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CC: Jennifer Morris, ICC Staff
From: Navigant Consulting and Opinion Dynamics
Date: April 24 2019
Re: ComEd CY2018 Public Housing Energy Savings Program: Process Evaluation Results

1. INTRODUCTION AND METHODOLOGY

This memo outlines results from a process evaluation of ComEd’s Public Housing Energy Savings (PHES) Program. The program works with Public Housing Authorities (PHAs) in ComEd’s service territory to achieve electric and gas savings. This market segment is considered hard-to-reach and is comprised of very low- to extremely low-income groups¹, including seniors, persons with disabilities, and households on federal assistance. In total, there are 21 PHAs in ComEd service territory, comprising 51,693 residential units, along with other common area buildings.

The program provides outreach, education, and incentives to upgrade energy-using equipment in PHA residential units, common areas, and community buildings. The PHA itself is considered to be the program participant, though the residents of the properties are directly impacted by the program. In 2018, the program provided free direct install (DI) measures to residential units, including LEDs, advanced power strips, and gas-saving measures such as faucet aerators and programmable thermostats. The program also incented common area lighting and refrigeration upgrades. Elevate Energy serves as the overall implementer of the program, while Franklin Energy completes direct installation projects, and other Energy Efficiency Service Providers (EESPs) complete common area lighting and refrigeration installations. The program is jointly offered by ComEd with Nicor Gas, Peoples Gas and North Shore Gas companies.

The objectives of the process evaluation were to: a) document new procedures as the program transitioned to a new implementer, b) identify delivery strengths and areas for improvement, c) gain insights from participants on program processes and decision-making responsibilities, and d) assess program satisfaction from the perspectives of the PHAs and their residents.

Between June and November 2018, the evaluation team conducted in-depth interviews with PHA representatives, EESPs, and program implementation staff. In addition, the evaluation team collected feedback directly from residents while performing visits to units that received upgrades. The site visit interviews occurred in November 2018.

Table 1 outlines response counts by respondent type and the specific research objectives for each group.

¹ The very low-income limit is based on 50% of the median family income of the county or metro area. The extremely low-income limit is 60% of the very low-income limit (<https://www.huduser.gov/portal/datasets/il.html>).

Table 1. Response Summary

Group	Interview Count	Research Objectives
Program Implementation Staff (i.e. Elevate Energy, ComEd)	2	Understand the program processes, eligibility requirements, marketing tactics, and observed successes and challenges
Program Partners (i.e. Franklin Energy Services)	2	Understand the program delivery process, incentive structure, and efficacy of training from the program ally perspective
Program Participants (i.e. Public Housing Authorities)	5*	Measure program satisfaction; Understand barriers to participation, and the impact of the program on housing authority operations
Housing Authority Residents	48	Measure satisfaction with the program; Understand if residents experience non-energy impacts from the program

*The evaluation team collected data from five of the seven PHAs that had finished projects by the time of process research completion in November 2018.

The following summarizes our key findings from interviews with the above listed parties.

Finding 1. The participating PHAs and their residents are highly satisfied with the program, with each group rating the program a nine out of ten (n=5 and n=38, respectively). The PHAs reported that the program eased the contractor procurement process, relieved burdens on administrative and maintenance staff, and expedited upgrades that otherwise would have been delayed. PHA residents indicated they benefitted from increased safety, improved comfort, and reduced financial burden.

Finding 2. Staff from two housing authorities suggested that providing more information about the incentives and equipment available through the program would help to streamline applications and motivate housing authorities to complete innovative improvements. Currently, housing authorities are informed of whether or not an item is incentivized only after application to the program.

Recommendation: The evaluation team suggests that the program take a more proactive approach to disseminating information on eligible upgrades.

Finding 3. Two housing authorities saw resident education on ways to save energy as an opportunity for program improvement.

Recommendation: The evaluation team suggests consistently providing educational materials to all PHA residents at the time of measure installation. Additionally, some housing authorities have had success holding periodic meetings with their residents to educate them on the upgrades they would receive.

