Benchmarking Guide

Step-by-Step Compliance Instructions

See www.CityofChicago.org/EnergyBenchmarking for free support and additional guidance:

- **Compliance Checklist:** Summary of required compliance actions
- **Fact Sheet:** Benchmarking overview to help buildings get started
- **Frequently Asked Questions (FAQs):** Information about the ordinance and policy
- **Additional Guidance for Residential Properties:** Detailed information for multifamily properties
- **2018 Reporting Link:** Click here
- **Free Support & Opportunities**:
    - Online training videos
    - Local in-person and web-based training, as well as Office Hours
    - ENERGY STAR Portfolio Manager resources
    - Utility funding and other support

Chicago Energy Benchmarking Help Center

- Monday-Friday, 9:00am-5:00pm
- (855) 858-6878
- Info@ChicagoEnergyBenchmarking.org

2/28/2018

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Introduction

What is "Chicago Energy Benchmarking"?

In September 2013, Mayor Emanuel and Chicago's City Council adopted the Chicago Energy Benchmarking ordinance to raise awareness of energy performance through information and transparency, with the goal of **unlocking energy and cost savings opportunities** for businesses and residents.

The ordinance calls on existing municipal, commercial, and residential buildings 50,000 square feet and larger to track whole-building energy use, report to the City annually, and verify data accuracy every three years. The law covers less than 1% of Chicago's buildings, which together account for roughly 20% of total energy used by all buildings, and focuses on creating information that will enable better decision-making around building energy use. It does not require buildings to make any mandatory investment.

Improving energy efficiency is a key element of Chicago's approach to meeting the goals of the Paris Climate Agreement, which includes a commitment to reaching 26-28% carbon emission reductions by 2025 (measured against a 2005 baseline).

The full text of the ordinance can be found at www.CityofChicago.org/EnergyBenchmarking.

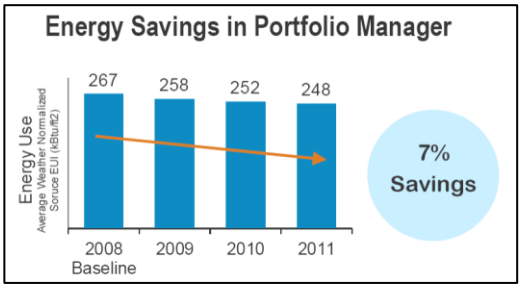
The ordinance has three parts. Owners of covered buildings must:

1. **Benchmark annually:** Owners of covered buildings will track energy consumption and basic building characteristics using ENERGY STAR Portfolio Manager®, a free online tool from the U.S. Environmental Protection Agency (US EPA).
2. **Verify data every three years:** In the first year in which building owners benchmark their building energy use, and every third year thereafter, building owners will be required to have energy and building data reviewed by an in-house or third-party professional engineer, licensed architect, or other trained individual designated by the City to verify that data is being tracked and reported correctly. In most cases, data verification will take the form of a signed *ENERGY STAR Data Verification Checklist*, generated automatically by Portfolio Manager, which must be kept by the building owner and produced upon request by the City. Verification information must also be provided in the Property Notes section of the ENERGY STAR Portfolio Manager profile for the building.
3. **Report to the City annually:** Using Portfolio Manager, owners of covered buildings will report basic building and energy data to the City of Chicago every year by June 1st. After a one year grace period following a building's first benchmarking deadline, the City will be authorized to make some building information publicly-available on the City website.

Why is benchmarking important?

By providing information about a building's energy use and comparing its performance to similar buildings, energy benchmarking empowers building owners, managers, and other stakeholders to make more informed decisions, identify opportunities to improve energy use in their buildings, and save money.

Evidence of these benefits is already available: by analyzing data from over 35,000 buildings that used Portfolio Manager and received an ENERGY STAR score from 2008 to 2011, US EPA found that **average energy use declined by 7%**. For more benchmarking trends, visit US EPA's DataTrends Series, found at www.EnergyStar.gov/DataTrends.



Source: Portfolio Manager DataTrends. US EPA

What is Portfolio Manager?

Portfolio Manager (www.EnergyStar.gov/Benchmark) is a free online tool developed by the US EPA that allows you to track and assess energy and water use across your entire portfolio of buildings in a secure online environment. With Portfolio Manager, you can calculate the building's energy performance, compare it with similar buildings and monitor it over time.

When you benchmark the building in Portfolio Manager, one of the key metrics you'll see is energy use intensity, or **EUI**. Essentially, the EUI expresses a building's energy use as a function of its size. For most property types in Portfolio Manager, the EUI is expressed as energy per square foot per year. It's calculated by dividing the total energy consumed in the building in one year by its square footage.

For many building types, Portfolio Manager calculates the **ENERGY STAR rating**, which indicates how efficiently buildings use energy on a 1-100 scale, where a score of 50 indicates average energy performance. Buildings with a score of 75 or better are top performers and can apply for the ENERGY STAR certification. Some building types are currently not eligible to receive an ENERGY STAR rating, but can still benefit from benchmarking, as Portfolio Manager calculates other energy performance metrics such as EUI.

Portfolio Manager provides many user-friendly features and tips throughout the set-up process. For example, you can mouse over a field to see a definition. You may find the answer to any question you have in the HELP section of Portfolio Manager. Follow Portfolio Manager's instructions for anything that is not specifically addressed in this guide.

Previous Results

Each year, the city of Chicago issues an annual report summarizing the results of benchmarking in that year. These annual reports typically include the citywide reporting rate, as well as ongoing trends in energy use, energy savings, and cost reductions associated with those savings.

With many years of results now available, energy benchmarking reports indicate that regular tracking and reporting have a significant impact on supporting energy management. Properties reporting for 2-4

consecutive or more years had reduced energy use by 1-2% per year, leading to millions of dollars of annual energy cost savings.

For full details, please see the most recent Chicago Energy Benchmarking Report, found online at www.CityofChicago.org/EnergyBenchmarking.

Where can I go for help?

City of Chicago Website

You can find **detailed information** about the ordinance and resources to help you comply at www.CityofChicago.org/EnergyBenchmarking.

Chicago Energy Benchmarking Help Center

The Chicago Energy Benchmarking Help Center provides **phone and email support** for all questions related to the ordinance, and it can be reached Monday-Friday, 9:00am-5:00pm at:

- (855) 858-6878
- Info@ChicagoEnergyBenchmarking.org

Free Trainings and Office Hours

The City of Chicago and its partners will be offering **free in-person and web-based Training and Office Hours** to support buildings covered by the Chicago Energy Benchmarking Ordinance. There are also online, free **Training Videos**. You can find schedules and registration details at www.CityofChicago.org/EnergyBenchmarking.

US EPA also offers **free online resources** to help you get started with Portfolio Manager at www.EnergyStar.gov/buildings/training.

Updated in 2018

Peoples Gas recently enhanced its reporting capabilities. In the past, reports only included data from accounts that were active at the time of the report. The enhancements in 2018 allow for 12 months of consumption from both active and inactive accounts, which provides a more comprehensive picture of a building's natural gas consumption. Since more accounts may now be included in the annual data provided by Peoples Gas, this may increase the amount of natural gas consumption as compared to previous reports.

1. Get Started

a. Determine whether your building(s) must comply this year

All commercial, institutional, and residential buildings 50,000 square feet or greater must comply. Data verification is only required every 3 years, starting with the first year a building must comply.

Covered buildings

The ordinance applies to existing municipal, commercial, and residential buildings 50,000 square feet or larger. (Initial compliance deadlines from 2014 -2016 were based on size and building sector.) The ordinance does not cover buildings with more than 10% of gross floor area classified as Class D open air assembly units, Class G industrial units, Class H storage units, Class I hazardous use units, or Class J miscellaneous buildings and structures, as defined by Chapter 13-56 of the Chicago Municipal Code, which can be accessed at www.ChiCityClerk.com/Legislation-Records/Municipal-Code/.

The City will use multiple sources of information to identify covered buildings. The current year's Covered Buildings List is also online: https://data.cityofchicago.org/Environment-Sustainable-Development/Chicago-Energy-Benchmarking-Covered-Buildings/g5i5-yz37/data

Also, a link to the List can be found on the Chicago Energy Benchmarking website (www.CityofChicago.org/EnergyBenchmarking). This list includes the addresses of all covered buildings, the Chicago Energy Benchmarking ID assigned to each covered building, and the next year that each property is required to complete data verification. The City may also notify covered buildings' owners and/or managers through a notification letter and/or email that includes the building information that the City has on file for benchmarking purposes. Lack of notification by the City, however, does not relieve the owner of a covered building of the obligation to comply if the building meets the size and sector criteria.

Building owners who believe their building is not required to comply but receive a notification letter from the City should submit the appropriate online exemption request form, also found online at www.CityofChicago.org/EnergyBenchmarking.

Benchmarking deadlines

The ongoing benchmarking deadline is **June 1st of every year.**

Exemptions

Buildings may apply for a one-year, temporary exemption based on the following:

- Financial duress:
  - The building is the subject of a qualified tax lien sale or public auction due to property tax arrearages.
  - The building is controlled by a court appointed receiver.
  - The building has been acquired by a deed in lieu of foreclosure.

- Low Occupancy:
  - The building had average physical occupancy of less than 50 percent in the previous calendar year.
- New Construction
  - The building is a new construction and the building's certificate of occupancy was issued in the previous calendar year.
- Starting in 2018: New Ownership
  - The building was sold in the previous calendar year.

Permanent exemptions are available for any property under 50,000 square feet, or any building with a non-covered space use type, such as manufacturing, industrial, hazardous materials storage, or miscellaneous uses.

To apply for an exemption or to update building information, use the appropriate online *Chicago Energy Benchmarking Exemption Form* available at www.CityofChicago.org/EnergyBenchmarking.

Data Verification

Data Verification is required for the first year a building complies, and every three years thereafter. Thus, if your property reported and verified data for the first time in 2014, you will be required to verify data again in 2017, 2020, etc.

The year of the next required data verification is listed on your compliance notification letter or email. It is also listed on the most recent Covered Buildings List, found on the City of Chicago's Data Portal. If your building reported data in the past, but did not verify data, you may be required to complete data verification this year. In addition, if your building completed data verification but it was not properly documented, City records may show that verification is needed this year. To clarify any questions, please contact the Chicago Energy Benchmarking Help Center.

b. Identify a benchmarking lead

The benchmarking lead will be responsible for gathering data, entering it into Portfolio Manager, ensuring data verification, and reporting to the City. This person could be the building owner or another designated party, for example back office staff, property manager or operator, leasing agent, or a 3rd party energy consultant. If a building already works with an energy service provider, they may offer benchmarking services.

The benchmarking lead will need access to information on building characteristics and operations, so collaboration with on-site staff is essential. This person will also need to know the building's Chicago Energy Benchmarking ID, which can found on a notification letter sent in spring or found in the most recent Covered Buildings List on the City of Chicago's Data Portal. If not found online, the ID can also be requested from the Help Center using the online Chicago Energy Benchmarking Covered Building & ID Request Form.

If the benchmarking lead is not already familiar with Portfolio Manager, training is strongly recommended. The US EPA offers free online training at www.EnergyStar.gov/Benchmarking.
For information about **free local training opportunities**, visit www.CityofChicago.org/EnergyBenchmarking.

2. Benchmark Your Building(s)

a. Create a Portfolio Manager account

The first step is to create an ENERGY STAR Portfolio Manager account (if you do not already have an account), and property profile(s). Note that if you already have an account or a profile from a previous year's benchmarking report, then you do not need to set these up again. Simply log into your ENERGY STAR Portfolio Manager account and your property's profile from a previous year(s) can be updated and used for this year. If someone else completed the energy benchmarking for the property in the past, you will need their login credentials to access the property's profile, or you can ask them to share the profile with you in your account.

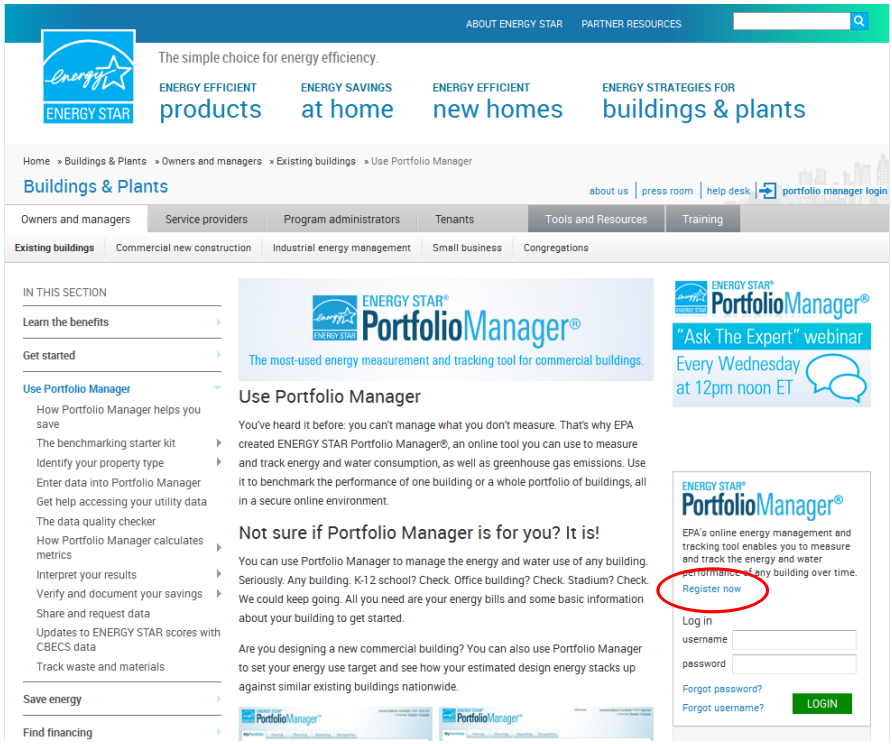
Portfolio Manager also provides many user-friendly features and tips throughout the set-up process. For example, you can mouse over a field to see a definition. You may find the answer to any question you have in the HELP section of Portfolio Manager. Follow Portfolio Manager's instructions for anything that is not specifically addressed in this guide.

You may use existing Portfolio Manager accounts and property profile(s). If the building has already been benchmarked in Portfolio Manager including energy data for the previous calendar year, you can use the existing building profile, but make sure to add the building's Chicago Energy Benchmarking ID. Refer to "Enter your Chicago Energy Benchmarking ID" on page 19 for guidance.

The following instructions are adapted from the *ENERGY STAR Portfolio Manager Quick Start Guide*. Keep in mind that Portfolio Manager is periodically updated to improve functionality. Please consult the Portfolio Manager website for the most recent updates and changes.

Set up an account, if you do not already have an account

1. Go to www.EnergyStar.gov/Benchmark.
2. Click on the blue REGISTER NOW link on the right hand side of the page.



3. Enter the required account information. Be aware that the USERNAME is the one piece of information that cannot be changed once a Portfolio Manager account has been created. Consider a username based on your facility or portfolio, rather than individuals' names, as Portfolio Manager accounts may be passed from one user to another over time.
4. Choose your settings and click CREATE MY ACCOUNT.

b. Gather basic property information required by Portfolio Manager.

The following steps apply if you are setting up a new profile.

There are three types of fields in Portfolio Manager:

1. *Required Inputs for All Properties*: general inputs required by Portfolio Manager for all properties. You cannot proceed without entering a value. These fields are listed here and described in more detail below:
    - Primary property use type;
    - Number of buildings on the property;
    - Property address;
    - Year built;
    - Occupancy rate;
    - Total gross floor area;
    - Gross floor area for each property use type (if more than one).
2. *Required Use Details for Specific Property Use Types:* inputs required to receive an ENERGY STAR score for eligible property use types, and also required under the Chicago Energy Benchmarking

Ordinance. If left blank, Portfolio Manager relies upon default values to generate the ENERY STAR score (see additional information about default values below). These fields vary by property use type.

