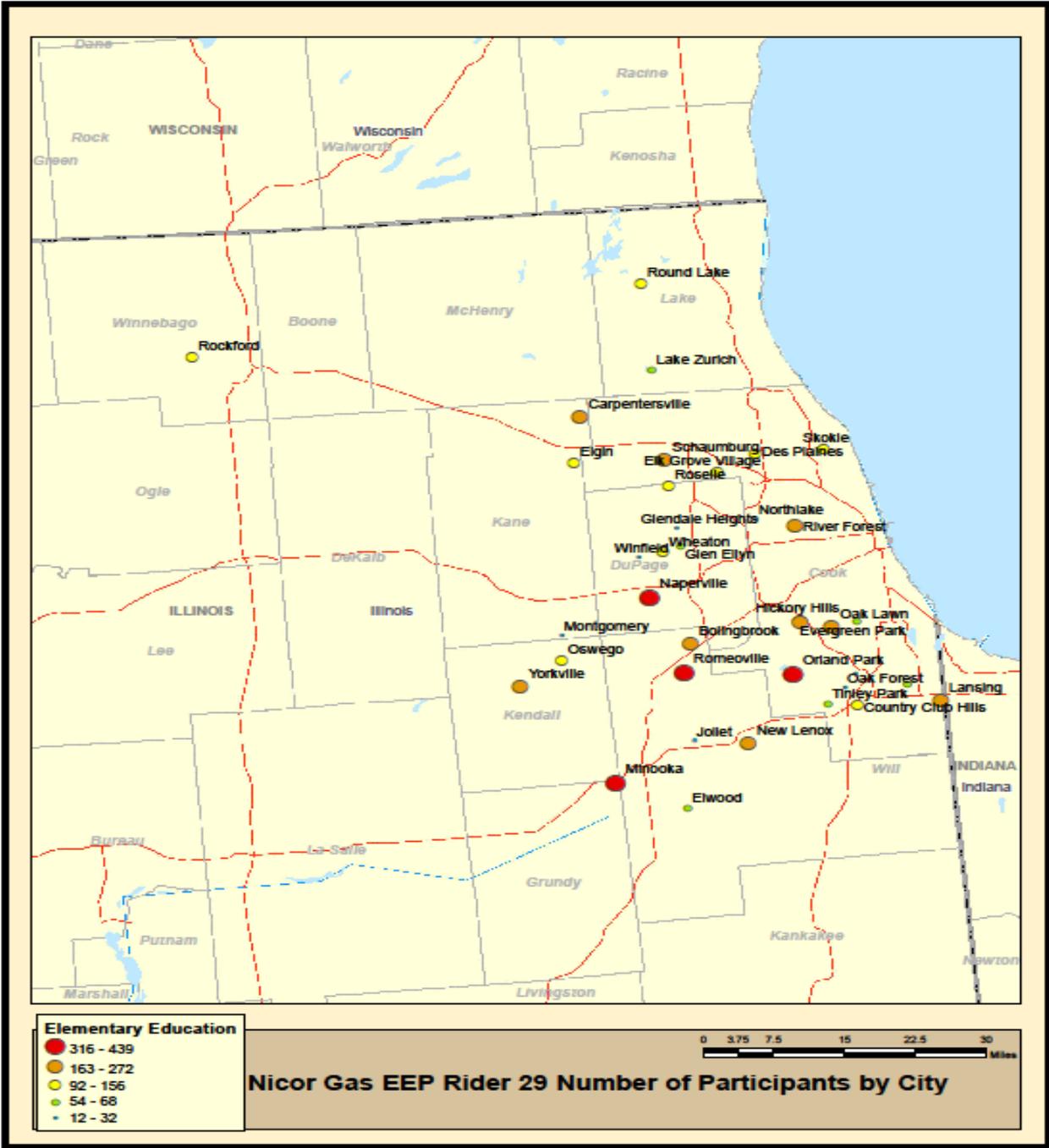


## Territory Saturation

The 4,997 students and teachers who participated were from 55 schools in 37 communities.

The following map below shows specific communities, with larger circles corresponding to areas with a higher number of participants.

**Territory Saturation Map – Elementary Energy Education Program**



## Lessons Learned

Some of the referenced data used in the report, such as average shower length, came from a study done in 2001 in Southern California, which is a different demographic and climate from Northern Illinois. The Household Report Card should be revised to include recommendations from EM&V contractor and additional usage questions in order to capture true program participant behavior.

With 61 percent of Household Report Cards returned for the incentive of a mini grant up to \$100, it might be valuable to look at other ways to increase the return rate.

This program provides an excellent opportunity for collaboration with ComEd and the inclusion of CFLs in the kits.

## Low-to-Moderate Income Weatherization Program

### Program Objectives

The Low-to-Moderate Income Weatherization Program was designed to provide access to weatherization and energy-efficiency services for customers who could not afford these services through Nicor's Existing Home Retrofit Program and who did not qualify for traditional Low-Income Heating Assistance and Weatherization Assistance. Weatherization services were provided to low-to-moderate income customers (200-300 percent of the federal poverty guidelines) within the Nicor Gas service territory, by working with the Illinois Association of Community Action Agencies (IACAA) through their local agencies to deliver these services.

Nicor Gas EEP provided funding for 90 percent of the weatherization improvements and 80 percent of the furnace repairs/replacements, with the remaining balance paid by the homeowner. Participants in this program would not have been able to afford these services without the program. Therefore, no free-ridership was estimated for this program.

### Marketing Strategy

Low-income families contacted their local Community Action Agencies (CAAs) to apply for the Illinois Home Weatherization Assistance Program (IHWAP). WECC determined the CAAs were in the best position to refer over-income and ineligible applicants to the Nicor program.

Those families denied eligibility for the IHWAP program, as identified through an application process with the local agency, would receive a Nicor Gas EEP Low-to-Moderate Income Program brochure with their denial letter and told how to apply for the program. In addition, a one-page flier was developed for posting in the agencies' offices or at organizations that serve the low-income population.

## Program Results

The overall program goal was to weatherize 203 homes and repair or replace 101 furnaces for Nicor natural gas customers. A number of issues related to contract requirements, local agency start-up, increased agency workload from ARRA funding, and customer recruitment delayed the implementation of this program, resulting in only 43 homes receiving services through the program as of May 31, 2011. The results of this program are presented below.

**Table 18. Low-to-Moderate Income Weatherization Participation**

Measures	Program Participation	Participation Goal	% to Goal
Weatherized Homes	43	203	21%
Furnace Replacements	28	101	28%
<b>Total</b>	<b>43</b>	<b>203</b>	<b>21%</b>

**Table 19. Low-to-Moderate Income Weatherization Incentives**

Measures	Incentives Paid	Incentive Budget	% to Budget
Weatherized Homes	\$80,208	\$532,875	15%
Furnace Replacements	\$93,039	\$235,734	40%
<b>Total</b>	<b>\$173,247</b>	<b>\$768,609</b>	<b>23%</b>

**Table 20. Low-to-Moderate Income Weatherization Therm Savings**

Measures	Therms Achieved (Net)	Therm Goal (Net)	% to Goal
Weatherized Homes	8,776	50,750	17%
Furnace Replacements	3,918	14,544	27%
<b>Total</b>	<b>12,693</b>	<b>65,294</b>	<b>19%</b>

The maximum project cost allowed per household was \$6,838, which included the \$5,200 maximum allowable project expenditure for labor and materials, as well as the agency program support and administrative fees. The average total project cost for the 43 homes was \$5,359.83, which included all of the agency's fees.

