Leveraging Benchmarking to Drive Savings: Outcomes Report on Outreach

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I. Background and Context

The purpose of this project is to solve collaboration barriers between local utilities and cities to use energy benchmarking ordinance data to drive deeper energy savings. A total of 28 cities, 1 county and 3 states have now adopted energy benchmarking ordinances, which require building owners to report whole-building energy use information to their city, county, or state. These energy transparency laws encourage higher energy efficiency in buildings by making the information available to building owners, property managers, tenants, and the public, and have generally led to modest but measurable savings across the buildings required to comply. For example, Chicago has found energy savings of 1-2% per 1-2 years, on average, for buildings benchmarking multiple years consecutively.

Furthermore, due to these ordinances, cities now own a wealth of information about energy use, buildings, and contacts for each building, that was formerly not available. However, the key "nut to crack" with energy benchmarking ordinances is how to collaborate with local utilities so the city shares this wealth of information with the utility to drive higher energy savings through the utilities' efficiency program offerings. No city has successfully worked through this problem with a local investor-owned utility. This project seeks to solve this problem by better understanding the utilities' outreach barriers; determining if energy benchmarking information would help overcome these barriers; developing a standard data sharing agreement so information could begin flowing between cities and utilities; and testing the data sharing framework.

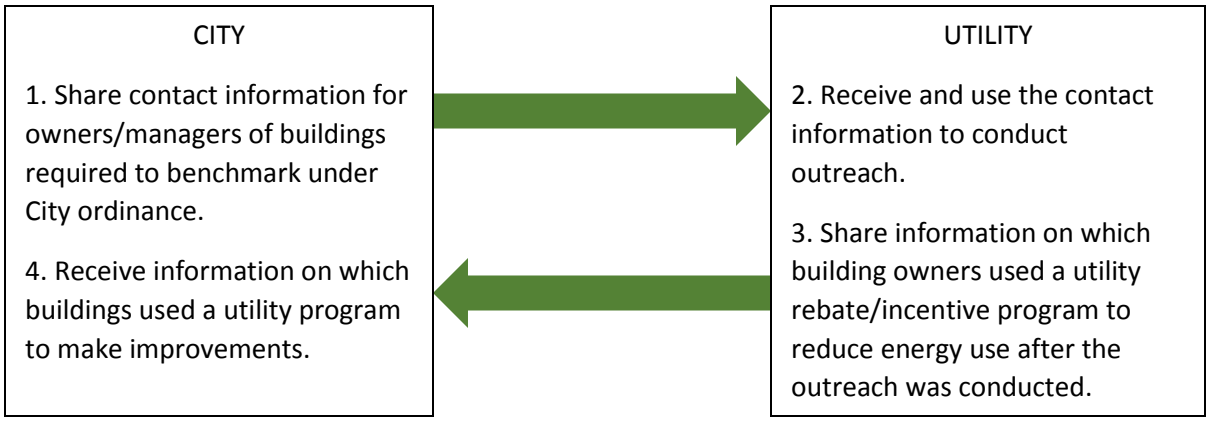
Initial research into utilities' typical outreach barriers showed that energy benchmarking data did hold promise to help reduce some, but not all, outreach barriers. The most valuable data is posited to be the contact information for the building owners (and/or their representatives, such as property managers) associated with properties required to benchmark. This contact information could be used to target the lowest performing buildings to encourage the building owners to take advantage of the utility-provided energy efficiency rebate and incentive programs.

In this pilot, the project team conducted outreach to a subset of those contacts in collaboration with the utility, essentially sharing contact information with the utility. The City team also received some information back from the utilities on the outcomes of that outreach. This report includes a summary of the outcomes from the outreach conducted in this pilot. This report also includes a summary of data sharing options that were explored in this project.