3. *Optional Use Details*: additional use details that can be tracked in Portfolio Manager but do not affect your property's ENERGY STAR score or any other energy metric. These fields vary by property use type. If you don't have actual values for these fields, you can enter your best estimate or leave them blank; these fields are not required under the Chicago Energy Benchmarking Ordinance.

Please see http://www.energystar.gov/buildings/tools-and-resources/list-portfolio-manager-property-types-definitions-and-use-details for a full list of use details tracked by Portfolio Manager for each property type. Required fields are marked by an asterisk. For more information on use details for residential properties, refer to the "Additional Guidance for Residential Properties", available at www.CityofChicago.org/EnergyBenchmarking.

Using estimated values and default values

The Chicago Energy Benchmarking ordinance requires building owners to make a good-faith effort to obtain actual values for all required fields, using all available information, including requesting information from tenants. If, despite good-faith efforts, such data is still unavailable, Portfolio Manager's default values may be used where available, provided the USE A DEFAULT checkbox is checked. For optional use details that do not affect the ENERGY STAR score or other energy metrics, estimates can be used if the actual value is unknown.

Required Inputs for All Properties

Primary property use type

Main function of the building, such as office, multifamily, hospital, school, retail, etc. If the building has multiple uses, the primary function is the one that occupies the largest floor area. Portfolio Manager has over 80 property use types to select from; a complete list with definitions is available at www.EnergyStar.gov/buildings/tools-and-resources/list-portfolio-manager-property-types-definitions-and-use-details.

Number of buildings on the property

If the property includes multiple buildings that share one or more energy-consuming systems, where energy is not metered separately or sub-metered, they can be benchmarked together. Gross floor area and other use details should refer to the property as a whole. If the property includes multiple buildings that have separate energy-consuming systems and are metered separately for all energy types, each building should be benchmarked separately. Refer to Appendix A on page 31 of this document for additional details.

Property address

Primary mailing address or contact address for the property.

Year built

Year in which the property was originally constructed. If the property has undergone a complete renovation that included gutting and rebuilding the interior, the year when the renovation occurred should be used instead. If the exact year is unknown, it can be rounded to the nearest decade.

Occupancy rate

Percentage of the property's total gross floor area (across all property use types) that is occupied and operational, tracked in 5% increments. If occupancy level fluctuates throughout the year, the annual average occupancy rate should be entered. This input is required but does not affect any energy metric; an estimate can be used if the actual value is unknown.

Total gross floor area

Total square footage of the building, measured from the principal exterior surfaces and not including exterior spaces such as balconies, exterior loading docks, or driveways. Gross square footage is not the same as rentable or leasable area, but rather includes all areas inside the building, such as: occupied tenant areas, common areas, meeting areas, break rooms, restrooms, elevator shafts, mechanical equipment areas, and storage rooms. Gross floor area should not include interstitial plenum space between floors, which may house pipes and ventilation. In the case where there is an atrium, gross square footage is counted at the base level only. If the property includes parking areas (enclosed or open) with energy consumption, you do NOT need to include the parking areas in the total gross floor area.

If your property has parking, the square footage of the parking area will be added separately from the gross floor area of the rest of the building. Click the box for "My property's energy consumption includes parking areas." Also, for the purposes of benchmarking, "parking" refers to buildings and lots used for parking vehicles. This includes open parking lots, partially enclosed parking structures, and completely enclosed (or underground) parking structures. Parking structures may be free standing or physically connected to the property. For more details, see: https://portfoliomanager.energystar.gov/pm/glossary#Parking

Total gross floor area may be measured or obtained from architectural drawings or other building documents. It is crucial to have an accurate measure of gross floor area as it will impact benchmarking results.

Gross floor area for each secondary property use type

If the building has multiple uses, each function must be tracked separately in Portfolio Manager, and total square footage must be broken down by use type, including parking areas. Some property types typically include multiple auxiliary activities, such as restaurants in hotels, salons in senior care communities, and cafeterias in hospitals. As a general rule, if a certain activity is commonly associated with the type of property being benchmarked, it can simply be included in the gross floor area of the building's primary use. For example, the "Office" use type includes conference rooms and auditoriums, kitchens used by staff, lobbies, fitness areas for staff, storage areas, stairways, and elevator shafts; the "Multifamily Housing" use type includes lobbies, offices, community rooms, common kitchens, fitness rooms, indoor pools, restaurants/cafés, retail space smaller than 5,000 square feet, hallways, stairwells, elevator shafts,

connecting corridors between buildings, storage areas, and mechanical space. To see what uses are included in each use type, refer the use type definition in the Portfolio Manager Glossary: https://PortfolioManager.EnergyStar.gov/pm/glossary.

There are four exceptions to this rule where a property type should be separated out even when it is commonly associated with the primary use:

- If it is a property use type that can receive an ENERGY STAR score, such as Office, Hotel, Hospital, Data Center, K-12 School, Retail store, etc. A complete list of eligible property use types is available at: http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager/identify-your-property-type-0.
- If it accounts for more than 25% of the property's gross floor area;
- If it is vacant/unoccupied space;
- If the weekly hours of operation differ by more than 10 hours from the main property use type.

Additionally, parking space as well as uses that are not commonly associated or auxiliary to the primary property use type (for example, a mixed-use building that has a movie theater on the first floor and offices on higher floors) should always be separated out.

Required Use Details for Specific Property Use Types

Depending on the use type, Portfolio Manager will ask for additional information on specific building attributes in addition to gross floor area. A list of all property use details for each use type is available at www.EnergyStar.gov/buildings/tools-and-resources/list-portfolio-manager-property-types-definitions-and-use-details. Fields that are marked with an asterisk are required to generate an ENERGY STAR score—these are also required to comply with the Chicago Energy Benchmarking Ordinance.

For offices, required information includes:

- Weekly Operating Hours
- Number of Computers
- Number of Workers on Main Shift
- Percent That Can Be Heated
- Percent That Can Be Cooled

For multifamily housing, required information includes:

- Total Number of Residential Living Units
- Portfolio Manager also requires you to indicate the correct height category that applies to the building: LOW-RISE BUILDING (1-4 STORIES), MID-RISE BUILDING (5-9 STORIES), and HIGH-RISE BUILDING (10 OR MORE STORIES). **Note that the residential living units must be assigned to these height categories based on the height of the building they are in, not based on which floor they are on.**[1]
    - Total Number of Residential Living Units in a Low-rise Building (1-4 stories)
    - Total Number of Residential Living Units in a Mid-rise Building (5-9 stories)

[1] For more details, download the Additional Guidance for Residential Properties from www.CityofChicago.org/EnergyBenchmarking

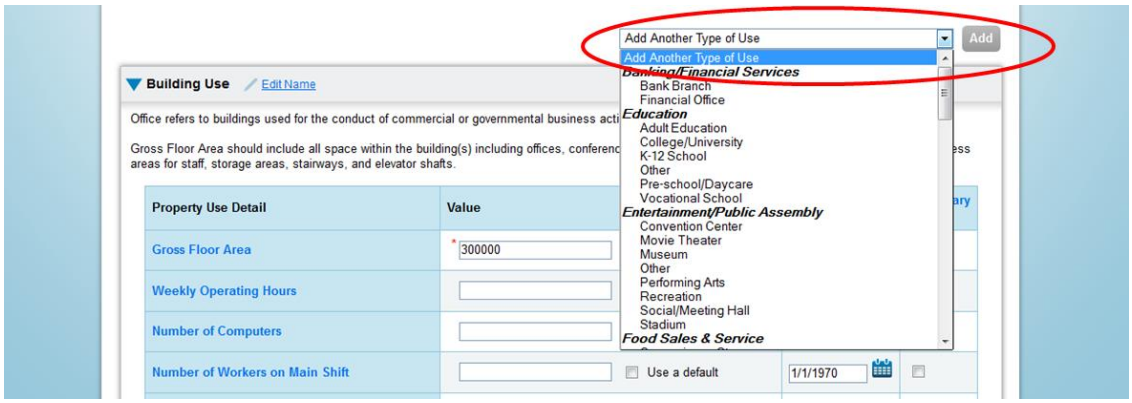
    - Total Number of Residential Living Units in a High-rise Building (10 or more stories)
- Number of Bedrooms

Optional Use Details

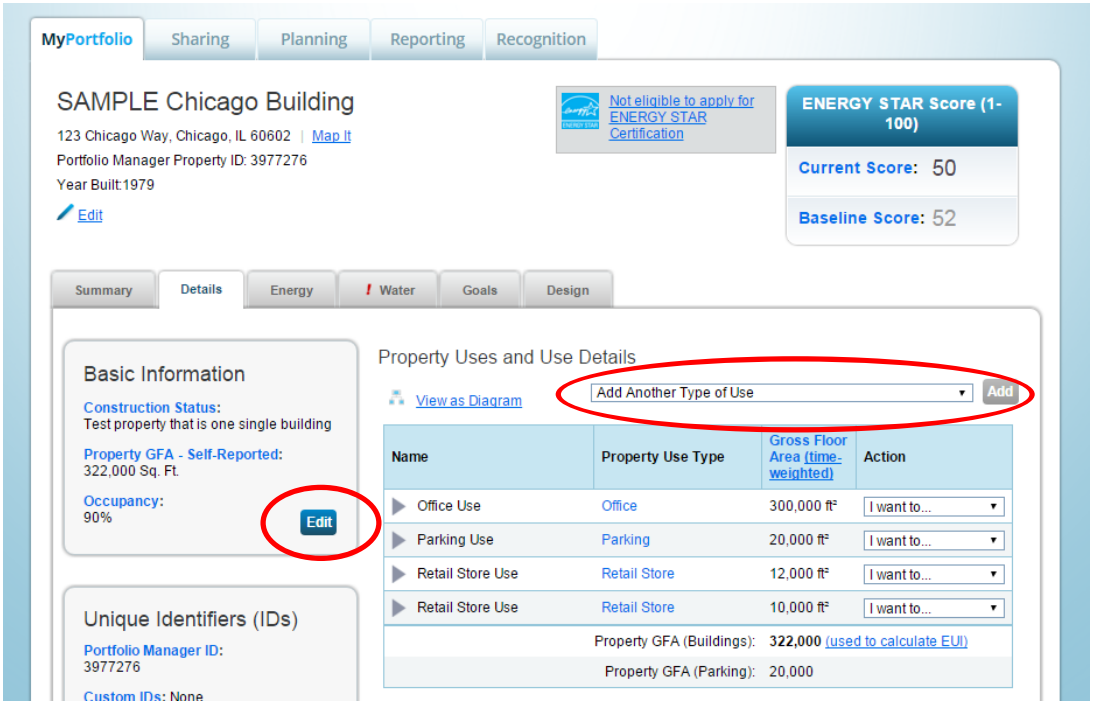
Some property use types also have optional fields to track additional use details. These can be useful to interpret benchmarking results but do not affect your property's ENERGY STAR score or any other energy metric. Portfolio Manager does not provide default values for these fields. If you do not have actual values, you can enter your best estimate or leave them blank. For multifamily housing, optional fields include the resident population type, whether or not the building includes government subsidized housing, the number of laundry hookups, and the percent of the building that can be heated and cooled. (office properties don't have any optional fields).

c. Set up property profile(s) in Portfolio Manager

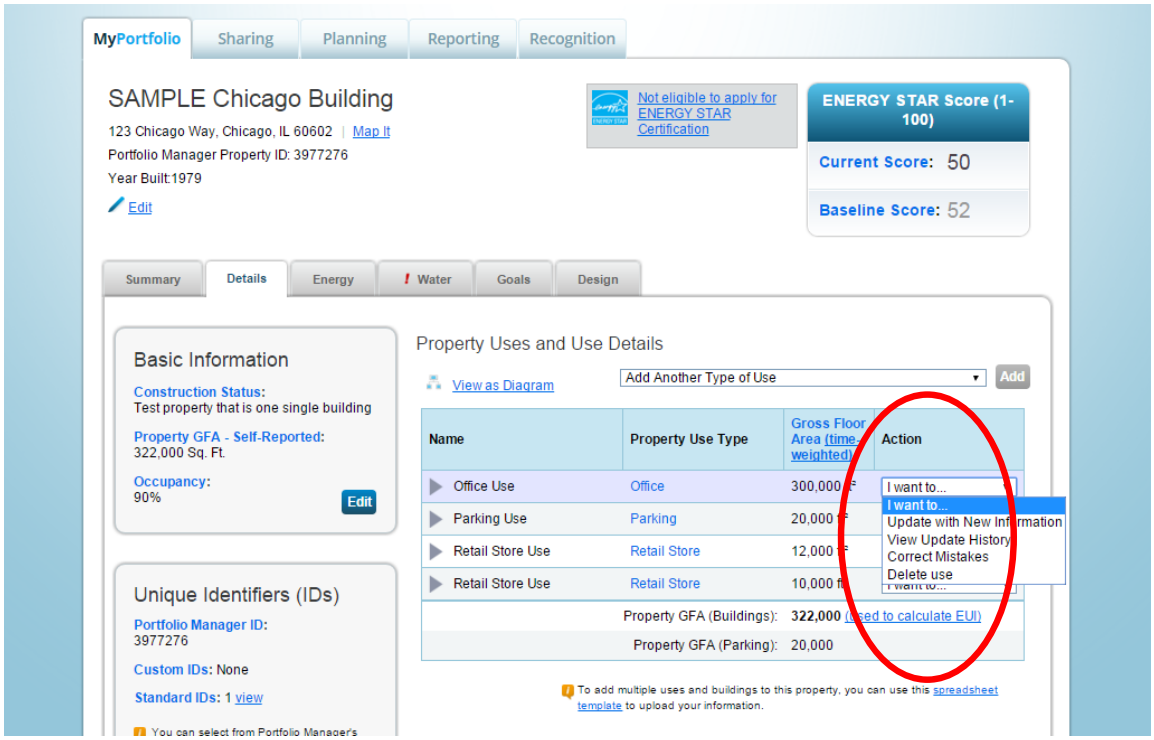
1. On the MyPortfolio tab, click Add a Property.
2. Select your property's primary use type from the list. Click on Learn more about property types to read Portfolio Manager's definitions if you are unsure. If the property includes multiple buildings (either with shared or separate energy systems), select More than one under Your Property's Buildings and enter the number of buildings within the property that are subject to the benchmarking ordinance. Refer to Appendix A for further instructions. Indicate that your property is an existing building, then click Get Started!.
3. Enter required property information (name, address, year built, total gross floor area, occupancy). If the property includes any parking space (enclosed or open), do not include parking floor area here. Check the appropriate box under Do Any Of These Apply? and remember to include the parking-specific floor area on the next screen. Select the boxes next to any additional statements that apply to the property and then click Continue.
4. Enter other use details such as operating hours and number of workers for the main property use. Remember that you should always try to input actual values for all fields required to obtain an ENERGY STAR score (for eligible property types). If you have not been able to obtain data for a specific field, you can use the default value provided by Portfolio Manager by selecting the Use a default checkbox.
5. If the building has multiple uses, click on the Add Another Type of Use drop-down menu, select the appropriate function and click Add. Enter all use details for each use type. Portfolio Manager recommends using as few use types as you need to accurately describe the building. For example, if the building has three floors of office space with roughly the same operating hours and similar use details, you may set up these floors as a single use type. Similarly, remember that if a certain auxiliary activity commonly occurs in the type of property you are benchmarking (e.g. a cafeteria in a hospital) you do not need to add a separate use type. Simply include it in the square footage of the primary use. Follow Portfolio Manager's prompts and guidance on this process.



