What is Better Buildings Benchmarking and why is it important?
The City and County of Honolulu is proposing the Better Buildings Benchmarking and Transparency Program in an effort to advance Honolulu's goal of carbon neutrality by 2045.

The proposed program establishes a system for large commercial and multifamily buildings to measure and report on their electricity, water, and gas use annually. Today, the building sector is the largest consumer of energy on the island; it accounts for roughly 35% of the island's total greenhouse gas emissions. Energy is also one of the highest ongoing costs to building owners and renters, with O'ahu residents burdened with utility rates roughly two to three times above the national average. Implementing a benchmarking program on O'ahu is expected to lower energy use, reduce operating expenses for local building owners and tenants, and decrease greenhouse gas emissions island-wide. Click to view recording of recent open house on program.

General

What are benchmarking, reporting, and transparency?

**Benchmarking** means measuring a building’s utility data (i.e., energy, water, and gas consumption) to understand its performance over time. This data enables building owners and managers to compare their building’s performance with other similar buildings, identify opportunities to invest in energy-efficiency improvements, reduce waste, and save money.

**Reporting** means sharing a building’s utility data with the City. This allows public administrators and policymakers to improve existing programs and services by providing a way to quickly identify communities experiencing the highest energy burden and effectively direct resources to those who need them most.

**Transparency** means making annual utility data available to the public; it is a key to unlocking additional benefits from benchmarking. Similar to energy use labels on appliances and miles-per-gallon (MPG) ratings on cars, benchmarking transparency improves consumer choice, supports tenants in understanding utility costs, allows for better targeting of resources to help buildings reduce energy waste, and ensures that energy efficiency can be recognized and rewarded by the market.
**Is the City benchmarking its own buildings?**
Yes. The City is currently benchmarking all City-owned buildings larger than 10,000 square feet. Around 40 City buildings have been benchmarked in 2021, and many more buildings underway. Additionally, the City is using insights from benchmarking data to retrofit a number of its buildings and implementing cost-effective, energy-saving upgrades. Once completed, this project is estimated to save the City more than $3.5 million in utility bill savings and more than 27 million kWh in energy savings annually.

**Is benchmarking and transparency a new approach?**
Benchmarking and transparency is already a well-used practice. In 2017, almost 300 buildings on O‘ahu were benchmarked in Energy Star Portfolio Manager, representing more than 27 million square feet of floor area from office, multifamily, hotel, retail, and other commercial and residential settings. And across the country, more than 30 municipalities have already implemented benchmarking and transparency programs for public, commercial, and multifamily buildings.

**Proposed Program**

**Will the ordinance require energy efficiency improvements, audits, or retrofits?**
No. The proposed program will not require buildings to implement efficiency improvements, audits, or retrofits. While the City encourages voluntary action among buildings to realize greater energy savings, this program would only require benchmarking and reporting data annually.

**Will older, less efficient buildings be penalized when compared with other more efficient buildings island-wide?**
No. This program does not establish any type of performance standard. Buildings will not be penalized based on their energy efficiency or for performing below other efficient buildings island-wide.

**How do I know if I will be required to benchmark my building?**
Currently, the City is proposing a program that will eventually apply to all existing public, commercial, and multifamily buildings larger than 25,000 square feet. In advance of the first required reporting deadline, a ‘covered buildings list’ taken from available public data will be issued as a prompt for such buildings required to report by the compliance date. Owners will also be able to designate a point of contact to best coordinate with City staff to remind and help with the benchmarking process.
When do I need to benchmark and report?

Compliance will follow a phased roll-out based on building size. Buildings greater than 100,000 square feet will be required to benchmark in 2022, and buildings greater than 50,000 and 25,000 square feet will need to begin benchmarking in 2023 and 2024, respectively. An official compliance schedule with deadlines to benchmark will be determined during formal adoption of the program by City Council.

A phased roll-out will provide adequate time to fully support the needs of building owners and to ensure compliance. Larger buildings typically have a management team with greater expertise and capacity, so should be able to participate sooner than smaller buildings.

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<th>Building Sector</th>
<th>Building Size (sq ft.)</th>
<th>Benchmarking Timeline</th>
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<tr>
<td>City Buildings</td>
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<td>Commercial &amp; Multifamily Buildings</td>
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<td>&gt;25,000</td>
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Who is responsible for benchmarking my building?

Building owners are responsible for ensuring that they or someone on their management team benchmarks the building per the City requirements. Individuals that have, or can have, access to information on building characteristics and operations are typically assigned the task to benchmark a building. These might include building owners themselves, office staff, property managers or building operators, leasing agents, or third-party energy consultants.

A Benchmarking Tool: ENERGY STAR Portfolio Manager

How do I benchmark a building and report data?

The easiest way to benchmark is to use ENERGY STAR Portfolio Manager, a free online benchmarking tool developed by the U.S. Environmental Protection Agency (US EPA). The tool allows building owners and property managers to track and assess the energy, water, and gas use of a building – or across an entire portfolio of buildings – in a secure online environment. It allows building owners to calculate a building’s performance, compare it with similar buildings, and monitor performance over time. Portfolio Manager can also be used to report benchmarking data to the City to comply with the benchmarking program requirements.

What information am I required to provide to benchmark using Portfolio Manager?

