance standards established by Nicor Gas and the program implementation vendor. Installation contractors will consider each building as a system when identifying potential efficiency upgrades. Nicor Gas will establish inspection protocols for this program, and all work must meet or exceed Nicor Gas’ criteria.</p>				



<b>PROGRAM ELEMENT</b>	<b>Multi-Family Retrofit Program (cont'd)</b>
<b>Marketing Strategy</b>	<p>A highly-targeted marketing strategy will be employed for the Multi-Family Retrofit Program. Recruitment efforts will first target property management companies in an effort to secure agreements to treat multiple properties through a single point of contact before targeting owners and managers of individual properties.</p> <p>General outreach will occur through advertisements in apartment association publications. This will provide awareness of the program and credibility to the implementation contractors. The implementation vendor will use direct mail solicitation, as well as presentations at local property owners' associations, to recruit participants.</p>
<b>Utility Coordination</b>	<p>It is the intent of Nicor Gas and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers.</p>
<b>EM&amp;V Requirements</b>	<p>Nicor Gas will record information required to assess the Multi-Family program, including:</p> <ul style="list-style-type: none"> <li>• Property address, number of units treated, property Management Company, and owner.</li> <li>• Water flow by fixture before and after installation on a sample of units treated.</li> <li>• A sampling of building water use both before and after the retrofit where water use is master metered to more accurately estimate energy savings.</li> </ul> <p>Information regarding the water heater and changes in flow by fixture may be combined with secondary research on consumer behavior to verify savings at the conclusion of the program.</p>
<b>Administrative Requirements</b>	<p>This program will be administered by a third-party implementation vendor selected by Nicor Gas through an RFP process. In the case where the program is offered jointly with other Illinois utilities, vendor selection will be coordinated to ensure consistency throughout Illinois and reduce and share administrative and implementation costs. The program implementation vendor's responsibilities include customer intake and scheduling, technical assistance, achieving savings targets, quality control and fraud prevention, customer satisfaction, and database maintenance and reporting.</p>

PROGRAM ELEMENT	Multi-Family Retrofit Program (cont'd)																													
Administrative Requirements (cont'd)	Key oversight functions include: <ul style="list-style-type: none"><li>• Overall goal achievement within investment;</li><li>• Management of the implementation contractors:<ul style="list-style-type: none"><li>▪ Customer service standards;</li><li>▪ Accounting and procurement standards;</li><li>▪ Review, verify and approve contractor invoices;</li></ul></li><li>• Coordination of marketing strategy/public relations among the residential and commercial market sectors;</li><li>• Problem resolution and fraud detection/prevention;</li><li>• Support evaluation activities;</li><li>• Budget tracking and management;</li><li>• Data tracking and warehousing; and</li><li>• Reporting – monthly and annual.</li></ul>																													
Estimated Participation, Savings, and Budgets	<table><tr><th></th><th>PY1</th><th>PY2</th><th>PY3</th><th>Total</th></tr><tr><td>Participation (living units)</td><td>35,000</td><td>55,000</td><td>75,000</td><td>165,000</td></tr><tr><td>Net Savings (therms)</td><td>1,415,925</td><td>2,225,025</td><td>3,034,125</td><td>6,675,075</td></tr><tr><td>Budget (\$)</td><td>\$4,357,194</td><td>\$6,208,670</td><td>\$8,055,723</td><td>\$18,621,587</td></tr><tr><td>TRC</td><td>1.9</td><td>2.1</td><td>2.2</td><td>N/A</td></tr></table>						PY1	PY2	PY3	Total	Participation (living units)	35,000	55,000	75,000	165,000	Net Savings (therms)	1,415,925	2,225,025	3,034,125	6,675,075	Budget (\$)	\$4,357,194	\$6,208,670	\$8,055,723	\$18,621,587	TRC	1.9	2.1	2.2	N/A
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TRC	1.9	2.1	2.2	N/A																										
Vendor Selection Process	This program will be jointly offered by Nicor Gas and one or more other utilities. If a vendor relationship exists for the program, Nicor Gas will consider contracting with the existing vendor. If no vendor relationship exists, Nicor Gas would plan to issue a joint RFP.																													

## 2.4 Residential New Construction Pilot

PROGRAM ELEMENT	Residential New Construction Pilot
<b>Objective</b>	The objective of the Residential New Construction Pilot Program is to create energy savings by increasing the energy efficiency in the new construction of single-family homes and duplexes that meet the ENERGY STAR National Performance Path efficiency standard. Through this pilot, program data will be collected and evaluated to determine if this effort should be extended to a full program.
<b>Target Market</b>	The program targets builders who are not currently Tier 1 ENERGY STAR partners, although all builders will be eligible to participate. According to the U.S. Department of Energy, in 2009, only 449 ENERGY STAR homes were built in all of Illinois <sup>14</sup> .
<b>Program Duration &amp; Milestones</b>	This program will be offered as a pilot in Program Year 1 and then will be offered through full implementation in Program Years 2 and 3 if deemed successful.
<b>Program Description</b>	<p>The Residential New Construction Pilot will provide customers with lower energy bills by improving the energy performance of their home through increased insulation levels, improved mechanical systems and quality installation. It is designed to educate builders and trade allies on the benefits of ENERGY STAR homes and improved building practices. The program implementation vendor will provide builders with technical training and the guidelines to meet the requirements of ENERGY STAR. Financial incentives will be provided to help offset the higher first cost of building to the ENERGY STAR standard.</p> <p>Program goals will be met by identifying and recruiting builders who are not frequently building homes that meet the ENERGY STAR standard. Builders will receive incentives towards the incremental cost to upgrade and certify each home. To qualify for this program, builders must meet all requirements of the ENERGY STAR National Performance Path standard, which is met by reaching an acceptable Home Energy Rating as well as install high efficiency natural gas heating and water heating equipment.</p>

<sup>14</sup> [http://www.energystar.gov/index.cfm?fuseaction=new\\_homes\\_partners.showStateResults&s\\_code=IL](http://www.energystar.gov/index.cfm?fuseaction=new_homes_partners.showStateResults&s_code=IL)

PROGRAM ELEMENT	Residential New Construction Pilot (cont'd)														
Eligible Measures	<table><tr><th>Measure</th><th>Gross Annual Savings (therms)</th><th>Incremental Cost (\$)</th><th>Incentive (per unit)</th><th>TRC</th></tr><tr><td>ENERGY STAR Home with HERS Rating of <math>\leq 85</math></td><td>143</td><td>\$3,752</td><td>\$750/\$100</td><td>1.8</td></tr></table>					Measure	Gross Annual Savings (therms)	Incremental Cost (\$)	Incentive (per unit)	TRC	ENERGY STAR Home with HERS Rating of $\leq 85$	143	\$3,752	\$750/\$100	1.8
	Measure	Gross Annual Savings (therms)	Incremental Cost (\$)	Incentive (per unit)	TRC										
	ENERGY STAR Home with HERS Rating of $\leq 85$	143	\$3,752	\$750/\$100	1.8										
Builders may claim incentives on an unlimited number of homes with a HERS Index $\leq 85$ . Builders must meet all requirements of the ENERGY STAR National Performance Path standard. The program also provides an incentive to Home Energy Raters of \$100 for each home evaluated.															
Implementation Strategy	<p>There are two paths to qualify a home to meet ENERGY STAR’s guidelines for efficiency. Both require independent verification by a qualified Home Energy Rater. Nicor Gas’ pilot program utilizes the National Performance Path in which a home energy rating (or HERS rating) is set and software is used to model the home’s energy use to verify that it meets a target score.</p> <p>The following are mandatory program requirements to reach the ENERGY STAR Qualified Homes National Performance Path:</p> <ul style="list-style-type: none"><li>• Envelope: Completed Thermal Bypass Inspection Checklist</li><li>• Ductwork: Leakage <math>\leq 6</math> cfm to outdoors / 100 sq. ft.</li><li>• Include at least one ENERGY STAR qualified product category:<ul style="list-style-type: none"><li>▪ Heating or cooling equipment;</li><li>▪ Windows with a U-value of <math>\leq 0.40</math> and SHGC<sup>15</sup> of <math>\leq 0.55</math>;</li><li>▪ Water heating equipment; or</li><li>▪ Five or more ENERGY STAR qualified light fixtures, appliances, ceiling fans equipped with lighting fixtures, and/or ventilation fans.</li></ul></li></ul> <p>To receive an incentive through Nicor Gas’ Residential New Construction Pilot, builders must install energy efficient natural gas heating and water heating equipment in each new home. Builders are required to submit the HERS rating score and report, along with product invoices or a copy of the ENERGY STAR certificate to receive incentives.</p>														
Marketing Strategy	Builder participation will be developed through education and training including frequent communication and outreach. Strong partnerships will be established with builders through direct business-to-business contacts undertaken by Nicor Gas’ administrative vendor.														

<sup>15</sup> Solar Heat Gain Coefficient is a measure of how much of the sun's heat is transmitted through a window. A value of 0.3 means that the window allows 30% of the sun's heat to pass through.

PROGRAM ELEMENT	Residential New Construction Pilot (cont'd)																													
Utility Coordination	It is the intent of Nicor Gas and ComEd to cooperate in the offering of this program. There are some measures that could reduce both the gas and electric energy use. Coordinated offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of, and educating customers on, the benefits of energy efficiency.																													
EM&V Requirements	The HERS Rater will be required to submit blower door test results to Nicor Gas to assess the relative efficiency of each new home participating in this program. These results will be compared to baseline estimates for the residential market within the Nicor Gas service territory to determine estimates of program impact. An EM&V contractor will conduct phone surveys with participating home builders to determine how program may be improved in the future.																													
Administrative Requirements	This program will be administered by an implementation vendor selected through an RFP process. The vendor will build relationships with builders to meet the program goals. The vendor will contact builders to promote the program, conduct builder training on marketing ENERGY STAR homes, and uphold the ENERGY STAR performance path standard. In addition, the implementation vendor will provide technical assistance, market recognition, and financial incentives to participating builders and raters.																													
Estimated Participation, Savings, and Budgets	<table><tr><th></th><th>PY1</th><th>PY2</th><th>PY3</th><th>Total</th></tr><tr><td>Participation (new homes)</td><td>200</td><td>400</td><td>750</td><td>1,350</td></tr><tr><td>Net Savings (therms)</td><td>22,938</td><td>45,875</td><td>86,016</td><td>154,829</td></tr><tr><td>Budget (\$)</td><td>\$442,728</td><td>\$676,438</td><td>\$1,028,917</td><td>\$2,148,083</td></tr><tr><td>TRC</td><td>1.2</td><td>1.4</td><td>1.5</td><td>N/A</td></tr></table>						PY1	PY2	PY3	Total	Participation (new homes)	200	400	750	1,350	Net Savings (therms)	22,938	45,875	86,016	154,829	Budget (\$)	\$442,728	\$676,438	\$1,028,917	\$2,148,083	TRC	1.2	1.4	1.5	N/A
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TRC	1.2	1.4	1.5	N/A																										
Vendor Selection Process	This is a new program for Nicor Gas, and Nicor Gas does not have an existing vendor relationship. It is Nicor Gas' intent to select a vendor through an RFP process.																													

## 2.5 Elementary Energy Education Program

PROGRAM ELEMENT	Elementary Energy Education Program														
Objective	The objective of the Elementary Energy Education Program is to encourage students and their families to take actions that can reduce their home energy use and increase efficiency.														
Target Market	The program is currently offered under Nicor Gas’ Rider 29 plan, and it will continue to be offered to students in the fifth grade at elementary schools in Nicor Gas’ service territory.														
Program Duration & Milestones	This program will be launched in Program Year 1 and continue through Program Year 3, building on the existing effort offered under Rider 29 by enhancing the incentives offered.														
Program Description	<p>The program will target students in the fifth grade, providing education and a take-home kit that raises awareness about how individual actions and low-cost measures can provide significant reductions in natural gas and water consumption.</p> <p>The program consists of a take-home kit that includes: a high-efficiency showerhead (1.5 GPM), a filter tone alarm, a kitchen aerator (1.5 GPM), a bathroom faucet aerator (1.0 GPM), a shower timer, a toilet flow-rate test bag, a water temperature check card, a fun facts slide chart, light switch stickers and a natural gas safety sticker. Kits may also include CFLs or CFL coupons in coordination with ComEd.</p>														
Eligible Measures & Incentive Levels	<table><tr><th>Measure</th><th>Gross Annual Savings (therms)</th><th>Incremental Cost</th><th>Incentive (per unit)</th><th>TRC</th></tr><tr><td>Kits</td><td>14</td><td>\$61</td><td>N/A</td><td>1.3</td></tr></table>					Measure	Gross Annual Savings (therms)	Incremental Cost	Incentive (per unit)	TRC	Kits	14	\$61	N/A	1.3
Measure	Gross Annual Savings (therms)	Incremental Cost	Incentive (per unit)	TRC											
Kits	14	\$61	N/A	1.3											
Implementation Strategy	<p>The implementation contractor will work with the public school districts and large parochial schools to introduce the program to schools throughout the Nicor Gas service territory through letters and electronic communication systems utilized specifically by teachers or education administrators.</p> <p>The implementation contractor will be responsible for school recruitment, program delivery, and tabulation of the results. Implementation-related administrative requirements will include:</p>														

<b>PROGRAM ELEMENT</b>	<b>Elementary Energy Education Program (cont'd)</b>
<b>Implementation Strategy (cont'd)</b>	<ul style="list-style-type: none"> <li>• Overseeing the work of the energy education contractor ;</li> <li>• Data tracking and reporting;</li> <li>• Investment tracking and reporting;</li> <li>• Managing public relations; and</li> <li>• Customer satisfaction/problem resolution.</li> </ul>
<b>Marketing Strategy</b>	<p>Marketing will be conducted directly to elementary schools within Nicor Gas' territory through letters and electronic communication systems utilized specifically by teachers or education administrators. All educational materials and take-home efficiency kits will be free of charge to the schools and students.</p>
<b>Utility Coordination</b>	<p>It is the intent of Nicor Gas, ComEd, and other regional electric providers to cooperate in the offering of this program. There are some measures that could reduce both the gas and electric energy use. Coordinated offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of, and educating customers on, the benefits of energy efficiency.</p>
<b>EM&amp;V Requirements</b>	<p>All evaluation activities will be conducted by a third-party contractor selected by Nicor Gas through a competitive bidding process. The implementation contractor will report on the number of kits installed by tabulating the participation sheets completed by students and teachers. They will also share information regarding the satisfaction level of teachers with the program delivery.</p> <p>The program will require that students record the following to determine energy savings:</p> <ul style="list-style-type: none"> <li>• Installation of low flow showerhead;</li> <li>• Installation of low flow kitchen faucet aerator;</li> <li>• Installation of low flow bathroom faucet aerator;</li> <li>• Pre and post flow rate measurements for all devices replaced;</li> <li>• Water heating fuel source;</li> <li>• Other data, such as installation of filter tone alarm, intent to reduce space or water temperature set points, number of CFLs installed, etc.</li> </ul>

PROGRAM ELEMENT	Elementary Energy Education Program (cont'd)																													
Administrative Requirements	This program will be administered by a third-party implementation vendor selected through an RFP process. Responsibilities include: recruitment, selection, and management of the implementation contractor(s), coordination of marketing strategy/public relations among programs and market sectors, data warehousing, and goal achievement within investment. Nicor Gas will be responsible for general administrative oversight of the program as outlined in the RFP and oversight of recruitment, selection, and management of the evaluation contractor.																													
Estimated Participation, Savings, and Budgets	<table><tr><th></th><th>PY1</th><th>PY2</th><th>PY3</th><th>Total</th></tr><tr><td>Participation (kits)</td><td>10,000</td><td>15,000</td><td>20,000</td><td>45,000</td></tr><tr><td>Net Savings (therms)</td><td>138,600</td><td>207,900</td><td>277,200</td><td>623,700</td></tr><tr><td>Budget (\$)</td><td>\$759,251</td><td>\$1,074,652</td><td>\$1,383,142</td><td>\$3,217,045</td></tr><tr><td>TRC</td><td>1.0</td><td>1.1</td><td>1.1</td><td>N/A</td></tr></table>						PY1	PY2	PY3	Total	Participation (kits)	10,000	15,000	20,000	45,000	Net Savings (therms)	138,600	207,900	277,200	623,700	Budget (\$)	\$759,251	\$1,074,652	\$1,383,142	\$3,217,045	TRC	1.0	1.1	1.1	N/A
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TRC	1.0	1.1	1.1	N/A																										
Vendor Selection Process	Nicor Gas currently has an existing vendor relationship through Rider 29. Nicor Gas may negotiate a contract extension with the existing vendor or initiate a new vendor RFP process.																													



## 2.6 Behavioral Energy Savings Pilot

PROGRAM ELEMENT	Behavioral Energy Savings Pilot
<b>Objective</b>	The objective of the Behavioral Energy Savings Pilot is to obtain energy savings by providing customers with energy use and comparison information that will help them identify how to change their energy usage behaviors and save energy. During this pilot program, the implementation vendor will collect and evaluate customer energy use and behavioral information to determine the extent to which behavioral messaging can result in energy savings. If successful, this pilot program is expected to be expanded to more customers and become one of Nicor Gas' programs for the remainder of the three-year EEP.
<b>Target Market</b>	A sample of residential customers will be targeted to receive ongoing energy communications and outreach and recommendations on their energy use and how to reduce their energy consumption.
<b>Program Duration &amp; Milestones</b>	This program will be offered as a pilot in Program Year 1, and then will be offered as a full implementation in PY2 if deemed successful.
<b>Program Description</b>	<p>This program will utilize one or more implementation vendors to provide individualized energy use information to participants to create awareness of energy use habits and create changes in behavior. Reports may use utility energy use data, customer demographics, and other information to provide personalized, actionable tips to customers. Information will be delivered to customers in multiple formats on a regular basis to provide education about natural gas consumption and energy efficiency opportunities. Several vendors currently provide home energy reports through email or direct mail.</p> <p>Reports are delivered to customers online, through the mail, and via email. The reports display household energy use, compare it to similar households, and provide efficiency recommendations. This combination of multi-channel communications, targeted messaging, energy usage analytics, and behavioral science has been shown to result in behavior changes related to energy usage and increase program participation.</p>

PROGRAM ELEMENT	Behavioral Energy Savings Pilot				
Eligible Measures & Incentive Levels					
	Measure	Gross Annual Savings (therms/customer)	Incremental Cost	Incentive (per unit)	TRC
	Behavioral Changes	16	\$10	N/A	2.1
Implementation Strategy	<p>This program will be managed and delivered by an implementation vendor who will utilize Nicor Gas' customer data to create customized energy usage reports. Personalized information will be accessed by targeted customers in multiple ways on an ongoing basis. Research has shown that comparison data of one customer household to another can increase a customers' interest in efficiency and result in reduced energy consumption.</p> <p>In the future, this program may provide the functionality for customers to create their personalized online energy profile, which would describe the characteristics (age of home, square footage, types and ages of appliances, number of occupants, etc.) of their home and the energy efficiency measures needed. As the customer completes the energy efficiency measures, they would track their progress and see their energy profile improve.</p>				
Marketing Strategy	<p>Behavioral-based mailings, email, and online tools will be the primary delivery channels for this program. Customers will be selected for the pilot to represent a cross section of Nicor Gas' residential customer base. Customer reports will be delivered at regular intervals throughout the year. In addition, online communications will be conducted to drive traffic to the online web portal and link to Nicor Gas' other energy efficiency program information.</p>				
Utility Coordination	<p>This program will be offered by Nicor Gas and coordinated with ComEd. Where appropriate and economically and technically feasible, the Company will collaborate with ComEd on vendor selection, program design, marketing, and delivery.</p>				
EM&V Requirements	<p>This program will be evaluated through a series of telephone surveys addressing the method of information dissemination that will build a database from which a statistical analysis can be applied to determine the relative impact of each marketing method.</p>				

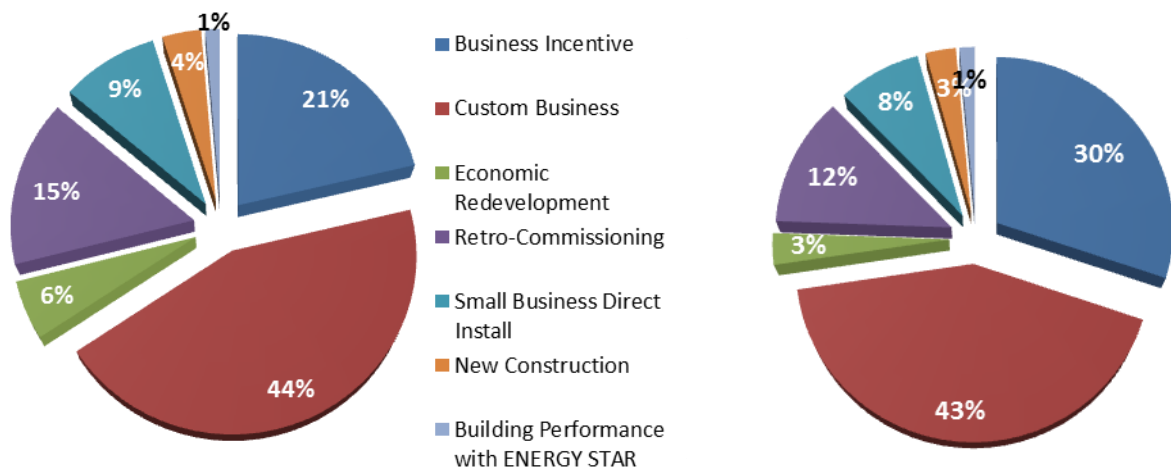
PROGRAM ELEMENT	Behavioral Energy Savings Pilot (cont'd)				
Administrative Requirements	This program will be administered by an implementation vendor selected by Nicor Gas through an RFP process. The vendor will be responsible for developing and managing customer energy reports and ongoing customer communications using hard copy mailings, an electronic newsletter, and online energy assessment tools.				
Estimated Participation, Savings, and Budgets					
		PY1	PY2	PY3	Total
	Participation (customers)	25,000	50,000	75,000	150,000
	Net Savings (therms)	384,750	769,500	1,154,250	2,308,500
	Budget (\$)	\$499,686	\$791,161	\$1,068,191	\$2,359,038
	TRC	1.0	1.3	1.4	N/A
Vendor Selection Process	This is a new program for Nicor Gas, and Nicor Gas does not have an existing vendor relationship. It is Nicor Gas’ intent to select a vendor through an RFP process. Proposals will be requested through an open bidding process. The RFP will be clear that the implementation vendor must promote other EEP programs and measures as part of the delivery of this program, as well as collaborate with ComEd. It is the Company’s understanding that no vendor yet has the capability to economically combine gas and electric customer data and reports from differing utilities. The Company’s RFP will seek further technical and cost information from vendors on how a combined report could be prepared with gas information from Nicor Gas and electric information from ComEd.				

