

**Energy Efficiency
Nicor Gas Plan Year 1
(6/1/2011-5/31/2012)**

**Evaluation Report:
Building Performance with Energy
Star**

Final

**Presented to
Nicor Gas Company**

February 8, 2013



An AGL Resources Company

Submitted by:
Randy Gunn
Managing Director
Navigant Consulting
30 S. Wacker Drive, Suite 3100
Chicago, IL 60606

Phone 312.583.5700
Fax 312.583.5701

www.navigantconsulting.com





Submitted to:

Nicor Gas Company
1844 Ferry Road
Naperville, IL 60563

Submitted by:

Navigant Consulting, Inc.
30 S. Wacker Drive, Suite 3100
Chicago, IL 60606
Phone 312.583.5700
Fax 312.583.5701

Contact:

Randy Gunn, Managing Director
312.583.5714
randy.gunn@navigant.com

Julianne Meurice, Associate Director
312.583.5740
julianne.meurice@navigant.com

Prepared by:

Miroslav Lysyuk, Consultant
312.583.5804
miroslav.lysyuk@navigant.com

Table of Contents

E.	Executive Summary	3
	E.1 Evaluation Objectives	3
	E.2 Evaluation Methods.....	3
	E.4 Key Process Findings and Recommendations	3
1.	Introduction to the Program.....	5
	1.1 Program Description.....	5
	1.2 Implementation Strategy.....	5
	1.3 Measures and Incentives.....	6
	1.4 Evaluation Questions.....	7
	1.4.1 Process Evaluation Research Questions	7
2.	Evaluation Methods.....	8
	2.1 Primary Data Collection.....	8
	2.2 Additional Research	8
3.	Evaluation Results	9
	3.1 Process Evaluation Results	9
	3.1.1 Program Ramp Up, Design, and Outreach Effectiveness.....	9
	3.1.2 Program Process Effectiveness.....	10
	3.1.3 Potential Barriers to Participation.....	10
	3.1.4 Program Key Performance Indicator Tracking.....	11
	3.1.5 Overall Program Strengths and Weaknesses	11
4.	Findings and Recommendations	12
	4.1 Key Process Findings and Recommendations	12
5.	Appendix	14
	5.1 Glossary	14
	5.2 Early Program Benchmarking	14
	5.3 Program Theory Logic Model Review	16
	5.4 Data Collection Instruments.....	16

List of Figures and Tables

Figures:

Figure 1. Process Flow Chart 6

Tables:

Table 1. Building Performance with Energy Star Planning Estimates 5
Table 2. Principal Data Sources 8
Table 3. Best Practices Benchmarking Results 14

E. Executive Summary

This document presents the findings of the evaluation of the Nicor Gas Building Performance with ENERGY STAR® (BPwES) program. This evaluation covers Nicor Gas Plan Year 1 (GPY1) and focuses on program processes. The program launched in early 2012 and did not claim any savings in the GPY1 plan year. For this reason, Navigant did not conduct a full impact evaluation this year.

E.1 Evaluation Objectives

The primary objectives of the GPY1 BPwES evaluation were to (1) identify key early process-related pilot strengths and weaknesses and (2) to help program designers and managers identify ways in which the program can be improved. The pilot did not achieve any savings in GPY1 and a permanent tracking system was not yet in place; as a result, there was no need for a full impact evaluation in GPY1.

E.2 Evaluation Methods

The evaluation team based their findings on reviews of program documentation and on in-depth interviews with Nicor Gas program staff and the implementation contractor. Navigant used these sources to create a logic model for the program, to describe a program theory, to conduct a preliminary review of planned tracking system and due diligence procedures, and to make process recommendations. Since the final tracking system was still in development, the evaluation team also developed some early program effectiveness tracking recommendations.

