30 S. Wacker Dr,
Suite 3100
Chicago, IL 60606
312.583.5714 phone

NAVIGANT

Confidential Memorandum

To: Jim Jerozal, Dan Rourke, Scott Dimetrosky, Taria Dees

Cc: Jennifer Hinman, David Brightwell

From: Randy Gunn, Miroslav Lysyuk

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Re: GPY2 Evaluation of the Building Performance with Energy Star Pilot

This document provides the results from Navigant's review of the Nicor Gas Building Performance with Energy Star (BPwES) pilot program in GPY2. The findings are based on in-depth interviews with the program staff and the implementation contractor, Ecova. Given that the pilot did not generate anticipated participation levels over the two year pilot period and will not be continuing in GPY3, the primary areas of inquiry were to identify the barriers that prevented the pilot from succeeding and the lessons learned that should be applied to future similar efforts. The GPY2 evaluation focused strictly on reviewing program processes and sought to answer the following key researchable questions:

1. What lessons can be learned from program ramp up, design, and processes?
2. What lessons can be learned from program implementation and outreach efforts? What were common barriers to participation?
3. What characteristics of the program and the target markets made the implementation contractor unable to deliver the program savings projected?
4. Are there particular circumstances that would make certain sectors particularly viable targets for this approach?
5. How might this program concept be integrated effectively into other programs?
6. Would it make sense to coordinate with ComEd's similar program in any fashion and how could that be done?
7. What was the effectiveness of the benchmarking component of the program?[1]
8. What were overall program strengths and weaknesses?

This memo is based in part on information disclosed by Ecova to Navigant.

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[1] The program did not implement any benchmarking projects by the end of GPY2. Thus, Navigant does not address this research question in its findings.

Overview of Findings

The following points summarize Navigant's findings about the pilot from interviews with Nicor Gas and Ecova staff:

- Ecova's existing relationships were not sufficient to drive participation because the hospitality and assisted living sectors have varied and fragmented ownership and operating structures that made Ecova's existing relationships less effective than planned and inadequate to achieve the program objectives.
- Ecova, which implemented ComEd's version of the pilot concurrently with Nicor Gas, found that customers were more likely to pursue electric projects than gas projects due to the higher costs associated with electricity in the region and the shorter paybacks for electric measures. Furthermore, since hospitality customers are usually national accounts, they are more likely to allocate spending on energy efficiency projects to regions with higher energy costs than the Nicor Gas territory.
- Given the circumstances outlined, the most successful gas measure identified by Ecova was the ozone laundry system.
- The difficulties of engaging customers in the sector were exacerbated by Ecova not having onsite staff in GPY1. Once this became apparent, Ecova brought on regional staff in GPY2 and secured four participants for the Custom program despite the pilot's barriers to participation.
- Ultimately, the amount of time it took to visit a site, identify projects, present to the client, and bring in vendors in relation to the size and amount of achievable project savings that were secured made the pilot not cost-effective.
- This program approach may be best suited for owner/operator sites without complex management and ownership structures.
- Implementing the program jointly with ComEd in the future would increase efficiencies and the likelihood of securing participants.
- The relative success of the ozone laundry gas measure means that it could be integrated into other programs as an offering. Savings generated by the measure were credited to the Custom Program in GPY2 and Nicor Gas reports that in GPY3 the measure is being offered through the BEER program.

Lessons Learned During Outreach and Implementation

The BPwES pilot program was designed to leverage the implementation contractor's existing relationships, expertise, and customer data to promote energy efficiency among Nicor Gas' 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 and assisted living centers in GPY1 and GPY2 and was able to secure four hotel projects in GPY2. However, the program will not continue into GPY3 due to insufficient program uptake. Below, Navigant summarizes its findings of lessons learned from in-depth staff interviews with Nicor Gas and Ecova, the implementation contractor.

The initial program design leveraged Ecova's existing relationships with major hospitality accounts within the Nicor Gas territory. However, Ecova's existing relationships were not sufficient to drive participation because the hospitality and assisted living sectors have varied and fragmented ownership and operating structures that made Ecova's existing relationships less effective than planned and inadequate to achieve the program objectives. The hospitality and assisted living sectors have many layers of ownership and management that include ownership groups, management companies, and regional and site-level staff. The program structure assumed that hotel ownership structure would allow benchmarking of one facility and the transfer of related data and lessons learned to other facilities under the same ownership. However, the sector's complicated management and ownership structure hindered Ecova's ability to move from the proposal to the implementation stages. Ecova relied on their client services department to do initial outreach and establish contacts at select customer sites for which they managed billing. Ecova targeted the management groups that were under the umbrella of an ownership group, which tended to be different companies. The fragmented ownership and operation structures in the hospitality sector resulted in difficulties in mediating between management and ownership groups to get project approval. Management tended to be risk-averse and would only be willing to present very attractive energy efficiency projects to ownership groups. For instance, the owners of Marriot might be managed by White Lodging Services which would not want to present anything to Marriot that might not be a highly cost-effective project. It was important for management to feel comfortable with project proposal prospects to approve them. Further, a preference for electric over gas measures due to differences in energy costs in the region made it difficult to find favorable gas measure proposals relative to electric ones. Key hospitality staff turnover and property ownership changes were also barriers to securing project commitments the more staff and the more time involved. A combination of fragmented ownership and a lack of appealing gas projects made it difficult to secure a sufficient project pipeline for the pilot.

