



OUTREACH STRATEGIES FOR CITIES AND EFFICIENCY ADMINISTRATORS

Sample Scripts and Discussion Questions
to Guide Customer Engagement

PUTTING DATA
TO WORK

TOOL





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ABOUT IMT

The Institute for Market Transformation (IMT) is a national nonprofit organization focused on increasing energy efficiency in buildings to save money, drive economic growth and job creation, reduce harmful pollution, and tackle climate change. IMT ignites greater investment in energy-efficient buildings through hands-on expert guidance, technical and market research, policy and program development and deployment, and promotion of best practices and knowledge exchange. For more information, visit imt.org.

PUTTING DATA TO WORK

Putting Data to Work is a three-year pilot project aimed at using building performance data and asset information to help efficiency program implementers better target their outreach to building owners and increase the number of projects executed within these programs. The project used building performance data collected through city energy policies to improve energy efficiency program design and delivery in the District of Columbia and New York City, and developed a toolkit of resources to enable local governments, utilities, and program implementers to learn from activities to replicate successes.

Energy efficiency program implementers can use this resource as a script and step-by-step guidance for contacting and engaging customers to undertake energy efficiency projects.



Energy benchmarking allows for the comparison of a building’s performance to its own historical energy and water consumption, as well as to the performance of similar buildings in its peer group. Benchmarking policies require the owners of certain types of buildings, most often commercial and multifamily spaces, to report on the buildings’ characteristics, as well as energy (and sometimes water) performance to the governing jurisdiction. These policies involve size thresholds, whereby only buildings exceeding a certain square footage are subject to compliance. The compliance cycle may be annual, at the time of sales transaction, or some other frequency. In addition, local jurisdictions often pair data collection with a transparency component, whereby portions of the building’s benchmarking data are made publicly available.

Local jurisdictions are increasingly focusing on how to communicate this information back to building owners in a way that is actionable—resulting in retrofits that achieve energy savings. City officials are looking for ways to create touch points with building owners using the data, so that both parties can find value and achieve their goals of reduced energy consumption and lower operating costs.

Cities can channel energy benchmarking-related outreach and engagement to building owners through a utility partner who offers efficiency programs for technical assistance and incentives.

An example of this is the District of Columbia Sustainable Energy Utility’s (DCSEU), whose Account Managers are responsible for customer acquisition for their programs, and therefore need to educate and compel building owners and managers to understand the energy- and money-saving opportunities the DCSEU’s programs can bring. The DCSEU’s Account Managers knew they had vast opportunities to improve their conversations with building owners and managers to increase the rate of uptake of the DCSEU offerings and to acquire customers at a faster rate. Part of the missed opportunity was a lack of using the District’s whole-building energy benchmarking data to inform conversations with owners and managers—making a compelling business case, using actual performance data, for investing in retrofits. The DCSEU also realized the value of these data to target the buildings with the greatest opportunity to improve their energy performance.



DC
SUSTAINABLE ENERGY
UTILITY

The District of Columbia Sustainable Energy Utility (DCSEU) is a third-party demand-side management program administrator that services electric and natural gas customers in the District of Columbia. The DCSEU helps residents, businesses, and institutions in the District save energy and money through energy efficiency and renewable energy programs. With the goal of being a one-stop resource for energy efficiency information, technical assistance, and financial support in the District, the DCSEU’s work often involves community outreach and education.



Beginning in early 2016, the DCSEU began its engagement with *Putting Data to Work*, a three-year project aimed at taking advantage of the opportunities that building energy performance data presents. Under this project, the DCSEU created the outreach guidance tools, contained herein, for City staff and efficiency program providers to help guide targeted interactions that engage building decision makers regarding a building retrofit program.

Consistent with the objective of *Putting Data to Work*, the DCSEU's refined best practices in educating and compelling building owners and managers are being made publicly available, enabling other jurisdictions to adopt and adapt these practices as their own, accelerating the rate of energy efficiency investments in their own communities. These scripts enable city staff and program administrators to proactively reach out to building owners and property managers—putting benchmarking data to work by getting it out of a spreadsheet, identifying opportunities for efficiency improvements, and getting that intelligence into the hands of the building owners and managers who can directly improve the efficiency of buildings.

This document's first three parts are meant to be used as general templates. As such, sample text may reference DCSEU projects as examples, but each script should be customized as appropriate to reflect a City government's or efficiency program implementer's goals, capabilities, and market offerings. This document also includes a fourth section with definitions for common terms.

Part 1: Introductory Script

This section is intended to be conducted over the phone, initiating a conversation with a customer when an efficiency program implementer possesses building performance data (otherwise known as benchmarking data) for the customer's building. This information enables the provider to talk to the customer about their building's performance as it relates to its peers.

Part 2: Discussion Questions for In-Person Benchmarking Data Engagement

These questions are a conversation set intended to be used in person or via webinar, and is designed to help drive conversation when an efficiency program implementer has created a digital visualization of a building's performance and the program implementer would like to explain the data and its visualization to the building's owner.

Part 3: Capturing Post-Engagement Feedback to Guide Future Work

These prompts are intended to be used in person or via webinar, guiding efficiency program implementers in their follow-up conversations to the prior two engagements in order to drive an owner towards committing to a retrofit and track progress after the initial engagements.

Part 4: Glossary Definitions to Use in Conversation

This glossary is designed to provide conversational definitions that can be deployed in customer conversations.



Part 1: Introductory Script

The purpose of introductory calls is to offer a benchmarking engagement session to the city's largest energy users, or customers with the highest potential for savings. In the DCSEU's case, introductory calls are made to customers (building owners of record) responsible for buildings that have been identified as the largest energy users—this is defined by the building falling within the top 10 percent of benchmarked buildings by energy use intensity (EUI, energy use per square foot) and bottom 10 percent by ENERGY STAR score. In general, during these calls, the efficiency program implementer's Account Manager leading the call and subsequent meeting (discussed further in Part 2 of this document) provides expert analysis of the benchmarking data as it relates to the customer to show how the building compares to its peers and its potential for improvement.

The introductory call educates the customer about the benefit of these sessions, as well as future collaboration with the efficiency program implementer. The desired outcome is for the customer to understand the potential value of energy or water improvements to their building, and be compelled to agree to attend an in-person or webinar-based benchmarking engagement session.