E.4 Key Process Findings and Recommendations

After reviewing the program materials and conducting interviews with program and implementation contractor staff, Navigant has the following key process findings and recommendations:

- **Finding.** The program currently does not have any key performance indicators (KPIs) outlined in program operations documents.
 - **Recommendation.** Establish clear key performance indicators and tracking plans to help track and determine program effectiveness and to identify potential avenues for enhancing program performance. This will also help provide future evaluation efforts with key data for evaluating program effectiveness.
- **Finding.** Though Nicor and ComEd share potential participants in their respective versions of the program, there is no official coordination of program efforts or co-branding between the two utilities.
 - **Recommendation.** The evaluation team recommends Nicor Gas assess the potential benefits and challenges of running this program jointly with ComEd since both utilities target many of the same clients with their respective versions of this program effort.¹ A joint utility effort could result in implementation cost savings and it could increase useful data sharing.

¹ ComEd treats its version of this pilot as a feeder program for its Prescriptive Program.

- **Finding.** Though the current implementation contractor is running the same program for ComEd for some of the same potential participants as Nicor, it does not share data between the two utilities in cases where they have mutual participants.
 - Whether utilizing a shared implementation contractor, running the program jointly, or through alternative agreed upon means, the evaluation team encourages data sharing between the utilities in cases where they share participants in their respective versions of this program. Both utilities may benefit from better understanding shared participants' proposals and projects on both the electric and gas sides. For instance, Nicor may benefit from understanding whether potential participants considering both utility programs are more inclined to pursue electric measure projects rather than gas ones due to differences in electric and gas energy costs.

- **Finding.** Program marketing and outreach materials are currently limited to an informational leaflet. The evaluation team sees opportunity to develop additional materials to help promote the program and drive participation.
 - **Recommendation.** The evaluation team recommends looking into expanding program informational materials. This could include developing more informational materials and case studies, both online and print. Since the Nicor Gas program does not yet have customer experiences to profile, profiles of peer businesses in the hospitality and assisted living sectors that participated in other utilities' comparable programs could stand in until such are available. Concrete examples of these programs in action and details of related energy and non-energy benefits have proven to be very powerful in motivating participation.

- **Finding.** While ComEd's BPwES program is open to customers for whom the implementation contractor does not provide billing support, the Nicor program is not, which potentially limits its outreach and growth potential.
 - **Recommendation.** The evaluation team recommends that Nicor assess the potential of opening the program to clients to which the implementation contractor does not provide billing services. If Nicor were to establish lead-generating processes to refer potential participants to the implementation contractor, program participation could potentially be increased. Furthermore, opening the program up to customers that the implementation contractor does not handle billing for could allow for trade ally involvement in promoting the program.

1. Introduction to the Program

1.1 Program Description

The Building Performance with ENERGY STAR® (BPwES) program is a two-year strategic energy management pilot program. The program offers customers in the hospitality and assisted living markets a year or more of benchmarking and consulting services to help them set and track energy performance improvement targets. The BPwES pilot has three primary objectives: 1) to penetrate and secure energy savings in the hospitality and assisted living markets; 2) to pilot the viability of an integrated program approach to target gas and electric energy savings for the implementation contractor’s hospitality and assisted living clients that are also customers of both Nicor Gas and ComEd; and 3) to pilot the Building Performance with Energy Star benchmarking initiative in order to investigate the value of benchmarking for customers. A secondary objective of the BPwES pilot is to identify energy saving opportunities to channel to other Nicor Gas programs.

The program launched in early 2012 and did not claim any savings in the first plan year. The budgets and energy savings goals from Nicor Gas’ approved energy efficiency plan are detailed in Table .

Table . Building Performance with Energy Star Planning Estimates

Segment	Program Budget	Planned Gross Therms
Total	\$42,853	20,000

Source: Nicor EEP Final – Revision for Compliance Filing 05-27-2011 FINAL

The BPwES pilot was initially administered by Wisconsin Energy Conservation Corporation (WECC) before Nicor Gas staff took over management. The pilot is implemented by Ecova, whose staff conduct client and market analyses, recruit participants, organize target facility opportunity assessments, and submit rebate paperwork to Resource Solutions Group (RSG) for approval and payment for completed projects.