Ecova, which implemented ComEd's version of the pilot concurrently with Nicor Gas', found that customers were more likely to pursue electric projects than gas projects due to the higher costs associated with electricity in the region and its higher payback. Furthermore, since hospitality customers are usually national accounts, they are more likely to allocate capital for energy efficiency projects to regions with higher energy costs. Customer management decisions to present a project to ownership and implement a project were ultimately based on the payback criteria and the amount of capital investment required. According to Ecova, hotels were more likely to choose measures with better paybacks and it tended to be for electric rather than gas measures. Electric measures had a lower cost barrier than natural gas measures (in addition to higher ROIs and shorter paybacks).

Given the circumstances outlined, the most successful gas measure identified by Ecova was ozone laundry systems. Both hospitality and assisted living customers were interested in the ozone laundry gas measure. Ecova reports that the measure was typically favorable to implement in facilities that process linen, sheets, and towels. Ecova found that the ozone laundry measure tended to be appropriately sized with an estimated implementation cost of around $10,000 with a two- to four-year payback. Given the measure's relatively low cost and comparable payback, hotels were likely to favor the measure over a new boiler that has an estimated $100,000 capital investment with a two- to four-year payback. The pilot's other prescriptive and custom measure options were not successful.

Ultimately, all four projects that were implemented through the program were exclusively ozone laundry services.

The difficulties of engaging customers in the sector were exacerbated by Ecova not having onsite staff in GPY1. Once this became apparent, Ecova brought on regional staff in GPY2 and secured four participants. Ecova reports that having dedicated staff on location to run the program helped recruit customers. The implementation contractor indicated that it was difficult to recruit participants if the implementation staff were not able to visit customer sites and develop strong relationships with engineering and management staff. Navigant has similarly observed the importance of developing relationships over time before securing high-investment projects in other capital-intensive commercial and industrial programs.

Ultimately, the amount of time it took to visit a site, identify projects, present to the client, and bring in vendors relative to the size and amount of achievable project savings that were secured made the pilot not cost-effective. Though Ecova focused outreach efforts on the hospitality sector more than the assisted living sector, it reports that both sectors shared similar barriers.

Looking Forward: Integrating Lessons Learned to Future Projects

This program approach may be best suited for owner/operator sites without complex management and ownership structures. Customers that do not have separate management and ownership groups could prevent some of the implementation issues the pilot experienced. Examples of such segments would be quick service food, retail, and health club types of establishments with heated pools (such as YMCA). Ecova reports that franchises might also be good targets in that much of the decision making is made at the site level.

Implementing the program jointly with ComEd in the future would increase efficiencies and the likelihood of securing participants. Ecova reports that there would be benefits in combining Nicor Gas and ComEd's versions of this pilot. The implementation contractor found that it was sometimes difficult to speak with site level engineers and have them go through two different utilities if they were interested in both electric and gas measures. Having completely separate programs doubles the paperwork and can cause confusion. Furthermore, Ecova reports that it might be helpful to be able to come to a facility with a complete solution, and not just look at natural gas or electric measures separately. Customers want to see electric and gas opportunities together rather than one or the other.

The relative success of the ozone laundry systems gas measure allowed it to be integrated into other commercial and industrial programs as an offering. The measure's lower capital investment and two- to four-year payback criteria made it successful in relation to other higher-cost gas measures. Its relatively low-cost, quick-return nature allowed it to successfully compete for capital investments with electric measures. Savings generated by the measure were credited to the Custom Program in GPY2 and Nicor Gas reports that in GPY3 the measure is being offered through the BEER program.

Conclusion: Program Successes and Failures

Though Ecova was well-positioned to leverage its existing relationships with hospitality clients to access otherwise hard-to-reach customers, the sector's fragmented nature and the Nicor Gas territory's relatively low cost of natural gas proved to be significant barriers to effectively implementing the program. However, in the process, Ecova was able to identify ozone laundry systems as a new measure of interest to the sector. Future programs of this nature should take into account the ownership and management structures of the sector to better anticipate slow program uptake and complicated management and approval processes. Furthermore, a joint program offering may help introduce greater efficiencies in situations where both electric and gas utilities are targeting the same customers, though the competing nature of electric and gas measure payback criteria should be taken into account in program design.