The agency's program support and administrative fees, along with IACAA's administrative fee and the costs for marketing and call center support, totaled an additional \$31,025.82, for a total program cost of \$204,273.05.

The per-home energy savings are as follows:

**Table 21. Low-to-Moderate Income Weatherization Savings per Home**

	Est. Gross Therm Savings Per Home	Actual Gross Therm Savings per Home
Weatherized Homes	250	204
Furnace Replacements	144	91

Initially seven local community action agencies agreed to participate in the program, but due to difficulty with customer recruitment, three of the agencies dropped out halfway through the program year. The agencies cited the major barrier to customer participation as customers not being able to pay the unfunded 10 or 20 percent portion of the project cost. However, WECC believes a lack of agency salesmanship may have contributed as well. A summary of agency participation is shown below:

**Table 22. Low-to-Moderate Income Weatherization Participation by Agency**

Community Action Agency	No. of Homes Completed
Community and Economic Development of Cook County (CEDA)	21
Rockford Human Services Department	11
Will County Center for Community Concerns	9
Kendall-Grundy Community Action	2
Community Contacts, Inc. (DeKalb & Kane County)	0
Champaign County Regional Planning Commission	0
Community Action Partnership of Lake County	0

IACAA and the participating CAAs had difficulty adapting to a program objective and scope that differed from their standard Illinois Home Weatherization Assistance Program (IHWAP). The expectation was that all weatherization measures would contribute to gas savings, but there was some confusion created in the agencies' scope of work when it referenced the IHWAP Program Operations Manual for defining eligible measures.

As a result, the agencies and their staff took that literally and did not take into account the other scope of work requirements, which were covered in detail during a kick-off meeting with all agency participants, and included the following:

1. Only installing measures with a Savings-to-Investment Ratio (SIR) >1.
2. Not allowing measures that saved both natural gas and electricity unless the primary purpose of the improvement was to reduce natural gas use.
3. Not allowing measures that were structural in nature or intended to repair the exterior envelope of the home (i.e., roof, shingles, siding, doors and windows, etc.).

The agencies' reliance on the IHWAP manual led to numerous measures being installed that were not allowed and therefore not reimbursed, such as compact fluorescent lamps (CFLs), fire extinguishers, new windows, gutter and downspout extensions, and new air conditioning units, to name a few.

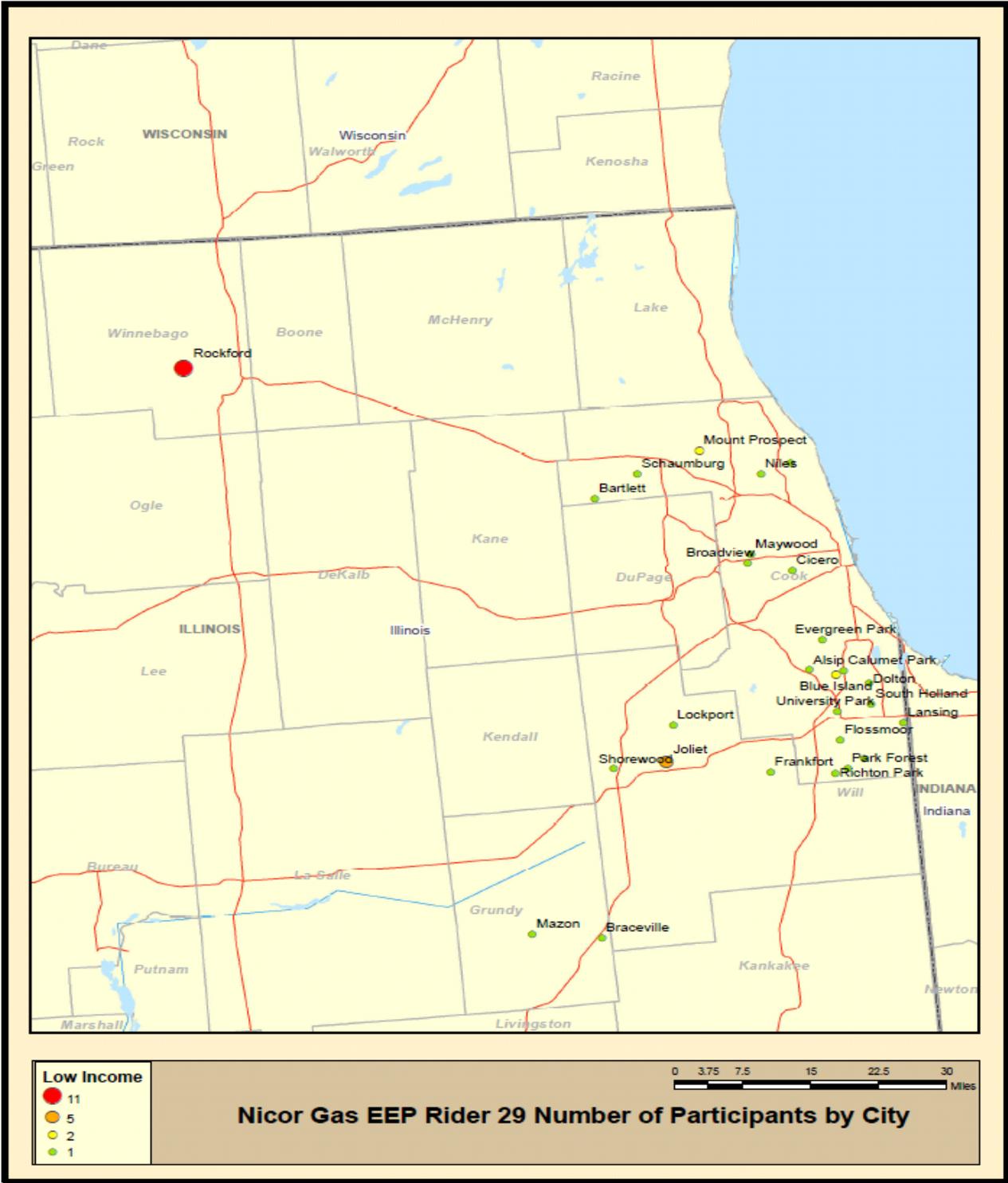
WECC performed QA/QC inspections on 11 of the 43 homes. The majority of the homes inspected required re-work to correct deficiencies or poor workmanship. WECC requested and has received documentation of the re-work and WECC's QA/QC inspector has approved the final documentation.