1.2 Implementation Strategy

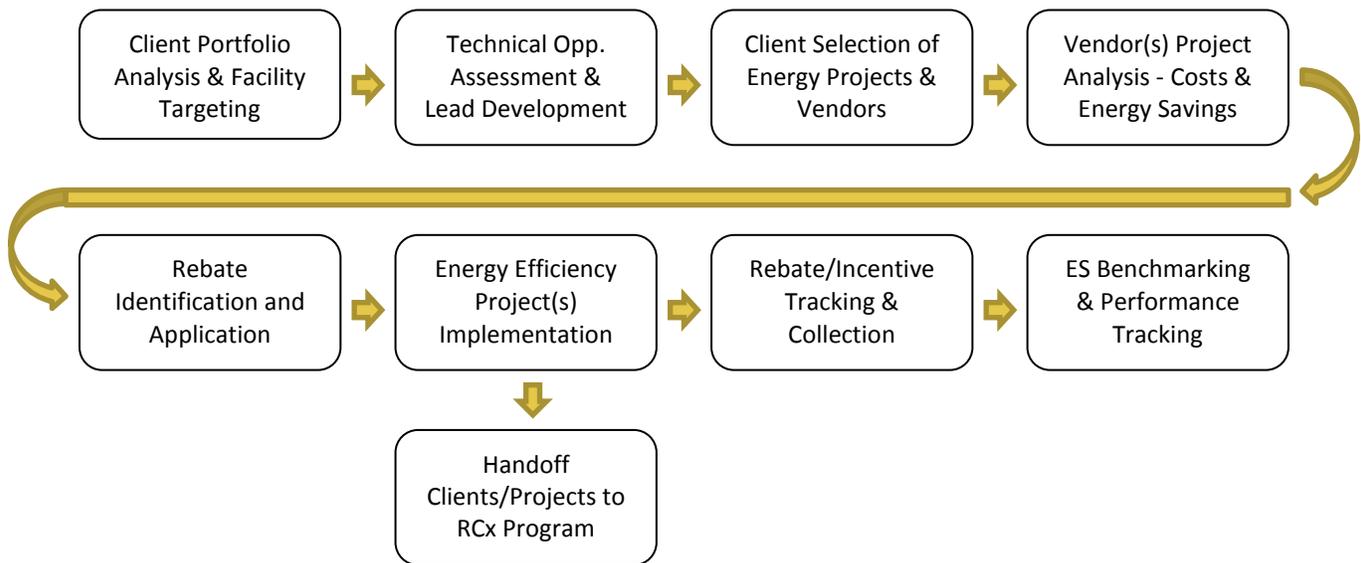
Ecova reports that it handles the billing data for Nicor customers exceeding certain usage levels. As a result, Ecova leverages its existing client billing management data in the program to conduct client and market analyses of energy savings potential in the targeted hospitality and assisted living segments. Ecova targets clients with facilities that have the highest potential energy savings relative to their peers. Since Ecova also runs ComEd’s version of this program, if a customer already has a program agreement signed with ComEd, Ecova offers additional gas-based savings opportunities on behalf of Nicor Gas.

Upon gaining participation interest from a client, Ecova or a participating vendor conducts an opportunity assessment at the participant’s facility. Once potential projects are identified, Ecova or the selected vendor creates a report outlining recommendations, energy savings, implementation cost, and return on investment (ROI) and payback estimates customized to the facility. Alternatively, if a client

has existing project ideas in mind, Ecova works with them to create a package of recommendations customized to their investment criteria and priorities.

In the final phase of the project, Ecova’s energy managers coordinate with the client and the client’s installation vendors to manage and track the pipeline of projects and opportunities. Once project purchase orders are released by vendors, Ecova completes rebate applications to submit to Resource Solutions Group (RSG), the Nicor implementation contractor responsible for the Business Energy Efficiency Rebate and Custom programs, for approval and funding. Ecova may also feed participants to the Nicor Gas retro-commissioning program, when applicable.