Customer communications and relationships should be carefully tracked and managed to ensure that the interactions with customers are streamlined and cohesive, avoiding the “program fatigue” of a customer being contacted repeatedly about disparate programs from different points of contact. This can be done through a customer relationship management (CRM) tool, either commercially available (e.g., Salesforce, Accela, etc.), or through an in-house solution such as the DCSEU's proprietary internal system. The DCSEU specifically created its internal system in order to streamline customer data so that each interaction with customers can be specific, based on actual energy data for each owner's individual building, and informed from past interactions. Another partner on the Putting Data to Work project, the NYC Retrofit Accelerator, uses a Salesforce system to similarly streamline communications.

A. Call Introductions:

a. Customer, existing relationship

- i. “Hello, my name is [X] and I am with [EFFICIENCY PROGRAM IMPLEMENTER]. I am calling to talk with [CUSTOMER NAME], is she available?”

b. Customer, new relationship:

- i. “Hello, my name is [X] and I work with [EFFICIENCY PROGRAM IMPLEMENTER]. May I speak with the individual responsible for property management at [PROPERTY NAME]?”

B. Establish Familiarity with [EFFICIENCY PROGRAM IMPLEMENTER]:

a. If existing relationship, skip to C: Purpose Statement

b. If new customer: “Are you familiar with [EFFICIENCY PROGRAM IMPLEMENTER]?”

- i. If no: See (B.c., below)
- ii. If yes: See (C: Purpose Statement)

c. [Describe efficiency program implementer company in 1-2 concrete, direct sentences. Describe your company’s goal with an emphasis on why the caller should care about your company’s work.]

An example from the DCSEU: “The D.C. Sustainable Energy Utility was created in 2011 to help the nation’s capital reduce its energy demands by acting as no-cost resource for all electric and gas ratepayers within Washington, DC. We are home to a suite of support options, including technical assistance around energy and financial analyses, as well as energy efficiency rebate programs.”

C. Purpose Statement, Customized to Jurisdiction and Organization:

An example from the DCSEU: “As you may know, The District collects annual energy benchmarking data from commercial and multifamily buildings and then makes some of this data publically available. Using this data, one of the charges of the DCSEU is to identify buildings with the highest potential for energy and cost savings. Looking at the data available through benchmarking and other private sources, your facility has come up on this list. The purpose of my call today is to offer you a free session with one of our in-house data specialists, where we can sit down with you and other decision makers to walk through visualizations of your energy benchmarking data to [give you some insight on how your building is performing compared to its peers, discuss areas of opportunity for improvement, etc.]”

a. If Customer needs to understand benchmarking more:

- i. “Energy benchmarking means tracking a building’s energy and water use and using a standard metric to compare the building’s performance against past performance and to its peers nationwide. These comparisons have been shown to drive energy efficiency upgrades and increase occupancy rates and property values.”

An example from the DCSEU: The Clean and Affordable Energy Act of 2008 (CAEA) requires that owners of all large private buildings (over 50,000 gross square feet) annually benchmark their energy and water efficiency and report the results to DOEE for public disclosure. Benchmarking is done using the United States Environmental Protection Agency's (EPA) free, industry-standard online tool, ENERGY STAR Portfolio Manager.

b. If Customer is curious about definition of those with “highest potential for energy savings”:

- i. They are buildings among: the top 10 percent of all energy users; top 10 percent of energy use intensities; and/or among the bottom 10 percent of ENERGY STAR scores.

c. “Do you have a few minutes to discuss?”

- i. If yes, see D: Offer a Meeting.
- ii. If no, ask why not, capture feedback, and end call politely.

D. Offer a Meeting

a. Explain the engagement in more detail: What can they expect?

- i. “As a no-cost resource, we would like to offer you a session where one of our in-house data specialists and I can sit down with you and other decision makers to walk through visualizations of your energy benchmarking data. These visualizations will show metrics such as your performance against peers, potential cost savings, etc. The meeting usually lasts [X] minutes and is held [AT LOCATION].”

b. If interested:

- i. “So that we may best prepare for our time with you, would you mind answering a few questions about your building and the benchmarking process?”
 - 1. “According to the benchmarking data, you categorized your building as [X (e.g. multifamily, office, etc.)], is this correct?”
 - 2. “Has your organization found benchmarking to be useful?”
 - a. no, “Could you explain why not, or what may make it more useful?”
 - 3. “Would you be interested in having your building’s performance compared with its peers?”
 - 4. “Do you have a sustainability team or individual assigned to the benchmarking process?”
 - 5. “What are you most interested in learning about your building and its data?”
- ii. “To get the most out of this meeting, we suggest that you invite a few of these roles to attend, such as...”
 - 1. Chief Financial Officer (CFO)

2. Director of Facilities
 3. Property Manager
 4. Building Engineer or Operator
 5. Chief Operations Officer (COO)
 6. Other senior executives
- iii. Schedule the in-person meeting with a specific date, time, and location.
1. “Thank you for this information, we are looking forward to meeting you on [X]. If you have any follow-up questions or concerns before we meet, please feel free to reach out to me at [contact info.]”

c. If disinterested:

- i. May I ask why not?
 1. Capture feedback
 2. Thank customer for time; invite them to follow-up if any questions arise.



Part 2: Discussion Questions for In-Person Benchmarking Data Engagement

The purpose of the in-person meeting is to sit down with the customer and convince them of the value of potential energy and water improvements to their buildings, and urge them to take action through operational changes or capital investments. Before the meeting, preparation includes:

- Reviewing previous work the efficiency program implementer has completed with the customer.
- Researching the customer's operations (e.g., sustainability plan, recent public actions related to energy usage).

This helps the efficiency program implementer establish a preliminary understanding of the customer's priorities and behavior. Additionally, the efficiency program implementer should take time to familiarize themselves with the building's data and the story it tells. For example, understanding what the energy use trend looks like over time and where this property falls in relation to its peers. The narrative often takes one of three arcs:

- The building is average as related to its cohort.
- The building is an underperformer that can take steps to improve.
- The building is a top performer and could offer best practices to its peers.

The efficiency program implementer then generates the custom data visualizations to highlight the insights from their analysis. For the DCSEU, these visualizations are tailored using benchmarking data and supplemental information that the DCSEU has in its existing database, to highlight a customer's building energy performance in three different ways: (i) insight on how a building is performing compared to peers, (ii) overall energy performance, and (iii) areas of opportunity for improvement.

The convener of the meeting (e.g., program administrator, City staff) could choose to introduce specific retrofit projects to the building owner during this meeting. Alternatively, as is the case with the DCSEU, the goal of this initial meeting could be to pique the customer's interest enough to set up a subsequent meeting between the building owner and an engineer. In this subsequent meeting, the engineer will recommend specific energy conservation measures.