After discovering numerous post-weatherization combustion safety issues at homes completed by one agency, it was determined that this agency should conduct and document combustion safety tests for the 14 remaining homes this agency worked on. WECC believes that the agency's energy assessors were either not adequately trained or did not have enough field experience in this type of testing. Consequently, the agency offered and WECC accepted the requirement that the re-tests were conducted by someone from the agency's training department. The agency was required to provide combustion safety test documentation showing that each house had passed the test.

## Territory Saturation

Forty-three homes were completed in 27 cities throughout the Nicor Gas service territory, with Rockford and Joliet having the largest number of homes, as shown in the map on the following page.

**Territory Saturation Map – Low-to-Moderate Income Weatherization Program**



## Lessons Learned

It took longer than expected for the agencies to find and provide staff and weatherization contractors who could meet Nicor's contract requirements for drug testing and background checks. The agencies also took a long time in getting their staff up to speed about the program, which was a source of dissatisfaction for some Nicor Gas customers who were aware of the program, but could not be served quickly following their program inquiry. WECC's program manager served as the single point of contact in these instances, which proved to be helpful in managing customers' expectations and minimizing frustration.

This delay appeared to have affected the recruitment of customers by not having staff trained in the Nicor program during the peak months of applications to steer customers toward this program if they were denied for the IHWAP program. This program is not part of Nicor Gas EEP portfolio going forward, but should a similar-type program be developed, the scope of work and expectations for the program should be more clearly defined. All energy assessors working for the local CAAs and their weatherization subcontractors should be trained on the program's requirements as well.

WECC was not provided direct access to the WeatherWorks program as promised early on by IACAA and the state agency responsible for WeatherWorks, which made it impossible to monitor work orders and activity on a timely basis. WECC unfortunately discovered when summarizing program results that the WeatherWorks software had substantially overestimated savings. In some instances, final savings were not provided in the reports received from the CAAs, and when WECC asked the CAA agents to go back and get those, the program could not reproduce them. Access to the auditing software upfront to assess its modeling and reporting capabilities would be advantageous in the future.

Note: After working with the developer of the WeatherWorks program, WECC was able to adjust the savings estimates to a more realistic level. For homes that received a furnace replacement, WECC used the deemed savings for a furnace from the Residential Prescriptive program (144 Therms). For homes that received weatherization, WECC applied the estimated percentage of savings (as estimated by WeatherWorks) to the actual Nicor consumption data (less the furnace savings if appropriate). The final adjusted Therm savings were reviewed and verified by the EM&V contractor, along with the methodology for making the adjustments.

WECC received scanned copies of outputs from the WeatherWorks program, requiring manual entry into an Excel spreadsheet, which was not only more costly, but led to human errors in program tracking. This too made it extremely difficult to provide real-time reporting. Only cost information was provided monthly as it was needed to produce monthly accruals. In addition, the cost information changed significantly by the time final cost breakdowns were received for each home as part of the invoicing process. Again, having access to the audit software's reporting capabilities would determine how program tracking occurs.

In the future, QA/QC inspections should occur at specific milestones throughout the process. Each weatherization subcontractor should be evaluated at the start of his or her first project until the QA/QC inspector is satisfied that the contractor is meeting the required quality of workmanship goals for this program. This additional upfront cost will save on costs at the back-end, preventing extra inspections.

Other than questions asked during the QA/QC inspections, no formal survey was prepared to capture customer feedback. WECC strongly recommends a formal evaluation survey be a part of a future program.

## Business Prescriptive Program

### Program Objectives

Similar to the Residential Prescriptive Program, the Business Prescriptive Program offered a pre-designed format for business customers to receive financial incentives for installing energy-efficient heating and/or water heating equipment, or improving the efficiency of the high-energy use equipment that they were not ready to replace. The primary objective of the program was to increase the installation rate of qualified equipment and to increase and improve the maintenance practices for existing equipment. The program was designed to work through the existing, proven market channels to affect the installation and maintenance of targeted technologies.

Primary efforts to stimulate market activity were focused on providing effective tools and trainings to trade allies, which would allow the allies to "push" the program into the market. The "pull" side of the program was affected by increasing customer demand for high-efficiency equipment through program awareness via outreach and marketing. Further, the program logic included the assumption that the mere existence of cash-back incentives would elevate contractor interest to a competitive level that would naturally motivate market providers to stock and promote targeted products.

The incentives for each technology are listed below in Table 23.

**Table 23. Business Prescriptive Measures and Incentives**

Measure	Efficiency Standard/Equipment Requirements	Incentive	Attribution	Gross Therms*	Net Therms*
<b>Boiler</b>	85-90% Thermal efficiency	\$2/MBH	65%	1,460	949
	90%+ Thermal efficiency	\$4/MBH	80%	2,750	2,200
<b>Boiler Tune-Up</b>	≥100 MBH, ≥2 Years old	\$350	80%	368	294
<b>Boiler reset control</b>	Retrofit, ≥100 MBH	\$250	80%	262	210
<b>Furnace</b>	92-94.9% AFUE	\$200	50%	208	104
	95% + AFUE	\$250	50%	245	123
<b>Sprayer</b>	Low flow pre-rinse	\$25	80%	262	210
<b>Steam Trap</b>	Replacement	\$50	80%	203	162
<b>Water Heater</b>	0.62 EF) ended August 31, 2010)	\$50	75%	51	38
	0.67 EF (new ENERGY STAR® standard September 1, 2010)	\$100	80%	159	127
	88% TE	\$150	80%	243	194

\*Savings vary by business type. The Therms listed are the estimated average Therms.

## Marketing Strategy

The target customers of the Business Prescriptive Program were Nicor Gas business customers served under Rates 4 and 74. However, marketing strategies for the program were largely directed toward contractors, distributors, and manufacturers within the market channel, which is the primary influence on customers' purchase decisions. As noted above, the marketing was designed to "push" the program to the market by providing trade allies with collateral materials that they could use as sales tools when working with potential customers. The program also provided a training series to increase the allies' sales skills and technical knowledge of qualified products and services, which provided the contractors' an improved skill set to sell the benefits of energy-efficient equipment.

The program's website acted as a resource of program information for trade allies and customers. Program collateral materials directed customers to the website, where they could find specific equipment and qualification details. Materials also included instruction for properly completing and submitting a rebate application in response to the initially high number of incomplete applications. Website tracking showed more than 20,000 visits to the business customer page of the website and nearly 10,000 visits to the business contractor page.

The program made regular efforts to keep trade allies engaged in the program and updated on its status. Efforts included:

- Training series events, in which program staff could provide an overview of the program offerings in preface to an educational meeting about sales techniques or equipment installation.
- Contractor newsletters, which maintained allies' awareness of the program and provided a venue for the program to notify them of updates and status.
- Media campaigns to heighten allies' interest and increase their participation in the program, such as the March Madness event in which top-producing contractors in four categories were given a cash prize.
- General public relations efforts, including press releases, interviews, and bill inserts.

Direct outreach was also used to increase program awareness. However, as discussed further in the *Program Results* section below, additional outreach was needed to raise a higher level of program awareness and to more effectively motivate the market. The majority of outreach was done via email and phone communication, which are less successful means to grow the personal relationships with allies that are necessary to gain their buy-in and to make the program successful.