### 3 Commercial and Industrial Programs

Nicor Gas' Commercial and Industrial Segment will include seven programs offering a variety of approaches to encourage customers to incorporate energy efficient measures into their businesses. Programs will offer: incentives for prescriptive and customized upgrades to more efficient equipment, incentives and expert advice on incorporating energy efficiency measures into new construction, funds targeted for energy efficient economic redevelopment, teams of installation contractors to target small businesses, and auditing services combined with incentives to improve the efficiency of existing building systems.

Most of Nicor Gas' programs targeted to business customers are offered jointly with the other regional utilities. The Company believes that these collaborations will result in increased savings for its customers, by capturing both electric and natural gas measures within the same project, as well as cost savings for both the utilities and their customers.

**Figure 4. EEP Three-Year Total C&I Program Budgets (left) and Savings (right)**



### 3.1 Business Incentive Program

PROGRAM ELEMENT	Business Incentive Program
<b>Objective</b>	The purpose of the Business Incentive Program is to promote the selection and installation of high efficiency gas technologies and energy efficiency measures in commercial and industrial properties.
<b>Target Market</b>	Nicor Gas' Business Incentive Program is targeted to all eligible commercial customer classes as well as installation contractors, equipment vendors and companies that specify equipment. A broad menu of crosscutting technologies will be offered through the program that addresses a variety of market sectors and industries.
<b>Program Duration &amp; Milestones</b>	This program will be launched in Program Year 1 and continue through Program Year 3, building on the existing effort offered under Rider 29 by enhancing the incentives offered.
<b>Program Description</b>	<p>Using the Rider 29 prescriptive business offerings as a starting point, Nicor Gas' Business Incentive Program will offer incentives to customers who choose to implement off-the-shelf energy efficient natural gas measures that show consistent, standardized energy savings. The program will rebate the most common gas retrofit opportunities such as kitchen equipment and space and water heating solutions. Customers will apply for incentives for high efficiency equipment once the installation is complete.</p> <p>The program expands upon the list of measures promoted by Nicor Gas in its Rider 29 Program and can be ramped up quickly. Additional measures included in this plan were identified as cost-effective in Nicor Gas' Market Potential Study. Measures were chosen based on their lifetime and the amount of gas that they use. In particular, heating and water heating equipment may have a life of 10 to 20 years or more, and kitchen equipment can consume large quantities of natural gas.</p> <p>Relationships with trade allies including equipment distributors, manufactures, equipment installers and vendors are critical to promoting this program to customers. Trade allies specify, install, ship and stock the high efficiency equipment. Incentives will be issued to the customer; however, Nicor Gas will evaluate and employ an upstream incentive program to distributors if the availability of high efficiency equipment remains limited.</p>

PROGRAM ELEMENT	Business Incentive Program (cont'd)				
Eligible Measures & Incentive Levels	Measure	Gross Annual Savings (therms)	Incremental Cost	Rebate (per unit)	TRC
	<b>FURNACES (&lt;150 MBH)</b>				
	>92% AFUE Furnace	218	\$295	\$200	11.3
	95%+ AFUE Furnace	238	\$1,325	\$250	2.7
	<b>CONDENSING UNIT HEATERS (&lt;300 MBH)</b> 90% TE with power venting	266	\$676	\$200	6.7
	<b>HYDRONIC BOILERS (&gt;85% TE)</b>				
	Up to 300 MBH	433	\$1,470	\$400	5.0
	301 to 499 MBH	477	\$1,620	\$1,000	5.0
	500 to 999 MBH	580	\$1,970	\$1,250	5.0
	1000 to 1700 MBH	756	\$2,570	\$1,750	5.0
	1701 to 2000 MBH	904	\$3,070	\$2,500	5.0
	<b>CONDENSING BOILERS (&gt;90% TE)</b>				
	Up to 300 MBH	709	\$3,365	\$500	3.6
	301 to 499 MBH	882	\$4,190	\$1,500	3.6
	500 to 999 MBH	1,288	\$6,115	\$2,500	3.6
	1000 to 1700 MBH	1,982	\$9,415	\$5,000	3.6
	1701 to 2000 MBH	2,561	\$12,165	\$7,500	3.6
	Infrared Heater	451	\$1,716	\$700	2.6
	<b>WATER HEATING</b>				
	88% TE Water Heater (large)	251	\$209	\$150	14.7
	0.67 EF Water Heater	148	\$400	\$100	4.5
	<b>INTEGRATED WATER HEATER/CONDENSING BOILER</b>				
	>90% AFUE Combined H-E Boiler/Water Heating	246	\$2,185	\$1,600	1.9
	<b>CONTROLS &amp; SERVICES</b>				
	Steam Trap	203	\$77	\$50	12.3
	Programmable Thermostat	178	\$75	\$53	17.0
	Boiler Reset Controls	867	\$600	\$250	24.8
	Boiler Tune-Up	303	\$650	\$350	1.8
	<b>KITCHENS</b>				
	HE Pre-Rinse Spray Valve	262	\$60	\$25	15.8
	Commercial Steamer>38% E	2,084	\$3,700	\$1,000	5.3
	Convection Oven>40% E	323	\$1,900	\$500	1.6
	H-E Combined Oven>40% E	644	\$4,300	\$500	1.4
	H-E Rack Oven>50%	2,064	\$8,646	\$1,400	2.3
	H-E Conveyor Oven>42% E	733	\$1,800	\$500	5.6
	ENERGY STAR Griddle	184	\$800	\$250	2.2
	ENERGY STAR Fryer>50%E	505	\$1,200	\$500	5.1
	Infrared Upright Broiler	1,089	\$5,900	\$500	1.4
	Infrared Charbroiler	661	\$2,200	\$500	2.8
	Pasta Cooker	1,380	\$2,400	\$200	5.4
	Infrared Rotisserie Oven	554	\$2,700	\$500	1.9
	Infrared Salamander Broiler	239	\$1,000	\$500	2.3

<b>PROGRAM ELEMENT</b>	<b>Business Incentive Program (cont'd)</b>
<b>Eligible Measures &amp; Incentive Levels (cont'd)</b>	<p>This program provides incentives for equipment with predictable savings. Incentive levels are established to cover between 25-75% of the incremental cost to purchase a high efficiency product compared with a similar standard efficiency product. Tiered incentive levels have been developed to promote premium efficiency equipment. Additional incentives may be included to promote the installation of multiple measures (a package) within a facility. Upstream incentives to trade allies will be employed if efficient product sales fall below goal or it is determined that high efficiency equipment availability is limited. Over time Nicor Gas will adjust the incentive levels based on program evaluation, customer reaction, and market experience.</p>
<b>Implementation Strategy</b>	<p>An implementation vendor selected through an RFP process will be responsible for implementing the program. In addition, Nicor Gas account executives will help promote the program to Nicor Gas customers and provide leads to the implementation vendor. The customer will be responsible for the selection of an installation contractor and the installation of the equipment.</p> <p>In addition the implementation vendor will provide technical assistance to assist customers in understanding various equipment and make referrals to other programs as appropriate. The customer will submit the incentive application and required documentation after the installation of qualified energy efficiency measures. The implementation vendor will review the incentive applications to ensure that appropriate documentation is provided and that the incentive was calculated correctly. The implementation vendor will perform an on-site inspection of at least 2% of projects completed prior to incentive payment. The implementation vendor will enter all program information into the program database and will seek to expedite incentive payments.</p>
<b>Marketing Strategy</b>	<p>The program will be marketed directly to C&amp;I customers, business and facility owners, and property managers who use natural gas for space and water heating in their buildings. Nicor Gas will also proactively engage customers who use commercial kitchen equipment in their business (e.g. restaurants and institutional kitchens) and corresponding trade allies and professional organizations. Trade ally promotion will be conducted with equipment vendors, plumbing and heating installation contractors, and the manufacturers, distributors, and wholesalers who bring this equipment to market.</p>

<b>PROGRAM ELEMENT</b>	<b>Business Incentive Program (cont'd)</b>
<b>Marketing Strategy (cont'd)</b>	<p>Nicor Gas will rely on the trade ally community to promote energy efficient equipment to their customers, provide quality installation, and ensure product availability. A key program element will be the development of a contractor network as a resource for Nicor Gas and the business customers. This network will become increasingly important to attaining the accelerated savings goals in Program Years 2 and 3 of the plan. The network will permit quick outreach to contractors notifying them of program changes, training, and events. Also, a web-based listing of contractors will be developed to assist customers identify installation assistance. The listing will identify those contractors that have met certain requirements and have worked with high efficiency equipment. A minimum set of requirements (e.g. participation in training courses, proof of insurance, licenses, Better Business Bureau ratings) may be required to participate. The Company will develop a metric to identify and track how many high efficiency incentives each contractor helped facilitate. A mechanism for incentivizing contractors that facilitate the highest numbers of efficiency incentives will be developed (e.g. co-branded promotions, local publicity and awards).</p> <p>Business customer education will include promotion of the program on Nicor Gas' website, targeted marketing, development and promotion of collateral, articles in the newsletter, bill inserts, direct mail, and participation in trade shows and association events. The program will also be promoted through customer and association newsletters.</p>
<b>Utility Coordination</b>	<p>It is the intent of Nicor Gas, ComEd, and other regional electric providers to cooperate in the offering of this program. There are some measures that could reduce both the gas and electric energy use. Coordinated offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of, and educating customers on, the benefits of energy efficiency.</p>
<b>EM&amp;V Requirements</b>	<p>The incentives provided by this program will be delivered via the application form submitted to the utility. This incentive form will require the submission of measure descriptive criteria that can be used to differentiate the deemed savings developed for each measure. Evaluation will include confirmation of the deemed savings for each measure via engineering analysis or building simulation, whichever is more applicable for the measure.</p> <p>Since the major objective of this program is to stimulate the market and overcome any market barriers found for the commercial and industrial sectors, phone surveys of participants and non-participants will be</p>



PROGRAM ELEMENT	Business Incentive Program (cont'd)																													
EM&V Requirements (cont'd)	<p>conducted to define the barriers to participation and assess market movement towards the higher efficiency levels. Surveys will also provide data on free-ridership and spillover.</p> <p>The process flow for this program will be reviewed through selective interviews with the program administration, as well as through questions of the participant survey.</p>																													
Administrative Requirements	<p>This program will be managed by an implementation vendor selected by Nicor Gas through an RFP process. The vendor will be responsible for responding to customer inquiries, processing incentives, tracking customer installations, quality assurance, fraud detection and prevention, and accounting for program savings, incentives, and other implementation costs. The vendor will be responsible for increasing awareness of the program in conjunction with Nicor Gas and developing education sessions to expand trade ally promotion and participation in the program.</p>																													
Estimated Participation, Savings, and Budgets	<table><tr><th></th><th>PY1</th><th>PY2</th><th>PY3</th><th>Total</th></tr><tr><td>Participation (measures)</td><td>3,310</td><td>6,455</td><td>11,505</td><td>21,270</td></tr><tr><td>Net Savings (therms)</td><td>991,607</td><td>2,026,860</td><td>3,718,644</td><td>6,737,111</td></tr><tr><td>Budget (\$)</td><td>\$1,689,670</td><td>\$2,742,347</td><td>\$4,868,929</td><td>\$9,300,946</td></tr><tr><td>TRC</td><td>4.2</td><td>4.8</td><td>4.8</td><td>N/A</td></tr></table>						PY1	PY2	PY3	Total	Participation (measures)	3,310	6,455	11,505	21,270	Net Savings (therms)	991,607	2,026,860	3,718,644	6,737,111	Budget (\$)	\$1,689,670	\$2,742,347	\$4,868,929	\$9,300,946	TRC	4.2	4.8	4.8	N/A
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TRC	4.2	4.8	4.8	N/A																										
Vendor Selection Process	<p>Nicor Gas currently has an existing vendor relationship through Rider 29. Nicor Gas may negotiate a contract extension with the existing vendor or initiate a new vendor RFP process.</p>																													

### 3.2 Custom Business Program

PROGRAM ELEMENT	Custom Business Program
<b>Objective</b>	The purpose of the Custom Business Program is to assist C&I customers in identifying and implementing cost-effective gas energy efficiency measures that are not otherwise addressed in Nicor Gas' Business Incentive Program.
<b>Target Market</b>	The initial emphasis will be placed on large customers with more complex facilities that would benefit the most from a custom approach during new equipment purchases, facility modernization and industrial process improvements. Specialized approaches will be developed for certain target industries.
<b>Program Duration &amp; Milestones</b>	This program will be launched in Program Year 1 and continue through Program Year 3, building on the existing effort offered under Rider 29 by enhancing the incentives offered.
<b>Program Description</b>	This program provides incentives and technical assistance to aid in the identification and implementation of energy efficiency retrofit and new construction opportunities not covered by the Business Incentive Program. Many C&I projects involve unique or process-related equipment or multiple measures with interactive effects that are not well-suited for the prescriptive program. In this program, performance-based incentives are provided to customers working on larger-scale projects. Incentives are typically higher than prescriptive incentives and are based on an energy or engineering analysis. Technical assistance is provided to customers or their contractors to help quantify the energy savings opportunity and customize incentives for specific projects. The program also provides custom audits and engineering studies to assist customers in understanding their efficiency opportunities by quantifying the estimated project costs, energy savings, and forecasted incentives.
<b>Eligible Measures &amp; Incentive Levels</b>	Large customers and customers that require a more comprehensive energy analysis may receive custom energy audits or assessments for specific applications such as combustion controls and heating system redesigns. Nicor Gas will co-fund the cost of an energy assessment or engineering study up 50% of the pre-approved study cost with maximum co-funding of \$15,000. Based upon Nicor Gas' experience and the customer's potential energy savings, the co-funding maximum may be increased to accommodate the higher cost of engineering studies for larger and more complex projects.

PROGRAM ELEMENT	Custom Business Program (cont'd)																																
Eligible Measures & Incentive Levels (cont'd)	<p>The customer’s share of the cost of the assessment or engineering study will be reimbursed when the customer implements cost-effective gas efficiency measures that achieve 75% or more of the gas savings identified in the study. If the customer implements projects that achieve 50-75% of the identified gas savings, half the customer’s cost will be reimbursed. If the customer implements projects that save less than 50% of the gas savings identified in the study, none of the customer’s share of the study costs will be reimbursed. Wherever possible, Nicor Gas will coordinate with other utilities to identify both electric and gas energy efficiency opportunities and share the cost of engineering assessments.</p> <p>All cost-effective, energy efficient gas technologies that exceed applicable energy codes, provide reliable, long-term savings and are not covered in other Nicor Gas programs qualify for incentives under this program. This includes, but is not limited to:</p> <ul style="list-style-type: none"><li>• Building envelope and glazing;</li><li>• Commercial sized space heating equipment;</li><li>• Commercial sized water heating equipment;</li><li>• Buildings and spaces that require large amounts of fresh air through ventilation;</li><li>• Heat-intensive manufacturing processes; and</li><li>• Steam systems: steam system assessments &amp; steam balancing.</li></ul> <p>Nicor Gas and its implementation vendor will calculate customer incentives based on therm savings for installed measures and process improvements using the following criteria:</p> <table><tr><th>Program Parameters</th><th>PY 1</th><th>PY 2</th><th>PY 3</th></tr><tr><td>Incentives (\$/therm)</td><td>\$1.00</td><td>\$1.25</td><td>\$1.25</td></tr><tr><td>Max. Incentive Per Project</td><td>\$100,000</td><td>\$150,000</td><td>\$150,000</td></tr><tr><td>Max. Customer Incentive Per Year</td><td>\$100,000</td><td>\$150,000</td><td>\$150,000</td></tr><tr><td>Min. Project Payback (After Rebate)</td><td colspan="3">1 year</td></tr><tr><td>Max. % of Total Project Cost (Retrofit)</td><td colspan="3">30%</td></tr><tr><td>Max. % of Incremental Cost of Replacement &amp; New Construction</td><td>50%</td><td>75%</td><td>75%</td></tr><tr><td>Max. % of Study Cost Paid By Nicor</td><td colspan="3">50% up to \$15,000<sup>16</sup></td></tr></table>	Program Parameters	PY 1	PY 2	PY 3	Incentives (\$/therm)	\$1.00	\$1.25	\$1.25	Max. Incentive Per Project	\$100,000	\$150,000	\$150,000	Max. Customer Incentive Per Year	\$100,000	\$150,000	\$150,000	Min. Project Payback (After Rebate)	1 year			Max. % of Total Project Cost (Retrofit)	30%			Max. % of Incremental Cost of Replacement & New Construction	50%	75%	75%	Max. % of Study Cost Paid By Nicor	50% up to \$15,000 <sup>16</sup>		
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Max. % of Study Cost Paid By Nicor	50% up to \$15,000 <sup>16</sup>																																

<sup>16</sup> Reimbursable depending on the level of savings implemented by the customer.

PROGRAM ELEMENT	Custom Business Program (cont'd)				
Eligible Measures & Incentive Levels (cont'd)	As more specific program implementation history becomes available, the incentive structure may be adjusted to meet increasing energy savings goals.				
	Measure	Gross Average Annual Savings (therms)	Average Incremental Cost Per Project	Average Rebate (per Project)	TRC
	Custom Project	20,938	\$62,813	\$20,938	2.6
	The Custom Business Program will pay incentives on verifiable therm savings achieved beyond minimum industry or government standards. Energy savings will be calculated using equipment nameplate information and/or engineering parameters. In such a case, the applicant must submit and M&V plan to the Program Administrator for review and approval.				
Implementation Strategy	For projects that do not require M&V, the full incentive will be paid after installation of the project is confirmed. For projects that do require M&V, 60% of the approved incentive will be paid after confirmation of installation of the project is confirmed, and the balance will be paid following approval of the final operating report.				
	Nicor Gas will select an implementation vendor to administer this program through an RFP process. The implementation strategy will expand on the efforts initiated under Rider 29. Nicor Gas' implementation vendor will provide assistance with the applications and conduct pre- and post-inspection visits on all larger projects to verify equipment installation and operation.				
	The applicant will follow a multi-step application process using forms supplied specifically for the Custom Business Program. The customer must provide specific information, including site and measure data and estimated energy savings. The forms will be submitted to the implementation vendor for review and approval prior to equipment installation. The implementation vendor will review the application and may schedule an inspection of the existing equipment. Once approved, Nicor Gas will extend an Offer Agreement to the customer.				