Figure . Process Flow Chart



Source: BPwES Program Operations Manual

The BPwES pilot also includes a pilot Department of Energy (DOE) Energy Star benchmarking component specific to the Nicor Gas version of this program that will be implemented with two clients participating in the program. The benchmarking component is only being tested on two participants initially and will allow Ecova to present monthly-updated data to the clients outlining the improvement of individual sites and the overall portfolio over time. Ecova initiates the benchmarking upon completion of a project’s installations and assigns benchmarking scores based on data collected over twelve months.

1.3 Measures and Incentives

Eligible program measures include all prescriptive, custom, and direct install gas measures available through other Nicor Gas programs and will be suggested depending on the client’s needs. In addition, the BPwES program offers Ozone Laundry upgrades when applicable to a participant’s needs. Rebate amounts correspond to Nicor Gas’s overall Business Energy Efficiency Rebate Program and Custom Program incentive offerings.

1.4 Evaluation Questions

1.4.1 Process Evaluation Research Questions

The GPY1 evaluation sought to answer the following key researchable process questions:

1. What is the effectiveness of program ramp up, design and processes?
2. What is the effectiveness of program implementation and outreach?
3. What are customer and program partner experience and satisfaction with the program?
4. What are the key performance indicators?
5. What are overall early program strengths and weaknesses?
6. Are there any opportunities for program improvement?

Given that no participation was achieved in GPY1, question three will not be addressed in this evaluation.

2. Evaluation Methods

2.1 Primary Data Collection

The purpose of the process evaluation was to develop a complete understanding of how the program operates, to conduct a review of program marketing and outreach materials to identify potential areas for improvement, and to verify that the program tracking plans are sufficient for tracking program effectiveness. The evaluation team relied heavily on in-depth interviews with the implementation contractor and Nicor Gas program staff. We reviewed all program marketing and outreach materials and verified whether these documents were consistent with standard industry best practices. Furthermore, we developed a program logic model and theory, where we identified potential performance indicator tracking suggestions. Since there was no impact evaluation this year, the process evaluation was the primary focus of the data collection.

Table below provides a summary of the principal data sources contributing to the evaluation of the BPwES program.

Table . Principal Data Sources

Collection Method	Subject Data	Quantity	Gross Impact	Net Impact	Process
In-Depth Interviews	Program administrator and implementation contractor staff	4	N/A	N/A	X
Program Literature Review	Program Manual and Outreach Material	All	N/A	N/A	X

2.2 Additional Research

The Navigant evaluation team also reviewed internal studies of similar programs to identify best practices that could benefit the program. The findings from the research are referenced in the process section findings and recommendations.

3. Evaluation Results

3.1 Process Evaluation Results

This section presents the evaluation team's process findings for the BPwES pilot program. The process component of the pilot evaluation addressed program administration and processes, program implementation and barriers, and program key performance indicator tracking plans.

3.1.1 Program Ramp Up, Design, and Outreach Effectiveness

The BPwES pilot program is designed to leverage the implementation contractor's existing relationships, expertise, and customer data to promote energy efficiency among Nicor's hospitality and assisted living customers. During program ramp up, Ecova used its market position and data from its expense management business to identify high savings-potential hospitality and assisted living clients and to secure meetings with these otherwise difficult-to-reach customers. Ecova conducted outreach to and met with several major hotel chain operators in PY1 to present its savings-potential findings, but it was not able to implement any projects before the end of the program year.

Ecova was not able to meet ramp up goals despite reported customer participation interest. The implementation contractor reports that it takes about six months to secure participation. Since the program began in February, it was difficult to secure participation before the end of PY1. Programs such as the BPwES program benefit from long, deep relationships that are developed over several years with participants. Given this fact, it is not surprising that it was not able to generate savings in GPY1 (ending May 31, 2012) due to the February, 2012 start date. Similarly-modeled projects at other utilities have shown that it can take several years of relationship-building to deliver significant savings.