## Mid-year Program Changes

The Business Prescriptive Program underwent several programmatic changes in response to the market and to an unexpectedly slow uptick of program activity. Changes were primarily focused around correcting gross Therm measure savings and participation rates. Below is a summary of major changes throughout the year.

- Updating of savings values by the program implementer, Resource Solutions Group (RSG). Preliminary savings were estimated in the Rider 29 Operating Plan with the plan that the program implementer would develop work papers to substantiate and refine the actual savings. The program finalized the new savings in December and applied them to activity for the entire 13-month program. As part of the savings re-calculation, RSG applied a savings value to each measure by market sector, based on the estimated energy use of that particular piece of equipment in that type of business (i.e. restaurant, office, hotel, etc).
- The planned elimination of Tier 1 water heaters (0.62 EF) in response to the ENERGY STAR standard increase to 0.67 EF on September 1, 2010.

- Adjustment to participation forecasts for all measures to account for an unresponsive market. Program plans assumed a more rapid acceptance and market penetration than what occurred. Therefore, the implementer's budget did not include enough outreach resources which limited its ability to gain traction in the market.
- Shifting \$275,500 and 264,400 gross Therms to the Business Custom Program, which was showing potential for growing beyond its goals in January 2011.
- Pulling out \$70,000 and 40,000 gross Therms to create the Rockford Small Business Pilot, which was offered in partnership with ComEd with the goal of learning more about the hard-to-reach small business sector (see more details under Program Results below).
- Establishing the Pre-Rinse Spray Valve Pilot with Go to Green, which was a targeted effort to motivate the spray valve market in the Evanston and Northbrook areas via intensified marketing (see more details under Program Results below).

Table 24 summarizes the adjustment in the incentive budgets and savings and participation goals.

**Table 24. Changes to Participation Goals, Budgets, and Savings Goals by Measure**

Measure	Participation Goals		Incentive Budget		Savings (Net)	
	Original (April 2010)	Revised (January 2011)	Original (April 2010)	Revised (January 2011)	Original (April 2010)	Revised (January 2011)
Furnace – 92-94.9% AFUE	544	242	\$108,800	\$48,400	59,296	25,168
Furnace – 95%+ AFUE	362	252	\$90,500	\$63,000	43,078	30,870
Water Heater – 0.62 EF	215	1	\$10,750	\$50	3,064	38
Water Heater – 0.67 EF	32	25	\$3,200	\$2,500	947	3,180
Boiler – 85-89.9% AFUE	156	78	\$312,000	\$156,000	134,862	74,022
Boiler – 90%+ AFUE	38	67	\$152,000	\$268,000	42,256	147,400
Boiler Tune Up	1,104	154	\$386,400	\$53,900	441,600	45,338
Boiler Reset Control	35	54	\$8,750	\$13,500	19,600	23,890
Water Heater – 88% Thermal Efficiency	172	150	\$25,800	\$22,500	82,560	29,160
Pre-Rinse Spray Valve	390	100	\$9,750	\$2,500	134,784	20,960
Steam Trap Buy Down	1,403	2,699	\$70,150	\$134,950	227,847	438,318
Total Program	4,451	3,822	\$1,178,100	\$765,300	1,189,894	838,343

## Program Results

The Business Prescriptive Program faced numerous challenges throughout Rider 29. Most notably was the program's inability to penetrate the market, which resulted in consistently low participation. This challenge was likely due to three major factors:

1. A market that was unfamiliar with the benefits from a natural gas efficiency program. Although electrical efficiency programs have been available in the Nicor Gas service territory for several years, trade allies and business customers have never benefited from a natural gas program. Neither have these businesses benefited significantly from similar large federal programs (i.e. federal tax credits or American Recovery and Reinvestment Funds) that the residential market has experienced. The result is a market channel that is somewhat skeptical or dismissive of new programs until the program has proven to be a sustainable, beneficial piece of the market.
2. The detrimental combination of a soft economy and low natural gas prices. Our conversations and experience with similar programs around the Midwest uncovered the same responses: the down economy is making business customers hesitant to spend money on upgrades to high-efficiency equipment, especially when low gas prices make the payback for less-efficient seem more palatable.
3. A generally low amount of outreach by program staff. The program implementer underestimated the detachment of the business HVAC channel and was not able to give the necessary attention to the channel to make it truly successful. Because there are such strong parallels between the residential and business ally networks, the program relied too heavily on the success of the residential program to increase activity within the business channel.

Despite these obstacles, the program ended up making relatively large advances by the end of the year, which is expected to provide a strong lead into the Rider 30 program. Persistent efforts to raise program awareness led to more than 100 contractors participating in the program. Much of this activity came in the last months of the program, and their involvement is expected to continue into Rider 30.

The program's successes were largely due to several factors, including:

- Engagement of commercial trade allies through program training sessions, including the Breakfast Series Seminars, ongoing communications and monthly e-newsletters, marketing campaigns, and outreach efforts by program staff
- Partnership with the Nicor Gas Business Customer Service (BCS) team to promote the program to Nicor's largest end-use customers;

- Trade Ally Focus Groups, which engaged residential and commercial trade allies in a discussion about program status, potential updates, and market trends. The program implementer also gained valuable market information from the focus groups.
- Collection of essential market feedback and data from trade allies, end users, and manufacturers, used to improve Rider 29 efforts during the program year, as well as enhance the program's offerings for Rider 30.
- Adjusting outreach efforts and communication strategies to better align with market needs. This included an effort to improve outreach to specific market segments (i.e. small business) where larger, more generic marketing strategies proved unsuccessful. The program achieved this by attending relevant industry events and networking opportunities, leveraging the Nicor Gas BCS team and their relationships with customers, and coordinating more closely with other area-utilities implementing similar outreach strategies for their energy efficiency programs.

Additionally, once the program realized the challenges and reality of the market place, it looked for other major opportunities to capture savings within the business channel. Two targeted efforts resulted, which successfully boosted participation in their markets.

1. Rockford Small Business Pilot. This was a pilot program that teamed Nicor Gas and ComEd to gain insight to the small business market, which is historically a very hard-to-reach market. Overarching goals for the pilot were to increase program penetration into the Nicor Gas business market, and to define the best program design when the program went full-scale in Rider 30. Nicor Gas shifted \$70,000 from the Business Prescriptive program to the pilot with the understanding that many of the same measures would be implemented across both programs. The pilot was designed to reach the market via direct install measures, which were installed by program staff, and a trade ally network who agreed to install equipment at a set price. The pilot achieved its savings goals within less than two months of operation, and firmly laid the groundwork for a full-scale joint program to roll out in Rider 30. Results from this pilot can be seen in the tables found on the following pages. Complete results for the pilot can be found in the appendices to this report.
2. Pre-Rinse Spray Valve Promotion. For this effort, the Program Implementer partnered with a third-party to reach restaurant and food service contacts through direct mailing and direct outreach. Their goal was to retrofit 200 low-flow pre-rinse spray valves in the Evanston and Northbrook areas. The Business Prescriptive Program targeted this market as it was a seemingly easy-to-reach market that was inexplicably inactive. In the end, the pilot was not able to gain the amount of traction it hoped to see and achieved less than 50 percent of its goal. Results for this effort are rolled into the Business Prescriptive Program results on the following pages.