ENERGY STAR Portfolio Manager collects a variety of building characteristics to help you benchmark and to produce an ENERGY STAR score. While some of the data collected varies by a building’s use type, Portfolio Manager always requires property name, property address, total gross floor area of property, irrigated area, building age, occupancy rate, and 12 consecutive months of energy data.
What is EUI?
Energy Use Intensity, or EUI, is a key metric in Portfolio Manager. It is used to express just how much energy a building uses per square foot annually. It is calculated by dividing the total energy consumed by the building in one year by square footage.

What is ENERGY STAR score in Portfolio Manager?
Portfolio Manager calculates and assigns an ENERGY STAR score for most building types. The score indicates how efficiently a building uses energy on a 1-100 scale, where a score of 50 indicates average energy performance and a score of 75 or greater indicates an energy efficient building. Buildings with a score of 75 or greater may be eligible for the ENERGY STAR certification.

How should I benchmark my building if I have multiple buildings on my lot?
Each building should be benchmarked depending on the arrangement of its meters. If multiple buildings on a lot each have their own meter for all utilities, they should be benchmarked separately, and the threshold will be the size of the individual buildings. If multiple buildings on a lot share a single meter, so the buildings cannot be independently benchmarked, they should be benchmarked as one building or campus.

Our building has limited staff capacity. How much time and effort will benchmarking require our property manager?
After they have collected all the data needed, most people typically spend just 1-2 hours setting up their account in Portfolio Manager and registering a building. This setup is typically the most time-consuming step, and needs to be done just once per building. The time needed also depends on the size of the building and the availability of the building data needed: large mixed-use buildings with multiple property types will require more time to register than small one-tenant buildings. Once the account is created, entering and updating utility data in Portfolio Manager is quick and easy and can be done monthly as bills are paid.

Typically, any costs incurred while benchmarking (usually in the form of staff time) are offset by potential benefits and financial savings realized from managing building performance through the ENERGY STAR Portfolio Manager tool.

Do I need to hire a qualified contractor to benchmark a building?
No. A qualified contractor is not needed to benchmark a building. Benchmarking is intended to be accessible to building owners and managers given existing staff and resources, and the City will work with partners to offer training and guidance. Some property managers may however prefer to work with a third party especially if they have a large portfolio. Those interested in going beyond benchmarking to receive an ENERGY STAR certification through Portfolio Manager will need to hire an independent, third-party contractor to verify utility data. The City is NOT requiring buildings to receive ENERGY STAR certification.
My building is not able to receive an ENERGY STAR score in Portfolio Manager. Do I still need to benchmark and report data?

Yes. Building owners are required to benchmark and report their building’s utility data regardless of whether an ENERGY STAR score is generated. Portfolio Manager can still provide helpful and valuable insights into a building's performance, such as weather-normalized EUI, and allow for meaningful comparisons with similar buildings.

**Data Access & Privacy**

What will the City do with the reported data? Why does it need to be made public?

The City will make annual benchmarking data available to the public. There are many benefits of making this data transparent and available to the public. Transparency helps drive the market to reward energy efficiency and create a continuous cycle of improvement and demand for high-performing buildings. By giving residential and commercial tenants greater awareness of ongoing costs, it enables tenants to make more informed choices on where to live and work.

This benchmarking and transparency program makes utility data public. How will the privacy of individual businesses and tenants be protected?

The City is working closely with the utility service providers Hawaiian Electric Company, Board of Water Supply, and Hawaii Gas to ensure the privacy of individual businesses and tenants and to provide building owners and managers access to aggregated anonymous whole-building energy consumption data, which can then be used to benchmark their building.

There are two main ways to protect the privacy of businesses and tenants during this process: anonymizing and aggregating utility data.

**Aggregating data** means to combine data from multiple utility accounts of a single building into one data set, making utility data of individual utility accounts no longer identifiable. The utility data of all the tenants in a building will be added together, and only this summed utility data will be shared with a building owner when requested.

**Anonymizing data** means removing identifiable characteristics (e.g., individual addresses, account numbers) when gathering data from a group of individual utility accounts (e.g., zip code, census tract). This is particularly important when the City uses utility data to understand the distribution of energy across the island, conduct targeted outreach, and better allocate resources to communities.
Help & Support

Where can I find Portfolio Manager training?
The City is currently working with partners to organize and host benchmarking training sessions for those new to Portfolio Manager, in Spring/Summer 2022. Building owners and operators can also get a head start on training through pre-recorded ENERGY STAR webinars offered by the US EPA.

What resources are available for me to voluntarily invest in energy and water efficiency in my building?
For energy efficiency, local residents and businesses can take advantage of a number of promotions and rebates offered through Hawaii Energy. Hawaii Energy is a public benefits fund that delivers incentives for energy efficiency improvements on Hawai‘i. In addition to incentives and rebates, Hawaii Energy has a team of Clean Energy Allies composed of contractors, architects, engineers, vendors, manufacturers, and retailers, that can help you in your clean energy transition.

For water conservation, the Board of Water Supply (BWS) administers rebates for residents through its Water Sensible Rebate Program.

State and federal incentive programs are also available. The Database of State Incentives for Renewables & Efficiency is a free and open resource operated by North Carolina State University, and provides a comprehensive summary of different types of incentives available in each state.

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