This section illustrates the three phases of the introductory meeting: (i) introduction, (ii) presentation of data via visualization graphics, and (iii) questions to gauge customer's reaction.

 **Step 1: Introductory Interview**

 DCSEU Account Managers ask the following questions during their initial meeting, which consists primarily of walking the customer through their benchmarking data, using building-specific visualizations:

- Do you find reporting benchmarking data to [CITY and/or CITY DEPARTMENT] helpful in understanding your buildings' energy performance each year?
- Would you be interested in training that would help with more accurately reporting your benchmarking data?

In the case of DC, the District of Columbia's Department of Energy and Environment operates a Benchmarking Help Center, which provides technical support and assistance with using ENERGY STAR Portfolio Manager and complying with District regulations. DCSEU staff would refer interested customers to this resource if the need arose.

- What would be helpful from [CITY] or [EFFICIENCY PROGRAM IMPLEMENTER] in order to better make sense of your data?
- Would you like to see where your company/building ranks amongst its peers within the city and nationally to identify opportunities for recognition or improvement?
- What are your improvement goals for your building in the next year? (Note: These could be non-energy related)
- Is a high energy bill a concern for your business and have you been looking for ways to reduce your energy use?



FEATURES OF THE DCSEU VISUALIZATIONS

Filtering: The visualization is filtered to the granularity that most applies to the owner's circumstances—this may be by building type, size, or in the case of the visualization shown in Figure 1, filtered to show each building in a specific owner's portfolio.

Map: Serves to orient the viewer to the location of the property.

Circles: Represent building location and relative energy use, and are color coded for property type (different colored slices represent proportional energy use of different property types). The diameter reflects total energy use. This allows a general sense of which properties are the largest energy users relative to the portfolio.

Bars: In each bar graph, the bars represent an average of ENERGY STAR Score, EUI, and average square footage. The various colors of the bars represent a heat map of the concentrations of properties within the bar.



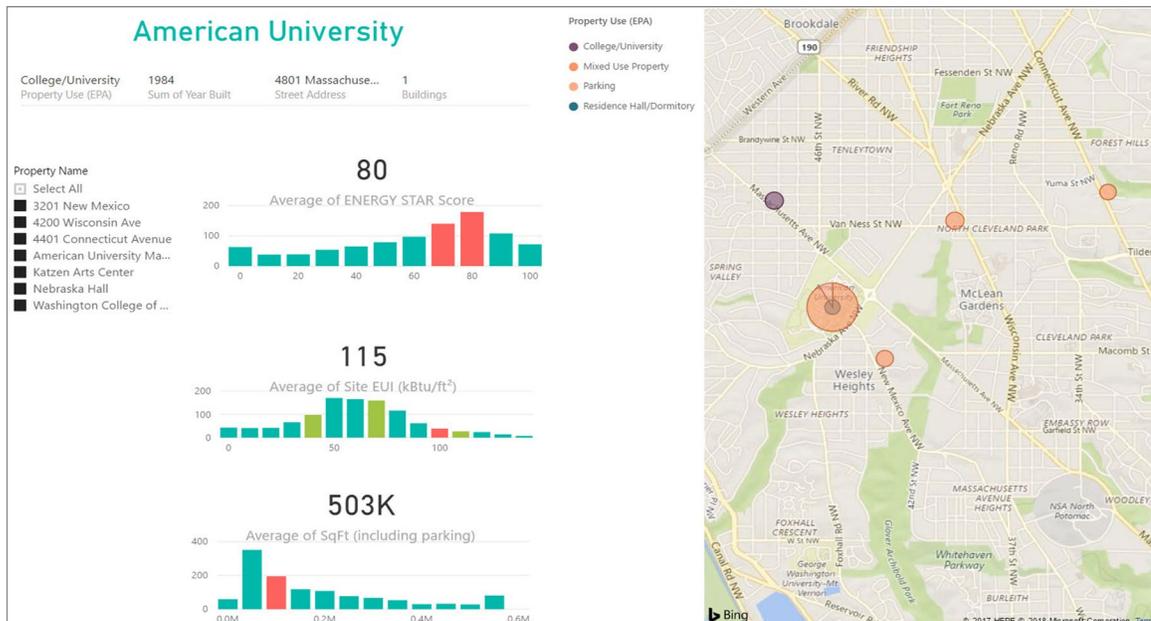
Step 2: Presentation of Data with Visualization Graphics

Energy data visualizations are designed to provide a snapshot of a property portfolio and its individual buildings in a way that is easily and quickly understood. Out of several dozen fields, the metrics that the DCSEU chose to display were selected based on their importance and relevance to building managers and decision makers. These include ENERGY STAR score, site EUI, and square footage.

Typically, the DCSEU Account Manager walks through the visualizations with the owner to explain the graphs and collect information on the owner’s response. Cities or program administrators that do not have capacity to develop a visualization tool can still present similar information, even if not done in a polished, graphical format. The key to replicating the DCSEU’s success involves the elements of data they focused on—putting it to work by translating it into actionable information for customers.

The visualization shown in Figure 1 gives a snapshot of an owner’s portfolio of properties—this way, the Account Managers can help the owner prioritize the lowest-performing buildings in her portfolio for efficiency projects. This visualization allows the viewer to see a high-level overview of energy use relative to building type and size.

Figure 1: Example Visualization of an Owner’s Portfolio



Many cities also publish visualization maps to engage their constituent building owners, allowing users to see, in context to their local geography and neighborhood, how specific buildings are performing relative to other comparable buildings. In cities where these maps are available, efficiency program administrators can use those maps to guide building owners in similar ways to the methods discussed in the section below. For additional information on these, reference Chapter 1 of the report [“Putting Data to Work: How Cities are Using Building Energy Data to Drive Efficiency.”](#)