PROGRAM ELEMENT	Custom Business Program (cont'd)
<b>Implementation Strategy (cont'd)</b>	<p>The customer or customer's agent will submit an installation report after all project measures are installed, fully commissioned, and are fully operational. All invoices and cost documentation must be attached. The implementation vendor may schedule an inspection of the installation equipment prior to approval of incentive payment. For projects that require M&amp;V, an operating report must be submitted at the end of the predetermined performance period. The implementation vendor will review the report and may choose to inspect the equipment prior to granting approval of the incentive. The implementation vendor will calculate the final incentive payment based on the reported savings.</p> <p>Nicor Gas' account executives, as well as the implementation vendor, will drive participation to this program through outreach activities to prescreened customers. The implementation vendor will conduct outreach to key market influencers, such as trade associations, energy service companies (ESCOs), engineering firms, and architects. Outreach may be in the form of training seminars or educational strategies. Nicor Gas expects that some participation will come from cross referrals from other programs.</p> <p>Energy efficiency assessments or engineering studies will be performed by the implementation vendor or third-party engineering consultants. These studies will be subject to internal quality reviewed by Nicor Gas' program staff to ensure the accuracy of the savings and incentives calculations. Where appropriate, Nicor Gas and ComEd will coordinate their efforts to provide a more comprehensive (both gas and electric) assessment of the building opportunities for the customer and reduce the overall cost of the study.</p>
<b>Marketing Strategy</b>	<p>Direct outreach to customers and key trade allies will be the primary marketing approach for this program. This will be accomplished through Nicor Gas account executive visits, direct mail, trainings, presentations, participation in events such as industry trade shows, chamber meetings, technology seminars, and trade conferences. Communications and outreach will also occur through channel partners such as manufacturers, distributors, engineers and architects. This program will also be featured on Nicor Gas' energy efficiency website.</p>

PROGRAM ELEMENT	Custom Business Program (cont'd)
<b>Marketing Strategy (cont'd)</b>	<p>For the market sector targeting effort, Nicor Gas will build relationships with those targeted industries' key market actors to broaden program outreach and education. Strategic alliances with industry associations and other market influencers will provide Nicor Gas with the opportunity to leverage these relationships to reach a large subset of the market with lower marketing cost. Marketing materials, webinars and web coverage will bring together all relevant Nicor Gas programs and tailor the message to the specific industry audience. Over time, Nicor Gas will develop case studies to showcase a variety of projects.</p>
<b>Utility Coordination</b>	<p>It is the intent of Nicor Gas, ComEd, and other regional electric providers to cooperate in the offering of this program. There are some measures that could reduce both the gas and electric energy use. Coordinated offerings, where possible, will be made transparent to the customer. In addition, the utilities will collaborate in raising awareness of, and educating customers on, the benefits of energy efficiency.</p>
<b>EM&amp;V Requirements</b>	<p>Customers must substantiate their savings data either through the Custom software tool, other engineering estimates, or an engineering study. In any case where reliable energy savings estimates are not available, an M&amp;V plan and final M&amp;V report will be required before the final payment is made. The information submitted at each step in the process may be further substantiated by the implementation vendor through a site inspection.</p> <p>Telephone surveys will be initiated with program participants to determine their satisfaction with the program and to ascertain the barriers to participation. Program processes will be reviewed through selective interviews with the implementation vendor, as well as through questions asked in the participant survey.</p>
<b>Administrative Requirements</b>	<p>The implementation vendor will assist customers with applications. In addition, customers with multiple properties will be guided through Nicor Gas' programs. The vendor will provide on-site pre- and post-installation verification of a statistically significant number of projects to confirm installation and conformance with measure specifications prior to incentive payments.</p> <p>The implementation vendor will be responsible for:</p> <ul style="list-style-type: none"> <li>• Customer outreach and recruitment including working closely with Nicor Gas account executives;</li> <li>• Trade ally outreach recruitment and training;</li> <li>• Technical analysis of custom project opportunities and savings;</li> </ul>

PROGRAM ELEMENT	Custom Business Program (cont'd)				
Administrative Requirements (cont'd)	<ul style="list-style-type: none"><li>• Customer assistance for submitting applications;</li><li>• Tracking data in the system and processing the incentive;</li><li>• Quality assurance and post-installation inspection;</li><li>• Fraud detection and prevention;</li><li>• Develop marketing and outreach materials; and</li><li>• Developing and implementing a strategy for each targeted market sector.</li></ul>				
Estimated Participation, Savings, and Budgets					
		PY1	PY2	PY3	Total
	Participation (projects)	67	204	295	566
	Net Savings (therms)	1,122,250	3,417,000	4,941,250	9,480,500
	Budget (\$)	\$2,610,360	\$7,081,891	\$9,681,600	\$19,373,851
	TRC	1.9	2.0	2.1	N/A
Vendor Selection Process	Nicor Gas currently has an existing vendor relationship through Rider 29. Nicor Gas may negotiate a contract extension with the existing vendor or initiate a new vendor RFP process.				

### 3.3 Economic Redevelopment Program

PROGRAM ELEMENT	Economic Redevelopment Program
<b>Objective</b>	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 will provide enhanced incentives to render energy efficiency projects more affordable within economically challenged communities.
<b>Target Market</b>	The targets for this program are commercial, industrial and commercial sized multi-family projects that are located in State of Illinois designated “redevelopment areas” in accordance with the Tax Increment Financing (TIF) Program or designated as Enterprise Zones. Additional targets include projects that provide significant community benefits such as services to low income or hard to reach customers, create jobs or rehabilitate or repurpose vacant or underutilized buildings. Community organizations, economic redevelopment, and non-profit organizations will also be targeted as sources of leads for potential projects.
<b>Program Duration &amp; Milestones</b>	This program will be launched in Program Year 1 and continue through Program Year 3.
<b>Program Description</b>	<p>The program will provide financial incentives to customers who implement energy efficiency measures in renovation projects conducted in economically challenged regions. By providing increased resources to facilitate energy efficiency improvements in those projects that may be marginal financially, Nicor Gas can ensure that gas energy efficiency opportunities will be realized that otherwise would be lost for decades while creating a positive impact in the community. By working with Chambers of Commerce, economic redevelopment organizations, non-profit organizations and private development corporations and businesses, the program will leverage energy efficiency funds with other investments that are being made for community improvement purposes. The program will also work 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.</p> <p>Funding will focus on projects that demonstrate a strong positive community impact, including:</p> <ul style="list-style-type: none"> <li>• Brown-field site rehabilitation;</li> <li>• Job Creation;</li> <li>• Provide housing solutions; or</li> <li>• Are integral in providing community based programs.</li> </ul>



PROGRAM ELEMENT	Economic Redevelopment Program (cont'd)				
Program Description (cont'd)	The enhanced incentive will be based on an increment above incentives established in Nicor Gas' other programs for the specific measure or project. Clear criteria and a scoring assessment will be developed and completed for each project application. The value of the enhanced incentives will be determined based on how closely the project meets the criteria.				
Eligible Measures & Incentive Levels	All measures offered through Nicor Gas' other energy efficiency programs will qualify for the Economic Redevelopment program. Additionally, any other measure identified as being cost-effective will be considered as long as there are verifiable savings and cost information in which to determine its cost-effectiveness. A scoring mechanism for weighting the program criteria will be developed to determine the level of enhanced incentives that should be awarded for each project. In no case will the enhanced incentive exceed an amount that is determined to be cost-effective.				
	The maximum funding per project is \$100,000, and individual measures must be cost-effective. In most cases, a minimum of 50 % matching funds will be required by the customer, although this requirement may be waived by Nicor Gas for highly cost-effective energy efficiency measures. Participants may also qualify for Nicor Gas' On-Bill-Financing Program or other financing that would allow the customer to pay for its contribution to the energy efficiency measures over time.				
	Measure	Gross Average Annual Savings (therms)	Average Incremental Cost Per Project	Average Rebate (per Project)	TRC
	Economic Redevelopment Project	18,750	\$72,000	\$36,000	3.3
Implementation Strategy	Program participants will be required to complete an application, which includes the following: <ul style="list-style-type: none"><li>• Description of the redevelopment project;</li><li>• Names and background of the sponsoring organizations;</li><li>• List of other funding sources;</li><li>• Types of energy efficiency measures to be installed;</li><li>• Estimated cost of project and energy savings;</li><li>• Estimate of project schedule; and</li><li>• How the project will provide a strong positive community impact.</li></ul>				

<b>PROGRAM ELEMENT</b>	<b>Economic Redevelopment Program (cont'd)</b>
<b>Implementation Strategy (cont'd)</b>	<p>Applications for program funding will be individually validated and assessed. Once the application is reviewed and the organization is considered a viable candidate, a more detailed energy analysis will be conducted of the proposed project, and the entire building, to identify other energy savings opportunities that might exist. The results of this assessment will be documented in a report that includes a list of energy efficiency measures, total installation costs, annual energy costs, annual energy savings, and simple payback.</p> <p>Nicor Gas will coordinate with electric utilities during implementation of this program to ensure that a comprehensive review of the building occurs and that energy efficiency opportunities across all fuels are identified.</p>
<b>Marketing Strategy</b>	<p>Due to the small scope of this program, marketing will be limited to customer outreach by Nicor Gas' account executives, targeted mailings, newsletters, presentations and other outreach activities to relevant organizations such as Chambers of Commerce, economic redevelopment organizations, and other community based organizations. Program information will also be included on the Nicor Gas energy efficiency website.</p>
<b>Utility Coordination</b>	<p>This program will be offered solely by Nicor Gas, but it is the intent of Nicor Gas to cooperate with the electric utilities in offering electric incentives where appropriate.</p>
<b>EM&amp;V Requirements</b>	<p>This program will likely not show significant impact until the end of the three-year program cycle so evaluation will consist of a summary of participants (number) and listing of activities and project initiated.</p>
<b>Administrative Requirements</b>	<p>Nicor Gas staff will administer this program using support from its commercial and industrial implementation vendor(s). Nicor Gas' business program vendor(s) will provide technical assistance with this complementary program. The implementation vendor will develop the application and scoring criteria as well as the incentive levels for the program. The implementation vendor will track the program including cost and savings. The vendor will also need to ensure that the project and measures are cost effective.</p> <p>Nicor Gas must verify and approve each project application with the implementation vendor's assistance. Project scoring will be approved by Nicor Gas and project acceptance agreements must be signed by Nicor Gas and the customer.</p>

<b>PROGRAM ELEMENT</b>	<b>Economic Redevelopment Program (cont'd)</b>				
<b>Estimated Participation, Savings, and Budgets</b>					
		<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>Total</b>
	Participation (projects)	8	16	20	44
	Net Savings (therms)	120,000	240,000	300,000	660,000
	Budget (\$)	\$464,095	\$857,596	\$1,027,042	\$2,348,733
	TRC	2.4	2.5	2.6	N/A
<b>Vendor Selection Process</b>	This is a new program for Nicor Gas, and Nicor Gas does not have an existing vendor relationship. It is Nicor Gas' intent to select a vendor through an RFP process.				

### 3.4 Retro-Commissioning Program

PROGRAM ELEMENT	Retro-Commissioning Program														
Objective	The objective of the Retro-Commissioning Program is to identify and implement low-cost tune-ups 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.														
Target Market	This program will be targeted to medium and large commercial and industrial customers. This program excludes those customers who have declared themselves “self-directed” customers per Section 8-104.														
Program Duration & Milestones	This program will be launched in Program Year 1 and continue through Program Year 3.														
Program Description	<p>This program will help C&amp;I customers to identify and implement low and no-cost measures to improve the 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 will conduct a targeted assessment of areas with substantial energy savings opportunities such as packaged HVAC units. Larger facilities will be eligible to receive a more comprehensive assessment of building systems and controls.</p> <p>This program will include a strong customer education component to promote the value of retro-commissioning services, targeting senior management decision-makers as well as facility operations and maintenance staff. Such education will be provided through program marketing activities, and also be supported through market conditioning efforts such as Building Operator Certification (BOC) training. Nicor Gas will collaborate with other regional utilities to provide a comprehensive program that covers both gas and electric building systems.</p>														
Eligible Measures & Incentive Levels	<table><tr><th>Measure</th><th>Gross Average Annual Savings (therms)</th><th>Average Incremental Cost Per Project</th><th>Average Rebate (per Project)</th><th>TRC</th></tr><tr><td>Retro-Commissioning Project</td><td>34,605</td><td>\$87,468</td><td>\$45,744</td><td>1.5</td></tr></table>					Measure	Gross Average Annual Savings (therms)	Average Incremental Cost Per Project	Average Rebate (per Project)	TRC	Retro-Commissioning Project	34,605	\$87,468	\$45,744	1.5
Measure	Gross Average Annual Savings (therms)	Average Incremental Cost Per Project	Average Rebate (per Project)	TRC											
Retro-Commissioning Project	34,605	\$87,468	\$45,744	1.5											

PROGRAM ELEMENT	Retro-Commissioning Program (cont'd)
<b>Eligible Measures &amp; Incentive Levels (cont'd)</b>	<p>To motivate participation and ensure that customers are invested in the process, Nicor Gas will provide cost sharing to offset the cost of the retro-commissioning assessment and study, up to a per-project cap of \$20,000. It is expected that many of the studies will target low- and no-cost measures that result in a payback to the customer of 1.5 years or less. Any measures with a payback under one year will not qualify for incentives under the Retro-Commissioning Program. However, in cases where a project includes measures eligible for incentives through one of Nicor Gas' other programs, the incentive levels established by those programs will be used. For joint electric and gas customers, Nicor Gas will work with ComEd (or other electric energy suppliers or municipalities with similar funding) to develop a methodology to cost-share the development of the retro-commissioning report and the installation of measures that result in both gas and electric savings.</p>
<b>Implementation Strategy</b>	<p>This program will be administered by a program implementation vendor to oversee activities conducted by participating commissioning providers, review studies and provide independent evaluation of savings estimates, and provide post-installation verification. Key elements of program implementation include:</p> <ul style="list-style-type: none"> <li>• Customer recruitment and application pre-screening to determine if the project qualifies under the program criteria;</li> <li>• Initial project assessment: the implementation vendor will meet with the customer to determine if sufficient potential savings exist to merit participation;</li> <li>• 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 greater. The customer must complete the project within 120 days after the agreement is signed.</li> <li>• Retro-commissioning study: The commissioning provider will conduct an in-depth analysis of the measures selected by the customer to generate the Diagnostic and Calculation Report.</li> <li>• Implementation: the customer implements the measures according to the report. Nicor Gas will not provide an incentive to assist with implementation costs.</li> <li>• M&amp;V: the commissioning vendor or an evaluation contractor will return to the project site to verify savings. If measures are not implemented in accordance with the agreement, then the customer will be responsible for repayment of all study costs and incentives received.</li> </ul>

<b>PROGRAM ELEMENT</b>	<b>Retro-Commissioning Program (cont'd)</b>
<b>Marketing Strategy</b>	<p>The program will be marketed to customers and trade allies. Nicor Gas account executives will be trained and provided with program collateral. The outreach strategy will include:</p> <ul style="list-style-type: none"> <li>• Customer marketing: In direct marketing efforts, Nicor Gas will target large customers and owners/operators of multiple buildings through direct mail and personal contact. Nicor Gas will also conduct outreach to the Building Owners and Managers Association (BOMA), large real estate management companies and other business associations and pursue opportunities to provide training and educational materials at trade shows and other association events.</li> <li>• Trade ally marketing: Outreach and training will be provided for commissioning providers, industry professionals and energy services companies that have business motivations for promoting retro-commissioning services to their customers.</li> <li>• Cooperative marketing: Nicor Gas will seek to leverage trade ally advertising by pursuing cooperative marketing opportunities. A clear web presence for the program element will be established along with collateral materials and targeted marketing.</li> </ul>
<b>Utility Coordination</b>	<p>It is the intent of Nicor Gas and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers.</p>
<b>EM&amp;V Requirements</b>	<p>This Retro-Commissioning Program will be driven by a commissioning provider who will perform an assessment of potential measure improvements that can take place for maximizing the efficient performance of building components. After implementation, the provider will revisit each project and conduct M&amp;V according to the approved verification plan in the Diagnostic &amp; Calculation report. Findings will be shared with the customer and delivered to Nicor Gas to be compared with pre-program energy use and used as the basis for verifying the savings estimates. Monitoring will also be compared to non-participants to determine estimates of program impact.</p> <p>The program will be evaluated for process via interviews with administrative staff and through participant telephone surveys.</p>

PROGRAM ELEMENT	Retro-Commissioning Program (cont'd)				
Administrative Requirements	Nicor Gas and ComEd will market the Business Retro-Commissioning Program jointly and identify potential candidates for participation. The implementation vendor's responsibilities will include: working with the utilities on final program element design, developing marketing materials, marketing the program and performing outreach activities, managing the project, and administering quality assurance / quality control activities, fraud detection and prevention, customer and contractor dispute resolution, tracking and reporting, and program goal achievement.				
Estimated Participation, Savings, and Budgets					
		PY1	PY2	PY3	Total
	Participation (projects)	21	37	41	99
	Net Savings (therms)	581,364	1,024,308	1,135,044	2,740,716
	Budget (\$)	\$1,573,332	\$2,481,678	\$2,604,075	\$6,659,084
	TRC	1.1	1.1	1.2	N/A
Vendor Selection Process	This program will be jointly offered by Nicor Gas and one or more other utilities. If a vendor relationship exists for the program, Nicor Gas will consider contracting with the existing vendor. If no vendor relationship exists, Nicor Gas would plan to issue a joint RFP.				

### 3.5 Small Business Direct Install Program

PROGRAM ELEMENT	Small Business Direct Install Program
<b>Objective</b>	The primary objective of the Small Business Direct Install Program is to provide small business gas customers with cost-effective turn-key energy efficiency retrofit services. Nicor Gas will offer this program jointly with ComEd to ensure comprehensive gas and electric energy efficiency services. Traditional electric small business direct install programs have focused on lighting redesign. Providing small business customers with combined gas and electric direct installation services will yield more comprehensive efficiency savings, leverage program dollars, and create a more seamless offering to the customers.
<b>Target Market</b>	Commercial small business gas customers whose annual use is less than 60,000 therms and 100 kW will qualify to participate in this program. Though this program will be offered to all market sectors, initially, the program will target those customers with the highest potential therm savings and a demonstrated need.
<b>Program Duration &amp; Milestones</b>	This program will be launched in Program Year 1 and continue through Program Year 3.
<b>Program Description</b>	This program will provide small commercial gas customers with turn-key installation services and incentives to replace older, inefficient equipment and increase the overall efficiency of buildings. Unlike large commercial businesses that have access to greater technical and financial resources, the small business sector has limited access to specialized resources to undertake energy efficiency projects. Small businesses generally benefit from a turn-key approach where a single contractor conducts an audit to identify appropriate gas measures and also installs those measures. Where appropriate, Nicor Gas will make financing options available.
<b>Eligible Measures &amp; Incentive Levels</b>	The Small Business Direct Install Program will offer direct installation of certain measures for free and other measures at the incentive levels and gas savings estimates established in Nicor Gas' other business programs. Offering this wide range of measures provides greater depth of savings and enhances the appeal for potential participants. Nicor Gas' implementation vendor will assess each customer's eligibility for the following measures:



PROGRAM ELEMENT	Small Business Direct Install Program (cont'd)				
Eligible Measures & Incentive Levels (cont'd)					

<b>PROGRAM ELEMENT</b>	<b>Small Business Direct Install Program (cont'd)</b>
<b>Implementation Strategy (cont'd)</b>	<ul style="list-style-type: none"> <li>• Entering data into the program database;</li> <li>• Conducting periodic on-site follow-up inspections; and</li> <li>• Providing progress reports to Nicor Gas regularly.</li> </ul> <p>The installation contractors will be responsible for:</p> <ul style="list-style-type: none"> <li>• Tracking leads and following up in a timely manner;</li> <li>• Obtaining a signed agreement from the customer prior to commencement of work;</li> <li>• Conducting customer energy efficiency audits or assessments;</li> <li>• Documenting energy audit results;</li> <li>• Installing free measures where appropriate during the initial visit and documenting those installations;</li> <li>• Purchasing the equipment and installing the measures;</li> <li>• Preparing and submitting incentive applications for each participant;</li> <li>• Obtaining signed work order completion forms upon completion of each project.</li> </ul> <p>Nicor Gas will provide technical assistance on custom projects, and may require additional installation approvals for unique and/or unusual installations. The implementation vendor will conduct random inspections of a statistically significant number of projects across all the vendor regions. Nicor Gas reserves the right to conduct installation inspections on any project prior to reimbursement.</p>
<b>Marketing Strategy</b>	<p>Several communication strategies will be employed to enroll customers. Vendors will be responsible for the primary communications. Efforts will include: targeted marketing by mail and phone; outreach to key influencers such as Chambers of Commerce and neighborhood and regional trade associations; outreach to targeted economic development organizations; and follow-up on referrals by Nicor Gas' account executives. Trade allies, manufactures and suppliers of equipment, and other industry stakeholders who can play a role in communicating the program benefits to customers will be educated about the program purpose, requirements, and incentives. The program will also be promoted on the efficiency website and in program collateral.</p>
<b>Utility Coordination</b>	<p>It is the intent of Nicor Gas and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers.</p>