II. A Summary of Data Sharing Options

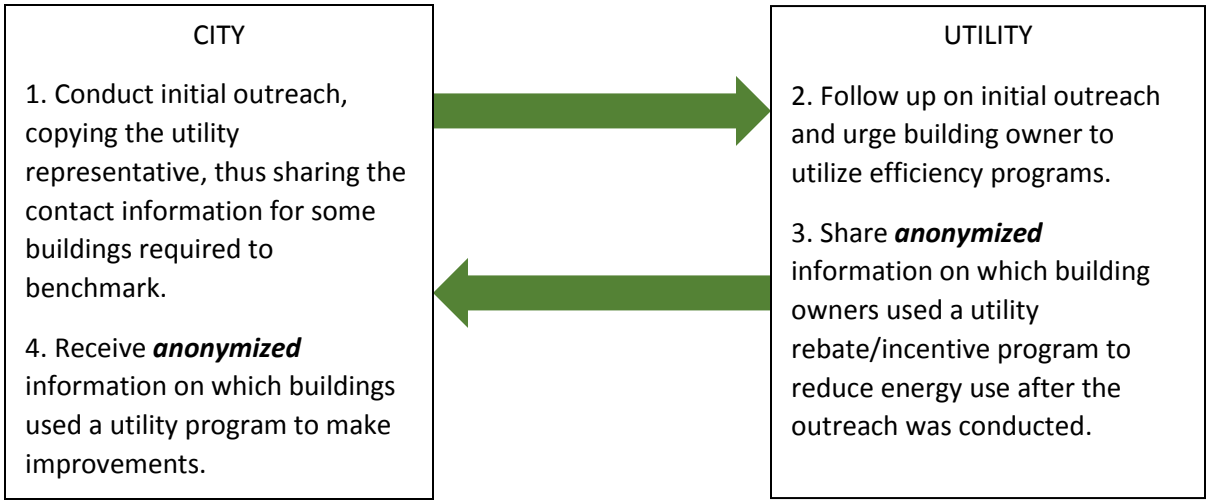
As initially envisioned, the data sharing framework was intended to facilitate two-way data sharing between the City and the utility. The data sharing framework or agreement is also intended to serve as a template for other cities and utilities to use. The initial framework envisioned for use is shown in Figure 1 below.

Figure 1. Two-Way Data Sharing Between City and Utility



Unfortunately, this model of data sharing proved to be an unsuccessful approach for this project. After multiple conversations, the City learned that the utility was not willing to share data on which buildings had taken part in various efficiency programs without building owner consent due to confidentiality issues. Gaining consent from every building owner would be onerous and difficult. In addition, the City team realized that they could conduct the outreach directly. Thus, the project team focused on a modified data sharing approach, shown in Figure 2.

Figure 2. Modified Two-Way Data Sharing Between City and Utility



The modified approach included two key changes. First, the City conducted the initial outreach by sending an email to the building owner and/or her representatives, urging participation in a utility efficiency incentive program. The utility program representative was copied on the initial email and was able to follow up directly with the building owner once the City sent the initial email. Second, the utility was then asked to share anonymized data back with the City on the number (or percentage) of buildings