6. When you are finished adding the necessary information, click ADD PROPERTY.
7. When you have successfully added the property, you will be directed to the property's SUMMARY tab.
8. You can add or edit the property details at any time. Click on the property's DETAILS tab. To edit basic property details, click on EDIT in the BASIC INFORMATION section. To add a property use type, click on the ADD ANOTHER TYPE OF USE drop-down menu, found on the DETAILS tab, and select the appropriate function and click ADD. Enter all use details and click SAVE USE.



9. You can use the ACTION drop-down menu next to each use type to correct mistakes, update with new information (e.g. if there has been a change in the number of workers or you are replacing default values with actual values) or delete a use type.



d. Obtain monthly, whole-building energy use data for the previous calendar year

For each year that you comply, you will gather and enter energy use data for the previous calendar year. For example, if you are complying by June 1, 2018, you will gather and input energy use data for calendar year 2017.

Monthly, whole-building energy use data is required for all fuel types for the 12 months of the previous calendar year. Whole-building energy use includes energy used for heating, cooling, operating equipment, lighting, cooking, and all processes and operations carried out in the building, including by tenants. Energy used for parking areas should also be included. The only exception is energy used for broadcast antennas, cellular towers, electrical vehicle charging, emergency generators (if not used to power regular building operations), and fire pumps, which can be excluded from benchmarking if sub-metered or separately metered. All sources of energy must be reported, including electricity, natural gas, district energy and any other fuel type, as well as energy generated on-site that is used within the building such as wind, solar or geothermal energy.

There are several ways to obtain whole-building energy use data (additional details below).

1. Request whole-building energy use data directly from the utilities: Start with this option if you are not the accountholder for all the meters in the buildings. You will request whole-building data directly from utilities:
    1. ComEd Energy Usage Data System (EUDS)
    2. Peoples Gas Building Aggregation
2. Compile energy data directly from utility bills: Use this option when you are the accountholder for all meters in the building.

3. Request energy data from tenants: Use this option in extremely rare cases only, when other sources are not available.
4. Use default values: only after making a good-faith effort to obtain actual energy use data.

i. Request whole-building energy use data directly from utilities

1. ComEd Energy Usage Data System

If the building has four or more electric accounts, you can obtain whole-building electricity usage directly from ComEd through the Energy Usage Data System (EUDS). Please consult https://www.comed.com/WaysToSave/ForYourBusiness/Pages/EnergyUsageData.aspx for complete information on the program. You can use EUDS even if you use a 3rd party energy supplier. Note that if you or a colleague associated with your property has used EUDS in the past, then you do not need to re-enroll to request data through EUDS. You may simply log in to EUDS using the previous login and password that was established for the property. Once logged in, you will be able to request the data for the previous calendar year.

If you have not used EUDS in the past, there are four steps to using the EUDS system:

1. Enroll to obtain access to the EUDS tool:

Fill out the form at:
http://www.comed.com/SiteCollectionDocuments/WaysToSave/LearnMore/euds_enrollmentform.pdf

If you have a managed account, you must request access through your ComEd Account Manager. If you do not have a managed account, the building owner or manager must email the completed enrollment form to ComEd at EnergyUsageData@ComEd.com to request access. If the building has a single account or fewer than four electric accounts, contact ComEd at EnergyUsageData@ComEd.com for assistance. It may take up to 10 business days to enroll in the program. Upon enrollment you will be emailed a username and password.

2. Add your buildings to EUDS:

For step-by-step guidance, refer to the *EUDS Building Manager User Guide*, found at:

http://www.comed.com/SiteCollectionDocuments/WaysToSave/LearnMore/euds_buildingmanager_guide.pdf

To add building(s), see page 10 in the *EUDS Building Manager User Guide*. In many instances, a secondary address or multiple addresses for a building are needed. If the building's address has a range of street numbers, you need to enter the range as the primary address, and add each individual street number as secondary addresses. This will ensure that all meters in the buildings are aggregated. For example, for 1000-04 N Benchmarking Avenue, you must enter "1000-04 N Benchmarking", "1000 N Benchmarking", "1002 N Benchmarking", "1004 N Benchmarking". Similarly, if your building has entrances on multiple streets (e.g. corner building), you must enter addresses on both streets. See page 14 in the *EUDS Building Manager User Guide* for guidance on how to add secondary addresses.

3. Request historical data and verify tenants:

Request historical data for January through December of the previous calendar year. See page 19 in the *EUDS Building Manager User Guide* for more information. A usage request usually takes less than an hour to be processed, but it may take up to 2 days if the request is large or the system particularly busy. Once

the usage request has been processed, the tenant list must be verified before usage data is displayed. See page 25 in the *EUDS Building Manager User Guide* for more information.

The tenant list includes names and addresses (including unit numbers) for all the accounts found at the addresses you entered for the building that were active at any point during the previous calendar year. You can either "confirm" or "deny" each account. Normally you should include ("confirm") all accounts. Thus, you should not exclude ("deny") any account from the aggregation, unless you are sure that it has been erroneously included and does not belong in your building, or if you are tracking a specific account separately in Portfolio Manager (e.g. a common-area account for which you have direct access to electricity bills). You don't necessarily have to check all tenant names against your records, but you should go through the unit numbers to see if all occupied units are included. If you think that not all tenants are included, double-check your address list to make sure you entered all addresses properly; if you need to make any change to the address list, submit a new data request.

Contact ComEd at EnergyUsageData@ComEd.com for further assistance on missing tenants. If there was a turnover during the year, both the previous and the subsequent tenant will be included in the list (EUDS shows if each account is currently active or inactive); they should both be confirmed as they both contributed to your property's energy usage. Be aware that the tenant list is only displayed when you first receive the data; once you confirm it and submit it, you cannot access it anymore. For this reason, it is recommended that you download it (via the "Export to Excel" button) and save it for your records together with the usage data it refers to.

4. Obtain aggregate monthly usage data and add it to Portfolio Manager:

Once you confirm the tenant list, EUDS will generate aggregate monthly usage data for all confirmed accounts. Be aware that, depending on billing cycles, EUDS may assign multiple bills to a calendar month, and no bill to other months (zero usage months will not be displayed in the summary table). Therefore, EUDS monthly usage values may not strictly reflect the electricity actually consumed at the building during each calendar month. This is acceptable and does not affect energy metrics in Portfolio Manager, which are based on annual consumption. You can download a copy of the whole-building energy use data (via the "Export to Excel" button) and add it to your Portfolio Manager property profile. See "Enter energy use data for all fuel types in Portfolio Manager" on page 16 of this guide. You may also set up "Data Sharing" between the EUDS system and Portfolio Manager: refer to page 28 of the *EUDS Building Manager User Guide* for instructions.

Usage Details

Month Year	Total Monthly Usage (kWh)
Jan 2013	9,771
Feb 2013	8,299
Mar 2013	8,082
Apr 2013	6,525
May 2013	7,402
Jun 2013	9,379
Jul 2013	10,525
Aug 2013	10,401
Sep 2013	7,307
Oct 2013	5,256
Nov 2013	7,346
Dec 2013	9,465
Total	**99,758**

Example of EUDS Usage Data Summary

For ComEd EUDS support, contact EnergyUsageData@ComEd.com.

2. Peoples Gas Building Aggregation

Peoples Gas offers services to help building owners gather whole-building energy data. To enroll, visit http://www.PeoplesGasDelivery.com/Business/Aggregation.aspx and fill out the Information Request Form. You will need to include the meter numbers from the natural gas meters at the property to fill out the form.

Updated in 2018: Peoples Gas recently enhanced its reporting capabilities. In the past, reports only included data from accounts that were active at the time of the report. The enhancements allow for 12 months of consumption from both active and inactive accounts, which provides a more comprehensive picture of a building's natural gas consumption. Since more accounts may now be included in the annual data provided by Peoples Gas, this may increase the amount of natural gas consumption as compared to previous reports.

Peoples Gas Meter Numbers:

- These consist of seven-digit numbers and can be found on the meters themselves or on a Peoples Gas bill. Enter only the seven numbers; do not include any letter or letter/numeral combination separated by a dash from the seven-digit meter number.
- Most buildings are served by one natural gas pipe, and most pipes have multiple natural gas accounts. In order to aggregate multiple accounts fueled by the same pipe, building owners / managers must provide a representative sample of meter numbers associated with each pipe.
    - **If your building has one natural gas service pipe (about 85% of buildings):** Please provide at least four gas meter numbers from your building. Providing all known meter numbers may help identify any additional or previously-unidentified service pipes.
    - **If your building has two or more natural gas service pipes:** Please provide at least four meter numbers associated with each service pipe.
    - **If you don't know how many service natural gas pipes serve your building:** Please provide all meter numbers (including meters from different locations within the building).

If the building has four or fewer gas accounts, you must obtain and submit a signed *Benchmarking Customer Information Release* form from each tenant with a Peoples Gas account, in addition to filling out the online form. The release form is found at http://www.peoplesgasdelivery.com/Business/pdf/aggregation.pdf. The release form should be submitted at the time of the request for data. The release form can be used for multiple years providing the same tenant resides in the unit, but will have to be resubmitted each year. Building owners and managers may find it useful to include this release form in the standard package of forms included when a new tenant signs their lease.

Within a few days of submitting the request, you will receive an email with an attached PDF displaying aggregate monthly usage data in CCF (hundred cubic feet) for the previous calendar year for all active gas meters in the building at the time the report is run. You will need to

Example of Peoples Gas Meter Numbers

enter these data manually into Portfolio Manager; refer to "Enter energy use data for all fuel types in Portfolio Manager" on page 16 for guidance.

For Peoples Gas Building Aggregation support, contact:
PGLCityAggregationData@PeoplesGasDelivery.com

PEOPLES GAS NATURAL GAS DELIVERY **Building Aggregation Summary**

PREMISE_ADDRESS	PREMISE_ADDRESS_2	METER_NUM	EQUIP_SIZE_DESC
100 N MICHIGAN AVE	FL 1	P0001111	275 CFH, 20LT, TC
100 N MICHIGAN AVE	FL 2	P0001112	275 CFH, 20LT, TC
102 N MICHIGAN AVE	FL 2	P0001113	275 CFH, 20LT, TC
102 N MICHIGAN AVE	FL 1	P0001114	275 CFH, 20LT, TC
100 N MICHIGAN AVE	FL 3	P0001115	275 CFH, 20LT, TC
102 N MICHIGAN AVE	BLDG	P0001116	1.5M125 TC

Meters: 6

	USAGE_QTY (CCF)
1/2013	1,223.00
2/2013	1,519.00
3/2013	1,290.00
4/2013	1,503.00
5/2013	871.00
6/2013	622.00
7/2013	117.00
8/2013	118.00
9/2013	101.00
10/2013	108.00
11/2013	473.00
12/2013	1,156.00

Example of Peoples Gas Usage Data Summary

ii. Compile energy use data from utility bills

If you have energy usage data for all energy meters in the building for January 1 through December 31 of the year to be benchmarked, you will be able to enter this data directly into Portfolio Manager. You will need to know dates and usage for each billing period, which can be found on each utility bill. If your billing dates do not align with calendar months, you may need to also provide the last bill from two years ago and the first bill of the current year, to ensure that the profile has data for all of the calendar year. For example, if you are benchmarking in 2018 and are entering data for calendar year 2017, you may need the last bill of 2016 and the first bill of 2018 to ensure that all of 2017 is included.

iii. Request energy use data from tenants

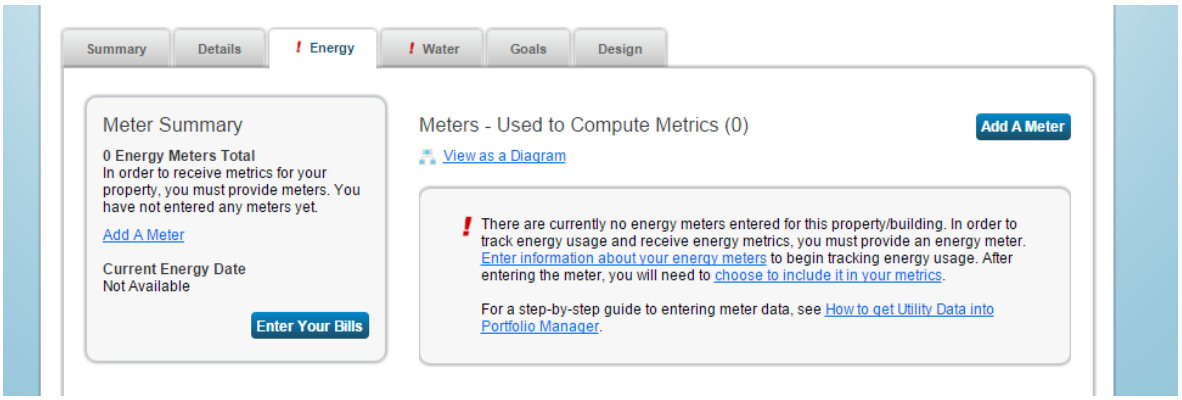
In rare cases when other sources of whole-building energy data are unavailable, covered building owners or managers may have to request tenant energy data. When choosing this option, it may be useful to establish a timeline to request energy data in advance of the benchmarking reporting deadline. Building owners and managers should keep a record of the request as proof of a good-faith effort.

iv. Use default values

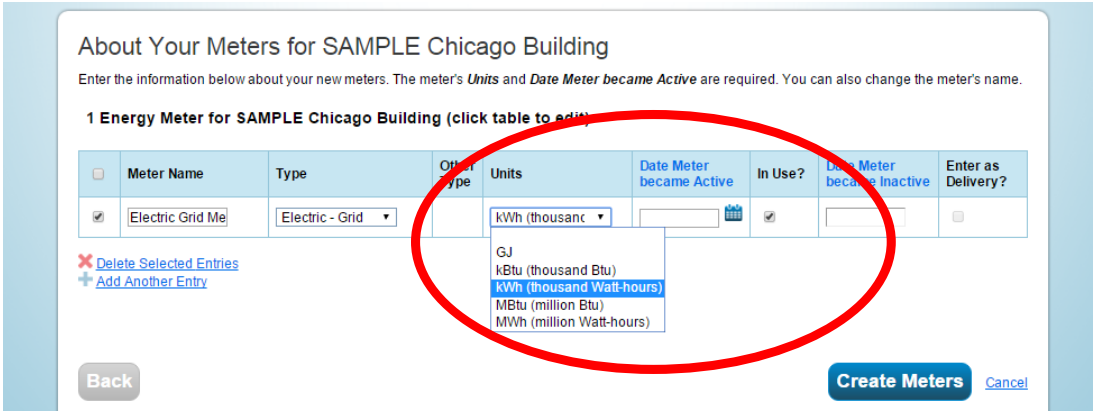
When, despite good-faith efforts to obtain whole-building energy use data, such data is still unavailable, buildings may use default energy consumption values for designated occupancy uses. See Appendix B on page 36 for additional instructions.

e. Enter energy use data for all fuel types in Portfolio Manager

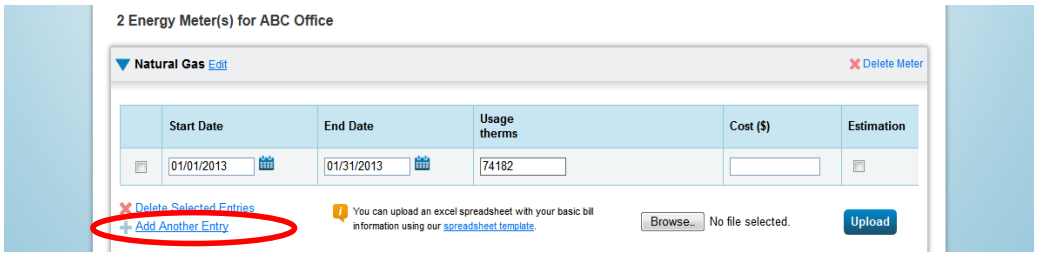
1. Click on the property's ENERGY tab.
2. If no meters are set up, then click on ADD A METER in the METERS section.