PROGRAM ELEMENT	Small Business Direct Install Program (cont'd)																													
EM&V Requirements	<p>The impact of this program will be addressed through the application of deemed savings estimates. These savings will be confirmed by the evaluation contractor using analysis of engineering estimates and customer characteristics collected by the implementation contractor while on-site. Additional confirmation may be applied by performing a billing analysis for these small customers using their pre-program and post-program energy use.</p> <p>The program process will be evaluated through on-site interviews with the various aspects of the program administration, including the advertising and market message members, and through the telephone interviewing of program participants and non-participants. Comparison of views held by each will help to determine program free-ridership as well as identification of potential market barriers and satisfaction with the program.</p>																													
Administrative Requirements	<p>The direct installation model has been shown to be an effective approach to addressing this hard-to-reach market. The program will be administered by an implementation vendor selected through a competitive RFP process. The costs of labor, materials, and installation of approved efficiency measures will be included in the cost of the administrator. Joint vendor selection with other Illinois utilities may be undertaken at an appropriate time to reduce administrative costs and provide consistent service. Nicor Gas and ComEd will be responsible for overall program management and ensuring that vendors and installers are meeting their obligations under contracts and according to program requirements.</p>																													
Estimated Participation, Savings, and Budgets	<table><tr><th></th><th>PY1</th><th>PY2</th><th>PY3</th><th>Total</th></tr><tr><td>Participation (projects)</td><td>1,140</td><td>2,800</td><td>3,750</td><td>7,690</td></tr><tr><td>Savings (therms)</td><td>169,329</td><td>616,753</td><td>965,294</td><td>1,751,377</td></tr><tr><td>Budget (\$)</td><td>\$760,263</td><td>\$1,387,291</td><td>\$1,742,673</td><td>\$3,890,227</td></tr><tr><td>TRC</td><td>1.1</td><td>3.3</td><td>3.8</td><td>N/A</td></tr></table>						PY1	PY2	PY3	Total	Participation (projects)	1,140	2,800	3,750	7,690	Savings (therms)	169,329	616,753	965,294	1,751,377	Budget (\$)	\$760,263	\$1,387,291	\$1,742,673	\$3,890,227	TRC	1.1	3.3	3.8	N/A
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Vendor Selection Process	<p>This program will be jointly offered by Nicor Gas and one or more other utilities. If a vendor relationship exists for the program, Nicor Gas will consider contracting with the existing vendor. If no vendor relationship exists, Nicor Gas would plan to issue a joint RFP.</p>																													

### 3.6 New Construction Program

PROGRAM ELEMENT	New Construction Program
<b>Objective</b>	The objective of the 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. Through collaboration with other Illinois utilities, a comprehensive regional new construction program is being provided that captures both gas and electric savings.
<b>Target Market</b>	This program targets nonresidential customers with new construction, major renovation, or tenant build-out projects in the planning or design process. Architectural and engineering design firms will also be targeted. Self-directed customers as defined under Section 8-104(m) are not eligible for this program.
<b>Program Duration &amp; Milestones</b>	This program will be launched in Program Year 1 and continue through Program Year 3.
<b>Program Description</b>	<p>This program promotes energy efficiency through a comprehensive effort to influence building design practices. To secure efficiency opportunities in new construction projects, it is necessary to overcome barriers such as design 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.</p> <p>The program works to overcome these barriers through education and outreach to building owners, design professionals, building contractors and other trade allies, as well as design assistance, and technical assistance. Participants in this program will also receive support for their efforts to obtain Leadership in Energy and Environmental Design (LEED), Green Globes, or other green building certification, and incentives for efficient designs and measure implementation. The program has three participation tracks: Systems Track, Comprehensive Track, and Certification Track:</p> <ul style="list-style-type: none"> <li>• <b>Systems Track:</b> Serving smaller projects and projects in the later stages of the design process, this track will target efficiency opportunities in key building system components. It will provide technical assistance and incentives for construction that incorporates efficient systems (e.g., HVAC, water heating and building envelope). Incentives for this track will be addressed under the Custom Business and Business Incentive Programs.</li> </ul>

<b>PROGRAM ELEMENT</b>	<b>New Construction Program (cont'd)</b>
<b>Program Description (cont'd)</b>	<ul style="list-style-type: none"> <li>• Comprehensive Track: For large projects early in the design process, this track will offer a higher level of technical assistance and consultation on building design. Program services will assess comprehensive efficiency opportunities and system interaction and provide incentives based on whole-building energy simulation and achievement of whole-building performance. Incentives for this track will be based on energy savings and paid using the incentive structure available in the Custom Business Program.</li> <li>• Certification Track: For projects working towards green building certification, this track will provide technical assistance and incentives through the Custom Business Program to assist the project in optimizing and enhancing the energy performance of the building.</li> </ul> <p>A key element for program success is securing the involvement of the professional design community. This will be a major activity in all three tracks. To encourage participation of the design community and to offset the costs of considering multiple design options, a multi-tier incentive will be offered to the project design teams. The partnering utilities will develop a methodology to equitably split the cost of outreach to the design community.</p>
<b>Eligible Measures &amp; Incentive Levels</b>	<p>The New Construction Program will have different requirements to be fulfilled by the customer and their design team, depending on the track, in order to receive an incentive. For the Systems Track, the implantation vendor will establish criteria for system and component performance for water heating, HVAC and building envelope measures which must be met in order to receive an incentive. For the Comprehensive Track, incentives will be based on whole-building energy simulation and achievement of whole building performance targets above baseline conditions. For the Certification Track, incentives will be based on meeting specified targets through either the simulation or prescriptive paths outlined.</p> <p>Implementation incentives will be provided to customers based on the incremental cost of the measures to help overcome first-cost barriers as follows:</p> <ul style="list-style-type: none"> <li>• The Systems Track will provide prescriptive and custom incentives for all measures covered under Nicor Gas' commercial and industrial energy efficiency programs.</li> </ul>

PROGRAM ELEMENT	New Construction Program (cont'd)										
Eligible Measures & Incentive Levels (cont'd)	<ul style="list-style-type: none"><li>The Comprehensive Track will provide incentives based on a whole-building energy simulation and achievement of whole-building energy savings above baseline conditions. The track will offer incentives based on the levels provided in the Custom Business Program. There will be a per-project incentive cap of \$100,000 in PY1 and \$150,000 in PY2 and PY3.</li><li>Certification Track incentives will be based on meeting the targets established in the particular green building certification criteria. For projects that meet the criteria, customers may be eligible for incentives through the Custom Business Program.</li></ul> <p>Design team incentives will be offered in the comprehensive track to encourage early involvement in the design process and to provide partial compensation for the extra work involved evaluating multiple efficiency options. Design team incentives will be based on the level of improvement achieved through energy efficient design. For example, if the project achieves a 20% efficiency improvement, the design incentive would be 5% of the implementation incentive. If the efficiency increase is 30% the design incentive would be 10% of the implementation incentive. As the program evolves and performance is tracked, incentive levels may be adjusted based on Nicor Gas' experience.</p> <p>The partnering utilities will develop a methodology to equitably divide incentives based, in part, on the projected share of electric/gas savings. The following expectations and assumptions have been used for planning purposes, with actual incentive levels to be determined during the detailed implementation plan development.</p> <table><tr><th>Measure</th><th>Ave. Annual Savings (therms)</th><th>Ave. Incremental Cost Per Project</th><th>Ave. Rebate (per Project)</th><th>TRC</th></tr><tr><td>New Construction Project</td><td>6,250</td><td>\$27,778</td><td>\$6,944</td><td>2.8</td></tr></table>	Measure	Ave. Annual Savings (therms)	Ave. Incremental Cost Per Project	Ave. Rebate (per Project)	TRC	New Construction Project	6,250	\$27,778	\$6,944	2.8
Measure	Ave. Annual Savings (therms)	Ave. Incremental Cost Per Project	Ave. Rebate (per Project)	TRC							
New Construction Project	6,250	\$27,778	\$6,944	2.8							
Implementation Strategy	An implementation vendor selected through an RFP process will administer the program. Key elements of the New Construction program implementation include; design/ construction trade ally outreach, customer recruitment, technical assistance, incentive commitment, solutions offerings and application submittal, and project verification. Nicor Gas' account executives will help market the program and identify potential candidate customers for participation.										

<b>PROGRAM ELEMENT</b>	<b>New Construction Program (cont'd)</b>
<b>Marketing Strategy</b>	<p>The program will be marketed to building owners and managers and to design professionals, trade allies and contractors. Outreach to building owners and managers will be accomplished through media events for successful projects including grand openings and open houses, case studies, direct marketing, trade shows, and Nicor Gas account executive contact.</p> <p>Marketing to the design professionals, trade allies and contractors will focus on securing involvement in projects early in the design phase. It will stress the value that bringing their customers a better building can have for their business. Targeted direct marketing, case studies, trade publications, trade shows, formal and informal presentations, lunch and learns and direct contact will all be employed. The program will be promoted through the website and Nicor Gas account executives will be trained and provided with program collateral.</p>
<b>Utility Coordination</b>	<p>It is the intent of Nicor Gas and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers.</p>
<b>EM&amp;V Requirements</b>	<p>This program is largely based on initial engineering studies and building simulations that direct the most appropriate efficiency improvements that can be gained through efficient design. Impacts will be evaluated based on the studies and simulations submitted to the utility.</p> <p>Building monitoring might be in order to confirm that certain measures are being operated as they were designed to. Process will be evaluated through discussions and interviews with program administration, building architects and designers, owners, and the various trade allies associated with this customer segment.</p>
<b>Administrative Requirements</b>	<p>Nicor Gas and ComEd will market the Business New Construction Program jointly and identify potential candidates for participation. The implementation vendor's responsibilities will include: working with the utilities on final program element design, developing marketing materials, marketing the program and performing outreach activities, managing the project, and administering quality assurance / quality control activities, fraud detection and prevention, customer and contractor dispute resolution, tracking and reporting, and program goal achievement.</p>

PROGRAM ELEMENT	New Construction Program (cont'd)				
Estimated Participation, Savings, and Budgets					
		PY1	PY2	PY3	Total
	Participation (projects)	38	40	50	128
	Savings (therms)	189,000	198,450	250,000	637,450
	Budget (\$)	\$504,207	\$473,493	\$563,511	\$1,541,211
	TRC	2.2	2.3	2.4	N/A
Vendor Selection Process	This program will be jointly offered by Nicor Gas and one or more other utilities. If a vendor relationship exists for the program, Nicor Gas will consider contracting with the existing vendor. If no vendor relationship exists, Nicor Gas would plan to issue a joint RFP.				



### 3.7 Building Performance with ENERGY STAR Pilot

PROGRAM ELEMENT	Building Performance with ENERGY STAR Pilot
<b>Objective</b>	The objective of the Building Performance with ENERGY STAR Pilot is to encourage and assist customers to take a holistic and planned approach to increasing the energy efficiency of their commercial buildings.
<b>Target Market</b>	Medium to large commercial building customers who are motivated to improve the energy efficiency of their building and maintain that level of efficiency. The initial target markets will include commercial real estate and commercial restaurants, which are typically considered to be low-hanging fruit. Warehouses, healthcare/hospitals, and retail buildings will be considered as future target markets if the pilot proves successful. Self-directed customers, as defined under Section 8-104(m), are not eligible for this program.
<b>Program Duration &amp; Milestones</b>	This program will be offered as a pilot in EEP Program Years 1 and 2. Near the end of Program Year 2, the pilot will be assessed to determine if the program had sufficient customer response and natural gas savings to be converted to a full program.
<b>Program Description</b>	<p>In May 2010, the U.S. Environmental Protection Agency (EPA) launched a pilot effort called Building Performance with ENERGY STAR 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.</p> <p>The EPA pilot program was launched with a small group of state and utility ENERGY STAR partners including: Commonwealth Edison, Mass Save, MidAmerican, National Grid, New Jersey's Clean Energy Program, Pacific Gas &amp; Electric, Southern California Edison, and Focus on Energy. By the time that Nicor Gas' pilot program is launched, ComEd will have just completed the first year of its pilot (May 2011). By offering a collaborative program with ComEd, Nicor Gas will have the benefit of ComEd's experience and be able to provide customers with efficiency options across both gas and electric measures.</p> <p>Nicor Gas will offer this program in partnership with ComEd to provide a comprehensive "whole building" energy assessment across all fuels that will help business customers strategically plan and implement</p>

PROGRAM ELEMENT	Building Performance with ENERGY STAR Pilot (cont'd)														
Program Description (cont'd)	<p>energy efficiency improvements over-time. A key element of the assessment will be to benchmark the building. The first two years the effort will be a pilot; if the pilot proves to be cost-effective and successfully motivates customers to undertake energy efficiency projects then the effort will be rolled out as a program.</p> <p>Building owners have difficulty determining how efficiently their facilities are performing and how they rank against others in terms of energy use. The ENERGY STAR Portfolio Manager allows businesses to strategically plan and implement efficiency improvements over time starting with low or no-cost measures that can create revenue to fund capital upgrades. Customers are encouraged to achieve deeper and longer-term savings while fostering an ongoing relationship with the utility as an advisor and resource for continuous improvements.</p>														
Eligible Measures & Incentive Levels	<p>The Whole Building Energy Assessment report will identify all energy efficiency opportunities in the building and highlight those with a payback less than 15 years. The implementation vendor will conduct an assessment free of charge to the customer during the pilot phase of the program. In Program Year 3, the expected first year of full program implementation, the cost of the assessment may be split with the customer. During the pilot, Nicor Gas and ComEd will share in the cost of the report as well as the cost of incentives for measures that result in both gas and electric savings.</p> <p>Beginning in PY3, Nicor Gas will offer a higher incentive to participants who commit to implementing multiple gas measures. Customers who implement two or more gas projects that save 15% or more of their annual gas usage will be eligible to receive an additional incentive, ranging from 5 to 20%, depending on the total energy saved. This enhanced financial incentive will encourage customers to pursue a more comprehensive approach – rather than a piecemeal approach – to upgrading their facility. Obtaining commitments for deeper energy savings will be more important beginning in Program Year 3 and thereafter when energy savings goals become more significant. Nicor Gas reserves the right to change these figures based on program experience, energy savings goals and customer response.</p> <table><tr><th>Measure</th><th>Gross Average Annual Savings (therms)</th><th>Average Incremental Cost Per Project</th><th>Average Rebate (per Project)</th><th>TRC</th></tr><tr><td>Building Performance Project</td><td>12,500</td><td>\$40,000</td><td>\$10,000</td><td>3.9</td></tr></table>					Measure	Gross Average Annual Savings (therms)	Average Incremental Cost Per Project	Average Rebate (per Project)	TRC	Building Performance Project	12,500	\$40,000	\$10,000	3.9
Measure	Gross Average Annual Savings (therms)	Average Incremental Cost Per Project	Average Rebate (per Project)	TRC											
Building Performance Project	12,500	\$40,000	\$10,000	3.9											

PROGRAM ELEMENT	Building Performance with ENERGY STAR Pilot (cont'd)
<b>Implementation Strategy</b>	<p>An implementation vendor chosen by Nicor Gas and ComEd through and RFP process will administer the pilot. Key elements of the pilot strategy include:</p> <ul style="list-style-type: none"> <li>• Customer Recruitment: The pilot will rely on referrals from ComEd's Building Performance with Energy Star pilot and Nicor Gas account executives. In PY3, if the pilot moves to the implementation phase, referrals from program staff and trade allies will be a great source;</li> <li>• Pre-Screening &amp; Customer Commitment: The customer will be pre-screened to determine whether they are an appropriate candidate for the pilot. If appropriate, a Memorandum of Understanding (MOU) will be signed that outlines the process and the commitments of all parties;</li> <li>• Benchmarking: The building will be benchmarked using ENERGY STAR's Portfolio Manager and the score will be used as screening criteria;</li> <li>• Whole Building Energy Assessment Report: This report describes all the efficiency opportunities identified in the building with detailed measure costs, savings and incentives;</li> <li>• Action Plan Meeting: A meeting will be held to discuss the financial and engineering results of the report and how the utility can assist with the implementation of recommended measures. The customer is strongly encouraged to implement all low and no-cost measures. The administrator works with customers to file applications and to offer technical assistance;</li> <li>• Project Implementation: The implementation vendor will assist the customer with the application process and work with the custom to move projects forward; and</li> <li>• Education &amp; Training: The pilot will assist customers in identifying building occupant education and facility staff training opportunities.</li> </ul>
<b>Marketing Strategy</b>	<p>Nicor Gas will coordinate efforts with ComEd to market this program. The Company expects that some of its initial participants may result from customers that ComEd has already assessed during the first year of its pilot. Nicor Gas will also work with account executives to identify appropriate gas leads. Account executives will be trained and provided with program collateral.</p> <p>If the pilot proves successful and is implemented as a program, a wider marketing effort will be launched. This will include development of case studies, website promotion, marketing materials distribution through mailings and outreach, webinars, and workshops and trade ally promotion.</p>

PROGRAM ELEMENT	Building Performance with ENERGY STAR Pilot (cont'd)																													
Utility Coordination	It is the intent of Nicor Gas and ComEd to offer this program jointly. There is a high potential for this program to benefit both gas and electric utility customers. The utilities will determine a framework for cost allocation based on savings/benefits to each utility's customers. The framework will be fair and equitable and will increase the cost-effectiveness of the overall program for both utilities and their customers.																													
EM&V Requirements	This program will likely not show significant impact until the end of the three-year program cycle so evaluation will consist of a summary of participants (number) and listing of measures implemented.																													
Administrative Requirements	The implementation vendor will assist Nicor Gas with the following elements of the pilot program: <ul style="list-style-type: none"><li>• Screening the customer;</li><li>• Benchmarking the building using ENERGY STAR Portfolio Manager;</li><li>• Engaging engineering resources to produce the Whole Building Energy Assessment Report that is equivalent to an ASHRAE Level II audit (including measure cost, savings, and incentive estimates) to identify opportunities for whole-building improvements;</li><li>• Developing an Action Plan for project implementation;</li><li>• Developing an enhanced incentive structure to encourage undertaking multiple projects;</li><li>• Assisting the customer in completing the application and moving projects towards implementation; and</li><li>• Tracking progress and project savings data.</li></ul>																													
Estimated Participation, Savings, and Budgets	<table><tr><th></th><th>PY1</th><th>PY2</th><th>PY3</th><th>Total</th></tr><tr><td>Participation (projects)</td><td>2</td><td>10</td><td>20</td><td>32</td></tr><tr><td>Savings (therms)</td><td>20,000</td><td>100,000</td><td>200,000</td><td>320,000</td></tr><tr><td>Budget (\$)</td><td>\$42,853</td><td>\$186,432</td><td>\$349,226</td><td>\$578,511</td></tr><tr><td>TRC</td><td>2.9</td><td>3.1</td><td>3.2</td><td>N/A</td></tr></table>						PY1	PY2	PY3	Total	Participation (projects)	2	10	20	32	Savings (therms)	20,000	100,000	200,000	320,000	Budget (\$)	\$42,853	\$186,432	\$349,226	\$578,511	TRC	2.9	3.1	3.2	N/A
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## 4 Emerging Technology

PROGRAM ELEMENT	Demonstration Projects
<b>Objective</b>	The objective of Emerging Technology Demonstration Projects is to assess the appropriateness of emerging gas technologies for inclusion in future energy efficiency programs. This includes determining whether new products or devices are reliable, serviceable and provide cost effective energy savings.
<b>Target Market</b>	The target market includes residential, commercial and industrial customers in Nicor Gas' service territory whose building would serve as an appropriate test site and who would be willing to work with Nicor Gas to test and demonstrate a new technology.
<b>Program Duration</b>	This program will provide funding in all three years of the plan. Certain demonstration projects will span multiple years. If successful, technologies may be developed into pilot programs.
<b>Program Description</b>	A steady flow of new energy efficient technologies and strategies are being developed and offered in the market place to reduce energy consumption by residential, commercial and industrial customers. Before incorporating new or unfamiliar technologies in its program offerings, Nicor Gas plans to perform a thorough review of such products and devices to ensure that they will provide cost effective energy savings for its customers. Demonstration projects are a key step to gaining this technical and market understanding of performance, reliability, and serviceability.
<b>Eligible Measures &amp; Incentive Levels</b>	<p>All measures included within this program will undergo a preliminary technical assessment or similar evaluation to reduce the risk of failure. Some examples of technologies for initial consideration may include but are not limited to:</p> <p>Single and Multi-Family Deep Retrofit</p> <ul style="list-style-type: none"> <li>• Goal is to achieve 50% energy reductions or more in existing buildings as compared to baseline energy usage.</li> <li>• Review HVAC systems for size, efficiency, air intake and venting, as well as advanced windows, integrated HVAC, light, ventilation, and water heating products.</li> <li>• Develop methods to model potential energy savings for deep retrofits, approaches for different housing types, training energy-retrofit contractors, customer education and marketing materials, and financing and incentive levels.</li> </ul>