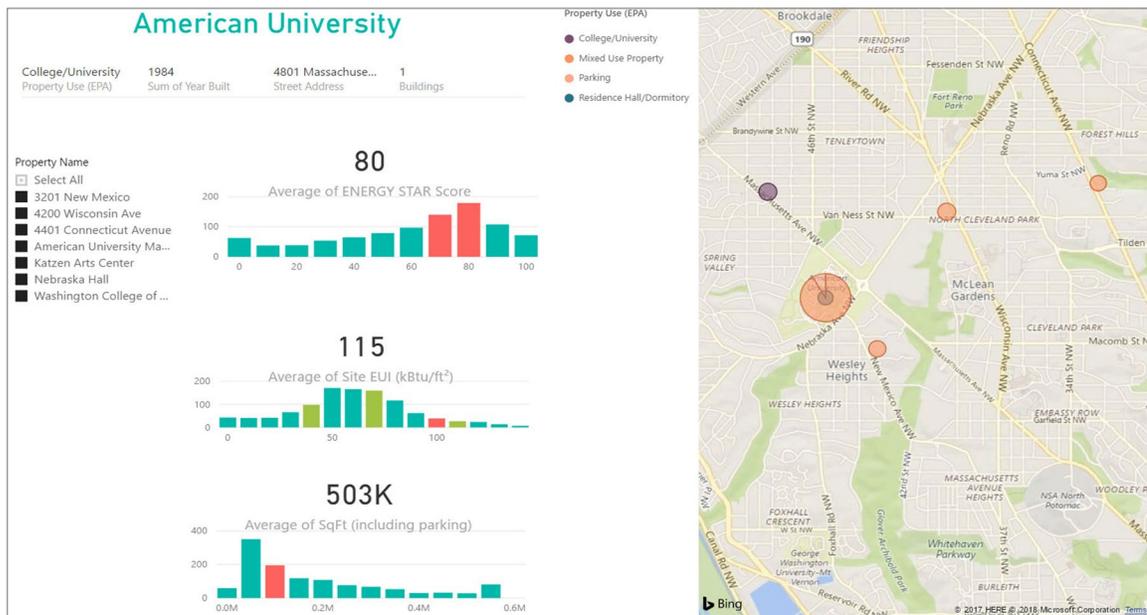
Step 3: Engaging the Owner through Data

Portfolio Level

The visualization in Figure 2 below shows that the owner has a portfolio of buildings with an average ENERGY STAR score of 80, which is near the average of the District as a whole, as shown in the bar graph. However, the portfolio's average EUI varies, and the average of 115 kBtu/sq. ft. (much higher than the District average in the bar graph) shows that there may be some buildings with notably higher EUI, where efficiency projects could help save significant amounts of energy and money. At the portfolio level, the following are some things to call attention to when walking through benchmarking data with a customer:

- Portfolio ENERGY STAR score relative to national or local average of peer buildings. If the portfolio has an average ENERGY STAR score lower than the national or local average of similar buildings (by age, size, and type), there may be some buildings that are underperforming, which could be opportunities for improvement. If this is the case, individual buildings within the portfolio should be analyzed for their relative performance (as shown in the following section).
- Portfolio EUI relative to national or local average of peer buildings: If the portfolio has an average EUI higher than peer buildings, there may be opportunities to improve. Similarly to the approach for ENERGY STAR score, individual buildings within the portfolio should be investigated for their opportunity to improve.
- If multiple years of data are available, note any significant changes in performance over time (accounting for weather or other events that may affect energy performance). If the energy performance of the portfolio is worsening over time, it may indicate that equipment is in need of upgrade, or that there are other opportunities for improvement.

Figure 2: Example Visualization of an Owner's Portfolio



Building Level

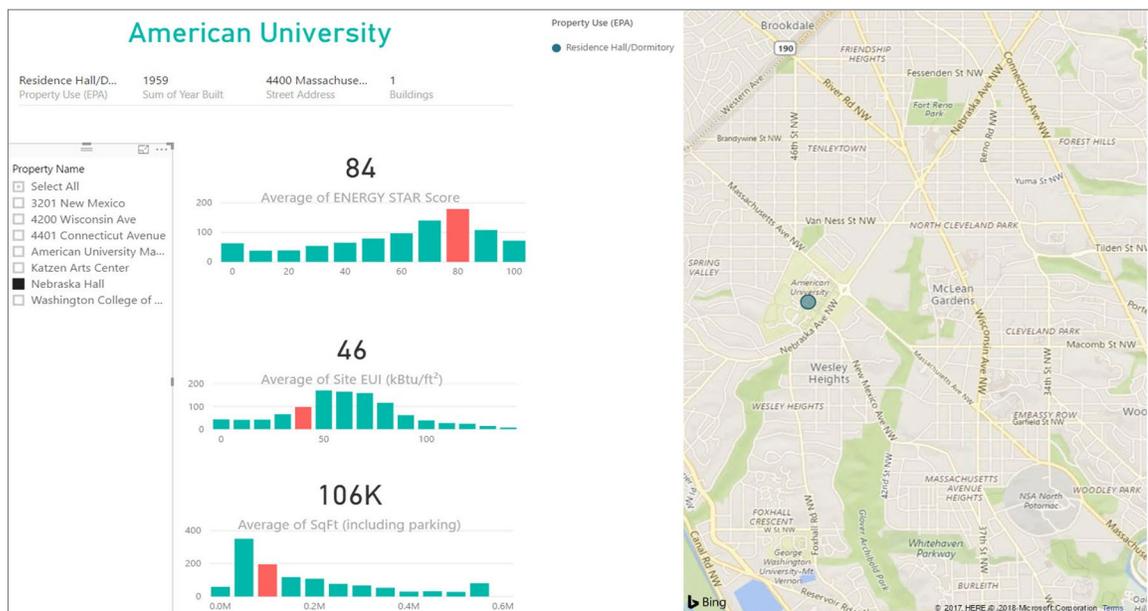
In the DCSEU's interface, users can select an individual property among the portfolio to investigate its performance, and the readout of the visualization updates to reflect this buildings data.

Building off the example visualization shown in Figures 1 and 2, Figure 3 shows a single building in the owner's portfolio. This building has an average ENERGY STAR score of 84, which is average compared with all District buildings, but its EUI of 46 shows that it uses less energy per square foot than the District average. This would indicate that this building is a high performer, and may not be the best opportunity for this owner's attention. The Account Manager would then walk through other buildings in the owner's portfolio to identify the low performers, where there may be "low-hanging fruit" opportunities for energy savings.

Similar to the portfolio analysis shown above, items to consider when identifying opportunities for efficiency are:

- Building ENERGY STAR score relative to national or local average of peer buildings. If the building has a lower than average ENERGY STAR score, it may be one to focus on for improvement. If this is the case, the Account Manager should identify next steps (whether a meeting with an engineer, an onsite audit, or otherwise) should be taken.
- Building EUI relative to national or local average of peer buildings. If the building has a higher average EUI than peer buildings, it may be a focus for improvement. The Account Manager should identify what appropriate next steps should be taken.
- If multiple years of data are available, note any significant changes in performance over time (accounting for weather or other events that may affect energy performance). If the energy performance worsens over time, it may indicate that equipment is in need of upgrade, or that there are other opportunities for improvement.