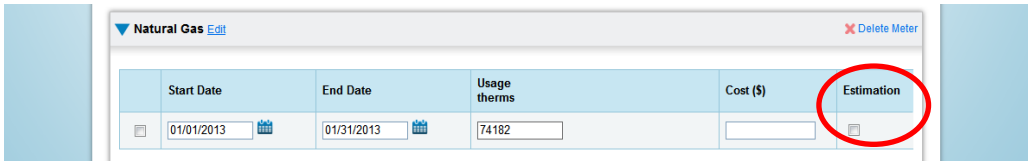
3. Select all energy sources for the property and enter the number of meters for each. If you are using ComEd EUDS or Peoples Gas Building Aggregation, enter only one meter, regardless of how many meters are physically in the building, as data will be provided in aggregated form. Scroll down and click the blue GET STARTED! button.
4. Click on each meter in the table to select the appropriate units (kWh for ComEd data, CCF for Peoples Gas aggregated data, therms for Peoples Gas individual bills) for each energy type. You also need to enter the start date of your first bill in the DATE METER BECAME ACTIVE field. If you are benchmarking the property for the first time this year, this date cannot be later than January 1 of the previous calendar year. For fuels that are typically purchased in bulk, like diesel, fuel oil or propane, the ENTER AS DELIVERY? flag is selected by default; see Appendix C on page 38 for guidance on when this is the appropriate option. You may also rename the meter to include the meter number or other descriptive information (recommended especially if you have multiple meters for the same fuel type). Then click CREATE METERS.



5. Add energy use data. There are two main ways to add energy use data to the meters:
   a. *Enter data manually in the web browser*
      i. Click ADD ANOTHER ENTRY and enter the first bill's start date, end date, and usage. **Bills should not cover a period longer than 65 days; otherwise Portfolio Manager cannot correctly calculate required energy metrics.** If you have months with no usage, create a bill and enter zero usage. Cost information is not required by the Chicago Energy Benchmarking Ordinance. Any cost data that you choose to enter is for your own use; it does not affect your ENERGY STAR score or any other energy metric, and it will not be reported or in any way disclosed to the City.



ii. Check the ESTIMATION check-box if you are using the default values listed in Appendix B on page 36 rather than actual values. When some utilities are unable to take a meter reading every month, they may bill based on estimated energy consumption, which is adjusted in subsequent months when the actual meter reading takes place. These utility estimates can be entered into Portfolio Manager as "actual" data and should not be flagged as ESTIMATION.



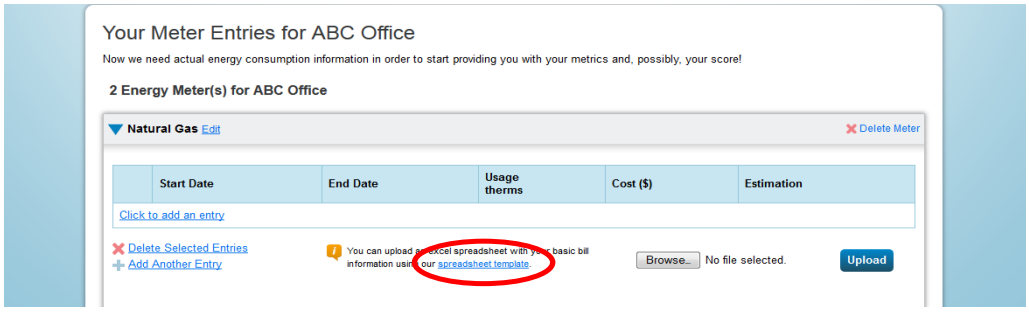
iii. Repeat for all bills that include the calendar year to be benchmarked.

iv. Repeat for all meters and energy sources. Click on the gray arrow next to each meter name to expand it and enter data.

v. Click FINISH METER SET UP to save. Go to Step 6 on page 18.

b. Upload data from a spreadsheet.

i. Click on the SPREADSHEET TEMPLATE hyperlink to download a standard template.



ii. Enter data from your bills (start date, end date and usage) into the template. **Bills should not cover a period longer than 65 days; otherwise Portfolio Manager cannot correctly calculate required energy metrics.**

	A	B	C	D	E
1	Start Date	End Date	Usage	Cost	Estimated Value
2	1/1/2013	1/31/2013	74182		FALSE
3	2/1/2013	2/28/2013	66100		FALSE
4	3/1/2013	3/31/2013	59100		FALSE
5	4/1/2013	4/30/2013	23762		FALSE
6	5/1/2013	5/31/2013	14460		FALSE
7	6/1/2013	6/30/2013	13241		FALSE
8	7/1/2013	7/31/2013	13958		FALSE
9	8/1/2013	8/31/2013	15264		FALSE
10	9/1/2013	9/30/2013	10485		FALSE
11	10/1/2013	10/31/2013	17715		FALSE
12	11/1/2013	11/30/2013	38074		FALSE
13	12/1/2013	12/31/2013	48225		FALSE

iii. In the ESTIMATED VALUE column, enter TRUE if you are using the default values listed in Appendix B on page 36 rather than actual values. When some utilities are unable to take a meter reading every month, they may bill based on estimated energy consumption, which is adjusted in subsequent months when the actual meter reading takes place. These utility estimates can be entered into Portfolio Manager as "actual" data and should not be flagged as ESTIMATION.

iv. Save the file on your computer with any name.

v. Go back to the meter setup page on Portfolio Manager, click CHOOSE FILE and select the file you just created.

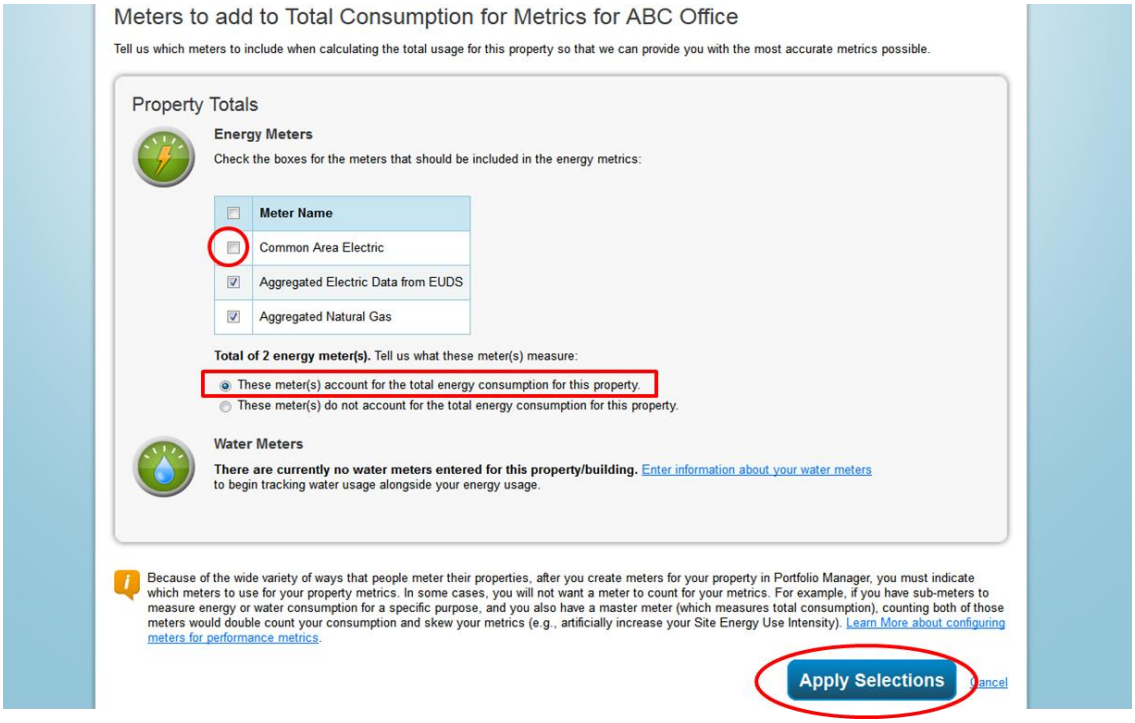
vi. Click UPLOAD and wait a few seconds.

vii. Portfolio Manager will parse the spreadsheet and upload the data directly into the table. Check for any issues.

viii. Repeat for all meters and energy sources. Click on the gray arrow next to each meter name to expand it and enter data.

ix. Click CONTINUE to save.

6. Go back the ENERGY tab. the Under METERS – USED TO COMPUTE METRICS, click CHANGE METER SELECTIONS to select the meters that make up the property's total energy use. Once all the meters that represent the property's whole-building energy use are selected, click on THESE METER(S) ACCOUNT FOR THE TOTAL ENERGY CONSUMPTION FOR [PROPERTY NAME]. Please keep in mind these meters need to be properly selected before Generating a Report (see page 27) in order to report accurate data. If you have any duplicated energy usage (for example, if you are tracking usage from a common-area meter that is also included in the aggregated usage data) be sure to exclude the meter containing duplicated usage from the selection, to avoid double counting. Click APPLY SELECTIONS to save.



Keep in mind that while Portfolio Manager allows you to benchmark partial energy consumption, the Chicago Energy Benchmarking Ordinance requires whole-building energy use data for all buildings.

Energy cost and water usage are not required by the ordinance. You may choose to track them in Portfolio Manager for your own benefit. The City of Chicago will not have access to this data.

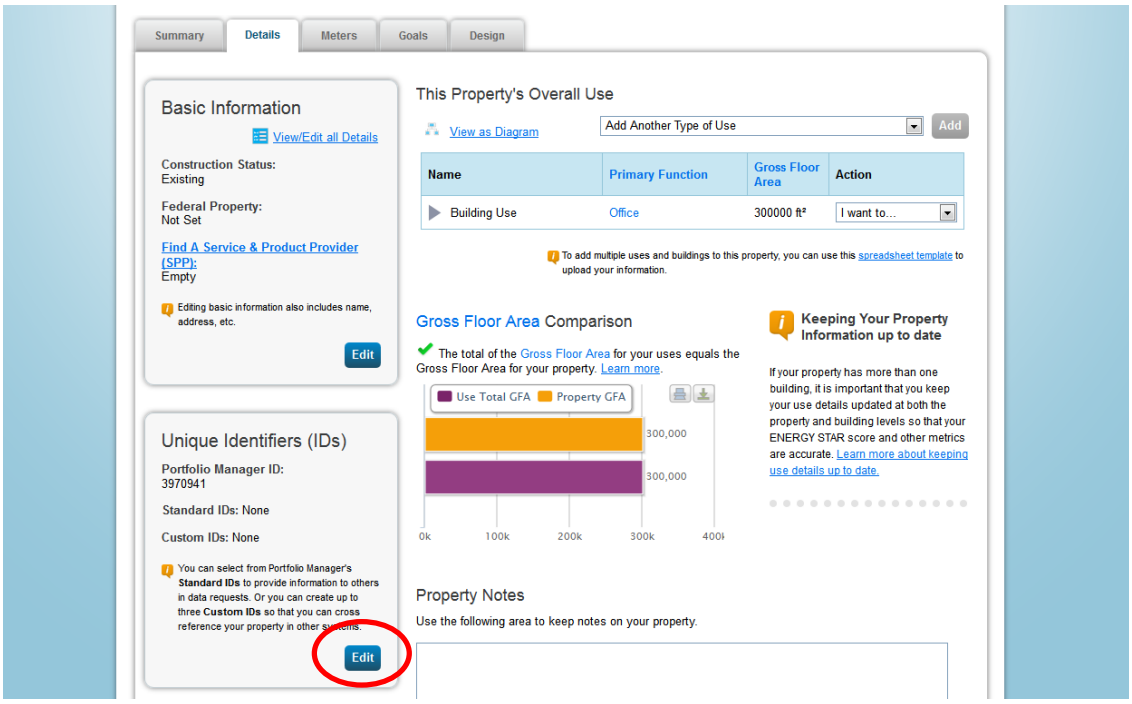
f. Enter your Chicago Energy Benchmarking ID

Chicago Energy Benchmarking ID

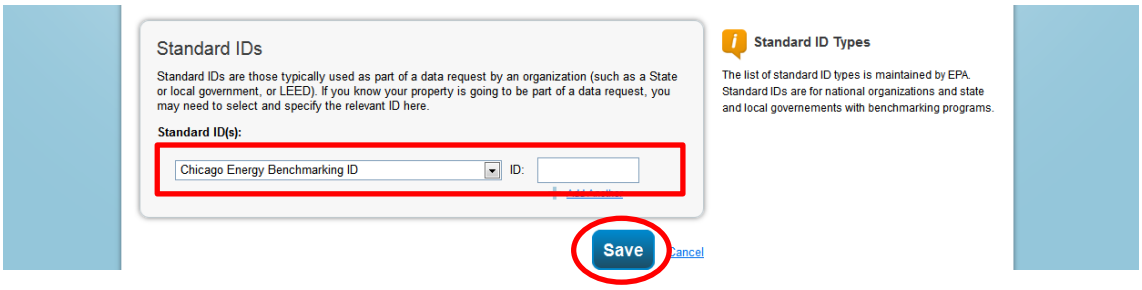
A unique six-digit building identifier will be provided by the City of Chicago for the purpose of energy benchmarking. The Chicago Energy Benchmarking ID number can be found on the notification letter and/or email, or found in the most recent Covered Buildings List. This list includes the addresses of all covered buildings, and the Chicago Energy Benchmarking ID assigned to each covered building.

If not found online, the ID can also be requested from the Help Center using the online Chicago Energy Benchmarking Covered Building & ID Request Form.

1. On the property's DETAILS tab, find the UNIQUE IDENTIFIERS (IDs) box and click EDIT.



2. Under STANDARD IDs, select CHICAGO ENERGY BENCHMARKING ID from the drop-down list, and enter your unique six-digit Chicago Energy Benchmarking ID in the ID field. Please double-check to ensure you entered the six-digit number correctly. As a reminder, you can find this number on the notification letter, or in the most recent Covered Buildings List. Click SAVE.