PROGRAM ELEMENT	Demonstration Projects (cont'd)
<b>Eligible Measures &amp; Incentive Levels (cont'd)</b>	<p>Heating System Tune-Ups</p> <ul style="list-style-type: none"> <li>• Specially-trained heating contractors will service customer heating equipment, including inspection and cleaning of the boiler or furnace, measuring combustion efficiency, performing a safety check, duct testing of a forced-air system for air tightness, and will make recommendations for improvements such as upgrading to high efficiency heating systems or installation of a programmable thermostat.</li> <li>• Contractor will collect performance information prior to servicing and after the system has been serviced to measure savings.</li> <li>• Test whether incentives paid to contractors are sufficient for participation.</li> </ul> <p>High Efficiency Roof Top Heating Units:</p> <ul style="list-style-type: none"> <li>• Great strides have been made in improving the electrical efficiency of packaged unitary HVAC systems, but the gas furnaces in these units are often minimally efficient. Efforts are underway to improve the gas efficiency of these increasingly common technologies for heating commercial spaces.</li> <li>• The Consortium for Energy Efficiency is currently assessing the feasibility of a market transformation effort in this area and a Nicor Gas demonstration project would help in moving this work forward.</li> </ul> <p>Monitoring-Based Commissioning:</p> <ul style="list-style-type: none"> <li>• Monitoring-Based Commissioning is a commissioning/building information management tool that will alert the customer to energy savings opportunities that can be realized from existing operational inefficiencies.</li> <li>• The system provides an on-going prioritized list of no- and low-cost energy savings opportunities for the customer. Nicor Gas may consider partnering with other utilities on a pilot.</li> </ul> <p>Tankless On-Demand Water Heating:</p> <ul style="list-style-type: none"> <li>• On-Demand (tankless or instantaneous) water heaters provide hot water only as it is needed. They don't produce the standby energy losses associated with storage water heaters and this can save energy. This technology has large energy savings potential in certain residential and commercial applications where a large hot water demand exists.</li> <li>• Further research is needed however to clearly identify the benefits and drawbacks of the technology, its cost-effectiveness and the potential impact on gas operations and the gas distribution system if widely adopted.</li> </ul>

<b>PROGRAM ELEMENT</b>	<b>Demonstration Projects (cont'd)</b>
<b>Eligible Measures &amp; Incentive Levels (cont'd)</b>	<p>Solar Thermal Water Heating:</p> <ul style="list-style-type: none"> <li>• The efficiency and reliability of solar thermal heating systems have improved, making this renewable technology a more attractive option for homes and businesses. More technical analysis is needed though before this technology can be included as a measure in Nicor Gas' energy efficiency program.</li> <li>• Nicor Gas investigating partnerships with solar manufactures and installers to demonstrate the solar thermal performance and the cost-effectiveness in Nicor Gas' geography and gather data needed to evaluate solar thermal water heating as an efficiency measure.</li> <li>• The U.S. Department of Energy (DOE) has an effort underway to increase the cost-effectiveness of solar heating systems and improve the durability of materials used in those systems. The opportunity to pilot the resulting technology advances may be a future consideration for this demonstration.</li> </ul> <p>Advanced C&amp;I Boiler Heat Recovery Systems</p> <ul style="list-style-type: none"> <li>• Approximately 75% of C&amp;I boilers are inefficient (below 80% efficiency). Substantial energy savings are possible through advanced heat recovery systems.</li> <li>• The Gas Technology Institute has developed a technology that is being released by late 2010 as a new boiler heat recovery series for use in a standard range of boiler sizes.</li> <li>• Nicor Gas could be an early partner in the effort to field test this technology with early adopters.</li> </ul> <p>Residential High Efficiency Windows</p> <ul style="list-style-type: none"> <li>• Many utility window incentive programs require a U-factor between 0.30 and 0.35, however, newer window products with U-factors of 0.20 or less represent the cutting edge of window performance.</li> <li>• These highly insulating windows typically are triple-paned, with advanced features such as gas fills, advanced spacers, and low-E coatings.</li> <li>• Nicor Gas plans to undertake a review of these highly insulating window products, and based upon product performance, market conditions, costs, and other factors, will consider development of a pilot, prescriptive, or performance-based incentive program.</li> </ul>
<b>Implementation Strategy</b>	<p>In order to assist with project development, Nicor Gas may convene a Technical Review Committee. This committee would be comprised of key Nicor Gas technical staff, but could also include outside advisors and consultants. The committee would review requests for project</p>



<b>PROGRAM ELEMENT</b>	<b>Demonstration Projects (cont'd)</b>
<b>Implementation Strategy (cont'd)</b>	<p>consideration of new or unfamiliar technologies coming from vendors and/or customers, or new technologies entering the marketplace. The committee might undertake or direct such tasks as:</p> <ul style="list-style-type: none"> <li>• Research and analysis of specific measures that are candidates for inclusion in the program including the implementation of demonstration projects and field placements;</li> <li>• Development of processes and protocols to help guide demonstration projects and field placements;</li> <li>• Collection of data and development of recommendations to address unanticipated program implementation issues; and</li> <li>• Development of recommendations, additions, or modifications to the list of projects to be conducted.</li> </ul> <p>Demonstration site candidates will be chosen from leads provided by Nicor Gas account executives, equipment manufacturers or distributors, customers or through an RFP process. Customer eligibility requirements will be developed to help determine appropriate candidates. Nicor Gas will develop a memorandum of understanding (MOU) with each customer to ensure that the commitment and project expectations are clear to all parties.</p>
<b>Marketing Strategy</b>	This program will not be widely marketed to the general customer base, but it will be communicated to the trade ally community, manufacturers and distributors, and customers who may have potential projects for consideration.
<b>Utility Coordination</b>	This program will be offered solely by Nicor Gas.
<b>EM&amp;V Requirements</b>	Nicor Gas will develop a set of general criteria to guide the demonstration projects. Each project will have an evaluation plan that clearly articulates the questions to be answered by the demonstration, the purpose, scope, data to be collected, and measures of success. At its conclusion, the demonstration project will be assessed based on the parameters established in the project document.
<b>Administrative Requirements</b>	This program will be administered by Nicor Gas.



PROGRAM ELEMENT	Demonstration Projects (cont'd)				
<b>Estimated Participation, Savings, and Budgets</b>					
		<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>Total</b>
	Participation (units)	N/A	N/A	N/A	N/A
	Savings (therms)	N/A	N/A	N/A	N/A
	Budget (\$)*	\$870,000	\$1,480,000	\$2,120,000	\$4,470,000
	TRC	N/A	N/A	N/A	N/A
<b>Vendor Selection Process</b>	<p data-bbox="509 571 1435 646">* The budget allocated for this program represents approximately 3% of annual program expenditures as set forth in Section 8-104 (g).</p> <p data-bbox="509 680 1403 789">This is a new program for Nicor Gas, and Nicor Gas does not have an existing vendor relationship. It is Nicor Gas' intent to select a vendor through an RFP process.</p>				

## 5 Benefit-Cost Methodology, Source Data, and Assumptions

### 5.1 Benefit-Cost Modeling Methodology

#### 5.1.1 Model Overview

The Energy Efficiency Reporting Tool (EE Reporting Tool or the Tool) is designed to serve as a simple way for utilities to measure the cost-effectiveness of their programs. Though the Tool was originally developed by KEMA for the Northern California Power Authority and Southern California Public Power Authority, it was subsequently delivered to the Illinois Department of Commerce and Economic Opportunity for adaptation to the Illinois energy efficiency programs.

The EE Reporting Tool is designed to minimize the data input required to estimate the total savings and cost-effectiveness of energy efficiency programs. Relying on default values and assumptions contained in the EE Reporting Tool, a user may enter a few key pieces of data to report meaningful results. Alternatively, utilities may modify or enter their own assumptions and create customized measures that better reflect their programs or service territory. In its essence, this tool is the successor to the E3 Calculator, used by the largest California utilities in their official reporting and evaluation programs.

There are several reasons why Nicor Gas selected this particular model for its energy efficiency evaluation:

- It is a recognized industry standard, widely used and understood;
- Given that Nicor Gas and DCEO will collaborate on programs, having a standard, harmonized approach to benefit/cost analysis will aid that collaboration;
- This incarnation of the model is designed with end-users in mind; it features major improvements in usability; and
- The model can be customized and is flexible to add in region-specific and gas-specific inputs for Nicor Gas' territory.

#### 5.1.2 Model Outputs

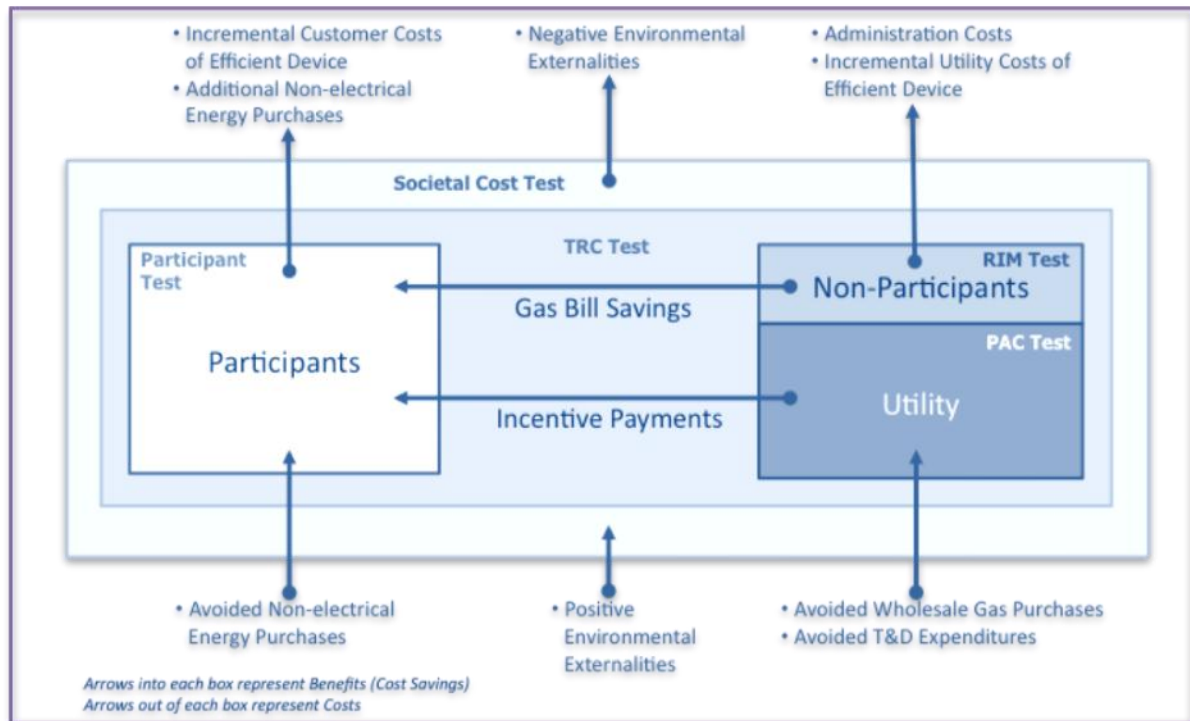
Cost-effectiveness is generally measured in terms of the benefit/cost ratio, where the benefits of energy efficiency (namely avoided costs) are compared against the costs (mostly program costs) of an energy efficiency measure, product, program, customer segment, or portfolio. The EE Reporting Tool analyzes the cost-effectiveness of energy efficiency from several different perspectives (the participant, the utility, the ratepayer, society, and total resource cost)<sup>17</sup>. In all perspectives, a benefit/cost ratio greater than one means that the benefits outweigh the costs. A ratio less than one indicates that costs outweigh benefits. Higher numbers indicate greater cost-effectiveness.

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<sup>17</sup> These methods are based on the industry-standard *California Standard Practice Manual*.

The specific tests and perspectives within the EE Reporting Tool are outlined in Figure 5 and described further below.

**Figure 5. Inter-Relationship of the E3 Benefit-Cost Tests**



- **Program Administrator Cost (Utility) Test** – Measures the effect of the efficiency measure on the administering utility’s revenue requirement. The utility’s costs of implementing energy efficiency measures include direct installation costs incurred by the utility (as opposed to the participant), incentives, program administration, and marketing expenses. Benefits include the utility’s avoided cost of purchasing or generating energy. This test does not consider the effect on utility revenues or the rates charged to its retail customers.
- **Total Resource Cost (TRC) Test** – Measures the benefits and costs of the efficiency measure as a resource option based on the total cost of the measure to the utility’s service territory, including both participant and utility costs. Costs include those incurred by the participant to purchase, install and maintain the more efficient equipment and by the utility to market and administer the efficiency program. Any direct installation costs incurred by the utility are also included. Incentives are not included as they are not a resource cost; instead, they are transfers from the utility to the customer. That is, an incentive increases the utility’s cost and decreases the participant’s cost by the same amount, with a net effect of zero.

- **Participant Cost (Participant) Test** – Measures the quantifiable costs and benefits to the customer from participating in an energy efficiency program. Participant costs include the purchase and installation of the efficient equipment, less any incentive or incentive received from the utility. Benefits include the participant’s bill savings due to reduced energy consumption.
- **Ratepayer Impact Measure (RIM) Test** – Measures the net impact of the utility paying for efficiency programs on the customer’s natural gas rate. This test compares the cost savings of the efficiency measure to the revenue losses (i.e. lost margins) resulting from each measure. The cost savings are the same as those for the Program Administrator Cost Test, while revenue losses are the program implementation costs (utility incentive, direct install costs and marketing, and administration) plus lost revenue from reduced energy sales. If the marginal cost of gas to the utility is higher than the rates charged to the utility, the avoided costs will more than offset the revenue losses, leading to a RIM Test ratio greater than one.
- **Social Cost (Societal) Test** – Measures the benefits and costs of an efficiency measure as a resource option based on the total cost of the measure to society as a whole. This test is similar to the TRC Test, with the addition of positive environmental externalities such as reduced emissions and other non-energy benefits including improved health, increased productivity, and reduced late bill payments or shutoff notices.

### 5.1.3 Model Inputs

The following table describes the key inputs necessary for the computation of the benefit/cost ratios in the EE Reporting Tool.

**Table 8. Key Inputs Required in the EE Reporting Tool**

<b>Input</b>	<b>Purpose</b>
<i>Financial Inputs</i>	
Discount Rate	Since the mechanism for computing and comparing costs and benefits involves using Net Present Value (NPV) methods, the model requires a discount rate by which future values may be converted into today's dollars.
Retail Energy Rates	These are the natural gas and electricity rates paid by consumers, which are used to determine participant savings.
Utility Gas Supply Costs	This is the cost of gas paid by the utility to purchase the next incremental therm (generally at a market price) and not one that is included in long-term contracts.
Environmental Costs	NOx and CO <sub>2</sub> costs are estimated as a proxy for the costs to the utility (and society) for the environmental degradation from acquiring and burning fossil fuels.
<i>Measure- and Program-Related Inputs</i>	
Measure Life	This gives the length of time that the purchased or installed efficiency measure yields its benefits (that is, avoided energy consumption).
Measure Annual Savings	For any given measure, this quantifies the reduction in energy consumption that will occur each year within the measure's useful life.
Measure Annual Installation Schedule	The number of efficient units expected to be installed annually by program participants.
Measure Incremental Costs	This value represents the cost (both the purchase price and installation cost) difference between an efficient measure and a standard (baseline) measure.
Measure Load Shape	A graphical representation of the demand for energy and the relationship of power supplied to the time of occurrence. Measures are categorized into one of several pre-defined load shapes for input into the model. This is used in combination with seasonal and peak/off-peak energy prices to determine the economic value of the energy savings.
Net-to-Gross Ratio	A factor representing the percent of gross energy savings that are attributable to the utility's energy efficiency program efforts. This factor may account for free-ridership, spillover, or naturally-occurring DSM.
Incentive Costs	The amount that the Program Administrator pays the program participant for each installed unit of this particular measure.
<i>Administration Costs</i>	
Program Administration	Administration costs include internal energy efficiency program staff salaries, general program administration, vendor implementation costs, marketing and evaluation, and measurement & verification costs associated with EE activities.

## 5.2 Assumptions and Data Sources for Model Inputs

### 5.2.1 Discount Rate

The model requires a discount rate by which future dollar costs and savings may be converted into today's dollars. Nicor Gas uses a rate of 8.090% nominal<sup>18</sup> or 5.454% real for their discount rate.

**Table 9. Discount Rate Assumptions**

Discount Rate	Value
Nominal Rate	8.090%
Assumed Inflation	2.500%
Real Rate	5.454%

$$\text{Real Rate} = (1 + \text{Nominal Rate}) / (1 + \text{Assumed Inflation}) - 1 = 5.454\%$$

### 5.2.2 Avoided costs

Avoided costs are the costs a utility would incur to generate the next increment of capacity. For a natural gas utility, avoided costs include the commodity cost of gas, avoided transmission and distribution costs, and environmental externalities. In the EE Reporting Tool, the model sums the commodity cost and the avoided transmission and distribution into one term, the Utility Avoided Cost. This value, as well as the environmental term, are discussed in more detail below.

#### 5.2.2.1 Utility Avoided Cost

For the purposes of this model, long-run avoided costs are computed to arrive at the full cost to the utility of a therm saved in any given year. To do so, the forecast of gas prices for Henry Hub<sup>19</sup> are added to the citygate price in Chicago, a pipeline charge, a distribution charge, and a state tax. The sum of these charges represents the Utility Avoided Cost. The Utility Avoided Cost value ranges from \$6.42 (calculation shown in Tables 10 and 11 below) to \$10.55 in 2030.

**Table 10. Calculation of the 2010 Utility Avoided Cost**

Gas Charge	Cost (\$/MMBtu) <sup>20</sup>
Gas Price @ Henry Hub	\$4.91
Chicago Citygate Price	\$0.28
Pipeline Charge	\$0.50
Distribution Charge	\$0.49
State Tax	\$0.24
<b>Total</b>	<b>\$6.42</b>

<sup>18</sup> Personal communication, Nicor Gas.

<sup>19</sup> Natural Gas Price Forecast, Wood Mackenzie, Long Term View, Apr 2010.

<sup>20</sup> Source: Global Insight 2nd and 3rd Quarter 2009 for 30 year Projections for US economy.

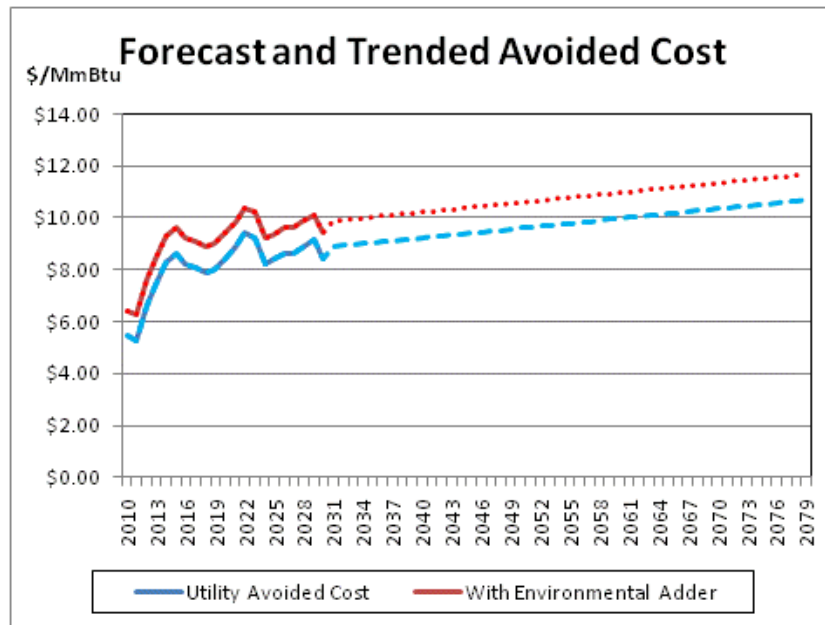
The following table shows the Utility Avoided Cost value by year from 2010 to 2030.

**Table 11. Nicor Gas' Utility Avoided Costs From 2010 to 2030**

<b>Year</b>	<b>Utility Avoided Cost</b>
2010	\$6.42
2011	\$6.23
2012	\$7.58
2013	\$8.40
2014	\$9.27
2015	\$9.63
2016	\$9.22
2017	\$9.07
2018	\$8.88
2019	\$9.01
2020	\$9.39
2021	\$9.85
2022	\$10.39
2023	\$10.23
2024	\$9.19
2025	\$9.37
2026	\$9.60
2027	\$9.63
2028	\$9.88
2029	\$10.12
2030	\$10.55

The gas price forecast extends to the year 2030. However, because the EEP includes measures with lifetimes longer than 20 years (such as the Residential New Construction Program), these forecasts are extended an additional 10 years (to 2040) using a trend analysis. The final results for the avoided cost forecast are shown in Figure 6.

**Figure 6. Forecast and Trended Avoided Cost**



#### 5.2.2.2 Environmental Cost Adder

For the purposes of calculating the value of greenhouse gas emissions avoided through the conservation of natural gas, Nicor Gas first calculated a value for CO<sub>2</sub> using the following assumptions:

- 32 pounds of carbon per MMBTU of natural gas;
- 1% loss rate
- 3.67 pounds of CO<sub>2</sub> per pound of carbon
- \$55 per ton of CO<sub>2</sub>

$$\text{Value of CO}_2 = [(32 \text{ lbs C/MMBtu}) * (1 + 0.01) * (\$55/\text{ton CO}_2)] / 2000 \text{ lbs/ton}$$

$$= \$0.08888 \text{ per therm}$$

The Environmental Cost Adder includes the cost of carbon, as calculated above, and NO<sub>x</sub> emissions, both on a per therm basis. Using the same formula above to determine the dollar per therm values, the Environmental Cost Adder is simply the addition of the two components:

- \$15 per ton of carbon; and
- \$2,000 per ton of NO<sub>x</sub>.



$$\begin{aligned}\text{Environmental Cost Adder} &= (\$0.08888/\text{therm}) + (\$0.011/\text{therm}) \\ &= \$0.100/\text{therm}\end{aligned}$$

Nicor Gas evaluated the sensitivity of the TRC benefit cost ratio at the measure and program level to different values of the cost of carbon. The results of that analysis are described in Section 5.3.