The results at the close of the program for overall Therm, unit and budget goals for both the Business Prescriptive and Business Custom Programs are shown in Tables 25, 26, and 27.

**Table 25. Business Prescriptive Participation Results**

	Actual Participation	Original Goal (April 2010)	% to Original Goal	Revised Goal (January 2011)	% to Revised Goal
<b>Business Prescriptive Program</b>					
Boiler – 85-89.9% AFUE	10	156	6%	78	13%
Boiler – 90%+ AFUE	78	38	205%	67	116%
Furnace – 92-94.9% AFUE	41	544	8%	242	17%
Furnace – 95%+ AFUE	68	362	19%	252	27%
Water Heater – 0.62 EF	1	215	<1%	1	100%
Water Heater – 0.67 EF (New ENERGY STAR standard September 2010)	1	32	3%	25	4%
Water Heater – 88% Thermal Efficiency	16	172	9%	150	11%
Steam Trap Buy Down	919	1,403	66%	2,699	34%
Boiler Tune Up	110	1,104	10%	154	71%
Boiler Reset Control	20	35	57%	54	37%
Pre-Rinse Spray Valve	92	390	24%	100	92%
<b>Total Prescriptive Program</b>	<b>1,356</b>	<b>4,451</b>	<b>30%</b>	<b>3,822</b>	<b>35%</b>
<b>Rockford Small Business Pilot</b>					
Direct Install	163	N/A	N/A	N/A	N/A
Trade Ally Installed	160	N/A	N/A	N/A	N/A
<b>Total Rockford Pilot</b>	<b>323</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Combined Participation Results: Business Prescriptive and Rockford Small Business Pilot</b>					
<b>Grand Total</b>	<b>1,679</b>	<b>4,451</b>	<b>38%</b>	<b>N/A</b>	<b>N/A</b>

**Table 26. Business Prescriptive Incentives Paid**

	Actual Incentives Paid	Original Goal (April 2010)	% to Original Goal	Revised Goal (January 2011)	% to Revised Goal
<b>Business Prescriptive Program</b>					
Boiler – 85-89.9% AFUE	\$60,000	\$312,000	19%	\$156,000	38%
Boiler – 90%+ AFUE	\$231,876	\$152,000	153%	\$268,000	87%
Furnace – 92-94.9% AFUE	\$8,200	\$108,800	8%	\$48,400	17%
Furnace – 95%+ AFUE	\$17,000	\$90,500	19%	\$63,000	27%
Water Heater – 0.62 EF	\$50	\$10,750	<1%	\$50	100%
Water Heater – 0.67 EF (New ENERGY STAR standard September 2010)	\$100	\$3,200	3%	\$2,500	4%
Water Heater – 88% Thermal Efficiency	\$2,400	\$25,800	9%	\$22,500	11%
Steam Trap Buy Down	\$43,743	\$70,150	62%	\$134,950	32%
Boiler Tune Up	\$33,580	\$386,400	9%	\$53,900	62%
Boiler Reset Control	\$5,000	\$8,750	57%	\$13,500	37%
Pre-Rinse Spray Valve	\$2,300	\$9,750	24%	\$2,500	92%
<b>Total Prescriptive Program</b>	<b>\$404,249</b>	<b>\$1,178,100</b>	<b>34%</b>	<b>\$765,300</b>	<b>53%</b>
<b>Rockford Small Business Pilot</b>					
Direct Install	\$2,992	N/A	N/A	\$2,992	100%
Trade Ally Installed	\$14,399	N/A	N/A	\$19,396	75%
<b>Total Rockford Pilot</b>	<b>\$17,331</b>	<b>N/A</b>	<b>N/A</b>	<b>22,388</b>	<b>77%</b>
<b>Combined Incentive Results: Business Prescriptive and Rockford Small Business Pilot</b>					
<b>Grand Total</b>	<b>\$421,580</b>	<b>\$1,178,100</b>	<b>36%</b>	<b>\$787,688</b>	<b>54%</b>

**Table 27. Business Prescriptive Therm Savings**

	Actual Therms Achieved (Net)	Original Goal (April 2010)	% to Original Goal	Revised Goal (January 2011)	% to Revised Goal
<b>Business Prescriptive Program</b>					
Boiler – 85-89.9% AFUE	28,470	134,862	21%	74,022	38%
Boiler – 90%+ AFUE	127,062	42,256	301%	147,400	86%
Furnace – 92-94.9% AFUE	3,113	59,296	5%	25,168	12%
Furnace – 95%+ AFUE	6,198	43,078	14%	30,870	20%
Water Heater – 0.62 EF	51	3,064	2%	38	134%
Water Heater – 0.67 EF (New ENERGY STAR standard September 2010)	56	947	6%	3,180	2%
Water Heater – 88% Thermal Efficiency	1,641	82,560	2%	29,160	6%
Steam Trap Buy Down	149,246	227,847	66%	438,318	34%
Boiler Tune Up	54,696	441,600	12%	45,338	121%
Boiler Reset Control	4,220	19,600	22%	23,890	18%
Pre-Rinse Spray Valve	19,283	134,784	14%	20,960	92%
<b>Total Prescriptive Program</b>	<b>394,012</b>	<b>1,189,894</b>	<b>33%</b>	<b>838,343</b>	<b>47%</b>
<b>Rockford Small Business Pilot</b>					
Direct Install	16,799	N/A	N/A	14,604	115%
Trade Ally Installed	15,260	N/A	N/A	14,008	109%
<b>Total Rockford Pilot</b>	<b>32,059</b>	<b>N/A</b>	<b>N/A</b>	<b>28,612</b>	<b>112%</b>
<b>Combined Therm Savings Results: Business Prescriptive and Rockford Small Business Pilot</b>					
<b>Grand Total</b>	<b>426,071</b>	<b>1,189,894</b>	<b>36%</b>	<b>866,955</b>	<b>49%</b>

## Quality Control

In conjunction with the Residential Prescriptive Program, the Business Prescriptive Program subcontracted with CNT to perform quality assurance inspections of equipment that was installed through the program. Again, CNT was tasked with inspecting 3 percent of the measures paid by April 30, 2011 because their contract expired May 31, 2011. In the end, CNT inspected 163 measures, or 21 percent of the rebates paid through April 30. All of the inspections confirmed that equipment installed, or equipment maintained in the business matched the measures that were claimed on the rebate application.

## Territory Saturation

The map on the following page shows that the program generated a majority of participation in the northeastern portion of the territory. This area was the first logical area for uptick given the higher number of businesses located in the area, compared to the remainder of the territory.

**Territory Saturation Map – Business Prescriptive Program**



## Lessons Learned

As noted above, several challenges were noted in Rider 29 that should be address to make the more successful program. The most prevalent changes are noted below.