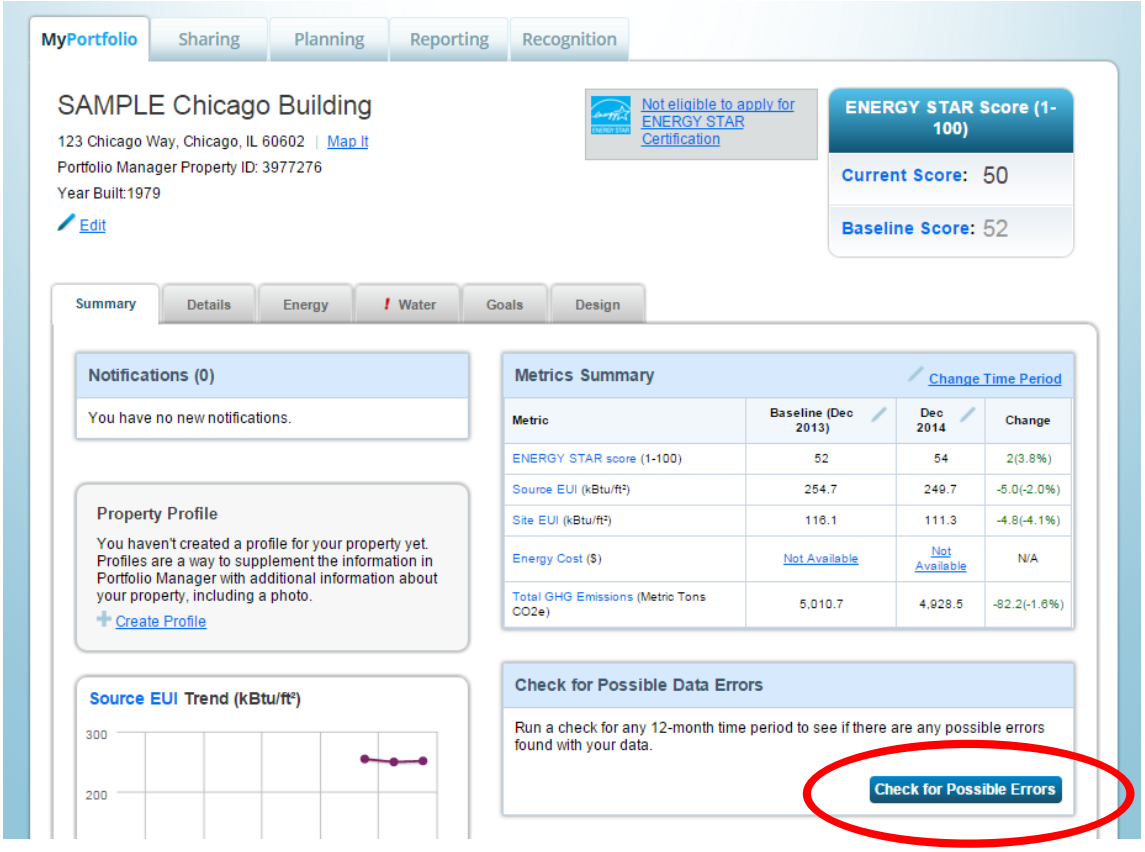


g. Run the Data Quality Checker (Check for Possible Data Errors)

The Data Quality Checker is a built-in tool in Portfolio Manager that runs a set of basic data checks to identify potential data entry errors. Common alerts include temporary values, default values, less than 12 months of data, etc.

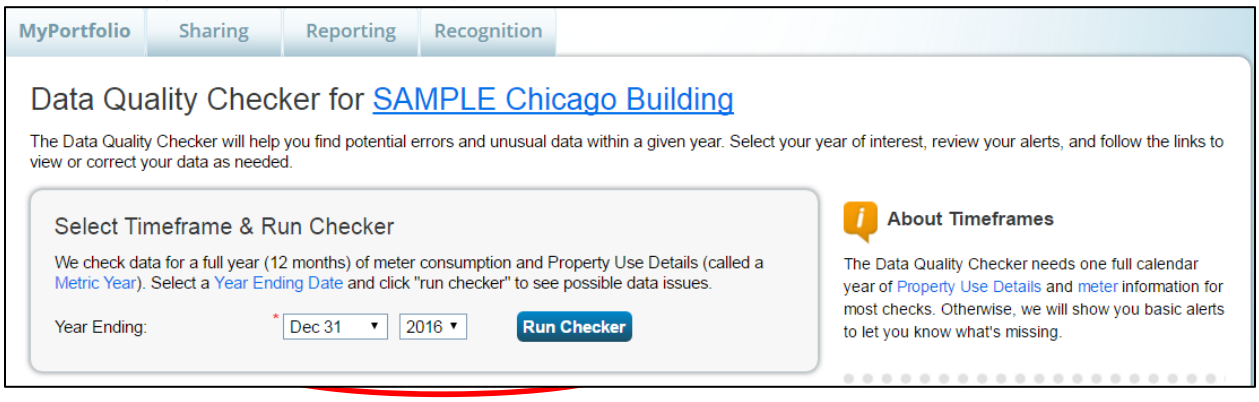
i) Click on the property's SUMMARY tab.

ii) Under the CHECK FOR POSSIBLE DATA ERRORS section, click on CHECK FOR POSSIBLE ERRORS.



iii)

3. Select year ending in December 31 of the previous calendar year and click RUN CHECKER.



4. Review the list of alerts (if any) and read Portfolio Manager's suggestions to address the issue(s). Common alerts include:
    - Temporary or estimated values
    - One or more uses has less than 12 full calendar months of Gross Floor Area
    - One or more meters has less than 12 full calendar months of bills

    Note that any alert related to water meters can be ignored for the purposes of complying with the Chicago Energy Benchmarking Ordinance, which does not require buildings to track water use.
5. Make changes to your property profile to address all alerts, if possible. Temporary values (estimations) for energy data are acceptable, but you are required to fix any alert related to data covering less than 12 full months.
6. Once you have made all applicable changes, Re-Check for Possible Data Errors (go back to step 2 on page 21) to ensure that the alerts have been addressed.

3. Verify Building Data

As required by the City of Chicago Benchmarking ordinance, your first-year benchmarking data must be verified by an approved verifier ("licensed professional") in the first year of reporting and every third year thereafter. For example, buildings that benchmarked, verified, and reported for the first time in 2014 are required to verify again in 2017, 2020, etc. (Benchmarking and reporting also required every year).

Starting in 2017, your notification letter and/or email will list the next year that data verification is required for your property. If you reported data in the past but did not verify the data as required, then you may be required to verify data this year. Starting in 2018, the next year that your property is required to verify is also listed on the most recent Covered Buildings List on the City of Chicago's Data Portal.

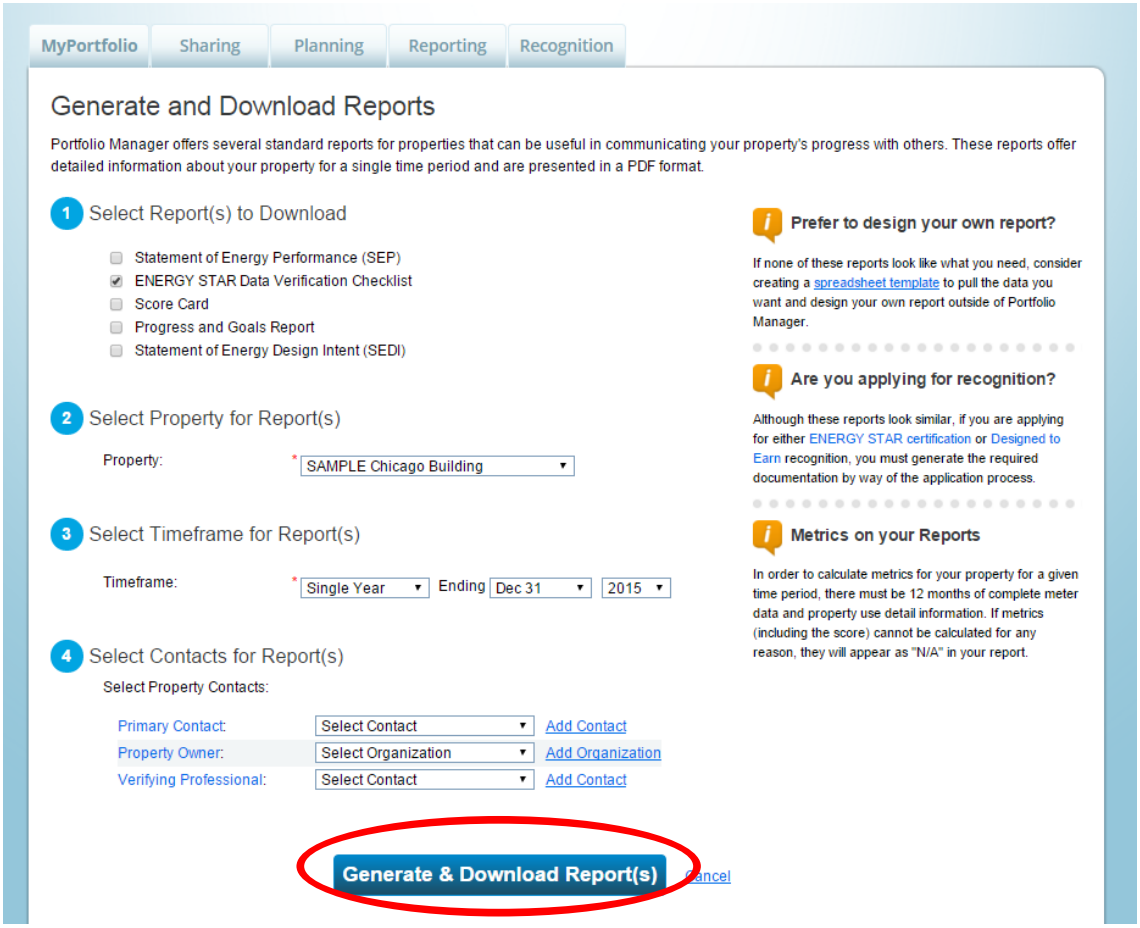
a. Generate an *ENERGY STAR Data Verification Checklist*

To verify benchmarking data, the verifier must complete the *ENERGY STAR Portfolio Manager Data Verification Checklist* for each building. The checklist includes a snapshot of all data entered in Portfolio Manager and provides prompts to verify their accuracy.

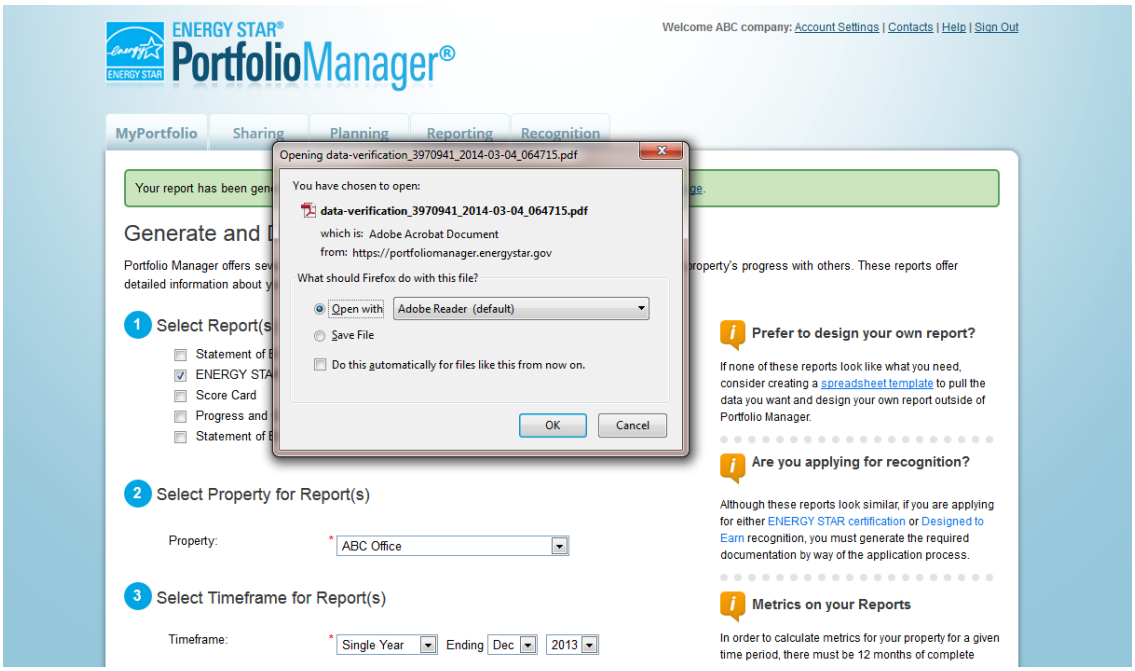
1. After you have entered all data into Portfolio Manager, navigate to the REPORTING tab. You will find the DATA VERIFICATION CHECKLIST on the right side of the page, under ENERGY STAR PERFORMANCE DOCUMENTS. Click on the PDF link.

2. Make sure ENERGY STAR DATA VERIFICATION CHECKLIST is checked. Select the building and choose SINGLE YEAR ending December 31 of the previous calendar year. You can select the primary contact, property owner and verifying professional from your contacts (if they are not in your contact list, you can add them by clicking ADD CONTACT or ADD ORGANIZATION). You may also leave these fields blank – in this case, you will need to add contact information manually on the form. Click on GENERATE & DOWNLOAD REPORT(S).

   If you have more than one building, you must generate a separate *ENERGY STAR Data Verification Checklist* for each building.



3. Download the report. You may need to disable your browser's pop-up blocker.



4. Save and provide a copy to the verifier.

b. Have a recognized professional review and sign your *ENERGY STAR Data Verification Checklist* and save it for your records

You must have a person with a City-recognized credential review and sign the Data Verification Checklist. Note that data verifiers may be in-house building staff members or 3rd party professionals, and you are NOT required to hire a third party.

Currently, the City recognizes the following data verifier training programs and credentials:

- Professional Engineer (PE) licensed in the State of Illinois
- Architect licensed in the State of Illinois
- Building Operator Certification (BOC) Level I certificate issued by the Midwest Energy Efficiency Alliance
- Building Energy Technology Certificate issued by the City Colleges of Chicago
- Certified Energy Manager (Association of Energy Engineers)
- Building Energy Assessment Professional (ASHRAE)
- Facilities Engineering Technology Energy Conservation Course (FET 220), offered jointly by IUOE Local 399 and Triton College

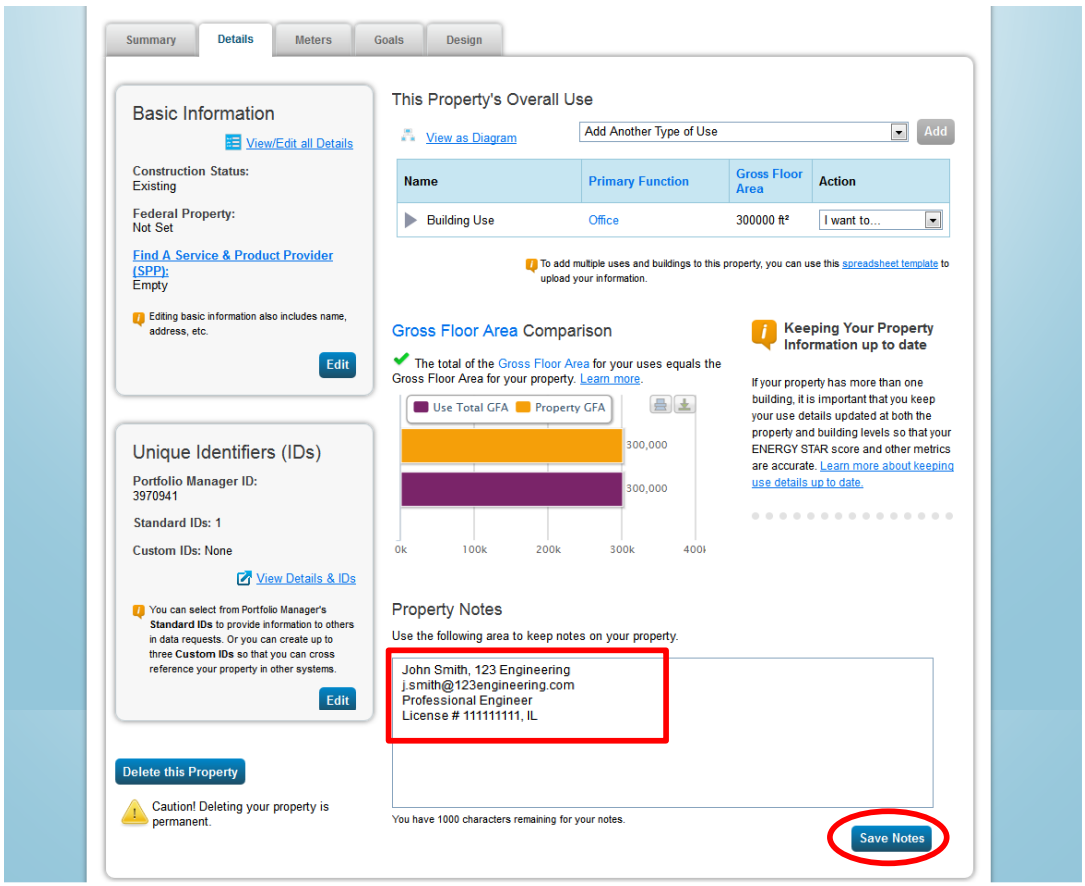
Additional training programs or credentials may be recognized by the City over time; all recognized programs and credentials will be posted to www.CityofChicago.org/EnergyBenchmarking. The verifier can be a building staff member, an existing energy contractor, a tenant/occupant of the building, or an eligible third-party. The verifier should review and complete the *ENERGY STAR Data Verification Checklist* and confer with the building owner, manager, or benchmarking lead to address any concerns. **The verifier does not need to verify the INDOOR ENVIRONMENTAL STANDARDS section of the *ENERGY STAR Data Verification Checklist*.** A site visit is also not required, but may be performed at the discretion of the data verifier.