Figure 3: Example Visualization of a Building in an Owner's Portfolio



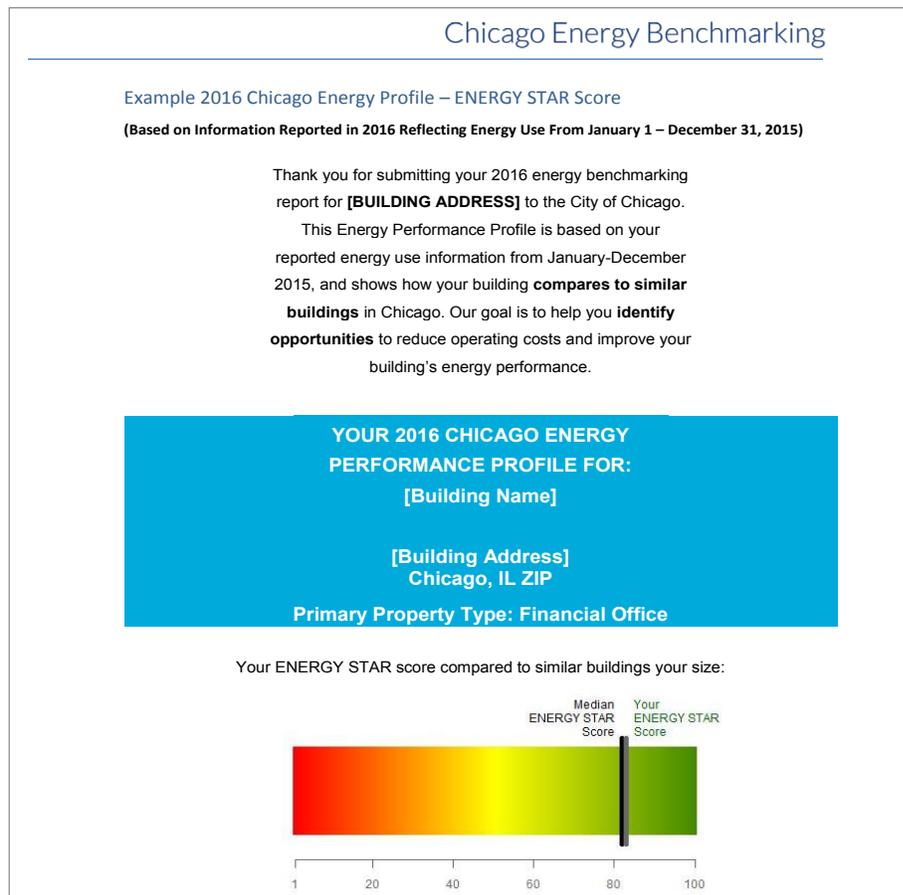


Step 4: Follow Up

The key outcome of reviewing benchmarking data with a building owner should be next steps to identify or undertake energy efficiency projects. This may involve projects that are apparent, such as available incentives (such as for lighting) that the owner is already aware are needed. More often, it will involve further investigation into a building’s specific circumstances to understand where there is opportunity for improvement—this could be through a meeting with an engineer, and onsite audit at the building, or another appropriate action. The Account Manager should follow up with next steps, and coordinate the appropriate action to ensure that appropriate efficiency projects are identified and deployed.

Some cities, including Chicago, Philadelphia, and Seattle automatically provide benchmarking “scorecards” to their building owners via email. These show potential energy and cost savings for each individual building in clear and understandable language, compelling the reader to follow up where the savings are high. These scorecards also identify next steps for follow up, such as contact information for reaching out to the efficiency advisors with the city to begin undertaking efficiency projects. One example, from Chicago, is seen in Figure 4 below. To see full examples from several cities, see Appendices A-C.

Figure 4: Sample Excerpt of City of Chicago Benchmarking Scorecard



✓ — Step 5: Gauging Customer Response to Energy Data

✗ — Follow-up efforts should also include specific questioning to gauge customer response to presented energy data. Suggested questions include:

- What are your thoughts on seeing your company's/building's performance ranked within the context of your peers (i.e. use type and size)?
- Does any aspect of your building's performance from these visualizations surprise you? Are there areas where you can improve that you were unaware of?
- What are the areas of your building's performance where you would like more information?
- (If the person in the room was included in the benchmarking process) Is the ENERGY STAR Portfolio Manager tool a helpful means of tracking your building performance? While compiling the data were any assumptions about your energy performance supported or challenged?



Part 3: Capturing Post-Engagement Feedback to Guide Future Work

Capturing customer feedback from customers after their in-person meeting is a critical tool to help improve an efficiency program implementer's or City's outreach efforts. This information should be collected consistently and stored in a central repository—such as a Customer Relationship Management (CRM) system—where it can be accessed by other team members. It is often helpful to review the compiled feedback on a consistent basis in order to identify trends and opportunities for procedural improvements. This information will also help track customer engagement to avoid duplicate calls and outreach. The DCSEU Account Managers use a Google Form to record responses to survey questions from building owners in order to capture their thoughts on benchmarking and the resulting visualizations. Questions include the following:

- Name of customer organization
- Names of team members in attendance during phone call introducing benchmarking data engagement and subsequent benchmarking data engagement
- Name(s) and role(s) of customer employees in attendance of in-person meeting or webinar
- Visualizations used during engagement
- Next steps (e.g., follow-up meeting with engineer, deeper discussion of program offerings, etc.)
- Topics to consider collecting customer data on:
 - Customer's overall interest in utilizing benchmarking data analysis before conversation and after
 - Reaction (positive or negative) to each visualization (or verbal explanation of benchmarking data)
 - Did the customer become motivated? Was there a noticeable change in interest to pursue energy conservation measures?
 - Which visualization—or verbal explanation of benchmarking data—did they find most compelling?
 - Is the customer interested in participating in efficiency programs?
- What other visualizations—or presentations of information—would they like to see?
- Miscellaneous notes



The DCSEU has recorded responses from all building contacts. All interviewees were shown visualizations of their data. While not all cities may have the capacity to develop visualization tools, the information presented could still be relayed without a graphical aid. In DC, interviewees ranked their knowledge of the benchmarking data and provided descriptive feedback on different aspects of the visualizations, including specific feedback on their experience with energy efficiency training, electricity consumption, and gas consumption. Overall, interviewees expressed:

- an interest in receiving energy efficiency training
- a desire for energy cost reduction estimates to be made more prominent
- more specific comparison such as between buildings built to the same energy code
- separating out of tenant energy consumption from common spaces

This feedback will be incorporated into the presentation of information in the future to make it more specific and actionable for building decision makers

Part 4: Glossary Definitions to Use in Conversation

While extensive glossaries can be found elsewhere on the technical definitions of many terms and technologies related to building performance benchmarking, this glossary is designed to provide conversational definitions that can be deployed in customer conversations.