- Adjusting budget allocation to add a robust trade ally outreach team to the program, which will be able to provide more personal contact to allies in the field. The outreach staff will be designed similar to a sales staff, with each staff member assigned a list of “clients” for whom they are responsible, as well as goals attached to their client list. We are confident that this added customer service for the trade allies will stimulate the market.
- Reevaluating the measure mix to determine where incentives need to be adjusted or measures need to be added to better accommodate the needs of Nicor Gas businesses. This effort includes providing new opportunities for market segments that did not benefit directly from Rider 29 offerings. Immediate needs involve measures with faster payback, including a prescriptive measure for smaller boilers, a higher tier for larger steam traps, expanded opportunities for kitchen equipment, and increased incentives for water heaters.

The program will also expand efforts that proved successful in Rider 29, including more frequent training seminar series, and a Trade Ally Focus Group that is concentrated on the business market channel. Combined, these efforts will grow and strengthen the business program market that was defined in Rider 29.

## Business Custom Program

### Program Objectives

The Business Custom Program was designed with the intention of reaching business customers whose efficiency improvements were not addressed through the Business Prescriptive Program. Unlike the prescriptive program, the Business Custom Program intended to address projects on a case-by-case basis with rebates designed to be dependent on how much energy the new equipment or process improvement saved compared to the old equipment or process.

Program planning assumed that customers who took advantage of this program would typically use more complex mechanical equipment to support facility operations and manufacturing processes. The Business Custom Program was designed to address this complexity and additional issues that are naturally tied to larger businesses, including: access to adequate technical resources, risks associated with emerging technologies, confidence of energy-savings potential, financial hurdles, and company bureaucracy.

As shown below, incentive levels were generically tiered to accommodate customers' larger and smaller projects.

Measure	Therms Saved	Incentive
Tier 1	<7,500 Therms	\$0.75/Therm
Tier 2	≥7,500 Therms	\$1.00/Therm

## Marketing Strategy

Allies and customers who used the Business Custom or the Business Prescriptive Program could also install equipment that was eligible for incentives through the prescriptive program. The natural synergies between the Business Prescriptive and the Business Custom Programs allowed the custom program to leverage its marketing efforts with those from the Business Prescriptive Program. Therefore, marketing materials for the Business Prescriptive Program offered some level of detail on the custom program and nearly all outreach efforts for the prescriptive program presented an opportunity to discuss the custom program with trade allies and/or eligible customers.

A limited number of collateral was developed specifically for the Business Custom Program. These pieces were intended to be training and reference pieces for allies and customers in the absence of outreach staff. The key outcome of these pieces was the handbook that detailed every step of the application process; provided sample applications, calculations and invoices, and answered frequently asked questions from allies and customers.

All collateral materials for the Business Custom Program directed customers and allies to the Nicor Gas Energy Efficiency Program website, which offered a portal of information about the Business Custom Program. The intention was that this portal would help alleviate the questions from customers and allies that would typically be answered by a large number of outreach staff in the field. Key features in the portal included detailed customer and project eligibility, program applications, the program handbook, and contact information for program support.

Additionally, the program attempted to maintain program awareness among trade allies and keep them engaged through Trade Ally Focus Groups and newsletters. Although these venues were primarily directed toward business prescriptive and residential contractors, they regularly included brief updates and reminders about the Business Custom program offerings.

## Mid-year Program Changes

Although the program had not paid out any incentives by early January 2011, the program appeared to be gaining significant traction in the market, with nearly \$300,000 in incentives pre-approved and in the installation phase. The implementer, RSG, who also implemented the Business Prescriptive Program, suggested that the program could exceed its goal based on work it believed to be in the pipeline from conversations with trade allies and business customers. The administrator recommended shifting money from the Prescriptive Program to the Business Custom Program to: 1) prevent the custom program from going over budget, and 2) ease the goals of the prescriptive program that was having difficulty breaking into the market. To that end, \$275,500 and an additional 190,500 net Therms were shifted to the custom program in January 2011.

The following table summarizes the adjustment in the incentive budgets and savings and participation goals.

**Table 28. Changes to Participation Goals, Budgets, and Savings Goals by Measure**

Participation Goals		Incentive Budget		Savings (Net)	
Original (April 2010)	Revised (January 2011)	Original (April 2010)	Revised (January 2011)	Original (April 2010)	Revised (January 2011)
57	80	\$374,500	\$650,000	289,500	480,000

## Program Results

Despite the promising outlook at the program's midpoint, the Business Custom Program came in below the new goals set in January 2011 and below the original goals set in the April 2010 Operating Plan. The shortcomings were due to two factors:

1. An earlier project cut-off date than the program implementer had originally expected. The implementer's January forecast assumed that all projects that had passed the "approved" phase of the pipeline would be considered in the final Rider 29 program counts. However, the program administrator and Nicor staff later agreed that the program should only count projects that had actually been installed by the May 31 program end date. This pushed over 375,000 gross Therms and nearly \$300,000 in incentives into Rider 30. These additional Therms would have pushed the program to over 200 percent of the original Operating Plan goal, and to nearly 130 percent of the January 1 goal.
2. The bureaucracy of some larger companies that installed equipment through the program created larger barriers than the implementers anticipated. Examples of these obstacles included pushing the financial approval for the project through all layers of the company and gaining buy-in for a previously-approved project from new management.

It is important to note that while the program did not reach its Therm goals, the program used a smaller portion of its budget to achieve these savings than it forecasted, using only 32 percent of the budget to reach 49 percent of the goals. Thus, the program was more cost-effective and achieved a lower dollar per Therm target than predicted.

Also noteworthy is the strong pipeline of projects that were not completed in time to be processed in Rider 29, but create a strong foundation for Rider 30. This pipeline includes 6 pre-approved projects totaling over 500,000 gross Therms, all of which are scheduled to be completed by October 2011.

**Table 29. Commercial Custom Program Participation Results**

	Actual Participation	Original Goal (April 2010)	% to Original Goal	Revised Goal (January 2011)	% to Revised Goal
Tier 1	5	34	15%	60	8%
Tier 2	4	23	17%	20	20%
Total Participation	9	57	16%	80	11%

**Table 30. Commercial Custom Program Incentives Paid**

	Actual Incentives	Original Goal (April 2010)	% to Original Goal	Revised Goal (January 2011)	% to Revised Goal
Tier 1	\$9,536	\$340,000	3%	\$60,000	16%
Tier 2	\$196,288	\$34,500	569%	\$50,000	393%
Total Incentives	\$205,824	\$374,500	55%	\$650,000	32%

**Table 31. Commercial Custom Program Therm Savings**

	Actual Therms Saved (Net)	Original Goal (April 2010)	% to Original Goal	Revised Goal (January 2011)	% to Revised Goal
Tier 1	16,073	255,000	6%	450,000	4%
Tier 2	220,351	34,500	639%	30,000	735%
Total Therms Saved	236,424	289,500	82%	480,000	49%

## Territory Saturation

Considering the limited amount of completed projects in the Business Custom Program, the program reached far into the Nicor Gas service territory. As shown in the following penetration map, the program spanned almost the entire northern territory of Nicor Gas.