### 5.2.3 Load Shapes

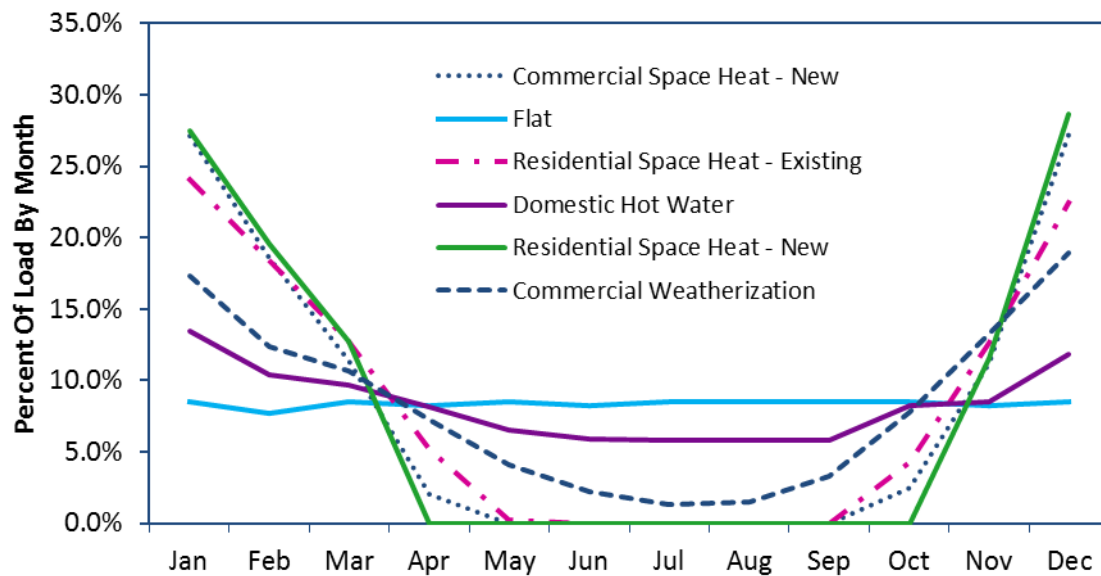
Gas usage varies with the time of year and type of equipment. This variation is reflected in the equipment load shape. Nicor Gas defined nine load shapes to represent these different usage patterns. These shapes are described in Table 12 below.

**Table 12. Description of Load Shapes Used By Nicor Gas**

<b>Load Shape</b>	<b>Description</b>	<b>Types of Measures</b>
Domestic Hot Water	Residential and Commercial Hot Water Heating applications	Water Heaters, Aerators, Showerheads
Flat	Loads that exhibit no fluctuation based upon time of day or year	Kitchen Measures
New Commercial Space Heating	Space heating associated with new Commercial construction	New Construction Furnaces, Boilers
New Residential Space Heating	Space heating associated with new residential construction	New Construction Furnaces, Boilers, Insulation
Existing Residential Space Heat	Space heating associated with existing residential structures	Retrofit Furnaces, Boilers, Insulation
Commercial Weatherization	Commercial loads that are affected by building envelope (heating/cooling) characteristics	Retro-Commissioning, Economic Redevelopment, New Construction

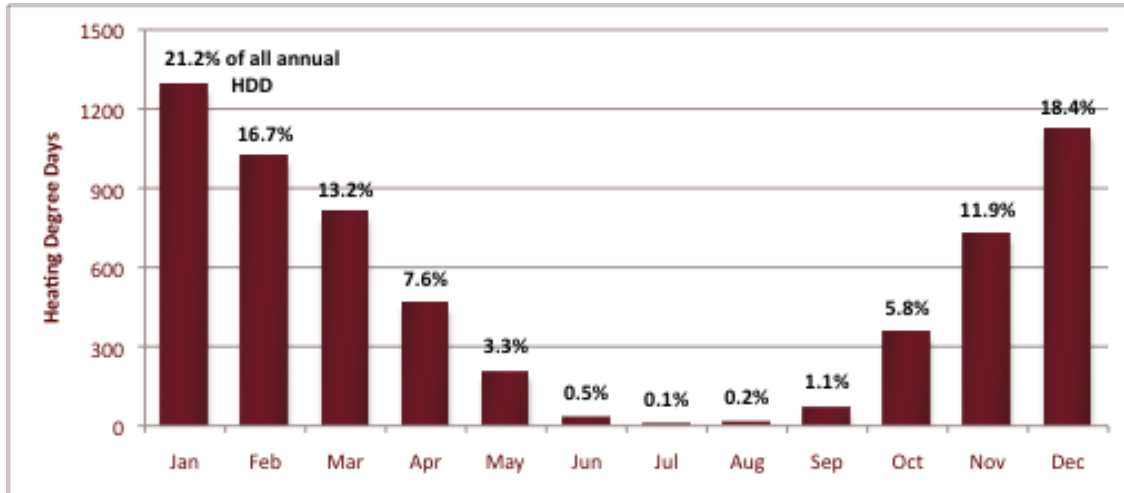
To aid in understanding these load shapes, their monthly shapes are depicted as in Figure 7 below.

**Figure 7. Load Shape Monthly Profiles**



The EE Reporting Tool considers six day types: summer on-peak, summer mid-peak, summer off-peak, winter on-peak, winter mid-peak, and winter off-peak. The three most pertinent day types for natural gas consumption are winter on-peak, winter mid-peak and summer off-peak. The winter on-peak months (those with greater than 15% each of annual load) are December, January, and February. The winter mid-peak months, often referred to as “shoulder months”, are March, April, October, and November. These are the months with between 5% and 15% each of the total annual Heating Degree Days. The summer off-peak months are May-September and represent less than 5% each of all annual Heating Degree Days (HDD). The typical heating pattern by month for Illinois is shown in Figure 8 below.

**Figure 8. Historical Illinois Heating Degree Days<sup>21</sup>**



With the load shapes, day types, and heating degree days specified, one can calculate the percent of natural gas consumption for each load shape that occurs in each time period. This information is provided in Table 13 below.

**Table 13. Percent of Natural Gas Consumption Occurring In Each Day Type**

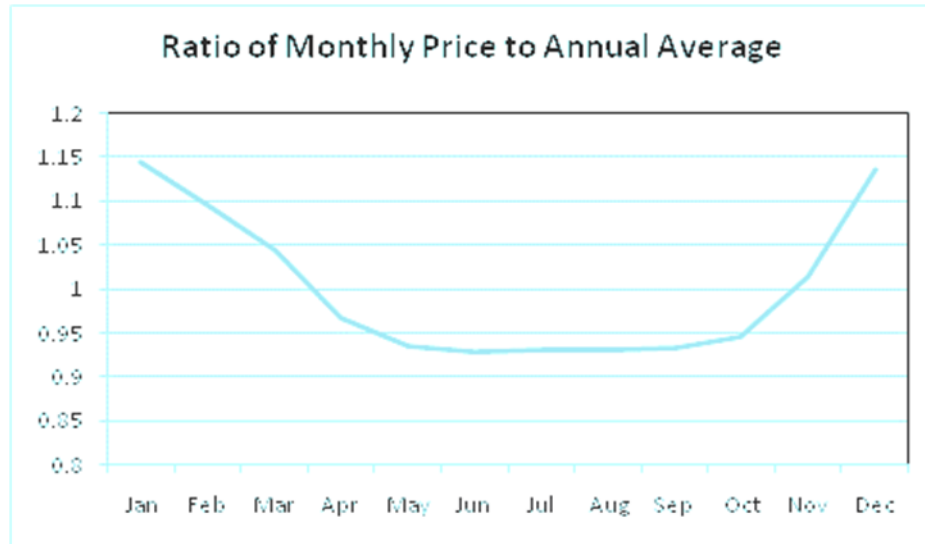
Load Shape	Winter On-Peak	Winter Mid-Peak	Summer Off-Peak
Hot Water	35.6%	34.6%	29.8%
Flat	24.6%	33.3%	42.1%
New Space Heating	72.9%	27.1%	0.0%
New Residential Space Heating	75.7%	24.3%	0.0%
Existing Residential Space Heat	65.0%	34.8%	0.3%
Commercial Weatherization	48.6%	39.0%	12.4%
Heating Degree Days (for comparison)	56.3%	38.6%	5.1%

#### 5.2.4 Seasonal Prices

The seasonal impact on gas prices are of interest, for therm savings may occur at different times of the year. For example, the value of space heat savings (highly seasonal) is different from that of water heat savings (fairly flat) or that of swimming pool heat savings (entirely in the summer). To understand these differences, an estimate of the market price by season was applied based on market studies as shown in Figure 9. Although the ratio averages to 1.00 for the year, it shows that prices are much higher during the space heat season and somewhat reduced during the summer.

<sup>21</sup> Source: <http://www.isws.illinois.edu/atmos/statecli/Summary/111577.htm>

**Figure 9. Seasonal Market Prices**



#### **5.2.5 Technical Assumptions**

The model requires measure-level data for the lifetime of the measure, incremental costs, savings per unit, net-to-gross ratio, incentive per unit, and number of units installed in each year. Collectively, these values are called the technical assumptions. Nicor Gas used a variety of sources to determine its technical assumptions, most notably the market potential study, Rider 29, and other Illinois utilities' data. If multiple sources of information were available, the Company placed its highest level of confidence and certainty on the market potential study results, followed by the Rider 29 technical assumptions. Nicor Gas used other utilities' data in cases where its own data was not available through the MPS or Rider 29, or in cases where a program was being offered in a joint or cooperative fashion that required or benefited from alignment of assumptions. The deemed savings and technical assumptions for each measure and program are provided in Appendix A.

#### **5.2.6 Measure Incentive Costs**

Nicor Gas developed measure-level incentives based on the incremental cost of the measure, the availability of budget, Rider 29 incentive levels, other local and national utilities' incentive levels, and recommendations coming out of the market potential study. The Company believes that these incentive levels are both adequate and generous enough to stimulate the market to reach its proposed EEP goals. However, should participation lag or dramatically exceed expectations, Nicor Gas may modify incentive levels during the three-year period to achieve the desired outcome, which maintaining cost-effective programs.

#### **5.2.7 Retail Rates**

Retail rates included in the model are the blended forecast of Nicor Gas rates for each customer class. Where electricity rates are needed, the model assumes ComEd retail electric rates with typical inflation assumptions.

### 5.2.8 Program Administration Costs

Program and portfolio-level administration costs were developed from the various energy efficiency program budgets as determined by the Nicor Gas planning team. This category of expenditures includes: internal program administration costs, external vendor implementation costs, costs to maintain the Program Management Tool, communications costs, and EM&V costs. The derivation and allocation of administration costs are discussed in Section 1.5.1 above.

## 5.3 Nicor Gas Benefit Cost Analysis

Nicor Gas considered three scenarios when calculating the TRC for the EEP measures, programs and portfolio. In all scenarios, the value of water savings was included where applicable. The base case scenario did not include an adder for the cost of carbon. This has the practical effect of delaying the cost of carbon in the TRC analysis by three years. The base case scenario is provided as Appendix A.

Appendix A shows that all of Nicor Gas' proposed energy efficiency programs are cost-effective with TRCs greater than 1.0 in each of the three years of the plan. In general, the TRC increases over the three years for each of the programs as program volume increases while administrative costs become a smaller portion of each years' budget. With the exception of the furnace tune-up measure in the Small Business Direct Install program, all measures in the base case for all programs have TRCs greater than 1.0.

Nicor Gas considered two additional scenarios to assess the sensitivity of the TRC analysis to the cost of carbon. Nicor considered a carbon adder equal to \$55/ton of carbon as filed in the original Energy Efficiency Plan as well as a carbon adder equal to \$27.50/ton of carbon. These two scenarios along with the base case scenario evaluate the program level TRCs over a range from zero carbon adder to \$55/ton. As seen in Table 14, the program level TRCs for each program increase with an increasing carbon adder. In all cases, all programs in all years are cost effective. Nicor Gas' sensitivity analysis demonstrates that the programs included in the EEP are cost-effective under a range of scenarios.

**Table 14. Comparison of Total Resource Cost Ratios Under Three CO<sub>2</sub> Cost Scenarios**

EEP Proposed Programs	TRC Base Case			TRC \$27.50/ton CO <sub>2</sub>			TRC \$55/ton CO <sub>2</sub>		
	PY1	PY2	PY3	PY1	PY2	PY3	PY1	PY2	PY3
<b>Residential Programs</b>									
Heating & Appliance Incentive	1.56	1.60	1.62	1.67	1.71	1.73	1.76	1.80	1.82
Single-Family Retrofit	1.03	1.19	1.24	1.10	1.27	1.33	1.16	1.34	1.40
Multi-Family Retrofit	1.87	2.08	2.20	2.01	2.24	2.36	2.12	2.36	2.49
New Construction	1.22	1.38	1.51	1.28	1.46	1.59	1.34	1.52	1.66
Elementary Energy Education	1.04	1.10	1.14	1.11	1.18	1.22	1.18	1.25	1.29
Behavioral Energy Savings	1.01	1.29	1.44	1.11	1.41	1.57	1.18	1.51	1.68
<b>Residential Total</b>	<b>1.52</b>	<b>1.59</b>	<b>1.62</b>	<b>1.62</b>	<b>1.70</b>	<b>1.74</b>	<b>1.71</b>	<b>1.79</b>	<b>1.83</b>
<b>Business Programs</b>									
Business Incentive	4.23	4.76	4.82	4.53	5.09	5.16	4.76	5.36	5.43
Custom Business	1.89	2.01	2.07	1.92	2.06	2.14	2.02	2.18	2.26
Economic Redevelopment	2.36	2.50	2.58	2.53	2.68	2.76	2.66	2.82	2.91
Retro-Commissioning	1.06	1.15	1.20	1.14	1.24	1.29	1.21	1.31	1.36
Small Business Direct Install	1.11	3.28	3.77	1.20	3.51	4.03	1.26	3.69	4.24
New Construction	2.19	2.31	2.36	2.35	2.47	2.53	2.47	2.60	2.66
Building Performance with ENERGY STAR	2.89	3.09	3.18	3.09	3.30	3.40	3.26	3.48	3.58
<b>Business Total</b>	<b>2.26</b>	<b>2.54</b>	<b>2.79</b>	<b>2.39</b>	<b>2.68</b>	<b>2.96</b>	<b>2.51</b>	<b>2.82</b>	<b>3.12</b>
<b>Nicor Gas Total</b>	<b>1.77</b>	<b>1.98</b>	<b>2.08</b>	<b>1.88</b>	<b>2.10</b>	<b>2.21</b>	<b>1.98</b>	<b>2.21</b>	<b>2.33</b>

## 6 Communication Plan

### 6.1 Introduction

Section 8-104 has set ambitious energy savings goals for gas utilities beginning in 2011. To achieve these goals, Nicor Gas recognizes that it will need a strong marketing effort to educate customers about the benefits of energy efficiency and Nicor Gas energy efficiency programs. With increasing public awareness around issues such as climate change and environmental responsibility, as well as federal and state-level tax credits, Nicor Gas has a solid foundation from which to build its marketing campaigns. This communication plan outlines the approach Nicor Gas will use to market its energy efficiency programs, to increase customer awareness and participation. The Company's key message will be that energy efficiency can help customers reduce their energy use and cost while becoming more environmentally friendly.

Nicor Gas plans to reach all customers throughout its service territory with its communications materials. Messages differ between residential, commercial, and industrial customers and integrated communication tactics are used for both markets. Communication goals include promoting customer participation and developing long-term business relationships to continue energy efficiency participation over years. This is realized through fostering relationships with equipment installation contractors, architects and engineers, as well as other trade allies.

The Company will market its energy efficiency programs to residential, small and large commercial and industrial customers recognizing that each customer class will require unique communication messages and tactics appropriate to the market. At a high level, Nicor Gas will use the following strategies to market its programs:

- Create awareness;
- Increase the reach, frequency, and types of communications; and
- Establish partnerships with trade allies.

Nicor Gas residential energy efficiency programs are designed to help customers assess their home energy use and determine which efficiency options fit their needs and budgets. The Nicor Gas Communications team will promote awareness, which will lead to participation in the efficiency programs, as well as a whole-house approach to encourage larger-scale savings. These efforts reinforce that Nicor Gas is committed to environmental stewardship and efficient energy use in the communities the Company serves.

Nicor Gas has a number of energy efficiency programs to serve small and large commercial and industrial customers across a variety of sectors, including those that offer incentives for prescriptive measures, and those that offer customized energy saving measures along with technical assistance or turn-key installations. Communications to this segment will vary based on the type of program, whether it is prescriptive or customized. Nicor Gas will tailor its messages to target the specific needs of the various customer segments.

Residential marketing will target homeowners and renters where appropriate, and will encourage comprehensive energy efficiency improvements. Small and large commercial and industrial communications focus on targeted marketing, coordination with Nicor Gas customer account executives to generate program leads and engaging trade allies and other market influencers to embrace, promote, and participate in Nicor Gas efficiency programs.

The Company will achieve these objectives through a variety of communication tactics, which may include:

- Direct Mail – including bill messages, bill inserts, and independent mailings. Separate campaigns will be targeted towards residential homeowners and various business sectors;
- Print & Radio Advertising – advertising will be placed in a number of publications and radio stations where target customers and trade allies are the audience;
- Online Advertising – including notices on Nicor Gas’ website, as well as banner advertisements, display ads and search engine marketing (SEM) efforts and social marketing strategies;
- Newsletters and Alerts – email and community newsletters will be distributed to key customer groups to spotlight particular efficiency programs. These may include case studies of successful projects. Such efforts are intended to drive traffic to the energy efficiency website;
- Special Events – events, such as energy expos, will be held by Nicor Gas or in conjunction with community organizations where energy efficiency can be showcased;
- Partnerships & Sponsorships – relationships will be developed with local business groups, non-profit organizations, other utilities, and municipalities to promote energy efficiency in the community;
- Targeted Marketing Campaigns – campaigns will be undertaken to spotlight a particular program, technology, customer sector or geographic area; and
- Municipal Outreach – efforts to reach customers through their communities, including through community websites, cable channels, newsletters, etc. in cooperation with Nicor Gas community relations team.

Combined, these efforts will increase customer awareness, foster a positive image for Nicor Gas energy efficiency programs and increase participation among customers, employees, trade partners, and others. Customer segmentation strategies will be used to identify priority targets for energy efficiency promotion. Among residential customers, examples could include behavioral profiles such as customers more inclined to make home improvements, those interested in taking steps to improve the environment or high energy usage households or other demographics such as income level or key geographic areas, etc. Small and large commercial and industrial segments could include specific industries, business sizes, and targets for specific energy efficiency technologies.



## **6.2 Communication Tactics**

The following describe Nicor Gas planned efforts to promote the Energy Efficiency Plan over the three years.

### **6.2.1 Direct Mail**

Direct mail will be used to increase awareness and generate responses from customers to drive participation. Based upon program needs, Nicor Gas plans to conduct up to three direct mail campaigns annually, spring, fall and winter, with separate mailings targeting residential homeowners and specific business sectors. The Company plans to develop and use bill inserts and bill and envelope messages to promote its efficiency offers. In addition, Nicor Gas will send targeted follow up mailings to business and residential customers who receive an energy audit to encourage them to pursue the recommendations. The Company will be tracking each program's progress throughout the three-year plan and may increase mailings for programs needing additional participation.

### **6.2.2 Print & Radio Advertising**

Print and radio advertising will serve as the primary communications vehicle to increase customer awareness and generate program leads. Advertising will be placed in publications and stations frequented by interested customers and trade allies. Nicor Gas anticipates that it will engage an advertising agency to help identify the best publications and stations to use and the appropriate frequency of advertising to yield the best results at the most reasonable rates. Publications will include local newspapers and magazines, as well as those targeted to construction, building renovation, or other related trades. Advertising will direct customers to Nicor Gas' website or their local vendor in order to learn more about the efficiency programs.

### **6.2.3 Online Advertising**

Online advertising is an inexpensive and efficient tool to direct customers to Nicor Gas energy efficiency programs. To take advantage of online opportunities, Nicor Gas may:

- Employ banner advertisements on high-traffic websites that will drive traffic to the Nicor Gas efficiency site;
- Perform search engine optimization, which ensures that Nicor Gas energy efficiency and other key words drive traffic to the Nicor Gas energy efficiency website;
- Provide customized landing pages where customers will find information specific to their search criteria or a specific direct mail campaign;
- Link to case studies with virtual building and home tours, to showcase successful projects or technologies;
- Engage in social marketing to increase brand awareness, which may include Facebook, Twitter, and other sites that allow customers to become aware of offers and activities in real time to become more energy efficient;

- Prepare for future developments, including online incentive submittal, webinars, and other enhancements.

#### **6.2.4 Newsletters & Alerts**

Newsletters and alerts can help Nicor Gas educate customers and keep them interested in potential energy efficiency improvements. Nicor Gas plans to distribute periodic emails and will consider developing an e-magazine or community newsletter with information targeted to key groups. Target groups may include: Residential Homeowners, Multi-Family Building Owners, Account Managed Business Customers, General Business Customers, Heating Contractors, Architects & Engineers, and Property Managers. Newsletters will spotlight particular efficiency programs and may include case studies of successful projects. Newsletters may be supplemented with e-alerts when special events or offers take place.