Once all data has been verified and is considered accurate, the verifier must sign in the space provided on the last page of the *ENERGY STAR Data Verification Checklist*. The verifier must include his or her name, email address, mailing address, the name of the recognized training program or credential, and any relevant unique identifiers, such as a Professional Engineer License Number, as well as his or her stamp (if applicable). Buildings must retain this form for three years, until the next time they are required to verify their benchmarking data. **You are not required to submit the signed *ENERGY STAR Data Verification Checklist* to the City unless requested.**

c. Add data verifier information to Portfolio Manager

Once your data has been verified, you need to indicate it in your building's Portfolio Manager profile. If you do not complete this step, the City has not way of knowing that you completed the data verification, unless you are requested to show your Data Verification Checklist in the future.

1. Log in to your Portfolio Manager account.
2. Select the building from the MyPortfolio tab.
3. In the Property Notes text field on the property's Details tab, enter the following information:
    - The date that data verification was completed. (Note that this is the most important item).
    - The name of the person who verified the building's data
    - The verifier's organization
    - The verifier's email address
    - The verifier's recognized license or training credential
    - Any unique identification number for the verifier's license or training credential
4. Click Save Notes.



Note: If your building's data was verified through ENERGY STAR Certification, please enter information for the professional who verified data for the ENERGY STAR certification, along with the date range of the data verified, in addition to the verifier's organization, email address, recognized license or training credential, and unique identification number for the recognized license or training credential.

Pro-bono verification services

The Pro Bono Data Verification Service provides building owners with limited financial resources a means to professionally verify the building. For more information and application materials for pro-bono data verification, please refer to www.CityofChicago.org/EnergyBenchmarking.

Alternative: Verification through ENERGY STAR certification

Each year, the US Environmental Protection Agency recognizes buildings that are top energy efficiency performers (with an ENERGY STAR score of 75 or higher) as ENERGY STAR certified buildings. In some cases, the City will recognize ENERGY STAR certification by the US EPA as fulfilling the data verification requirement. This data verification option applies only if the data upon which ENERGY STAR certification was based includes at least six months of the calendar year for which Chicago Energy Benchmarking data verification is required. For example, a building that is required to verify calendar year 2017 data in 2018 may use ENERGY STAR certification in lieu of the signed *ENERGY STAR Data Verification Checklist* if the ENERGY STAR certification date is after June 30, 2017.

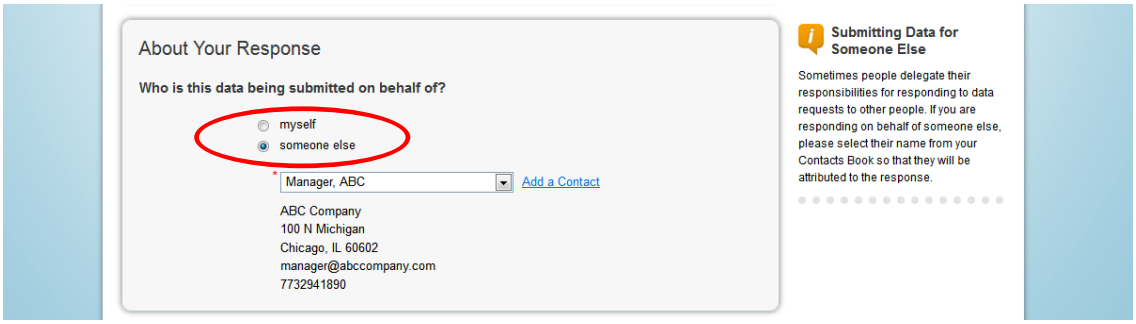
4. Report to the City

After you enter all relevant building and energy data into Portfolio Manager and have it verified (if required to verify), the final step is to submit the benchmarking data to the City. Please note that you will not be sharing the entire building profile with the City; you will only release selected metrics for the designated time period.

Instructions are adapted from www.EnergyStar.gov/buildings/tools-and-resources/how-respond-data-requests-portfolio-manager.

a. Generate and review the building's report in Portfolio Manager

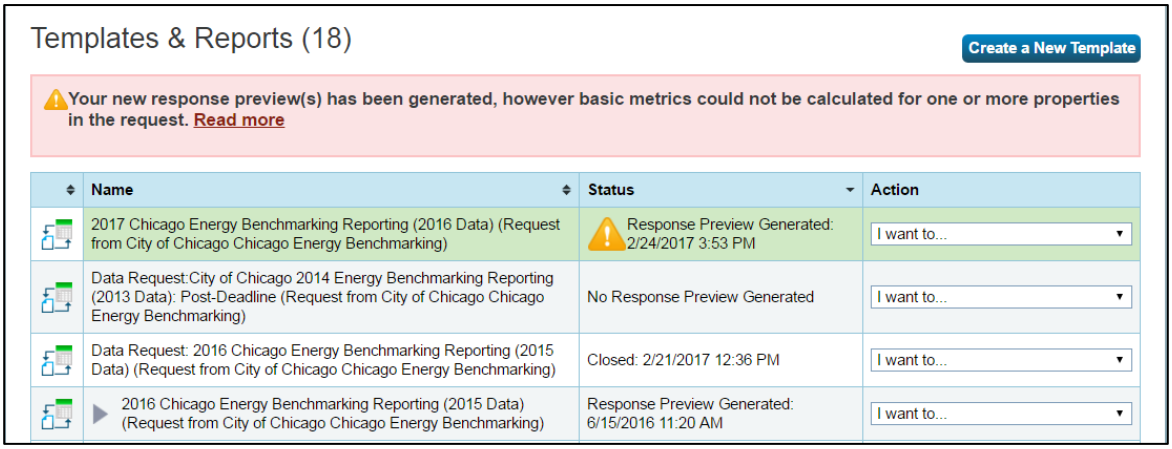
1. First, make sure that:
    a. All building information and energy data is in the building's Portfolio Manager profile;
    b. You have included the building's Chicago Energy Benchmarking ID in the STANDARD ID section of your profile (refer to "Enter your Chicago Energy Benchmarking ID" on page 19 for instructions);
    c. The data has been verified (if required this year); in addition, you have included the verifier information and date of verification in the building's Portfolio Manager profile.
2. Find this year's reporting link on www.CityofChicago.org/EnergyBenchmarking or click here. You will be redirected to Portfolio Manager. Note that the reporting link is updated every year, and the link from last year will not work this year. If you are not already logged in you will have to enter your credentials. Once you are signed in, you will be taken to the RESPOND TO DATA REQUEST page. Review the instructions on the online form.
3. In the ABOUT YOUR RESPONSE section, select the user whose data is being submitted. Select MYSELF if you are submitting the report for your own building. If you are submitting the report on behalf of someone else, select SOMEONE ELSE and choose a contact with whom you are associated. You can pick the contact from the drop-down list or click ADD A CONTACT to add a new contact.



4. In the YOUR RESPONSE section, select from the drop-down menu which properties to include. If you have properties with multiple buildings that are benchmarked separately, make sure to include all individual buildings rather than the parent property. Conversely, if you have a campus or a group of buildings benchmarked together, please choose only the parent property.
5. The timeframe has already been specified and cannot be changed. Click GENERATE RESPONSE PREVIEW.

6. The [Current Year] CHICAGO ENERGY BENCHMARKING REPORTING (PREVIOUS YEAR DATA) template should now be listed in your TEMPLATES & REPORTS table on the REPORTING tab. You will see a notification when the report preview is available (you may need to refresh the page).

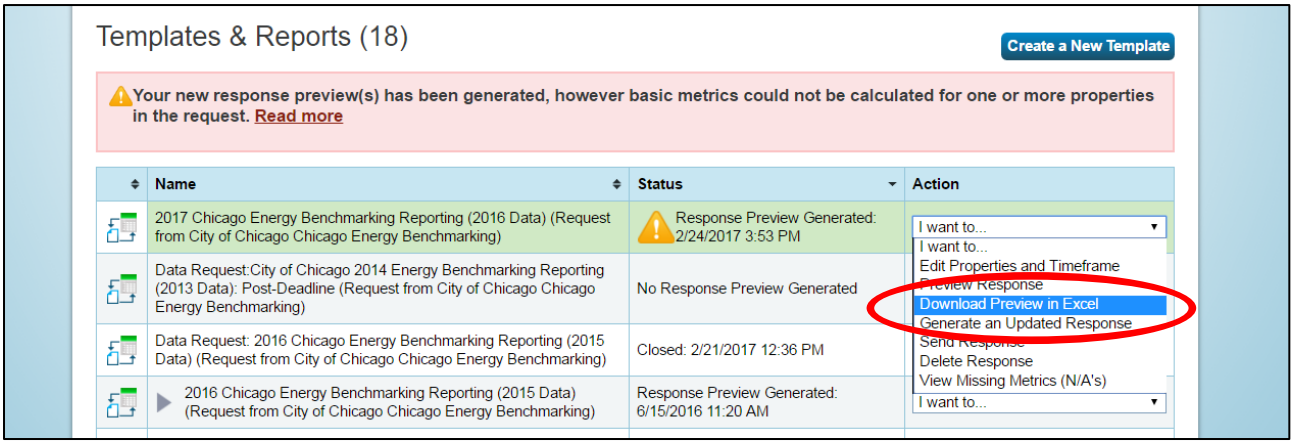
7. If you see an alert at the top of the TEMPLATES & REPORTS table, it means that Portfolio Manager has detected that at least one property included in your response does not have a Site EUI metric.



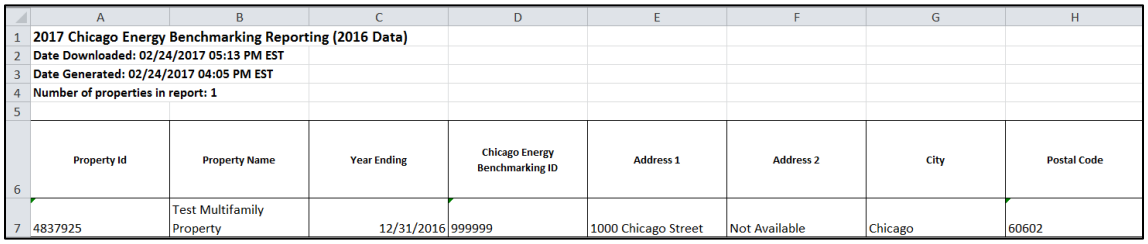
There will also be an alert icon (⚠) next to the data request in the TEMPLATES & REPORTS table. Click on READ MORE to see which properties are affected and why, and follow Portfolio Manager's guidance to resolve any issue. Note that any alert related to water use can be ignored for the purposes of complying with the Chicago Energy Benchmarking Ordinance, which does not require buildings to track water use.

Please resolve all issues and update your report by selecting GENERATE AN UPDATED RESPONSE from the ACTION drop-down menu on the REPORTING tab.

8. Select DOWNLOAD PREVIEW IN EXCEL (recommended) or PREVIEW RESPONSE from the ACTION drop-down menu to review the data you are submitting. The preview shows the data that you will share with the City. Some fields may be blank if they do not apply to your building.



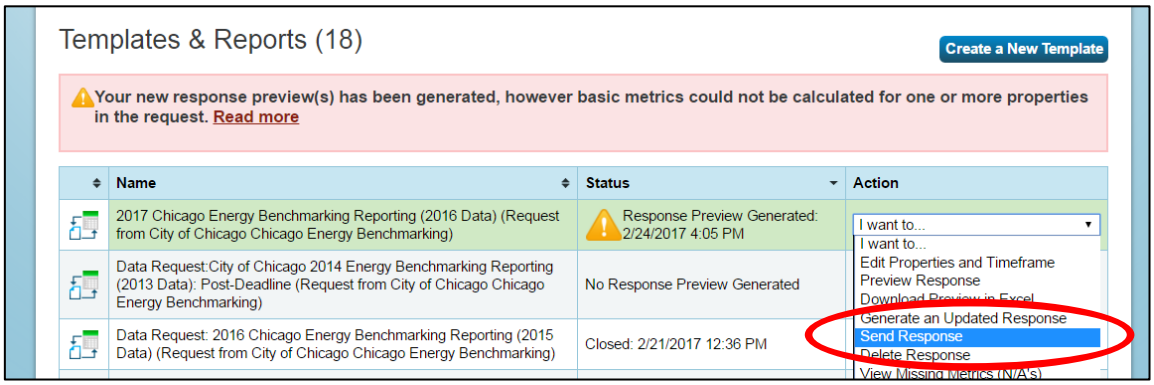
9. Review data for accuracy. Changes can be made by editing the building's profile in Portfolio Manager. Be aware that all changes must be made before submitting the report; any changes made after submitting will not be received by the City. **If you make changes, you must update your report by selecting GENERATE AN UPDATED RESPONSE from the ACTION drop-down menu.**



	A	B	C	D	E	F	G	H
1	**2017 Chicago Energy Benchmarking Reporting (2016 Data)**							
2	**Date Downloaded: 02/24/2017 05:13 PM EST**							
3	**Date Generated: 02/24/2017 04:05 PM EST**							
4	**Number of properties in report: 1**							
5								
6	**Property Id**	**Property Name**	**Year Ending**	**Chicago Energy Benchmarking ID**	**Address 1**	**Address 2**	**City**	**Postal Code**
7	4837925	Test Multifamily Property	12/31/2016	999999	1000 Chicago Street	Not Available	Chicago	60602

b. Submit the report to the City through Portfolio Manager

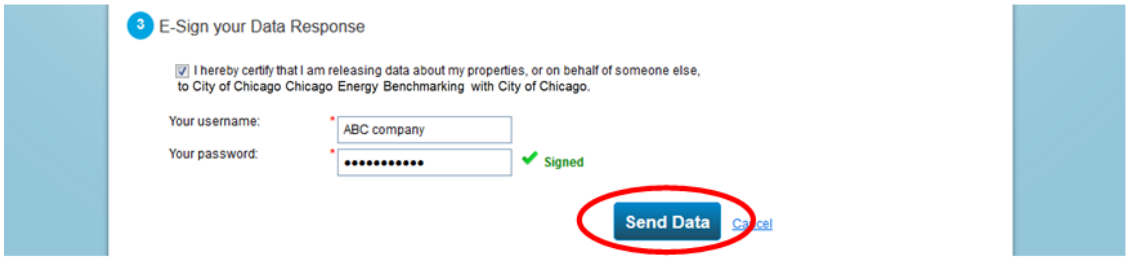
1. After you have reviewed and confirmed the data, go back to the REPORTING tab and find the [Current Year] CHICAGO ENERGY BENCHMARKING REPORTING (PREVIOUS YEAR DATA) in the TEMPLATES & REPORTS table.
2. Select SEND RESPONSE from the ACTION drop-down menu.



3. You can choose to have the confirmation email sent to one or more of your contacts (in addition to yourself). Choose the format for the copy of the data you will receive (this does not affect reporting to the City, so choose your preferred format).