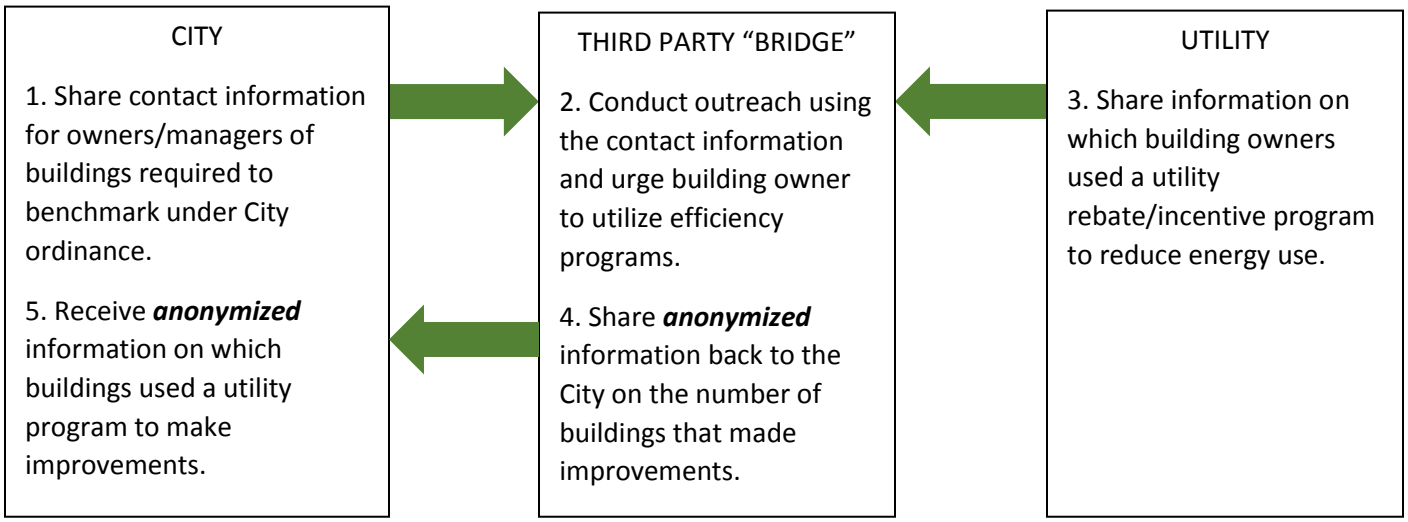
that used a utility incentive or rebate program. By only sending the number or percentage of buildings, the utility would not violate any confidentiality requirements, and would still provide feedback to the City on the impact of its outreach.

Two key assumptions are included in this modified approach. First, the approach assumes that all or most energy improvements completed by the building owners will be done while taking part in the utility incentive and rebate programs. Since these programs are paid for by ratepayers, they are typically offered at no charge, and provide cash incentives or rebates for making improvements. Some programs offered in Chicago also offer free technical assistance or other services. While some building owners may make improvements without using these programs, it is assumed that those who still have poor energy performance after 4-5 years of a benchmarking ordinance may be more likely to make improvements using the utility efficiency programs.

A second assumption is that the outreach was a key factor that led the building owner to begin taking advantage of the utility incentive and rebate programs.

A third data sharing model involving three-way data sharing is shown below. This model was considered but ultimately not used in this project due to the time needed to implement this model with the third party.

Three-Way Data Sharing Between City, Utility, and Third Party "Bridge"



The main advantage of the three-way data sharing approach above is that the third party "bridge" organization is typically a program implementer working on behalf of the utility that has already signed a confidentiality or data sharing agreement with the utility. Thus, it may be easier for the City to work through this third party than to work directly with the utility.

Lessons Learned:

1. Before beginning to develop a data sharing agreement, it is important to understand local and state privacy laws. The Illinois utility was very adamant against sharing information on which buildings had participated in their programs without owner consent, even under a legally-reviewed nondisclosure agreement.
2. Working through a third party bridge organization that already has a data sharing agreement in place with the utility could reduce the amount of effort needed to share data in both directions.

III. Outreach Results

Phase I

The project team worked to conduct outreach in two phases. In phase I, the team conducted outreach to eight property owners or managers associated with at least 27 buildings in Chicago. The targeted buildings appeared to have high levels of natural gas use and lower-than-average ENERGY STAR scores for buildings in Chicago, based on their energy benchmarking results. All targeted buildings were also considered Class B or Class C offices.

The outreach consisted of an email introduction to the building owner or representative, sent by the City from a City email address, with the natural gas utility program implementer copied on the email. The utility program implementer was then free to respond to the email to conduct follow up and encourage the contact to set up a meeting to learn more about ways to save on their natural gas use.

Several months after the outreach was conducted, the natural gas utility provided anonymized results; these outreach results are shown in Table 1 below. Although a very small sample, the results are encouraging. One property manager (12.5% of contacts) moved forward with multiple energy-saving projects at all the buildings under his management that qualified for the utility rebate and incentive programs. In addition, this property manager may have also connected with the electric utility's programs, which are separate from the natural gas programs. For another 4 persons (50% of contacts), the utility program representative held at least one initial conversation and/or conducted a free energy assessment. While these contacts have not yet moved forward with an energy upgrade project, they did begin to form a relationship with the utility's program implementer, who is planning to follow up in a few months to encourage next steps on making improvements (using the utility rebate and incentive programs). The remaining 3 contacts did not respond to the outreach.