2. SUMMARY OF RESULTS

2.1 Program Awareness, Motivation, and Interaction

Prior to 2018, the Illinois Department of Commerce and Economic Opportunity (DCEO) administered a statewide public housing program. When Elevate Energy began implementation, key staff continued working with the program and maintained contacts with PHAs. As such, the five interviewed PHAs were

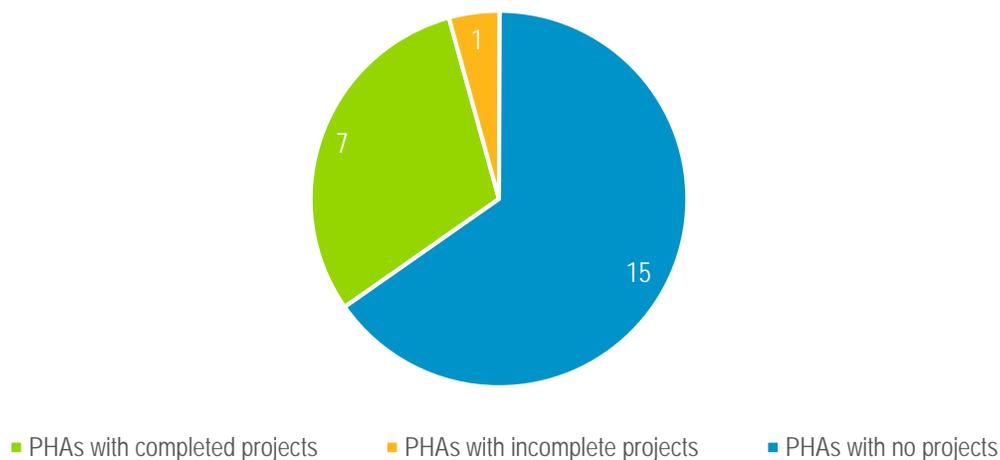
aware of the program through prior participation and had already established direct contact with key Elevate Energy staff.

When asked about motivations for program participation in 2018, three out of those five PHAs said the program provided them with the ability to purchase necessary upgrades, while two other respondents said they participated to streamline their contractor procurement process and to save money, respectively.

Four out of the five PHAs described the staff's role at Elevate Energy as being a "liaison" or "coordinator." Elevate Energy staff provide the necessary program information, support housing authorities through their applications, and facilitate the necessary communication between the program parties. Due to the number of parties involved in carrying out the program, Elevate Energy's role was reportedly helpful for all five respondents in determining the measures they could qualify for and answering questions about the applications and approval process.

All PHA representatives referenced working with the same Elevate Energy staff member who is responsible for many aspects of the program. The program's participant-facing team had already grown by the close of 2018, and the evaluation team encourages continued measured growth, as needed, so that the program can expand its high level of service to all PHAs in the service territory. Figure 1 shows the number of housing authorities in the ComEd service territory who have participated and completed projects through the PHES Program as of Q3 2018.

Figure 1. Housing Authority Program Participation



Source: Elevate Energy Tracking Data, Q3 2018

2.2 Project Coordination

All projects completed through the program require significant coordination between the PHA, the program implementer, and the EESP(s). As such, this is an important part of Elevate Energy's implementation role. This section reports notable findings from the study regarding the project coordination process.

A new feature of the PHES Program in 2018 is the EESP procurement process, in which the EESP selection, bidding, and payments are handled directly by the implementer. Three of the five PHAs reported that their contractors were assigned to them, and one identified this feature specifically as a benefit of this year's program. The two remaining housing authorities reported using contractors with

whom they had prior relationships, and in these cases, they reported a positive experience due to Elevate Energy handling the payments. One PHA said:

“Without us having any real involvement [with payments], it speeds the whole thing up and it relieves the administrative burden as well. And honestly, [ComEd is] probably getting better value for [their] money, because it's not then tied to a federal contract restriction.”

From the contractor perspective, communications with the program implementation staff and PHAs were rated as satisfactory. An EESP who had worked with two housing authorities reported that the program provides benefits for both PHAs and contractors due to its streamlined process and its ease of participation.

2.3 Satisfaction and Program Benefits

Overall, the PHAs are highly satisfied with the program. The five housing authority respondents rated the program an average of 9 out of 10, where 1 is “not at all satisfied” and 10 is “extremely satisfied.” The five PHAs report receiving the following benefits:

- **Eased procurement process:** Four out of the five PHAs reported that the contractor procurement and payment process was handled by the program implementer. The avoided time and effort represent a significant reduction of administrative burden.
- **Critical funding:** All five PHAs reported that their Department of Housing and Urban Development funding was inadequate to address operations and maintenance improvements. Housing authorities turn to incentive programs, such as PHES, to supplement these budgets and perform necessary upgrades. Therefore, the PHES funding allows the housing authorities to stretch their budgets further and address other, potentially more significant, building maintenance needs.
- **Upgrades:** Two housing authorities reported that the PHES funding increases the speed at which they can complete upgrades. Typically, these under-funded institutions have to spread maintenance and upgrade projects over a longer period of time, so they can fund them. The program allows housing authorities to address a greater number of maintenance needs on an annual basis, which is particularly important because PHAs tend to have high turnover rates. Further, one PHA reported that completing more upgrades at once is a benefit as it reduces the burden on residents.
- **Reduced maintenance time for PHA staff:** Two PHAs reported a non-energy impact of the program being the reduction in time spent responding to maintenance orders for light bulb replacement.