4. Under E-Sign your Data Response, check the box and enter your Portfolio Manager username and password and click E-Sign Response.

5. Once your e-signature has been verified, click Send Data. Click Continue on the pop-up notification to confirm submission. The report will be automatically sent to the City.



c. Save the Portfolio Manager Confirmation email as proof of submission

You will receive a confirmation email from Portfolio Manager with a receipt and a copy of the data submitted. **This email from the EPA is your proof-of-submission for compliance with the Chicago Energy Benchmarking Ordinance.** You must keep the following documentation for three years:

- Completed *ENERGY STAR Data Verification Checklist*, signed by a Licensed Professional;
- Confirmation email from the EPA containing proof-of-submission;

- Back-up information on energy use inputs, including, but not limited to, energy bills, calculations, and correspondence demonstrating good faith efforts to obtain actual energy data, space use attribute information, and other data requested by Portfolio Manager;
- A copy of energy data entered into Portfolio Manager.

If, after submitting your data to the City, you learn that any reported benchmarking information is inaccurate, you must make the appropriate changes to the building's Portfolio Manager profile, generate a new report and re-submit it to the City, through the same process described above, within 30 days of discovering the inaccuracy. See Appendix D on page 36 for step-by-step instructions.

After the City receives your complete submission, you may receive an additional email confirmation from the Chicago Energy Benchmarking Help Center. If you submission has any missing information or possible data errors, you may receive an email from the Chicago Energy Benchmarking Help Center stating that your submission is missing information or has possible data errors; this email will also provide a link to online instructions for addressing the issues in your property's report.

What will the City do with the data?

The City will report annually on aggregate energy efficiency trends. No building-specific information will be publically disclosed for the first year that a building benchmarks and reports. The ordinance authorizes the City to share building-specific data with the public after an initial grace period of one year.

All building-specific data is available online at the Chicago Data Portal. The City also partnered with the City Energy Project to develop an online Energy Performance Map.

Appendix A: Properties with Multiple Buildings

If the property includes more than one building, please report according to the following guidelines. If the issue is not addressed here, use Portfolio Manager *How to benchmark a campus* guidance, online at: https://www.energystar.gov/buildings/tools-and-resources/how-benchmark-campus

If you received multiple Chicago Energy Benchmarking IDs for buildings that will report together as a campus, please contact the Chicago Energy Benchmarking Help Center (855-858-6878 or Info@ChicagoEnergyBenchmarking.org) to let us know which Chicago Energy Benchmarking ID will be used to cover all of the buildings on the campus.

Multiple buildings with shared systems

If you property includes multiple buildings that share one or more energy-consuming systems, where energy is not metered separately or sub-metered, you can benchmark them together.

1. When you set up the property in Portfolio Manager, under YOUR PROPERTY'S BUILDINGS, indicate that there are MORE THAN ONE buildings and enter the number of buildings to be benchmarked together.
    a. In some cases, buildings not covered by the ordinance may be benchmarked with the buildings that are covered by the ordinance. This situation occurs if one building covered by the ordinance (such as a building over 50,000 square feet) shares energy-consuming systems with a building not covered by the ordinance (such as a building less than 50,000 square feet).
2. Follow the rest of the set-up process and enter information and data (e.g. gross floor area, etc.) that refer to the property as a whole. (Aggregate the gross floor area and occupancy percentage values to account for the totals across all the buildings being benchmarked together.)
3. Enter the property's Chicago Energy Benchmarking ID. Refer to "Enter your Chicago Energy Benchmarking ID" on page 19 for instructions.
4. Set up the shared energy meters and add the combined energy usage data for the property for all energy types.
5. When you report the data to the city each year (Step Four of this Guide) and you have a campus or a group of buildings benchmarked together, please choose only the parent property.

Possible exception: If the separate buildings are submetered, or if it's possible to make reasonable calculations / assumptions to allocate energy use to each individual building, the buildings may benchmark, verify, and report separately. Benchmarking each building separately may be the best option if a covered building shares energy-consuming systems with a building that would not otherwise be covered by the ordinance (i.e. a 75,000 ft2 building that is covered shares a boiler with an adjacent 25,000 ft2 building that is not covered). This may also be the best option if the buildings in question are owned and/or managed separately.

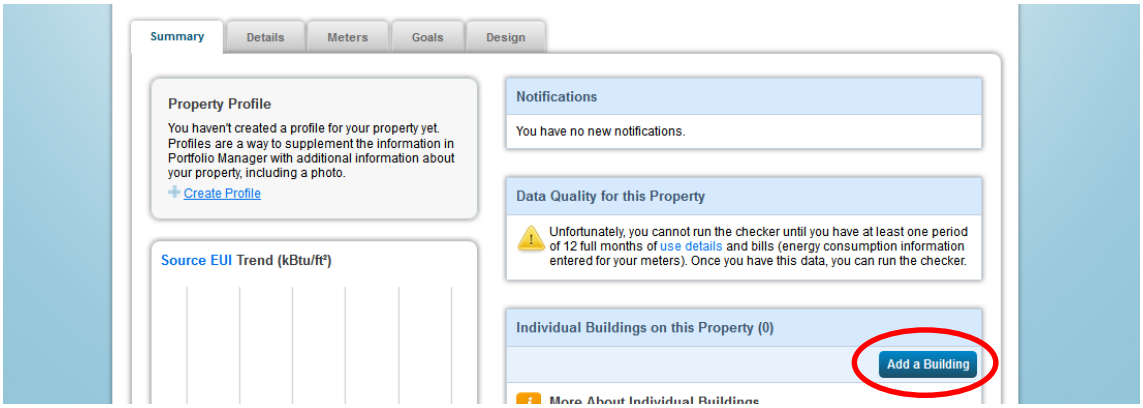
If a building makes an assumption to allocate energy consumption for a shared system, it must be made in good faith and should be reviewed during data verification.

Multiple buildings with the same Property Identification or Index Number (PIN) and separate systems

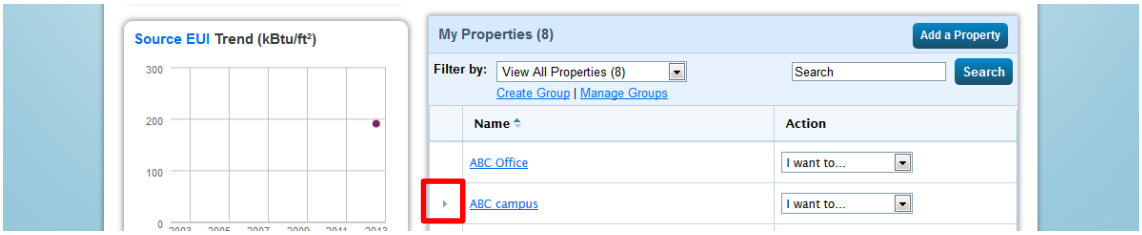
If the property includes multiple buildings that have separate energy-consuming systems and are metered separately or sub-metered for all energy types (such as university, corporate, medical, or residential campuses where multiple buildings of various sizes share the same PIN), you should set up a "parent property" profile and create a separate profile for each building in your Portfolio Manager account. According to the current Chicago Energy Benchmarking ordinance rules and regulations (available at www.CityofChicago.org/EnergyBenchmarking), you are not required to benchmark individual buildings within your covered property that are smaller than 50,000 square feet.

To benchmark a campus:

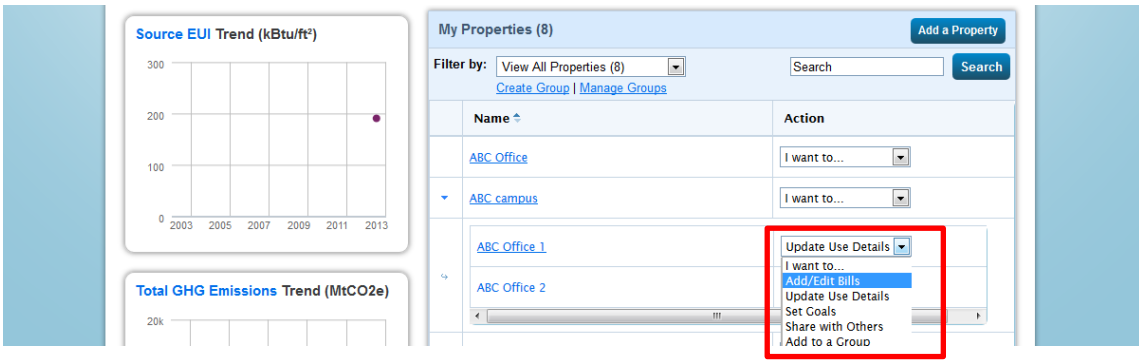
1. Set up a parent property: When you set up the property in Portfolio Manager, under "Your Property's Buildings", indicate that there are MORE THAN ONE buildings and enter the number of buildings to be benchmarked.
   Follow the rest of the set-up process and enter information and data (e.g. gross floor area, etc.) that refer to the property as a whole. (You should aggregate the gross floor area and occupancy percentage values to account for the totals across all buildings on the campus.)
2. Add a child to the parent property: From the property's SUMMARY tab, click on ADD A BUILDING.



3. In the ENTER A NEW BUILDING section, provide the name, primary function and gross floor area of each building, then click CONTINUE. If you have existing profiles for individual buildings, you can also add them to the parent property from the ADD EXISTING BUILDING section on the same page.
4. Follow Portfolio Manager's prompts and provide all basic information and property use details for each building. Click ADD BUILDING to save.
5. Once you have entered information for all the buildings in the property, you will be redirected to the MYPORTFOLIO tab. In the MY PROPERTIES table, click on the arrow next to the parent property to show a list of individual buildings.



6. Use the ACTION menu next to each individual building to add or edit use details and to add energy use data. Remember to enter the Chicago Energy Benchmarking ID on each building's profile. Refer to the previous sections for detailed guidance.



7. When you report the data to the city each year (Step Four of this Guide) and you have a campus or a group of buildings benchmarked together, please choose only the parent property.

Appendix B: Energy Use Default Values

If you have not been able to obtain whole-building energy usage data from the utilities, your tenants, or any other suitable channel, you may estimate energy use by fuel type and square footage using the default values provided here. These values represent average energy use of buildings in our region, increased by 25%. Keep in mind that default data may be less accurate than data from other sources, and it should only be used as a last resort. You must report all known energy use data for common areas and centrally metered systems, as well as known tenant energy use data. Even if your building is electric only, you must enter both electricity and natural gas (this is because the default data values are based on average energy use for both fuel types).

Commercial and Institutional Buildings

To calculate estimate monthly electricity use, take the appropriate default value in Column 1 of Table 1 based on the building's activity, and multiply it by the gross floor area for which electricity use is unknown. To calculate monthly tenant heating energy use, take the appropriate default value in Column 2 of Table 1 based on the building's activity, regardless of which fuel is actually used for heating, and multiply it by the gross floor area for which heating energy use is unknown. These building activity categories are based on data from the U.S. Energy Information Administration and do not exactly match Portfolio Manager's property use types. Choose the category that most represents the building's activity.

IMPORTANT: In the MANAGE BILLS (METER ENTRIES) screen from the ENERGY tab, please make sure to place a tick mark in the "ESTIMATION" box next to any monthly energy data entries that are derived from the default values below (or indicate "TRUE" in the ESTIMATION (REQUIRED) column in the Excel spreadsheet if uploading data using a SPREADSHEET TEMPLATE). See "Enter energy use data for all fuel types in Portfolio Manager" on page 15.

TABLE 1: DEFAULT ENERGY USE VALUES - NON-RESIDENTIAL BUILDINGS

Principal Building Activity	Column 1 Monthly Usage: Electricity kWh/ft^2	Column 2 Monthly Usage: Natural Gas cubic ft/ft^2
Education	0.82	5.69
Food Sales	5.47	5.23
Food Service	4.01	15.93
Health Care	2.52	10.48
Inpatient	2.91	13.67
Outpatient	2.00	5.36
Lodging	1.53	8.07
Mercantile	1.63	5.45
Retail (Other Than Mall)	1.28	6.17
Enclosed and Strip Malls	1.86	5.00
Office	1.97	4.55
Public Assembly	1.28	6.69
Religious Worship	0.45	4.82
Service	1.25	6.41

Other	1.74	7.04
Vacant	0.25	2.40

Source: U.S. Energy Information Administration's 2003 Commercial Buildings Energy Consumption Survey values for East North Central or Midwest buildings where available, national otherwise. Original values are multiplied by 125%.

Residential Buildings

To calculate estimate monthly electricity use, take the appropriate default value in Column 1 of Table 2 based on the housing type, and multiply it by the number of residential units for which electricity use is unknown. To calculate monthly tenant heating energy use, take the appropriate default value in Column 2 of Table 2 based on the housing type, regardless of which fuel is actually used for heating, and multiply it by the number of residential units for which heating energy use is unknown.

IMPORTANT: In the MANAGE BILLS (METER ENTRIES) screen from the METERS tab, please make sure to place a tick mark in the "ESTIMATION" box next to any monthly energy data entries that are derived from the default values below (or indicate "TRUE" in the ESTIMATION (REQUIRED) column in the Excel spreadsheet if uploading data using a SPREADSHEET TEMPLATE). See "Enter energy use data for all fuel types in Portfolio Manager" on page 15.

TABLE 2: DEFAULT ENERGY USE VALUES – RESIDENTIAL BUILDINGS

Housing Type	Column 1 Monthly Usage: Electricity kWh/unit	Column 2 Monthly Usage: Natural Gas cubic ft/unit
Multifamily: 2-4 Units	793.77	9,625.53
Multifamily: 5 or More Units	622.80	4,827.98

Source: U.S. Energy Information Administration's 2009 Residential Energy Consumption Survey values for Midwest homes. Original values are multiplied by 125%.

Default Value Example

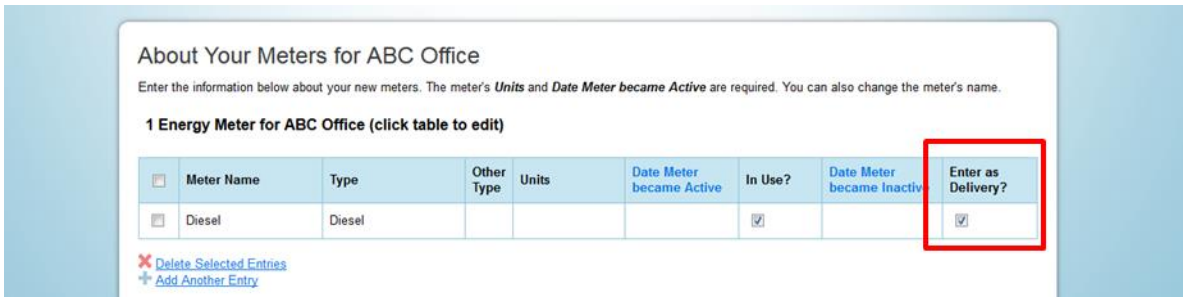
You are benchmarking a 300,000 ft^2 building. You have gathered energy use data for 200,000 ft^2. However, you have not been able to acquire energy use data directly from the utility or the tenant of a 100,000 ft^2 retail space. To calculate estimated monthly electricity using the default values, multiply 100,000 ft^2 by 1.28, the value for "Retail (Other Than Mall)" found in Table 1 Column 1. This equals 128,000 kWh. To calculate estimated monthly natural gas use using the default values, multiply 100,000 ft^2 by 6.17, the value for "Retail (Other Than Mall)" found in Table 1, Column 2. This equals 617,000 cubic feet. Note: you must enter energy consumption for both electricity and natural gas, since the default data values are based on average energy use for both fuel types.