Though the program did not achieve savings in PY1, its design conforms to best practices. The BPwES pilot relies on two methods to secure hospitality and assisted living participants that have been effective in similar best-practice C&I programs: 1) Ecova aims to establish close relationships with clients to understand their energy efficient measure eligible project pipelines and to promote energy efficient options that cater to the clients' long-term savings potential; and 2) Ecova uses its data to compare facilities against their peers to drive participation.

Ecova is currently running the same program for ComEd as for Nicor and at times with the same clients; however there is no official coordination of program efforts or co-branding between the two utilities. The evaluation team believes that there are potential benefits and efficiencies from running this program jointly with ComEd since both are implemented by Ecova for many of the same clients. A joint program would allow for both potentially lower program costs as well as greater data sharing for program optimization.

Furthermore, the program currently targets only Nicor hospitality and assisted living customers that Ecova is handling billing for, which may be limiting the amount of eligible participants the program could reach. Ecova reports its eligible customer base should account for most large hospitality and assisted living customers in the Nicor territory. However, they also note that there could be room to

expand the program to eligible customers for which Ecova does not handle billing. The implementation contractor reports that ComEd’s program is currently allowing ComEd customers that it isn’t handling billing for to participate in the utility’s version of the program and it has led to more participation. If Nicor established lead-generating processes to refer potential participants to Ecova, program participation could potentially be increased. Furthermore, opening the program up to customer that Ecova does not handle billing for could allow for trade ally involvement in promoting the program.

Overall, Ecova has shown flexibility in response to the challenges of a new program ramp up in a weak economy in a region with relatively low energy prices. The implementation contractor has indicated that its experience from the pilot program has provided insights into how to make adjustments to program planning estimates, administration, and implementation in GPY2. Ecova indicated that they will outline lessons learned in a document they will be drafting for Nicor Gas in GPY2. Some of their reported findings are discussed in the barriers to participation section.

3.1.2 Program Process Effectiveness

The program’s processes generally appear well setup to make participation easy for customers throughout all participation phases. Ecova conducts walkthrough assessments and creates measure recommendations for customers that do not have clear energy efficiency goals in mind. If participants do not have preferred contractors to do project work, Ecova recommends contractors for the participant. Once projects are complete, Ecova manages the paperwork to secure rebates for the participant in order to reduce their paperwork burdens. The PY2 evaluation will be able to further gauge participant satisfaction with program processes once participants are secured.

3.1.3 Potential Barriers to Participation

The evaluation team reviewed Ecova’s program documentation and conducted interviews with the program implementer to assess participation barriers. Generally, non-participation was reported to almost always stem from ROI and payback-related concerns. A one year payback period is viewed very favorably, a project with a two year payback is still considered, but beyond that Ecova reports that it becomes difficult to convince participants to invest in the projects. Ecova noted the following barriers to participation in its project documentation and in interviews with evaluation staff:

- Multiple decision makers in franchise operations can delay project approval and result in long lead times, which allows for other barriers inherent in the industry to present themselves (such as hotel acquisitions stalling all pre-approved project plans);
- National chains view projects in Chicago as lower priority than other regions in the U.S. because energy prices are lower in the Chicago area; and
- Unionized labor in the region increases project costs which affects ROI rates and thus the cost-effectiveness of measure recommendations

Ecova reports that it is attempting to deal with these barriers by working closely with customers to understand technologies they are interested in pursuing across their portfolio in order to “tip” them into implementation with utility incentive support. Furthermore, they are promoting quick payback measure opportunities such as Ozone Laundry. They are also targeting management more directly, going beyond facility engineers, to overcome decision maker delays.