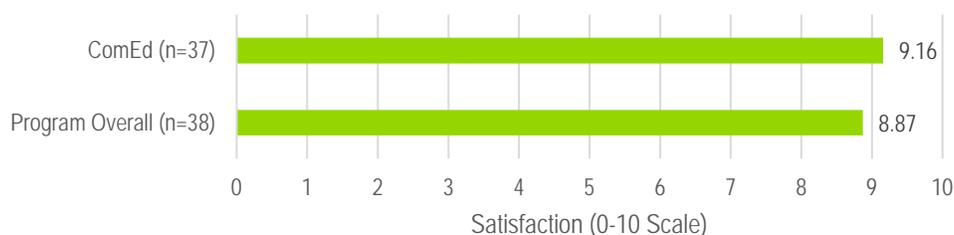
While the PHES Program provides relief to PHAs through funding and direct install upgrades, there are also a number of benefits that residents receive, including non-energy impacts:

- **Improved safety:** Four housing authorities reported that the lighting upgrades from the PHES Program improved safety for their residents. In particular, PHAs referenced benefits from having well-lit indoor and outdoor common areas across large PHA properties. Additionally, one PHA reported improved food safety and sanitation as a result of upgraded refrigerators.
- **Increased comfort:** Three housing authorities cited the lighting projects as a source of improved occupant comfort. The upgraded lighting projects provide brighter bulbs which last longer; and occupants appreciated new aesthetically-pleasing equipment in their homes, according to one housing authority.

- **Reduced financial burden:** The financial benefits of the program are seen either by the property residents, or by the PHA itself, depending on which party is responsible for the utility bills. In 2018, three housing authorities reported that residents pay their own bills and thus should see the reduced energy costs, while two PHAs pay resident utility bills and see savings directly. In cases where residents are responsible for replacing their own light bulbs, residents may also save on the cost of replacing equipment as a result of longer-lasting energy efficient equipment.

During the site visit portion of the evaluation, a sample of residents had the opportunity to report their satisfaction with the program directly to onsite staff. Of the respondents who described the benefits they experienced (n=38), twelve said they experienced improved safety, two said they experienced improved comfort, and four experienced better lighting. Half of these respondents (n=38) said they did not experience any differences after the upgrade. Ninety-five percent of respondents said they did not experience any drawbacks (n=39), and two respondents reported that the upgraded lighting was not bright enough. Overall the surveyed residents were very satisfied with both ComEd and the program overall (Figure 2).

Figure 2. Resident Satisfaction



Note: The satisfaction scale is from 0 to 10, where 0 is "extremely unsatisfied" and 10 is "extremely satisfied".
Source: Site visit process analysis by Opinion Dynamics staff

2.4 Opportunities for Improvement

With regard to program challenges, there were no consistent issues reported across the majority of PHAs. Nevertheless, the evaluation team identified a number of opportunities for program improvement.

Four of five housing authorities reported that the incentives offered are adequate and there are no measures missing. However, one PHA reported that 'controls' were missing from the program measure mix, while another housing authority was unable to receive thermostats for which they submitted an application. Notably, an EESP from the direct install team said they saw potential for smart thermostats starting in 2019.

Regarding incentive and equipment availability, two housing authorities suggested to provide more information about available program incentives and equipment. Housing authority staff reported that Elevate Energy will notify PHAs of ineligible equipment when they submit their applications. The evaluation team recommends providing information about eligible upgrades up front, which would help housing authorities integrate their PHES applications with their maintenance plans and could inform PHAs on ways to optimize their energy use.

Two housing authorities reported that the time it takes to complete the work could be faster. To alleviate this issue, one of the PHAs suggested hiring more contractors to complete the work. One housing authority experienced food waste in the process of replacing refrigerators due to contractors showing up later than scheduled.

Finally, two housing authorities saw resident education as an opportunity for program improvement. They suggested that leave-behind materials would improve resident engagement with the program. However, the direct installation subcontractor, Franklin Energy, confirmed that they typically leave pamphlets behind for building residents. Taken together, the Evaluation team suggests consistently providing educational materials to all PHA residents at the time of measure installation. Three housing authorities also reported holding periodic meetings with their residents to educate them on the upgrades they would receive.