ENERGY STAR score:

“The ENERGY STAR score allows everyone to quickly understand how a building is performing. A score of 50 represents median energy performance, while a score of 75 or better indicates your building is a top performer—and may be eligible for ENERGY STAR certification.”¹

Energy Use Intensity:

“For most property types in Portfolio Manager, the energy use intensity or EUI is expressed as energy per square foot per year. It’s calculated by dividing the total energy consumed by the building in one year (measured in kBtu) by the total gross floor area of the building.”²

Source Energy Use Intensity:

“Source energy represents the total amount of raw fuel that is required to operate the building. It incorporates all transmission, delivery, and production losses of this energy. By taking all energy use into account, the score provides a complete assessment of energy efficiency in a building.”³

Electricity Usage:

“This is a building’s total annual electricity consumption, as measured in kilowatt hours (kWh).”

Energy Benchmarking (“Benchmarking”):

“Energy benchmarking means tracking a building’s energy and water use on a consistent basis and using a standard metric to compare the building’s performance against past performance and to its peers nationwide.”⁴

1 U.S. Environmental Protection Agency, “How the 1-100 ENERGY STAR score is calculated,” <https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager/understand-metrics/how-1-100>. Accessed January 12, 2018.

2 U.S. Environmental Protection Agency, “What is energy use intensity (EUI)?”, <https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager/understand-metrics/what-energy>. Accessed January 12, 2018.

3 U.S. Environmental Protection Agency, “The difference between source and site energy,” <https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager/understand-metrics/difference>. Accessed January 12, 2018.

4 District of Columbia Department of Energy and Environment, “About Benchmarking,” <https://doee.dc.gov/page/about-benchmarking>. Accessed January 12, 2018.

Greenhouse Gases:

“Gases that trap heat in the atmosphere are called greenhouse gases. ... Concentration, or abundance, is the amount of a particular gas in the air. Larger emissions of greenhouse gases lead to higher concentrations in the atmosphere.”⁵ Greenhouse gases resulting from powering a building can be direct or indirect, depending on whether the building uses fuel combusted on site, such as natural gas or fuel oil, which are examples of direct greenhouse gas emissions. Indirect greenhouse gas emissions result from the generation of power consumed on sight at a building, such as at a power plant that generates electricity. Both types of greenhouse gas emissions can be reduced through improvements to the energy efficiency of a building, to help a building’s overall carbon footprint.

Energy Conservation Measures (“ECMs”):

“An Energy Conservation Measure (ECM) is a project conducted or technology implemented that reduces the consumption of energy in a facility. These measures can affect a variety of resources, but mainly affect water, electricity, and gas use. Examples of common ECMs include updating facility lighting to LEDs and upgrading appliances to those with ENERGY-STAR certifications.”⁶

Benchmarking Data Visualizations (“Visualizations”):

“Visualizations are digitally generated graphics that present aspects of the benchmarking data in a clear and intentional manner for the purpose of highlighting trends and/or insights.”



5 U.S. Environmental Protection Agency, “Overview of Greenhouse Gases,” <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>. Accessed January 12, 2018.

6 Site Based Energy, “Energy Conservation Measures,” http://www.sitebasedenergy.com/content/Energy+Services/energy_service/ecm. Accessed January 12, 2018.

Appendix A: Chigago Benchmarking Scorecard

Chicago Energy Benchmarking

Example 2016 Chicago Energy Profile – ENERGY STAR Score

(Based on Information Reported in 2016 Reflecting Energy Use From January 1 – December 31, 2015)

Thank you for submitting your 2016 energy benchmarking report for **[BUILDING ADDRESS]** to the City of Chicago.

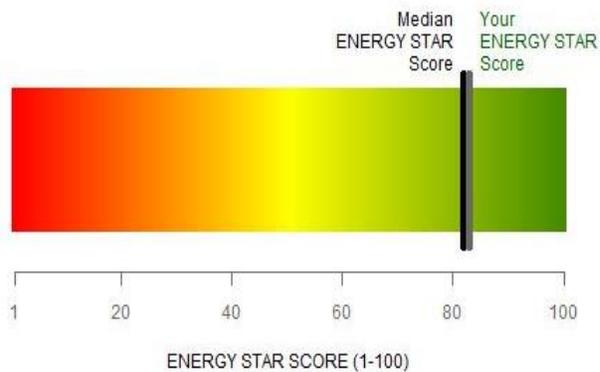
This Energy Performance Profile is based on your reported energy use information from January-December 2015, and shows how your building **compares to similar buildings** in Chicago. Our goal is to help you **identify opportunities** to reduce operating costs and improve your building's energy performance.

**YOUR 2016 CHICAGO ENERGY
PERFORMANCE PROFILE FOR:**
[Building Name]

[Building Address]
Chicago, IL ZIP

Primary Property Type: Financial Office

Your ENERGY STAR score compared to similar buildings your size:



Chicago Energy Benchmarking

22%

Potential Energy Savings for
[Building Name]*

Your Building Can Save Approximately
\$172,928 Per Year*

Congratulations! Your building's ENERGY STAR score is 83 and is above the median for similar buildings your size

Even high-performing buildings may find significant energy savings

""Similar Buildings" are: Bank branches and financial offices in Chicago larger than 50,000 ft2

ACT NOW TO IMPROVE YOUR BUILDING'S ENERGY PERFORMANCE

1. **Uncover Savings Opportunities:** Schedule a free energy assessment

Call ComEd at (855)433-2700 or click [here](#) to learn more. If your property uses natural gas, call Peoples Gas at (855)849-8928 or click [here](#) to learn more

2. **Train Your Team:** Learn how to capture savings through energy efficient operations.

Learn more at: bit.ly/TrainYourTeam

3. **Take the Challenge:** Develop a longer-term commitment to energy improvements

Join the Retrofit Chicago Energy Challenge, a free, voluntary program available to any building team Chicago. Learn more at: www.RetrofitChicago.net

Chicago Energy Benchmarking

4. **Get Recognized:** Your property may be eligible for the national ENERGY STAR certification

Learn more about the ENERGY STAR award at: [this link](#).