#### **6.2.5 Special Events**

Special events, such as energy expos, booths at community gatherings, and home shows, are an excellent way to generate customer awareness and interest in energy efficiency. Nicor Gas plans to participate in community events throughout its territory to assure equal access to its energy efficiency programs by all customers. Activities will include leveraging fire department open houses, energy fairs, and other current events. In addition to providing information, Nicor Gas plans to distribute low cost efficiency measures that participants can install at home.

The Company may use special events to invite participants from key business segments to learn about energy efficiency in a networking environment. These may also include a tour of an installation where potential business customers would be invited to learn more about efficiency. Events can create opportunities for Nicor Gas to provide training and demonstrations, as well as build relationships with specific audiences likely to engage in energy efficiency programs. Events may include building and remodeling-focused efforts as well as environmentally-focused events. The audience may be residential, business or both and can create broad exposure for Nicor Gas efficiency programs.

#### **6.2.6 Partnerships & Sponsorships**

Nicor Gas plans to create and leverage relationships with a variety of partners to raise awareness of its energy efficiency programs. Key partnerships, including those with the trades, the media, local communities/municipalities, and other utilities, are described below.

##### **6.2.6.1 Trade Relations**

Trade allies, including equipment vendors, manufacturers, contractors, architects, and engineers, are instrumental in influencing customer equipment purchase decisions. Therefore, educating trade allies about Nicor Gas efficiency programs, communicating the business benefits, and preparing them with marketing materials to promote high efficiency equipment and programs is critical to the success of Nicor Gas programs.

Nicor Gas plans to employ trade communications, incentives, and co-marketing opportunities to engage trade allies. The Company expects to use a number of methods to develop these relationships, including:

- Trade Direct Mailings – Ongoing communications such as a quarterly trade newsletter, ongoing trade emails, fax blasts, trade mailings and/or incentive forms as necessary. Using multiple channels frequently will likely increase the trades’ support and promotion of the efficiency programs. Trade mailings may be general or specific to a targeted trade such as builders or architects.
- Trade Website – Develop a website for trade allies to learn more about participating in the Nicor Gas efficiency programs and provide answers to their specific questions. This may serve as a platform to track participation and electronically file participant forms in the future. It also provides a multimedia platform for images of equipment installations, video training clips and podcast seminars, code updates or other important changes.
- Trade Ally Web-Based Listing – Develop a web-based list of trusted contractors who can perform installation services for customers. The listing will identify those contractors that have met certain requirements and have worked with high efficiency equipment. A minimum set of requirements (e.g. participation in training courses, proof of insurance, licenses) may be required to participate. The Company will develop a metric to identify and track how many high efficiency incentives each contractor helped facilitate. A mechanism for incentivizing contractors that facilitate the highest numbers of efficiency incentives will be developed (e.g. co-branded promotions, local publicity and awards).
- Trade Advertisement and Co-op Advertising – Print advertisements in trade publications and banner and display ads on trade association websites will be useful to promote the program and develop trade relationships. Outreach will be conducted to engage these organizations. Cooperative advertising can be offered to contractors participating in Nicor Gas energy efficiency programs to enhance their reach to customers.
- Trade Incentives – Nicor Gas may consider implementing a trade ally incentive program to drive participation in efficiency programs depending on customer response to other marketing and promotions.
- Trade Education –The Company will offer a range of formal and informal opportunities for the trades to learn more about energy efficiency and Nicor Gas specific programs. Educational opportunities may include:
  - Breakfast and lunch meetings in small group settings with trade allies to communicate how Nicor Gas programs provide benefits. This interaction helps form relationships and provides trade allies with comprehensive program information and marketing materials.

- Workshops on ‘hot topics’ with expert speakers to educate installers and other trades. Sessions would emphasize equipment value or quality installation issues to improve the skills of the installer and their familiarity with the equipment.
- Energy Expos can bring trade allies and customers together at events that focus on providing information about commercial technology and products. Expos may help get projects underway more quickly. Trade shows with trade ally booths will encourage customers and trade allies to talk about products and projects.

In addition, Nicor Gas will leverage relationships with equipment distributors and manufacturers and encourage them to provide program information to their channel and business customers. Program literature, shop signage, incentive forms, and invitations to customer gatherings and ongoing communication will drive additional program participation. These relationships and communication channels can raise program awareness and stimulate key market actors to promote high efficiency products.

Nicor Gas will also engage architecture, engineering, and construction firms to have new construction projects reviewed early in the design process when there is a better chance of having greater energy savings impact. Educating design firms about energy efficiency programs and incentives can be done through presentations at trade association meetings or shows and through Nicor Gas-sponsored “lunch-and-learns”. Nicor Gas may also consider offering workshops to the trades on topics of interest such as LEED certification, Advanced Buildings Core Performance, ENERGY STAR homes, and the incentives available to assist customers to improve their home or business energy performance.

#### ***6.2.6.2 Media and Community Relations***

Nicor Gas will seek out opportunities through media events, press releases, and speaking engagements to spotlight its programs and customer installations as examples of what can be achieved through energy efficiency. Promotion of these opportunities pre- and post-event may include installations, photos, case studies, and other project details. Efforts will include targeting of reporters and news outlets to offer interviews related to energy efficiency. The Company will particularly target friendly reporters and new outlets to offer interviews.

To raise awareness of its energy efficiency programs and their benefits, Nicor Gas will participate in local community events where appropriate. The Company plans to highlight its energy efficiency programs through displays and participation on discussion panels. Nicor Gas may publicize community events through emails or website announcements.

#### ***6.2.6.3 Co-Branding Opportunities***

Leveraging its relationships with other utilities, municipalities, and manufacturers, Nicor Gas will seek out opportunities to co-brand marketing materials and efficiency products. Customers are thought to trust the information provided when they see multiple well-recognized household names on communications. In addition, co-branding would allow the Company to share the costs of some of its communication materials, thereby keeping its efficiency program costs lower.

#### **6.2.6.4 Employee Communications**

Nicor Gas views its own employees as key to the success of its energy efficiency programs. The Company plans to educate employees about its energy efficiency programs so that employees become invested in the success of the programs; they are able to speak authoritatively with customers who inquire about them; and they take advantage of the Company's programs in their own homes. Nicor Gas expects to provide its employees:

- Ongoing Communications about the programs in the form of articles included in the employee newsletter, information posted on the Intranet, emails about the program offerings, and program signage developed and posted in key locations.
- Energy expos to get information to employees about the programs and stimulate employee participation.
- Face-to-face meetings with leadership teams, call center management, and field personnel.
- Field presentations to help staff understand and support energy efficiency programs.
- Continuation of the energy efficiency brown-bag education series for Nicor Gas management.

#### **6.2.6.5 Sponsorships**

Sponsorships may take a variety of forms, including involvement in trade associations, contributions to community activities and engagement with local business owners. Nicor Gas will consider using sponsorships as a method to raise awareness of its energy efficiency programs. These may include radio sponsorships of special events occurring within the service territory. Nicor Gas will establish a scoring mechanism to evaluate sponsorship requests to ensure that all sponsorships support the goals of the energy efficiency programs.

#### **6.2.7 Targeted Marketing Campaigns**

Targeted marketing campaigns are intended to promote a particular program, technology, customer segment or geographic area. These efforts may be used in the residential sector to target high-use customers or to reach a business sector with specific needs that differ from other business customers, such as healthcare facilities, which operate around the clock or food service facilities that use large quantities of natural gas. Targeted efforts may utilize direct mail or online advertising, trade publications, or any combination of communication techniques appropriate to the market segment.

##### **6.2.7.1 Community-Based Efficiency**

Community-based energy efficiency will focus on efforts promoting participation in Nicor Gas' programs at the community level. Nicor Gas will establish partnerships with organizations engaged in efficiency to leverage efficiency funds and enroll customers in Nicor Gas programs. Activities may include community meetings, neighborhood canvassing, training and outreach, energy challenges, energy events at local retailers and free energy efficiency materials for community libraries. Community events will be promoted through advertising and partnerships with co-sponsoring organizations. Through participation at a wide variety of activities, Nicor Gas will expand its outreach to

multicultural audiences and to customer segments that may not have been reached through other communications approaches.

Nicor Gas will identify and develop a target list of priority communities and events. This will consider customer segments, which may not be reached through traditional marketing. Business groups will be engaged through community-based channels, and speaking opportunities will be used to promote commercial and industrial programs. Non-profits such as Chicago Wilderness, an organization Nicor Gas currently works with, are examples of the type of environmentally conscious organization that are likely to be early adopters of efficiency programs and can assist in promoting participation. Municipal outreach includes working with communities to reach their citizens through websites, cable channels, community newsletters, etc. in cooperation with Nicor Gas community relations directors.

#### ***6.2.7.2 Market Sector Targeting***

Under the Market Sector Targeting effort, Nicor Gas will select specific customer sectors to target with customized marketing materials and communications. These sectors would be ones that have lagged in participation in the energy efficiency programs, or ones who have unique barriers to participation. Commercial kitchens will be the first sector where this approach is used. In the future, other markets, such as hospitality, healthcare, commercial real estate and agriculture may be explored.

Commercial kitchens include restaurants, quick service restaurants and on-premise food service preparation (i.e. colleges, businesses, and hospitals). Food service facilities are traditionally high energy consumers, using roughly 2.5 times more energy per square foot than office buildings, making them prime candidates for significant energy savings. There are, however, a few unique barriers to participation in energy efficiency programs. First, the restaurant business is a high turn-over market where approximately 30% of restaurants close within one year of opening. While established restaurants are more willing to take a long-range view on their investments, a new start-up is more likely to look at the short-term financial risk. Second, there is a wide range of market sub-sectors, including: institutional vs. commercial, locally owned vs. chains, and renters vs. building owners. Each of these submarkets may make decisions differently; the market channels that they rely on for equipment and information may differ as well.

The primary strategy for the market sector targeting effort will be to build relationships with key market actors to broaden program outreach and education. The Company will foster strategic alliances with organizations such as the Illinois Restaurant Association, the Heart of Illinois Hospitality Association, the Illinois Hotel & Lodging Association, and others to educate and communicate program information. Nicor Gas will also seek out other key partnerships, including those with manufacturers, supply warehouses, and distributor associations to help get the word out about programs. By working with these allies, Nicor Gas can learn more about the market and help ensure product availability. All of these associations and key allies have existing relationships with customers and are considered a credible source of information. Nicor Gas can leverage these relationships to reach a large subset of the market with minimal marketing cost.

As a secondary effort, the Company may design specific collateral materials for Commercial Kitchens or the next market sector focus. Nicor Gas will consider designing areas of its website specific to this campaign, bringing together all of the energy efficiency program opportunities specific to that sector. The utility may also design special case studies that spotlight projects in different commercial kitchen settings.

### 6.3 Metrics

Throughout the course of this first Energy Efficiency Plan, Nicor Gas will assess the success of its communications efforts. The Company will analyze customer response to its communications tactics in a number of ways, including: advertising response rates, website hit rates, call volumes inquiring about efficiency programs, participation in the programs, and surveys of how customers learned of the programs, satisfaction and effectiveness of communications. As these metrics are collected and analyzed, adjustments to the communications efforts will be made to most effectively promote the programs and leverage communication budgets.

### 6.4 Budget

A strong marketing program is critical to the success of Nicor Gas energy efficiency programs. In order to develop and maintain a strong Communication Plan, the Company has set aside a significant portion of its energy efficiency budget to fund a variety of approaches to communication and education. Nicor Gas dedicated 8% of its EEP budget in PY1, 7% in PY2, and 5% in PY3. Costs were allocated across all of the energy efficiency programs. Actual spending on marketing, communications, and education may vary by program depending on customer response rates and participation.

**Table 15. Nicor Gas EEP Communication Budget**

	<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>EEP Total</b>
<b>Residential</b>	\$1,080,712	\$1,503,177	\$1,653,280	\$4,237,170
<b>Commercial &amp; Industrial</b>	\$611,648	\$1,091,784	\$1,142,884	\$2,846,315
<b>EEP Total</b>	\$1,692,360	\$2,594,961	\$2,796,164	\$7,083,484

**Table 16. Nicor Gas EEP Communication Tactics by Program**

Efficiency Programs and Communication Methods	Collateral	Case Studies	Direct Mail	Print	Radio	Bill Inserts	Bill Messages	Email newsletter	Email Alerts	Web Ad Pages	Website	Intranet	Banner ads	SEM	Social Marketing	Community Cable	Events	Personal Contact
<b>RESIDENTIAL PROGRAMS</b>																		
Heating & Appliance Incentive	2		1	1	1	1	1	2	2	2	2	3	2	3	3	3	3	
Single Family Retrofit	2		1	1	1	1	1	2	2	2	2	3	2	3	3	3	3	
Multi-Family Retrofit	2	3	1	1		1	1	2	2	2	2	3	2	3	3	3	3	
Elementary Energy Education								3			3	3						1
Heating System Tune-Up	2		1	1	1	1	1	2	2	2	2	3	2	3	3	3	3	
New Construction	2	3						2			2	3	2	3	3	3	3	
Behavioral Energy Savings								1	1	2	2	3			2		3	
<b>SMALL &amp; LARGE COMMERCIAL PROGRAMS</b>																		
Prescriptive Incentive	2	2	1	1	1			1	2	3	2	3	2	3	3	3	3	1
Custom Business	2	2	1	1	1			1	2	3	2	3	2	3	3	3	3	1
Small Business Direct Install	2	3	1		1			1	2	3	2	3	2	3	3	3	3	2
New Construction	2	2	1					1	2	3	2	3	2	3	3	3	3	2
Retro-Commissioning	2	2	1					1	2	3	2	3	2	3	3	3	3	2
Building Performance w/ E-STAR	2	2						1	2	3	2	3	2	3	3	3	3	2
Economic Redevelopment	2	2						1		3	3	3						1
Emerging Technology		2						1		3	3	3						1

The entries “1”, “2”, and “3” in the table above indicate the three highest priority communication tactics Nicor Gas will use to market each program.



**Table 17. Nicor Gas EEP Communication Development Schedule for Program Year 1**

Communication Type	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Collateral	X	X	X		X		X		X		X	
Case Studies						X		X		X		X
Direct Mail				X	X				X	X		
Print				X	X				X	X		
Radio				X	X				X	X		
Bill Inserts	X		X		X		X		X		X	
Bill Messages		X		X		X		X		X		X
Newsletters	X			X		X		X		X		X
Email Alerts			X		X		X		X		X	
Web Ad Pages				X	X				X	X		
Website	X	X	X	X	X	X	X	X	X	X	X	X
Intranet	X	X	X	X	X	X	X	X	X	X	X	X
Banner Ads					X		X		X		X	
SEM				X	X	X	X	X	X	X	X	X
Social Marketing					X	X	X	X	X	X	X	X
Community Cable						X		X		X		X
Events	X		X		X	X			X		X	
Personal Contacts	X	X	X	X	X	X	X	X	X	X	X	X

Each “X” above indicates the month in which particular communication tactics are most likely to occur.

## 7 Evaluation, Measurement & Verification

Evaluation, measurement, and verification (EM&V) represent the processes used to confirm that energy efficiency installations, as well as calculated energy savings, are at the levels reported. EM&V processes are typically employed to determine the effectiveness of energy efficiency and other demand-side management (DSM) programs. Processes may include:

- site visits to confirm proper installation and operation of efficient equipment;
- pre- and/or post-monitoring (before or after installation) to measure energy savings;
- program, process, and impact evaluations;
- surveys of participants to estimate free-ridership and net-to-gross.

These processes are designed to improve the operations of energy efficiency programs, measure their impacts, and correctly attribute energy savings to utility efforts. In Illinois under Section 8-104, gas utilities are required to provide quarterly status reports on program performance, annual independent evaluations of programs, and an independent evaluation of the overall portfolio at the end of each three-year EEP cycle. Section 8-104 also designates that a 3% maximum of the budget may be expended on EM&V. The following table provides Nicor Gas' proposed expenditures for EM&V in each program year. These EM&V budgets include the costs of the EM&V independent evaluators. They do not include other costs related to evaluations, such as the Company's or its program implementers' costs to collect materials used for evaluations.

**Table 18. EM&V Annual Budget**

	<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>Total</b>
<b>Residential</b>	\$418,836	\$649,373	\$934,655	\$2,002,863
<b>Commercial &amp; Industrial</b>	\$237,047	\$471,650	\$646,110	\$1,354,808
<b>EEP Total</b>	\$655,883	\$1,121,023	\$1,580,765	\$3,357,671

There are two types of formal program evaluations that will be applied within this three-year energy efficiency plan in addition to ongoing less formal monitoring processes. Process evaluations will help to determine if individual programs are performing as designed and effectively reaching the target customer groups. Methods employed for process evaluation include surveys of participants and non-participants, direct interviews with those involved with the program at all levels (including participants and non-participants), and assessments of program processes. The purpose of process evaluations is to determine if an on-going program requires refinement, needs a change in the rebate or incentive levels to attract participants or should be removed from the portfolio.

Impact evaluations are intended to determine the actual impact of the program that can be attributed to Nicor Gas' efforts. Impact evaluation involves the measurement of metrics that define the energy savings achieved by the program participants. The impact of a program or the amount of energy-saved by a program will be measured against program goals and include amounts of saved energy, reduced or shifted demand, program cost-benefit ratio,

number of participants, number of free-riders and free-drivers, spillover impacts and other measureable quantities. These metrics are usually defined by program goals (i.e., total reduced energy). A variety of direct and indirect methods are utilized in the impact evaluation process including statistical, survey and analytical methods are used to assess the impact of programs.

Nicor Gas will have the EM&V vendors utilize a variety of methods, but the use of specific direct and indirect measurement methods will need to be determined by the level of rigor of required for a specific program and the available evaluation budget. Each methodology and level of rigor has different range of costs, difficulty of execution, and expected accuracy. Each method has varying rigor levels that range from direct measurement (metering) of program participants, engineering methods of modeling impact, and surveying and statistical modeling, analysis of customer usage and billing records, deemed savings estimates, and use of other utility program impacts.

Further, the degree of EM&V conducted by Nicor Gas will depend on its collaborations with other utilities. Where possible, Nicor Gas will share the expense of EM&V and minimize EM&V duplication with its partners in order to maximize program cost-effectiveness. As noted previously, Nicor Gas will participate in a natural gas Stakeholder Advisory Group. The Company will collaborate with the natural gas SAG and its evaluation contractors to develop an EM&V planning process that makes the most of the limited funds available by combining evaluation efforts wherever possible and appropriate across gas and electric utility jurisdictions where programs are similar or jointly offered. Part of the SAG's responsibilities will be to establish agreed-upon performance metrics for measuring portfolio and program performance.

In the Ameren Illinois Utilities' gas and electric energy efficiency plan docket and the Commonwealth Edison Company electric energy efficiency docket, the Commission ordered the Companies to adopt the NTG framework that was established in the electric Stakeholder Advisory Group. That framework was proposed by Attorney General witness Mosenthal. Nicor Gas plans to adopt the Mosenthal NTG framework for consistency among the gas and electric utilities.

The Commission also ordered Ameren and ComEd to work together with other Illinois utilities to develop a statewide Technical Resource Manual (TRM). Nicor Gas plans to participate in the development of the statewide TRM with others through the natural gas SAG.

Nicor Gas will also utilize a variety of monitoring, inspection and verification methods on an ongoing basis. Nicor Gas is not including these costs in the evaluation budget, but within the individual program budgets as they are more closely aligned with day-to-day program operations and controls, rather than more formal evaluation processes. These activities may include on-site inspections for a sample of projects for prescriptive programs and for all large, complex, custom, projects. In addition, mail and telephone surveys may be utilized to supplement the information gathered through rebate applications and contractor installation reports.

Nicor Gas will hire one or more independent firms skilled in program evaluation to execute the legislatively mandated annual and triennial evaluations. It is possible that Nicor Gas will extend any contracts generated for program evaluation of its Rider 29 programs for the purposes of program evaluation in this plan. In previous cases, ICC docket numbers 07-0539 and 07-0540, the Commission ordered Ameren and ComEd to include provisions in their contracts of independent evaluators so that the Commission could: (1) terminate the contracts if it determined the evaluators were not acting independently; and (2) prevent the utilities from terminating the contracts without Commission approval. Nicor Gas will adopt this language in its contracts with independent evaluators.

The Company and its independent evaluator will work with the natural gas SAG to develop Experimental Design guidelines and ensure transparent and consistent methods for determining electricity and natural gas savings. Nicor will provide information to its independent evaluator on the Experimental Design methodology so that it may be used for its Behavioral Energy Savings program and other programs, as appropriate. The independent evaluator will maintain a master database of participation, billing and control group data to ensure savings are verified in an independent and timely manner. The Company will control the cost of exporting the appropriate data to the independent evaluator so that costs do not exceed the 3% EM&V threshold.