Table 1: Phase I Anonymized Outreach Results to Eight Property Owners

Outreach Result	Number of Contacts	Percentage
No response	3	37.5%
Held initial meeting, then no response	1	12.5%
Had free utility energy assessment completed, but then no upgrades completed	3	37.5%
Had free utility energy assessment completed, AND completed one or more upgrades	1	12.5%
Totals	8	100.0%

Lessons Learned: Even though more than half of those contacted showed interest in the utility energy efficiency programs, only one out of eight moved forward with implementing energy-saving projects. The project team believes this is because smaller class B and C buildings targeted in this outreach, especially those with low ENERGY STAR scores, have fewer resources to complete energy saving projects. They may not have a dedicated chief engineer; they may have disconnect between the owner and the property manager; and there may be more difficulty getting buy-in from all relevant stakeholders. In addition, project costs are more difficult to cover in these properties, even with the utility rebates.

Despite these challenges, the results do show promise for this type of outreach.

Phase II

In Phase II of the outreach, the program team sent an email to 45 property representatives, who collectively work with 120 properties, inviting each one to an upcoming Energy Efficiency Idea Exchange event to learn about improving their property(ies). This Energy Efficiency Idea Exchange featured information about the utility efficiency programs, as well as other programs, such as a new city-sponsored Property Assessed Clean Energy (PACE) financing program.

Of the 45 contacts, 8 signed up to attend the event or sent another representative from their organization or company, a response rate of 18%. While attending an event may not lead directly to energy savings, it could be first step in learning about the utility programs and signing up for a free energy assessment or enrolling in other utility programs.

The City has not yet received anonymized results as to whether these buildings have reduced energy use but hopes to receive this information in the future.

Lessons Learned

One caveat for this research: as seen in the results from Phase I of the outreach, many building owners will sign up for a free energy assessment, and then may not act on this assessment for several months or even a few years. The utility representative has also noted that this is a common practice. Thus, to evaluate the results of any benchmarking-related research, it is important to understand the long lead times often observed in building owners working with utilities to save energy.

In the future, the City hopes to receive anonymized information about building owners that attended an event or otherwise received outreach emails up to two years in the past. By targeting research results to those building owners who were contacted 2 years ago, the City believes it may receive more realistic results as to which building owners moved forward with energy efficiency projects.

IV. Summary and Recommendations

Data Sharing Recommendations

Working with a utility to share data in two directions is a long and difficult process. Due to strict interpretations of privacy laws, many utilities may not be willing to share detailed information to assist the local government in understanding the impact of its outreach. To work through this issue, it may be possible for the City to receive anonymized data, which achieves the same result without triggering any privacy concerns. Another approach may be to work through a third party "bridge" organization that is also a utility program implementer.

Cities may also look to conduct the outreach directly, working in close collaboration with the utility (or its program implementer). By conducting the outreach directly, data can still be shared from the City to the utility, but without needing a formal data sharing agreement.

Finally, another option to understanding the impact of City outreach is to bypass the data sharing and instead to conduct a survey of building owners. Conducting a survey would provide the City information as to which building owners are acting and would not require the utility to share any building-specific data. Another advantage of conducting a survey is that some building owners may be acting outside of the utility efficiency programs, and the survey results would likely capture this type of information while utility program results would not capture this information.

Outreach Recommendations

Initial results from this pilot show that the City-sponsored outreach, conducted in close coordination with the utility's program implementer, shows promise for a higher-than-average response rate. In both outreach projects conducted under this pilot, at least 15-20% of those contacted took an initial action such as attending an event, signing up for a meeting, conducting a free energy assessment, or even initiating an energy improvement project. The typical response rate for utility energy efficiency marketing is much lower, at rates of 5% or less. Thus, this approach to outreach and sharing information may provide important opportunities to meet utility efficiency program goals and citywide energy saving goals.