3.1.4 Program Key Performance Indicator Tracking

The program does not have any key performance indicators (KPIs) outlined. As a result, the evaluation team interviewed the program implementer and relied on our program theory and logic model review to suggest some KPIs (see Appendix 5.3 for a complete list of KPIs and data sources). If tracked, these KPIs will help the evaluation team gauge program effectiveness in future evaluations. The following are some suggested potential KPIs:

- Number of meetings with facility managers
- Number of analyses conducted
- Number of projects that follow through and install measures after analyses
- ROI and payback criteria for proposed and implemented measures (to determine which ROI criteria and measure combinations are most commonly implemented)
- Percent of incremental costs paid by incentives
- Total annual therms saved per project and that facility's annual therm consumption
- Savings claimed per participant as a percentage of total program planned savings
- Number of participants participating in other Nicor Gas programs as a result of this one
- Number of participants that pursue more/other projects as a result of benchmarking reports
- Percent of program eligible target sector customers participating
- Percent of the Nicor Gas territory target sector's energy usage saved

The program could also ensure records are kept of print and other outreach materials developed, including the content of the Nicor webpage for the program.

3.1.5 Overall Program Strengths and Weaknesses

Overall, the program design and processes appear to be well-suited for engaging the hospitality and assisted living markets. Ecova's customer data and relationships with its large hospitality and assisted living clients allow the program to efficiently identify and target potential participants. However, since this is a new program, there will be opportunities to make the program more robust over time. In order to identify areas for improvement, the program could benefit from more formal and detailed tracking of data- such as participants' program energy efficiency project goals for the future- that could be used to improve the program's success. Since this program has few participants, it provides a great opportunity to track detailed data about participants and non-participants alike that could be used to gain insights about customer decision-making and sources of program success.

4. Findings and Recommendations

4.1 Key Process Findings and Recommendations

At this stage in the program's development, Navigant finds that program processes are generally well-planned and well-positioned to penetrate the hospitality and assisted living sectors. Nonetheless, since the program is in its early pilot stages, there is room for improvement as the program matures.

Navigant's key process findings and recommendations present potential opportunities to improve the program:

- **Finding.** The program currently does not have any key performance indicators (KPIs) outlined in program operations documents.
 - **Recommendation.** Establish clear key performance indicators and tracking plans to help track and determine program effectiveness and to identify potential avenues for enhancing program performance. This will also help provide future evaluation efforts with key data for evaluating program effectiveness.

- **Finding.** Though Nicor and ComEd share potential participants in their respective versions of the program, there is no official coordination of program efforts or co-branding between the two utilities.
 - **Recommendation.** The evaluation team recommends Nicor Gas assess the potential benefits and challenges of running this program jointly with ComEd since both utilities target many of the same clients with their respective versions of this program effort.² A joint utility effort could result in implementation cost savings and it could increase useful data sharing.

- **Finding.** Though the current implementation contractor is running the same program for ComEd for some of the same potential participants as Nicor, it does not share data between the two utilities in cases where they have mutual participants.
 - Whether utilizing a shared implementation contractor, running the program jointly, or through alternative agreed upon means, the evaluation team encourages data sharing between the utilities in cases where they share participants in their respective versions of this program. Both utilities may benefit from better understanding shared participants' proposals and projects on both the electric and gas sides. For instance, Nicor may benefit from understanding whether potential participants considering both utility programs are more inclined to pursue electric measure projects rather than gas ones due to differences in electric and gas energy costs.

- **Finding.** Program marketing and outreach materials are currently limited to an informational leaflet. The evaluation team sees opportunity to develop additional materials to help promote the program and drive participation.
 - **Recommendation.** The evaluation team recommends looking into expanding program informational materials. This could include developing more informational materials

² ComEd treats its version of this pilot as a feeder program for its Prescriptive Program.

and case studies, both online and print. Since the Nicor Gas program does not yet have customer experiences to profile, profiles of peer businesses in the hospitality and assisted living sectors that participated in other utilities' comparable programs could stand in until such are available. Concrete examples of these programs in action and details of related energy and non-energy benefits have proven to be very powerful in motivating participation.