Nicor Gas may be unable to fully evaluate all programs in the Plan especially in the early years, based on budget availability. As the programs mature and the overall portfolio budget increases, there should be sufficient budget to fully evaluate programs on a cyclical basis. Each program will have elements of verification within its program processes. In order to use the results of evaluations for Nicor Gas' second triennial plan, though, the Company will include provisions in the contract language that requires at least one impact evaluation of all programs to be completed no later than 60 days prior to October 1, 2013, the date the Company is required to file its second triennial plan.

Nicor Gas' preliminary plan for evaluating programs is shown in Table 18 below, which reflects the type of evaluation and the year in which it is expected to be performed. "M" refers to program monitoring, "P" refers to a process evaluation, and "I" refers to an impact evaluation, all as described above. As directed by the Commission, however, the timing of evaluations will be determined by Nicor Gas' independent evaluator(s).

**Table 19. Program Evaluation Schedule**

<b>Program</b>	<b>PY1</b>	<b>PY2</b>	<b>PY3</b>	<b>Post-EEP</b>
Residential				
Heating & Appliance Incentive	M, P	M, I	I	I
Single Family Retrofit	M, P	I	P	I
Multi-Family Retrofit	M, P	I	P	I
Elementary Energy Education	M	M	P	I
New Construction	M, P	I	P, I	I
Behavioral Energy Savings	M, I	M, P, I	M, I	I
Business				
Business Incentive	M, P	M, I	I	I
Custom Business	M, I	M, P, I	M, I	I
Small Business Direct Install	M, I	M, P, I	M, I	I
New Construction	M	M, P	M, I	I
Retro-Commissioning	M, I	M, P, I	M	I
Building Performance w/ ENERGY STAR	M	M, I	M, P, I	I
Economic Redevelopment	M	M, I	M, P, I	I
Emerging Technology		I	I	I

M = Program Monitoring; P = Process Evaluation; I = Impact Evaluation

The proposed individual program evaluations are incorporated in the individual program descriptions in the following sections.

## 8 Appendix A: Nicor Gas Benefit-Cost Model Input Assumptions

### Appendix A: Nicor Gas Benefit-Cost Model Input Assumptions

Program/Measure	Sector	Key Assumptions								Measures Installed			TRC		
		Incremental Cost (\$)	Savings (Therms/Unit)	Savings (kWh/Unit)	Lifetime (Years)	Net to Gross Ratio	Incentive Received by Customer Customer(\$)	Utility Direct Install Costs (\$/Unit)	Variable Overhead Cost (\$/Unit)	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Heating & Appliance Incentive	Residential												1.6	1.6	1.6
High Efficiency Boiler, 90% AFUE	Residential	\$1,250	103	-	20	70%	\$ 300	\$ -	\$ -	400	500	800	1.4	1.4	1.4
High Efficiency Boiler, 95% AFUE	Residential	\$1,500	161	-	20	70%	\$ 400	\$ -	\$ -	100	150	200	1.9	1.9	1.9
High Efficiency Furnace, 92% AFUE	Residential	\$1,125	144	-	18	70%	\$ 200	\$ -	\$ -	9,200	13,000	18,000	2.0	2.0	2.0
High Efficiency Furnace, 95% AFUE	Residential	\$1,650	178	-	18	70%	\$ 250	\$ -	\$ -	3,000	5,000	10,000	1.7	1.7	1.7
Storage Water Heater, E Factor 0.67	Residential	\$250	37	-	15	80%	\$ 100	\$ -	\$ -	4,000	6,000	8,000	1.8	1.8	1.8
Window, U = .2	Residential	\$111	12	-	30	80%	\$ 25	\$ -	\$ -		7,462	17,908		3.0	3.0
Single-Family Retrofit	Residential												1.0	1.2	1.2
Air Infiltration Reduction	Residential	\$470	141	-	10	90%	\$ 235	\$ -	\$ -	400	988	1,549	2.5	2.5	2.5
Attic Insulation - open blown ceiling	Residential	\$1,839	112	-	20	90%	\$ 920	\$ -	\$ -	235	575	885	1.1	1.1	1.1
Basement/Sidewall Insulation	Residential	\$1,855	101	-	20	90%	\$ 928	\$ -	\$ -	200	500	800	1.0	1.0	1.0
Duct insulation and sealing (15% leakage base)	Residential	\$645	139	-	18	90%	\$ 323	\$ -	\$ -	400	988	1,549	3.4	3.4	3.4
Energy Audit	Residential	\$180	-	-	20	90%	\$ -	\$ 143	\$ -	2,100	5,200	8,150	-	-	-
Faucet aerator	Residential	\$5	5	-	5	90%	\$ -	\$ 5	\$ -	2,100	5,200	8,150	3.9	3.9	3.9
Floor Insulation	Residential	\$1,111	149	-	20	90%	\$ 556	\$ -	\$ -	100	247	387	2.4	2.4	2.4
Low-flow shower heads	Residential	\$9	27	-	7	90%	\$ -	\$ 9	\$ -	1,386	3,432	5,379	16.0	16.0	16.0
Pipe Insulation	Residential	\$6	34	-	7	90%	\$ 3	\$ -	\$ -	400	988	1,549	28.6	28.6	28.6
Thermostats	Residential	\$56	26	-	10	90%	\$ 28	\$ -	\$ -	400	988	1,549	3.8	3.8	3.8
Multi-Family Direct Install Retrofit	Residential												1.9	2.1	2.2
Energy Audit	Residential	\$37	-	-	20	90%	\$ -	\$ 37	\$ -	35,000	55,000	75,000	-	-	-
Faucet aerator, Includes prog. Cost	Residential	\$5	5	-	5	90%	\$ -	\$ 5	\$ -	35,000	55,000	75,000	3.5	3.5	3.5
Low-flow shower heads	Residential	\$22	27	-	7	90%	\$ -	\$ 22	\$ -	35,000	55,000	75,000	6.7	6.7	6.7
Thermostats	Residential	\$70	26	-	10	90%	\$ -	\$ 70	\$ -	12,250	19,250	26,250	3.1	3.1	3.1
Water Heater Turn-down	Residential	\$5	11	-	1	90%	\$ -	\$ 5	\$ -	12,250	19,250	26,250	1.2	1.2	1.2
Residential New Construction	Residential												1.2	1.4	1.5
ENERGY STAR certification, HERS Index <= 85	Residential	\$3,752	143	-	45	80%	\$ -	\$ 850	\$ -	200	400	750	1.8	1.8	1.8
Elementary Energy Education	Residential												1.0	1.1	1.1
Take home kit	Residential	\$61	14	-	7	99%	\$ -	\$ 61	\$ -	10,000	15,000	20,000	1.3	1.3	1.3
Behavioral Energy Savings	Residential												1.0	1.3	1.4
Behavior changes	Residential	\$10	16	-	2	95%	\$ -	\$ 10	\$ -	25,000	50,000	75,000	2.1	2.1	2.1

## Appendix A: Nicor Gas Benefit-Cost Model Input Assumptions

Program/Measure	Sector	Key Assumptions							Measures Installed			TRC			
		Incremental Cost (\$)	Savings (Therms/Unit)	Savings (kWh/Unit)	Lifetime (Years)	Net to Gross Ratio	Incentive Received by Customer Customer(\$)	Utility Direct Install Costs (\$/Unit)	Variable Overhead Cost (\$/Unit)	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Commercial Prescriptive Incentive	Commercial												4.2	4.8	4.8
Boiler Reset Controls (after market new), Retrofit	Commercial	\$600	867	-	20	80%	\$ 250	\$ -	\$ -	325	650	1,225	24.8	24.8	24.8
Boiler Tune-up	Commercial	\$650	303	-	5	80%	\$ 350	\$ -	\$ -	450	800	2,000	1.8	1.8	1.8
Combined High Efficiency Boiler & Water Htg. Unit, 90%AFUE or greater	Commercial	\$2,185	246	-	20	80%	\$ 1,600	\$ -	\$ -	10	30	60	1.9	1.9	1.9
Commercial Steamer, Energy Star Rated with E of >38%	Commercial	\$3,700	2,084	-	12	80%	\$ 1,000	\$ -	\$ -	75	178	300	5.3	5.3	5.3
CONDENSING BOILERS, Up to 300 MBH, 90% AFUE or greater--Replace	Commercial	\$3,365	709	-	20	80%	\$ 500	\$ -	\$ -	8	20	40	3.6	3.6	3.6
CONDENSING BOILERS, 1000 to 1700 MBH, 90% TE or greater--Replace	Commercial	\$9,415	1,982	-	20	80%	\$ 5,000	\$ -	\$ -	2	5	15	3.6	3.6	3.6
CONDENSING BOILERS, 301 to 499 MBH, 90% TE or greater--Replace	Commercial	\$4,190	882	-	20	80%	\$ 1,500	\$ -	\$ -	6	15	40	3.6	3.6	3.6
CONDENSING BOILERS, 1701 to 2000 MBH, 90% TE or greater--Replace	Commercial	\$12,165	2,561	-	20	80%	\$ 7,500	\$ -	\$ -	2	5	15	3.6	3.6	3.6
CONDENSING BOILERS, 500 to 999 MBH, 90% TE or greater--Replace	Commercial	\$6,115	1,288	-	20	80%	\$ 2,500	\$ -	\$ -	4	10	30	3.6	3.6	3.6
CONDENSING UNIT HEATERS, up to 300 MBH, 90% TE with power venting	Commercial	\$676	266	-	20	80%	\$ 200	\$ -	\$ -	20	35	75	6.7	6.7	6.7
Convection Oven, Energy Star Rated with E of >40%	Commercial	\$1,900	323	-	12	80%	\$ 500	\$ -	\$ -	15	30	60	1.6	1.6	1.6
Fryer, Energy Star Rated with E of >50%	Commercial	\$1,200	505	-	15	80%	\$ 500	\$ -	\$ -	30	100	175	5.1	5.1	5.1
FURNACES, up to 150 MBH, 92-94.9% AFUE	Commercial	\$295	218	-	18	80%	\$ 200	\$ -	\$ -	500	700	1,100	11.3	11.3	11.3
FURNACES, up to 150 MBH, 95%+AFUE	Commercial	\$1,325	238	-	18	80%	\$ 250	\$ -	\$ -	250	380	600	2.7	2.7	2.7
Griddle, Energy Star Rated	Commercial	\$800	184	-	12	80%	\$ 250	\$ -	\$ -	30	100	175	2.2	2.2	2.2
H-E Combined Oven	Commercial	\$4,300	644	-	12	80%	\$ 500	\$ -	\$ -	15	30	60	1.4	1.4	1.4
H-E Conveyor OvenLarge (>=25-in conveyor width)	Commercial	\$1,800	733	-	17	80%	\$ 500	\$ -	\$ -	30	100	175	5.6	5.6	5.6
HE Pre-Rinse Spray Valve, Low-Flow Pre-Rinse	Commercial	\$60	262	-	5	80%	\$ 25	\$ -	\$ -	400	1,112	1,600	15.8	15.8	15.8
H-E Rack Oven-Double Oven	Commercial	\$8,646	2,064	-	12	80%	\$ 1,400	\$ -	\$ -	15	30	60	2.3	2.3	2.3
HYDRONIC BOILERS, Up to 300 MBH, 85% AFUE or greater--Replace	Commercial	\$1,470	433	-	20	80%	\$ 400	\$ -	\$ -	50	70	150	5.0	5.0	5.0
HYDRONIC BOILERS, 301 to 499 MBH, 85% TE or greater--Replace	Commercial	\$1,620	477	-	20	80%	\$ 1,000	\$ -	\$ -	25	40	75	5.0	5.0	5.0
HYDRONIC BOILERS, 500 to 999 MBH, 85% TE or greater--Replace	Commercial	\$1,970	580	-	20	80%	\$ 1,250	\$ -	\$ -	10	30	60	5.0	5.0	5.0
HYDRONIC BOILERS, 1000 to 1700 MBH, 85% TE or greater--Replace	Commercial	\$2,570	756	-	20	80%	\$ 1,750	\$ -	\$ -	10	20	40	5.0	5.0	5.0
HYDRONIC BOILERS, 1701 to 2000 MBH, 85% TE or greater --Replace	Commercial	\$3,070	904	-	20	80%	\$ 2,500	\$ -	\$ -	8	10	25	5.0	5.0	5.0
Infrared Charbroiler	Commercial	\$2,200	661	-	12	80%	\$ 500	\$ -	\$ -	5	10	20	2.8	2.8	2.8
INFRARED HEATERS (all sizes), Low intensity	Commercial	\$1,716	451	-	12	80%	\$ 700	\$ -	\$ -	20	30	50	2.6	2.6	2.6
Infrared Rotisserie Oven	Commercial	\$2,700	554	-	12	80%	\$ 500	\$ -	\$ -	5	10	20	1.9	1.9	1.9
Infrared Salamander Broiler	Commercial	\$1,000	239	-	12	80%	\$ 500	\$ -	\$ -	5	10	20	2.3	2.3	2.3
Infrared Upright Broiler	Commercial	\$5,900	1,089	-	10	80%	\$ 500	\$ -	\$ -	5	10	20	1.4	1.4	1.4
Pasta Cooker	Commercial	\$2,400	1,380	-	12	80%	\$ 200	\$ -	\$ -	5	10	20	5.4	5.4	5.4
Programmable Thermostat	Commercial	\$75	178	-	9	80%	\$ 53	\$ -	\$ -	200	400	800	17.0	17.0	17.0
Steam Trap, Buy Down	Commercial	\$77	203	-	6	80%	\$ 50	\$ -	\$ -	450	1,100	2,000	12.3	12.3	12.3
Water Heater (large), 88% TE	Commercial	\$209	251	-	15	80%	\$ 150	\$ -	\$ -	125	150	200	14.7	14.7	14.7
Water Heater—Energy Star Free Standing, .67 EF ++	Commercial	\$400	148	-	15	80%	\$ 100	\$ -	\$ -	200	225	200	4.5	4.5	4.5
Custom Business	Commercial												1.9	2.0	2.1
Custom Program Representative Measure	Commercial	\$62,813	20,938	-	10	80%	\$ 20,938	\$ -	\$ -	67	204	295	2.6	2.6	2.6

## Appendix A: Nicor Gas Benefit-Cost Model Input Assumptions

Program/Measure	Sector	Key Assumptions								Measures Installed			TRC		
		Incremental Cost (\$)	Savings (Therms/Unit)	Savings (kWh/Unit)	Lifetime (Years)	Net to Gross Ratio	Incentive Received by Customer Customer(\$)	Utility Direct Install Costs (\$/Unit)	Variable Overhead Cost (\$/Unit)	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Small Business Direct Install	Commercial												1.1	3.3	3.8
Aerators	Commercial	\$5	5	-	5	80%	\$ -	\$ 5	\$ -	100	181	313	3.5	3.5	3.5
Boiler Reset Control	Commercial	\$600	867	-	20	80%	\$ -	\$ 420	\$ -	10	356	535	24.8	24.8	24.8
Boiler Tune-up	Commercial	\$650	303	-	5	80%	\$ -	\$ 455	\$ -	150	356	535	1.8	1.8	1.8
CONDENSING UNIT HEATERS, up to 300 MBH, 90% TE with power venting	Commercial	\$676	266	-	20	80%	\$ -	\$ 473	\$ -	10	18	31	6.7	6.7	6.7
Furnace 0.9 AFUE Condensing	Commercial	\$700	165	-	20	80%	\$ -	\$ 490	\$ -	5	9	16	4.0	4.0	4.0
Furnace Tune-Up 110-250 Mbtu	Commercial	\$100	63	-	2	80%	\$ -	\$ 70	\$ -	50	91	157	0.8	0.8	0.8
Hot water reset	Commercial	\$5	11	-	1	80%	\$ -	\$ -	\$ -	100	181	313	1.2	1.2	1.2
HYDRONIC BOILERS, Up to 300 MBH, 85% AFUE or greater--Replace	Commercial	\$1,470	433	-	20	80%	\$ -	\$ 1,029	\$ -	15	24	36	5.0	5.0	5.0
Infrared Heaters	Commercial	\$1,716	451	-	12	80%	\$ -	\$ 1,201	\$ -	15	27	47	2.6	2.6	2.6
Pre Rinse Sprayers	Commercial	\$60	262	-	5	80%	\$ -	\$ 60	\$ -	260	471	814	15.8	15.8	15.8
Programmable Thermostat	Commercial	\$75	178	-	9	80%	\$ -	\$ 53	\$ -	125	226	391	17.0	17.0	17.0
Showerheads	Commercial	\$22	27	-	7	80%	\$ -	\$ 22	\$ -	100	181	313	6.7	6.7	6.7
Steam Trap, Buy Down	Commercial	\$77	203	-	6	80%	\$ -	\$ 54	\$ -	150	618	927	12.3	12.3	12.3
Water Heater (large), 88% TE	Commercial	\$209	251	-	15	80%	\$ -	\$ 146	\$ -	50	91	157	14.7	14.7	14.7
Building Performance with ENERGY STAR	Commercial												2.9	3.1	3.2
Building Performance with ENERGY STAR	Commercial	\$40,000	12,500	-	15	80%	\$ 10,000	\$ -	\$ -	2	10	20	3.9	3.9	3.9
Economic Redevelopment	Commercial												2.4	2.5	2.6
Economic Redevelopment	Commercial	\$72,000	18,750	-	15	80%	\$ 36,000	\$ -	\$ -	8	16	20	3.3	3.3	3.3
Retro-Commissioning	Commercial												1.1	1.1	1.2
Retro-Commissioning	Commercial	\$87,468	34,605	-	5	80%	\$ 45,744	\$ -	\$ -	21	37	41	1.5	1.5	1.5
Commercial New Construction	Commercial												2.2	2.3	2.4
Commercial New Construction	Commercial	\$27,778	6,250	-	15	80%	\$ 6,944	\$ -	\$ -	38	40	50	2.8	2.8	2.8



## **9 Appendix B: DCEO EEP Budget and Integrated Gas/Electric Plan**

### **Appendix B: DCEO EEP Budget and Integrated Gas / Electric Plan**

Pursuant to the Order, DCEO shall be responsible for submitting an updated Energy Efficiency Plan.

“IT IS FURTHER ORDERED that the Illinois Department of Commerce and Economic Opportunity is hereby authorized to and directed to make a filing within 30 days of the date of this Order, such filing shall be a revised Energy Efficiency Plan pursuant to Sections 8-103 and 8-104 of the Public Utilities Act which revised plan contains terms and provisions consistent with and reflective of the findings and determinations made in this Order,”

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## 10 Appendix C: Annual Energy Efficiency Therm Reduction Requirements

	As Ordered Therms	Revised Therms 1/
<u>2009 Deliveries to Retail Customers</u>		
<u>Sales Service Volumes</u>		
Rate 1, Residential Service	1,998,074,060	1,998,074,060
Rate 4, General Service	573,462,867	573,462,867
Rate 5, Seasonal Use Service	3,419,330	3,419,330
Rate 6, Large General Service	-	-
Rate 7, Large Volume Service	-	-
Therm Sales to Transportation Customers	12,866,273	12,866,273
Total Sales Service Volumes	2,587,822,530	2,587,822,530
Certified Alternative Gas Suppliers	425,217,776	425,217,776
<u>Wholesale Service Volumes</u>		
Rate 1, Residential Service	-	-
Rate 4, General Service	105,768,787	105,768,787
Rate 5, Seasonal Use Service	8,972,544	8,972,544
Rate 6, Large General Service	-	-
Rate 7, Large Volume Service	-	-
Therms Delivered to Transportation Customers	1,569,205,466	1,569,205,466
Total Wholesale Volumes	1,683,946,797	1,683,946,797
Total Retail & Wholesale Volumes	4,696,987,103	4,696,987,103
Total Deliveries To Wholesale & Retail Customers	4,696,987,103	4,696,987,103
Less: Retail subsection (m) customers (SIC codes beginning with 31, 32, 33 and using more than 4 million therm per year) not otherwise excluded	285,432,483	285,432,483
Exempt retail customers using gas as feedstock and more than 4 million therms per year and not otherwise excluded	147,897,646	241,767,740
Total 2009 Deliveries Applicable to Energy Efficiency Reduction	4,263,656,974	4,169,786,880

## Appendix C (cont'd): Energy Savings Requirements

Energy Savings Requirements					
May 31 <sup>st</sup> of:	Annual Incremental Savings		Cumulative Incremental Savings		Therm Reduction
	Percent	Therms	Percent	Therms	
2012	0.2	8,527,314	0.2	8,527,314	8,339,574
2013	0.4	17,054,628	0.6	25,581,942	16,679,148
2014	0.6	25,581,942	1.2	51,163,884	25,018,721

1/ Includes additional exempt electric generation customers.

## 11 Appendix D: Overall Plan Cost Summary

	PY1	PY2	PY3	Total
Program Budget/1	\$29,362,986	\$50,177,322	\$70,799,553	\$150,339,861
Startup Costs	\$5,000,000			\$5,000,000
On-Bill Financing (Rider 31)	\$100,000			\$100,000
Total	\$34,462,986	\$50,177,322	\$70,799,553	\$155,439,861

/1 See Table 7 of the Plan for detailed program budget.