**Territory Saturation Map – Business Custom Program**



## Lessons Learned

Lessons learned in Rider 29 define areas where the program can use past successes to grow the program. Key strategies for improvement center around ways to make the program more user-friendly for allies and customers, which will result in an easier program to push through the numerous layers of approval by customers and the program. The end result will be advancing projects to completion faster, which will decrease the customer's upfront financial risk of installing larger projects and result in increased savings for the program.

Potential and planned changes include:

- Evaluation of the application process for allies, customers, and implementation staff. By decreasing the number of milestones and action items required of applicants and providing additional support and improved resources, the program hopes to see an increased number of completed projects at a lower administrative cost.
- Development of an abbreviated application and review process for recurring custom projects that require less engineering analysis. Certain types of projects, such as heat exchanging grease traps, were submitted multiple times in Rider 29. Once basic calculations are established for a particular measure or technology, the calculations can be easily applied to multiple facilities, thus basically creating a "prescriptive custom" calculation that will expedite the review and approval process.
- Active involvement with customers and allies. The program will take advantage of opportunities to engage the market on a personal level to increase program participation. Effective almost immediately, the program will use implementers' expanded outreach staff to make office visits to contractors, where the implementer can earn program buy-in from the allies, field questions about the application process, and alleviate concerns about the complexity of the program. The implementation contractor will also explore opportunities to involve energy advocates who can work directly with customers to offer advice on equipment and system improvements.

The program will also continue successes from Rider 29, including leveraging the strong synergy between the Business Prescriptive and the Business Custom Programs, to enhance and develop each program individually.

## Appendix 1: Benefit Cost Analysis

### Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011

#### 1. Residential Prescriptive

Technologies Description	Inputs								Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton	Total \$30/ton
<i>Technologies</i>														
90% - 94.9% AFUE Boiler			150	20	\$884	\$350 40%	25%	5.1	79	8,888 1.55	\$28,660 1.5	\$28,660 1.5	\$39,208 1.7	\$49,756 1.9
										<b>U_BC:</b>	2.9			
.67 EF Water Heater (new standard 9/1/10)			37	13	\$400	\$100 25%	25%	12.5	129	3,580 0.56	(\$17,119) 0.6	(\$17,119) 0.6	(\$14,082) 0.6	(\$11,045) 0.7
										<b>U_BC:</b>	1.7			
95%+ AFUE Furnace	700		178	20	\$857	\$250 29%	50%	3.2	19,052	1,695,628 1.89	\$7,297,165 1.9	11,777,274 2.4	14,914,669 2.8	\$18,052,065 3.2
										<b>U_BC:</b>	4.2			
.62 EF Water Heater			19	13	\$70	\$50 71%	25%	1.7	134	1,910 1.64	\$4,477 1.6	\$4,477 1.6	\$6,097 1.9	\$7,717 2.1
										<b>U_BC:</b>	1.7			
92%-94.9% AFUE Furnace			144	20	\$580	\$200 34%	50%	3.8	860	61,920 2.26	\$315,194 2.3	\$315,194 2.3	\$388,682 2.6	\$462,170 2.9
										<b>U_BC:</b>	3.3			

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**1. Residential Prescriptive**

Technologies Description	Inputs									Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton	Total \$30/ton	
95 %+ AFUE Boiler				213	20	\$1,327	\$400 30%	10%	6.2	212	40,640	\$117,373	\$117,373	\$165,605	\$213,838
											1.46	1.5	1.5	1.7	1.8
											<b>U_BC:</b>	4.4			
<u>Implementation</u>															
Implementation Subcontractors				0	1					1	0	(\$1,141,606)	\$1,141,606	\$1,141,606	(\$1,141,606)
			Prog. Delivery			\$1,141,606					0.00				
											<b>U_BC:</b>	0			

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**1. Residential Prescriptive**

Technologies Description	Inputs								Net Benefits				
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic. Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton

**Subtotal - 1. Residential Prescriptive**

	<u>kWh</u>	<u>kW</u>	<u>Therms</u>	<u>Metric Tons CO2</u>		<u>Gas Value</u>	<u>Total Gas + El.</u>	<u>Total w. \$15/ton</u>	<u>Total w. \$30/ton</u>
	6,668,200	0	1,812,565	199,177					
<b>Net Benefits</b>						\$6,604,144	\$11,084,253	\$14,358,573	\$17,632,895
<b>Total B/C</b>						1.7	2.1	2.4	2.8
<b>Utility B/C</b>						2.7	3.4	3.9	4.4
<b>Total Program Budget</b>									
Incentives			\$5,067,050	81.6%					
Impl, Admin, Support			\$1,141,606	18.4%					
			<u>\$6,208,656</u>	<u>100.0 %</u>					
<b>Budget</b>						\$6,208,656	\$6,208,656	\$6,208,656	\$6,208,656

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**2. Low / Moderate Income Wx**

Description	Inputs								Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic. Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton	Total \$30/ton
<u>Technologies</u>														
Building Shell Retrofits & Furnace Replacements	396		295	25	\$2,917	\$4,029 138%		-4.6	43	12,685	\$7,753	\$20,927	\$41,910	\$62,893
										1.06	1.1	1.2	1.3	1.5
										<b>U_BC:</b>	0.8			
<u>Implementation</u>														
Call Center			0	1		\$4,400			1	0	(\$4,400)	(\$4,400)	(\$4,400)	(\$4,400)
			Prog. Delivery							0.00				
										<b>U_BC:</b>	0			
Marketing			0	1		\$2,479			1	0	(\$2,479)	(\$2,479)	(\$2,479)	(\$2,479)
			Prog. Delivery							0.00				
										<b>U_BC:</b>	0			
Program Management & QC Inspections			0	1		\$24,147			1	0	(\$24,147)	(\$24,147)	(\$24,147)	(\$24,147)
			Prog. Delivery							0.00				
										<b>U_BC:</b>	0			

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**2. Low / Moderate Income Wx**

Technologies Description	Inputs							Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic. Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton

**Subtotal - 2. Low / Moderate Income Wx**

	<u>kWh</u>	<u>kW</u>	<u>Therms</u>	<u>Metric Tons CO2</u>		<u>Gas Value</u>	<u>Total Gas + El.</u>	<u>Total w. \$15/ton</u>	<u>Total w. \$30/ton</u>
	17,028	0	12,685	2,008					
<b>Net Benefits</b>						(\$23,273)	(\$10,099)	\$10,884	\$31,867
<b>Total B/C</b>						0.9	0.9	1.1	1.2
<b>Utility B/C</b>						0.7	0.7	0.8	0.9
<b>Total Program Budget</b>									
Incentives			\$173,247	84.8%					
Impl, Admin, Support			\$31,026	15.2%					
			\$204,273	100.0%					
<b>Budget</b>						\$204,273	\$204,273	\$204,273	\$204,273

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**3. Home Retrofit Assessment and Install**