When you are ready to add energy use data to the building Portfolio Manager profile, you would create a meter for your estimated monthly electricity use, enter 12 months of electricity use using 128,000 kWh per month, and check the 'Estimated' box. You would create a meter for your estimated monthly natural gas use, enter 12 months of natural gas use using 617,000 cubic feet, and check the 'Estimated' box. See "Enter energy use data for all fuel types in Portfolio Manager" on page 15.

Appendix C: Bulk Fuels

Bulk shipments can be entered in two different ways, depending on your usage pattern:

- If your property receives bulk fuel shipments that are used approximately within the month they are received, you should select ENTER AS DELIVERY when you first create the meter (that option is selected by default for fuels that are typically purchased in bulk, and cannot be changed later). In this case, Portfolio Manager asks you to provide delivery dates, and it assumes that the fuel is consumed during the month it is received. If there are months in which you don't receive a shipment, just skip them: Portfolio Manager will assume no use.
- If your property receives bulk fuel shipments once every few months, and each shipment is used over more than one month, it is more accurate to estimate monthly usage. Unselect ENTER AS DELIVERY when creating the meter (note that this cannot be changed later), and enter one bill per month with your best estimate of how much fuel was used each month. It is ok to simply divide the total quantity delivered by number of months for which it was used. If there are months in which you don't use any fuel, you need to create bills for those months and enter zero usage.



Appendix D: Updating or Correcting the Portfolio Manager Report

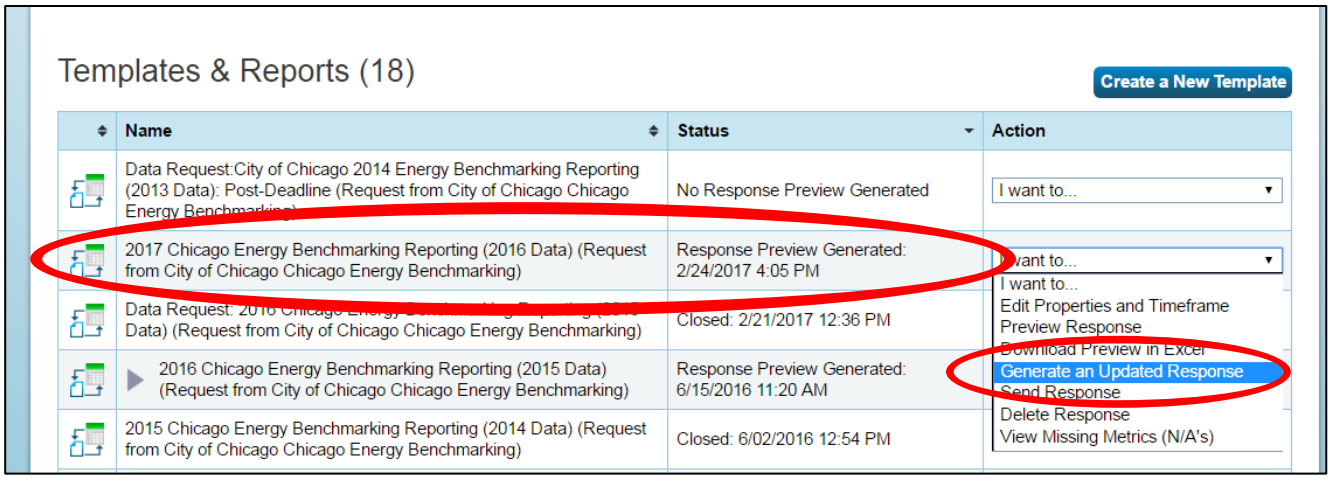
If, after submitting your data to the City, you learn that any reported benchmarking information is inaccurate, you must make the appropriate changes to the building's Portfolio Manager profile, generate an updated response and re-submit it to the City, within 30 days of discovering the inaccuracy. Follow these instructions to re-report updated or corrected information to the City.

a. Update or Correct the Building Profile

Follow the Benchmarking Guide found at www.CityofChicago.org/EnergyBenchmarking and Portfolio Manager guidance.

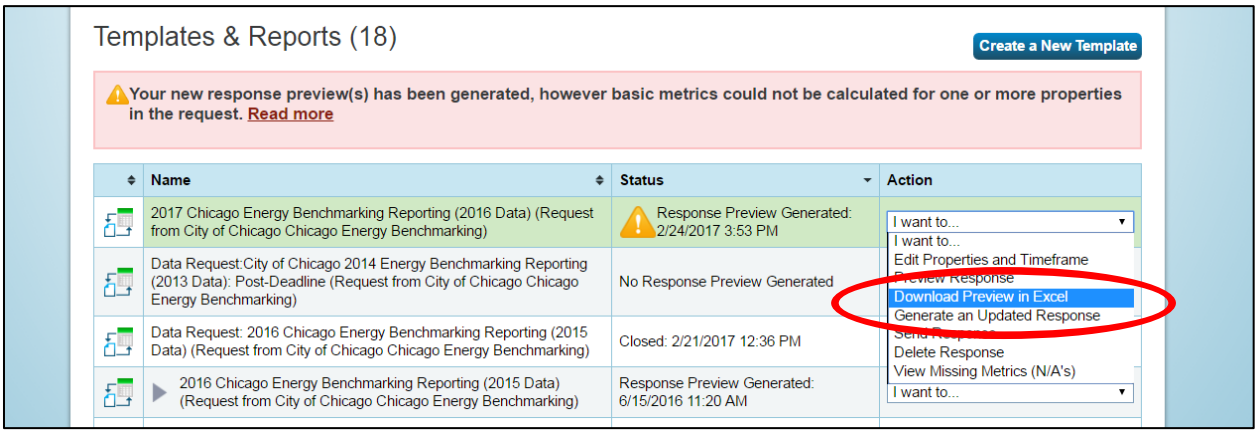
b. Generate an Updated Response

1. Go to the REPORTING tab.
2. In the TEMPLATES & REPORTS table, find the [Current Year] CHICAGO ENERGY BENCHMARKING REPORTING (PREVIOUS YEAR DATA) template. From the ACTION menu, select GENERATE AN UPDATED RESPONSE.

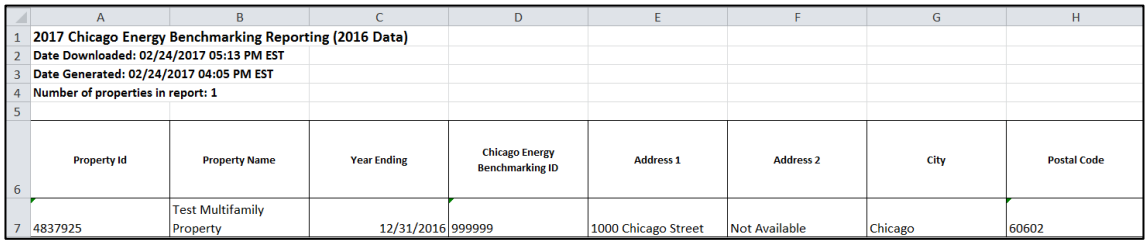


3. If Portfolio Manager generates an alert that some energy metrics could not be calculated, review and resolve any issue before submitting your response. If you make any changes you will need to generate an updated response. See step 6 on page 28 for more information.

4. Select DOWNLOAD PREVIEW IN EXCEL (recommended) or PREVIEW RESPONSE from the ACTION drop-down menu to review the data you are submitting. The preview shows the data that you will share with the City. Some fields may be blank if they do not apply to the building.



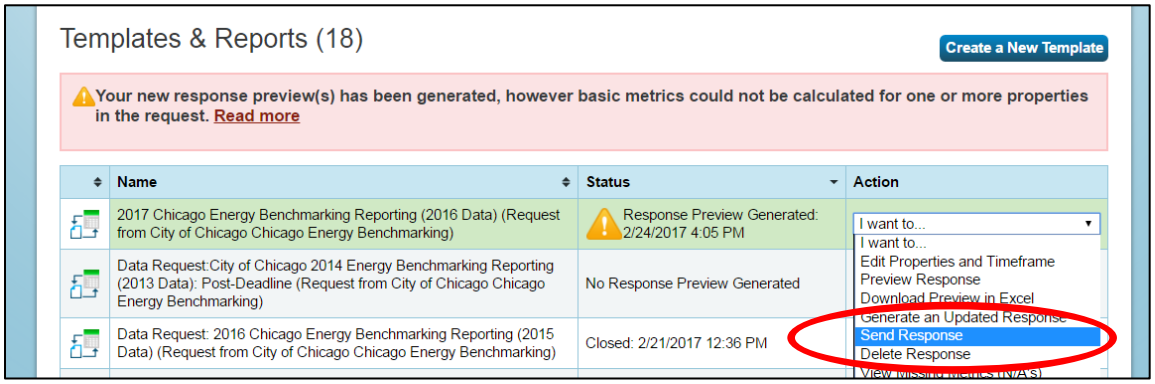
5. Review data for accuracy.



	A	B	C	D	E	F	G	H
1	2017 Chicago Energy Benchmarking Reporting (2016 Data)							
2	Date Downloaded: 02/24/2017 05:13 PM EST							
3	Date Generated: 02/24/2017 04:05 PM EST							
4	Number of properties in report: 1							
5								
6	Property Id	Property Name	Year Ending	Chicago Energy Benchmarking ID	Address 1	Address 2	City	Postal Code
7	4837925	Test Multifamily Property	12/31/2016	999999	1000 Chicago Street	Not Available	Chicago	60602

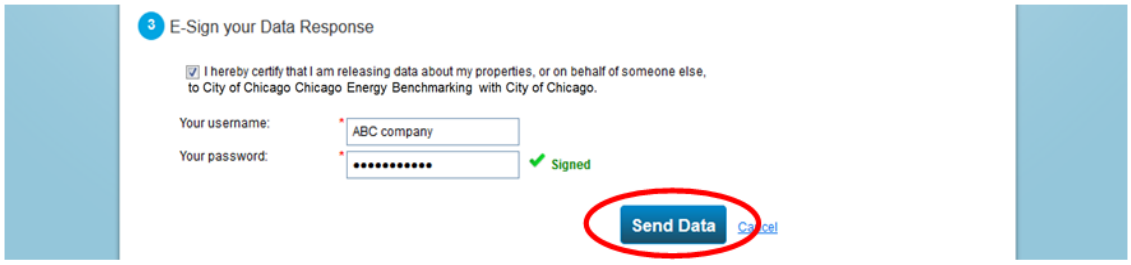
c. Submit the report to the City

1. After you have reviewed and confirmed the data has been corrected, go back to the Reporting tab and find the [Current Year] Chicago Energy Benchmarking Reporting (Preivous Year Data) in the Templates & Reports table.
2. Select Send Response from the Action drop-down menu.



3. You can choose to have the confirmation email sent to one or more of your contacts (in addition to yourself). Choose the format for the copy of the data you will receive (this does not affect reporting to the City, so choose your preferred format). Enter your Portfolio Manager username and password and click E-SIGN RESPONSE.

4. Once your e-signature has been verified, click SEND DATA. Click CONTINUE on the pop-up notification to confirm submission. The report will be automatically sent to the City and will replace the data you previously sent.



d. Save the Portfolio Manager Confirmation email as proof of submission

You will receive a confirmation email with a receipt and a copy of the data submitted. This is your proof-of-submission. You must keep the following documentation for three years:

- Completed *ENERGY STAR Data Verification Checklist*, signed by a Licensed Professional;
- Confirmation email from the US Environmental Protection Agency containing proof-of-submission;
- Back-up information on energy use inputs, including, but not limited to, energy bills, calculations, and correspondence demonstrating good faith efforts to obtain actual energy data, space use attribute information, and other data requested by Portfolio Manager;
- A copy of energy data entered into Portfolio Manager.

Additional Resources

City of Chicago Energy Benchmarking Website

www.CityofChicago.org/EnergyBenchmarking.

- **Compliance Checklist:** Summary of required compliance actions
- **Fact Sheet:** Benchmarking overview to help buildings get started
- **Frequently Asked Questions (FAQs):** Information about the ordinance and policy
- **Additional Guidance for Residential Properties:** Detailed information for multifamily properties
- **Free Support & Opportunities**:
    - On-demand training video
    - Local in-person and web-based training
    - US EPA ENERGY STAR resources
    - Utility funding and other support

Chicago Energy Benchmarking Help Center

Monday-Friday, 9:00am-5:00pm

(855) 858-6878

email: Info@ChicagoEnergyBenchmarking.org.

ENERGY STAR Portfolio Manager

http://www.EnergyStar.gov/Benchmark

ComEd Energy Use Data System

https://www.comed.com/WaysToSave/ForYourBusiness/Pages/EnergyUsageData.aspx

email: EnergyUsageData@ComEd.com

People's Gas Building Aggregation

www.PeoplesGasDelivery.com/Business/Aggregation.aspx

email: PGLCityAggregationData@PeoplesGasDelivery.com

What can I do to make my building more efficient?

If you have benchmarked one or more buildings, and are looking to take the next steps on energy efficiency, please click here to learn more about the steps that you can take.

To start, it is recommended to understand your performance, and then to conduct a free energy assessment.

1.) UNDERSTAND YOUR PERFORMANCE: Review Your Property's Results

Review the building's energy benchmarking results, starting with two key metrics – energy use intensity (EUI) and the 1-100 ENERGY STAR Score. If you are responsible for benchmarking a building, simply log into the ENERGY STAR Portfolio Manager tool to view this information. Otherwise, you may need to review publicly-available information (online here at the City's Data Portal) or ask the property owner or manager for the information.

Next, understand your property's performance in light of results from similar properties:

Local Results:

- Review your numbers compare to the Chicago averages for your property type here: Average EUIs and ENERGY STAR scores by property type.
- Use the interactive Building Energy Performance Map, which shows results for properties that have reported data for two or more years in Chicago.

National Results:

- To review data from similar properties across the nation, use the free Building Performance Database from the U.S. Department of Energy.

2.) DIVE DEEPER INTO DATA: Understand Energy Use in the Building

Conduct an Energy Assessment

Comparisons of monthly or annual usage from different time periods can start to provide more insights into your property's energy use. For example, a spike in usage at a specific time could be a red flag that building equipment is not performing correctly.

In addition, more detailed reviews of energy-consuming equipment and operations can help you gain a better understanding of possible improvements. Start by conducting an energy assessment if you have not done so in the last two to three years. The process will help you identify low-cost and no-cost opportunities specific to your property. Both of the local utilities, ComEd and Peoples Gas, offer free energy assessments to qualifying buildings.

To find out more, contact the utilities today:

- ComEd:
  - Phone: 855-433-2700
  - Website: https://www.comed.com/WaysToSave/ForYourBusiness/Pages/FacilityAssessments.aspx

- Peoples Gas:
  - Phone: 855-849-8928
  - Website: http://www.peoplesgasdelivery.com/business/rebates.aspx

Utility Rebate and Incentive Programs

If you have already conducted an assessment or audit, or you have already identified specific projects to retrofit your property, be sure to consider using one of the utility rebate and incentive programs to help finance your project:

Private Commercial, Institutional (Nonprofit) Buildings, and Public Sector Buildings:

- ComEd's Energy Efficiency program can help reduce building energy use. Incentives and support programs help businesses drive energy savings and an improved bottom line. Please visit http://www.ComEd.com/EnergyTools for more information about online tools and other support.
- To stay up-to-date on ComEd's programs, sign up for their monthly newsletter - click here to register
- Peoples Gas Natural Gas Savings Program offers incentives to encourage business customers make energy -efficient improvements to reduce energy use and enhance workplace comfort.

Multifamily Residential Buildings:

- ComEd and Peoples Gas offer building managers and owners energy efficiency upgrades and incentives through the Multi-Family Comprehensive Energy Efficiency Program.
- ComEd's new Marketplace Website: Current listings of product offerings and discounts