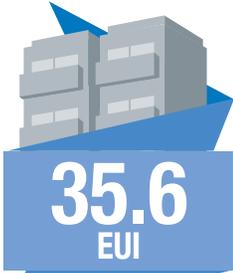
For information on energy benchmarking, upgrade opportunities, and more, please visit the City's website on [Taking Action to Improve Energy Efficiency](#). For questions about the information in this Energy Profile, please email: ChicagoEnergyBenchmarking@CityofChicago.org

*The information in this Profile is based on self-reported data from your building's energy benchmarking report. Estimated energy and cost savings are based on lowering your energy use per square foot to 69 kBtu/ft², which is the 75th percentile for similar buildings your size in Chicago. Estimated cost savings assume average values of \$0.076/kWh for electricity and \$7.501/ft³ of natural gas.

What is an ENERGY STAR score? A 1-100 ENERGY STAR score rates energy performance, while taking into account operating hours, occupancy, climate, and other factors. A score of 100 represents a top performer, while a score of 1 indicates low performance. What is energy use per square foot? This is a building's reported site energy use divided by its gross floor area. The site energy use is the annual amount of all the energy consumed by the building on-site, as reported on utility bills. The ENERGY STAR score and the energy per square foot in this Profile reflect your building's information reported for calendar year 2015.

Appendix B: Seattle Energy Performance Profile

1464



35.6
EUI

Energy Use Intensity (EUI)
is your building's annual energy use (all fuel types) divided by square feet (sf) in kBtu/sf.

SAMPLE APARTMENTS ENERGY PERFORMANCE PROFILE

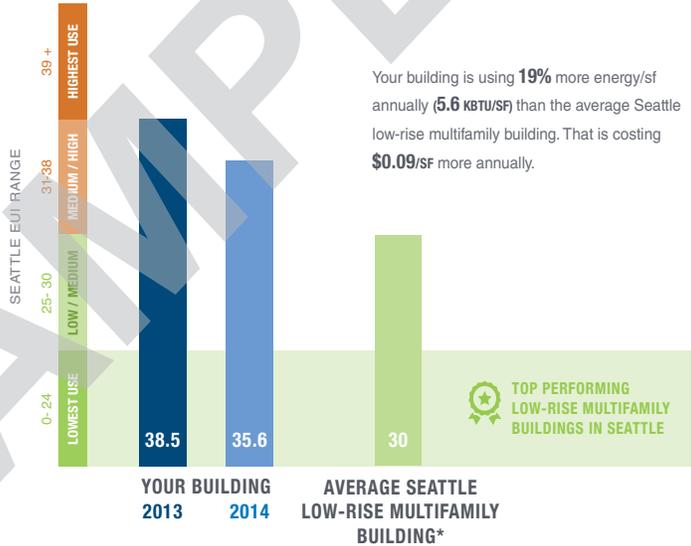
999 WATER ST, SEATTLE, WA 98109 | Benchmarking ID: 99998 | EPA Building ID: 9999999 | Square Feet: 33,000

Thank you for benchmarking your **low-rise multifamily building's** energy use with the City of Seattle! This energy performance profile shows how your building is doing **year to year** and how it compares to **similar buildings** in Seattle. Our goal is to help you identify opportunities to reduce operating costs, attract tenants and improve your building's energy performance.

YOU CURRENTLY SPEND

\$0.56 / SF

ANNUALLY ON ENERGY*
or **\$18,500** per year.



Your building is using **19%** more energy/sf annually (**5.6 kBtu/sf**) than the average Seattle low-rise multifamily building. That is costing **\$0.09/sf** more annually.

↓ Your building's EUI decreased by **2.9 KBTU/SF** from 2013 to 2014.

* The information in this report is self-reported and subject to verification. Costs and potential savings are estimated at \$0.157 per kBtu using the average mix of fuel sources (electric, gas, steam) for low-rise multifamily buildings. Average EUI is based on Seattle median EUI.

HOW YOUR BUILDING STACKS UP

THERE ARE 988
SIMILAR LOW-RISE MULTIFAMILY BUILDINGS IN SEATTLE

TYPE: Low-Rise Multifamily
FLOORS: 1 to 4
UNITS: 30

OF THESE, 684
USE LESS ENERGY THAN YOUR BUILDING

Reduce your building's EUI by **15.7%** to get to the average.

SAVE UP TO \$2,900
EACH YEAR BY REDUCING YOUR BUILDING'S EUI TO THE SEATTLE AVERAGE

GET STARTED



www.seattle.gov/energybenchmarking

Questions?
energybenchmarking@seattle.gov
206.727.8484

Report prepared: 11/02/15

99998-12344-854761

PUT THE MONEY YOU SAVE IN ENERGY COSTS BACK INTO YOUR BUILDING.

Reduce your building's EUI by **15.7%** and meet the average to **save up to \$2,900** each year. That's real money to put back into your building to improve your property, attract new tenants and continue reducing energy bills.

GET STARTED

10%

IMPROVEMENT CAN YIELD UP TO

\$1,800

In annual energy savings (EUI of 32)

20%

IMPROVEMENT CAN YIELD UP TO

\$3,700

In annual energy savings (EUI of 29)

YOUR BUILDING'S PATH TO IMPROVEMENT

Learn from experts and take advantage of low and no cost options that will help improve your building's score, save money and increase tenant satisfaction.

1. GET FREE LIGHT BULBS

and installation of energy-efficient LED bulbs for tenant units. Energy saving advanced power strips, shower heads and faucet aerators are also available.

Seattle City Light
www.seattle.gov/multifamily

2. UPGRADE TO ENERGY EFFICIENT LIGHTING

and controls in common areas, parking garages and tenant spaces for significant cost savings. Qualifying businesses can save up to 70% on project costs through rebates.

Seattle City Light
www.seattle.gov/multifamily

3. ATTEND A FREE PORTFOLIO MANAGER WORKSHOP

where you'll update your Portfolio Manager account to benefit from new multifamily ENERGY STAR score, develop energy use reports and learn about certification.

Seattle Office of Sustainability & Environment
www.seattle.gov/energybenchmarking

IT ALL STARTS WITH A CALL!

Our Energy Advisors are ready to help you find the best ways to get started reducing your building's energy costs.