- **Finding.** While ComEd's BPwES program is open to customers for whom the implementation contractor does not provide billing support, the Nicor program is not, which potentially limits its outreach and growth potential.
 - **Recommendation.** The evaluation team recommends that Nicor assess the potential of opening the program to clients to which the implementation contractor does not provide billing services. If Nicor were to establish lead-generating processes to refer potential participants to the implementation contractor, program participation could potentially be increased. Furthermore, opening the program up to customers that the implementation contractor does not handle billing for could allow for trade ally involvement in promoting the program.

5. Appendix

5.1 Glossary

GPY1, GPY2, etc. – Gas Program Year where GPY1 is June 1, 2011 to May 31, 2012, GPY2 is June 1, 2012 to May 31, 2013.

5.2 Early Program Benchmarking

Since the evaluation team did not conduct a formal due diligence and tracking system review because a tracking system wasn't finalized, the team only conducted an early benchmarking of the program operation plans against national best practice standards³ for criteria applicable to the current state of the pilot. The evaluation team largely selected best practices from the Non-Residential HVAC program best practices sheet as the BPwES program best approximates that program type since it is an extension of the Nicor Standard and Custom programs.

Table . Best Practices Benchmarking Results

ID	Best Practice	Score*
1	Develop a sound program plan; if possible have a clearly articulated program theory	Meets best practice.
2	Leverage national efforts to increase efficient product availability	Meets best practice.
3	Clarify requirements for implementation through the application and contracting processes	Meets best practice.
4	Articulate the data requirements needed to measure success	Needs some improvement.
5	Minimize documentation requirements	Meets best practice.
6	Assemble and use information about the target consumer demographics	Meets best practice.
7	Market energy efficiency options directly to large end-users at the earliest decision-making stages of major equipment or facility modifications	Meets best practice.

* Scores are based on the metric definitions contained in the tool.

³ "Best Practices for Energy Efficiency Programs" benchmarking tool is available at: <http://www.ebestpractices.com/benchmarking.asp>

1. *Develop a sound program plan; if possible have a clearly articulated program theory.*
 - Meets best practice.
 - Ecova has a sound program plan that was initially developed for ComEd and modified for use with Nicor Gas's version of the program, which included adding the Department of Energy's Energy Star Benchmarking tool program component. The program also has a well-detailed market characterization and energy analysis report.
2. *Leverage national efforts to increase efficient product availability.*
 - Meets best practice.
 - The program utilizes the Department of Energy's Energy Star benchmarking tool to help participants understand their energy efficiency progress over time, and to promote further efficiency projects.
3. *Clarify requirements for implementation through the application and contracting processes.*
 - Meets best practice.
 - Ecova works closely with participants to cater the program to their needs. As part of this close relationship, the implementation contractor ensures that participants understand the participation process. Given that the program involves multiple decision makers at the participating companies with long lead times, the evaluation team recommends that Nicor Gas and the implementation contractor develop formal participation procedure documents beyond the marketing fact sheet that currently exists.
4. *Articulate the data requirements needed to measure success.*
 - Needs some improvement.
 - The evaluation team recommends that Nicor Gas and the implementation contractor develop clearer plans for tracking key performance indicators as part of the new tracking system that is being developed for the program.
5. *Minimize documentation requirements.*
 - Meets best practice.
 - For projects recommended by Ecova and selected by the client for implementation, Ecova will complete and submit rebate and incentive applications.
6. *Assemble and use information about the target consumer demographics.*
 - Meets best practice.
 - Ecova developed a comprehensive market characterization and potential report that includes industry data and utilizes Ecova's internal data to identify potential target participants.
7. *Market energy efficiency options directly to large end-users at the earliest decision-making stages of major equipment or facility modifications.*
 - Meets best practice.
 - The program is structured to take advantage of customers' equipment and facility upgrade plans when available and to promote efficient options by incentivizing their implementation.

5.3 *Program Theory Logic Model Review*



Nicor - R30 - BPwES -
Program Theory and I

5.4 *Data Collection Instruments*



Interview Guides.zip