Description	Inputs								Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton	Total \$30/ton
<u>Technologies</u>														
Installed Retrofits			299	25	\$2,420	\$975 40%	5%	6.9	413	117,433 1.30	\$283,485 1.3	\$283,485 1.3	\$446,610 1.5	\$609,736 1.6
										<b>U_BC:</b>	3.1			
Low Flow Direct Install			40	10	\$60	\$10 17%	5%	1.8	1,093	41,897 3.65	\$164,812 3.6	\$164,812 3.6	\$193,322 4.1	\$221,833 4.6
										<b>U_BC:</b>	20.8			
<u>Implementation</u>														
Retrofit Management Fee			0	1					1	0 0.00	(\$91,290)	(\$91,290)	(\$91,290)	(\$91,290)
			Prog. Delivery		\$91,290					<b>U_BC:</b>	0			
WECC Call Center & IT Setup			0	1					1	0 0.00	(\$45,042)	(\$45,042)	(\$45,042)	(\$45,042)
			Prog. Delivery		\$45,042					<b>U_BC:</b>	0			
Subcontractor Marketing			0	1					1	0 0.00	(\$150,106)	(\$150,106)	(\$150,106)	(\$150,106)
			Prog. Delivery		\$150,106					<b>U_BC:</b>	0			

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**3. Home Retrofit Assessment and Install**

Technologies Description	Inputs							Net Benefits						
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic. Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton	Total \$30/ton
Assessments & DI Implement			0	1					1	0	(\$283,071)	(\$283,071)	(\$283,071)	(\$283,071)
			Prog. Delivery		\$283,071					0.00				
										U_BC:	0			

**Subtotal - 3. Home Retrofit Assessment and Install**

kWH	kW	Therms	Metric Tons CO2	Gas Value	Total Gas + El.	Total w. \$15/ton	Total w. \$30/ton
0	0	159,330	16,949				
<b>Total Program Budget</b>							
		Incentives	\$413,597	42.1%			
		Impl, Admin, Support	\$569,509	57.9%			
			\$983,106	100.0 %			
				<b>Net Benefits</b>	(\$121,212)	(\$121,212)	\$70,423
				<b>Total B/C</b>	0.9	0.9	1.0
				<b>Utility B/C</b>	1.5	1.5	1.7
				<b>Budget</b>	\$983,106	\$983,106	\$983,106

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**4.Elementary Energy Education**

Description	Inputs								Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic. Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton	Total \$30/ton
<u>Technologies</u>														
Kits to Students (61% Participate, 45, 86% gas, 14% Elec.)	96		31	10	\$44	\$44 100%	20%		4,997	123,034 3.42	\$425,847 3.4	\$579,132 4.3	\$699,977 5.0	\$820,822 5.7
										<b>U_BC:</b>	3.4			
<u>Implementation</u>														
Contractor Labor			0	1					1	0	(\$55,000)	(\$55,000)	(\$55,000)	(\$55,000)
			Prog. Delivery		\$55,000					0.00				
										<b>U_BC:</b>	0			
Call Center			0	1					1	0	(\$2,750)	(\$2,750)	(\$2,750)	(\$2,750)
			Prog. Delivery		\$2,750					0.00				
										<b>U_BC:</b>	0			

**WECC** Assumptions: \$.60/therm yr round,\$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**4.Elementary Energy Education**

Technologies Description	Inputs							Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton

**Subtotal - 4.Elementary Energy Education**

<u>kWh</u>	<u>kW</u>	<u>Therms</u>	<u>Metric Tons CO2</u>	<u>Gas Value</u>	<u>Total Gas + EL</u>	<u>Total w. \$15/ton</u>	<u>Total w. \$30/ton</u>
383,770	0	123,034	8,136				
<b>Total Program Budget</b>							
Incentives		\$219,868	79.2%				
Impl, Admin, Support		\$57,750	20.8%				
		<b>\$277,618</b>	<b>100.0 %</b>				

<b>Net Benefits</b>	\$368,097	\$521,382	\$642,227	\$763,072
<b>Total B/C</b>	2.6	3.2	3.7	4.3
<b>Utility B/C</b>	2.2	2.7	3.2	3.6
<b>Budget</b>	\$277,618	\$277,618	\$277,618	\$277,618

**WECC** Assumptions: \$.60/therm yr round,\$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**5. Multi-family**

Description	Inputs								Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic. Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton	Total \$30/ton
<u>Technologies</u>														
Residential Multifamily Direct Install			60	10	\$7	\$7 100%			7,412	442,151 41.68	\$2,110,612 41.7	\$2,110,612 41.7	\$2,411,486 47.5	\$2,712,360 53.3
										<b>U_BC:</b>	41.7			
General service Multifamily Direct Install			72	10	\$7	\$7 100%			22,440	1,607,279 50.04	\$7,703,888 50.0	\$7,703,888 50.0	\$8,797,605 57.0	\$9,891,322 64.0
										<b>U_BC:</b>	50			
Add'l Direct Install Incentives			0	1		\$51,311			1	0	\$0	\$0	\$0	\$0
										<b>U_BC:</b>	0			
<u>Implementation</u>														
Marketing			0	1		\$14,763			1	0	(\$14,763)	(\$14,763)	(\$14,763)	(\$14,763)
			Prog. Delivery							0.00				
										<b>U_BC:</b>	0			
Call Center			0	1		\$4,400			1	0	(\$4,400)	(\$4,400)	(\$4,400)	(\$4,400)
			Prog. Delivery							0.00				
										<b>U_BC:</b>	0			

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value

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**Nicor Gas Rider 29 Energy Efficiency Program Performance ending May 2011**

**5. Multi-family**

Description	Inputs								Net Benefits					
	kWh	kW	Therms	Est. Life	Incr. Cost	Incentive % of	Est. Free Rider	Partic. Yrs. pb	Total Partic.	Net Therms 1st Year	Gas Value	Total Gas + Electric	Total \$15/ton	Total \$30/ton
Subcontractor Implementation			0	1					1	0	(\$640,977)	(\$640,977)	(\$640,977)	(\$640,977)
			Prog. Delivery		\$640,977					0.00				
										U_BC:	0			

**Subtotal - 5. Multi-family**

<u>kWh</u>	<u>kW</u>	<u>Therms</u>	<u>Metric Tons CO2</u>	<u>Gas Value</u>	<u>Total Gas + El.</u>	<u>Total w. \$15/ton</u>	<u>Total w. \$30/ton</u>
0	0	2,049,430	108,992				
<b>Total Program Budget</b>							
Incentives		\$260,275	28.3%				
Impl, Admin, Support		\$660,140	71.7%				
		\$920,415	100.0%				
				<b>Net Benefits</b>	\$9,154,360	\$9,154,360	:10,548,951
				<b>Total B/C</b>	11.5	11.5	13.1
				<b>Utility B/C</b>	10.9	10.9	12.4
				<b>Budget</b>	\$920,415	\$920,415	\$920,415

**WECC** Assumptions: \$.60/therm yr round, \$.665/therm heating, 2.8% escalation, \$.049/kWh, \$90/kW yr., Disc. Rate 6.7%, 3% d.r. Carbon Value