206.684.3800

ENERGY STAR®



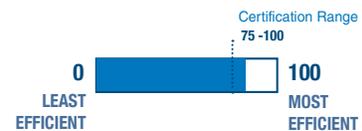
Your building's ENERGY STAR score shows you how your building is performing as a whole: its assets, its operations and the people who use it. Update your Portfolio Manager account with accurate building use data for a detailed look at your building's performance!

Learn more at www.energystar.gov/buildingcertification

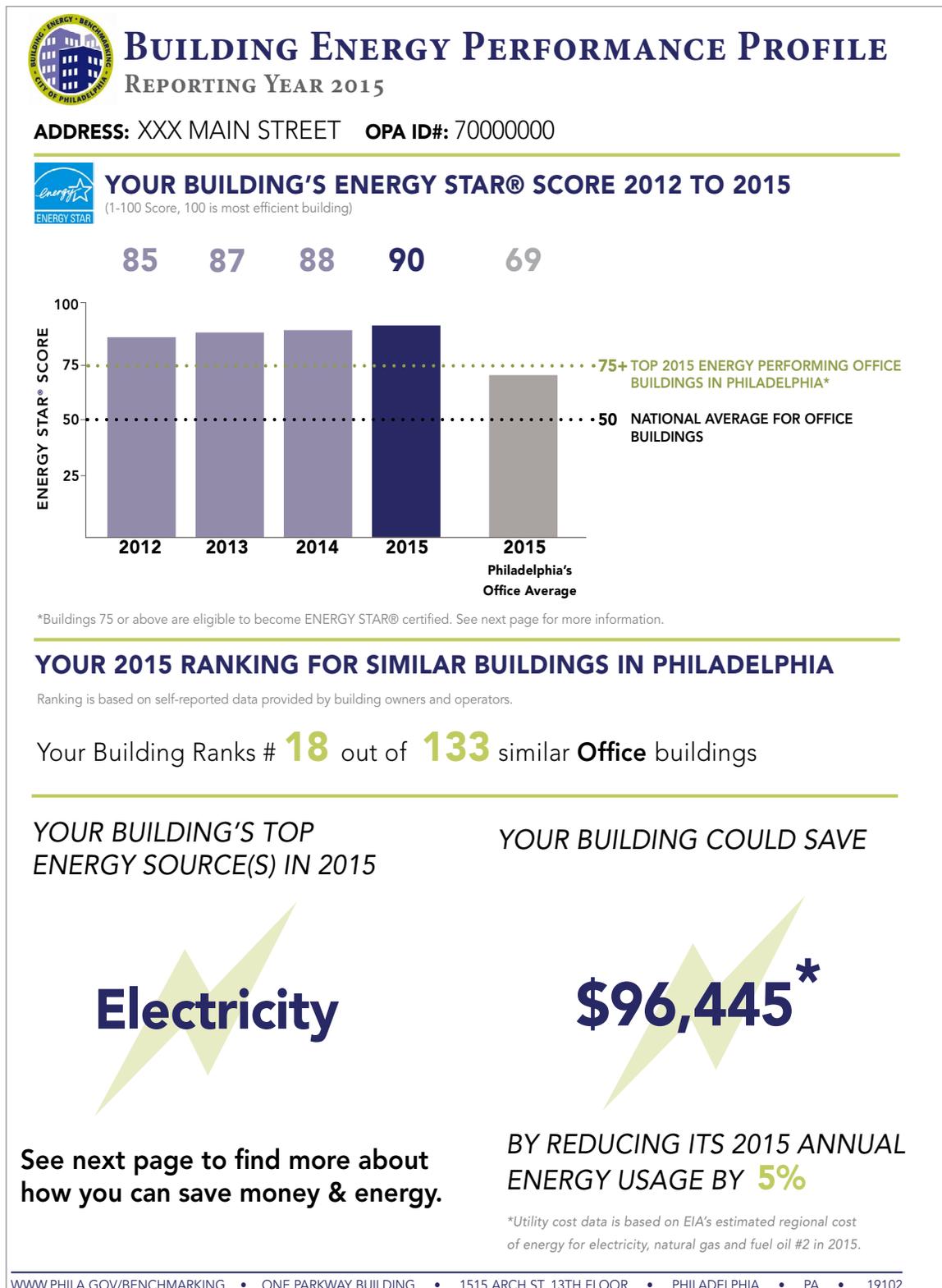
YOUR SCORE 82

Congratulations

You may be eligible for ENERGY STAR certification!



Appendix C: Philadelphia Energy Performance Profile





DECREASE YOUR ENERGY USAGE & SAVE MONEY

There are cost effective opportunities in Philadelphia to reduce your building's energy usage, increase your ENERGY STAR® score and to save money. These opportunities include low-interest loans, grants, rebates and technical assistance programs.



www.peco.com/smartideas

PECO Smart Ideas for commercial and industrial customers offers various energy efficiency incentives for qualifying:

- Equipment including lighting, HVAC and motors and drives
- Custom incentives projects

1-844-4BIZ-SAVE (1-844-424-9728) or pecosmartideas@dnvgl.com



www.pgwenergysense.com

PGW EnergySense offers various energy efficiency solutions including:

- Equipment rebates
- Construction and building grants
- Conversion from fuel oil to natural gas

Priya Sathaye at 215-684-6610 or energysense@pgworks.com



www.energyworksnow.com

The EnergyWorks commercial program helps businesses and nonprofits in Philadelphia economize their energy use through access to low-interest loans for energy efficient building renovations, systems and equipment.

215-496-8157 or chollinger@pidc-pa.org



LOOKING FOR LOW- TO NO-COST ENERGY EFFICIENCY MEASURES TO IMPLEMENT IN YOUR BUILDING OR HOW TO BECOME ENERGY STAR® CERTIFIED?

Visit www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings for more information.



GREENWORKS IS THE CITY'S SUSTAINABILITY PLAN TO IMPROVE QUALITY OF LIFE FOR ALL PHILADELPHIANS

Visit <http://tiny.cc/GreenworksontheGround> for concrete steps on how you can help make Philadelphia more sustainable.

THE CITY OF PHILADELPHIA
OFFICE OF
SUSTAINABILITY



THIS PROFILE WAS PREPARED BY THE OFFICE OF SUSTAINABILITY.

IF YOU HAVE ANY QUESTIONS ABOUT THE INFORMATION PROVIDED, PLEASE EMAIL BENCHMARKINGHELP@PHILA.GOV OR CALL (215) 683-3527

PUTTING DATA TO WORK

Institute for Market Transformation | imt.org/PuttingDataToWork