

POLICY BRIEF

Enacting a Citywide Benchmarking Ordinance

Across the nation, building owners and operators are measuring and tracking the energy performance of their buildings more than ever before. Tracking these measurements is known as benchmarking- a process that helps building owners quantify the financial impact of their energy consumption and identify opportunities to improve energy efficiency. Benchmarking leads to improvements that save owners and operators money and local job growth in energy efficiency and renewable energy. Energy Alabama is committed to supporting building owners and operators in measuring and tracking the energy performance of their buildings.

Specifically, Energy Alabama supports the establishment of a citywide benchmarking ordinance in Huntsville, Alabama.

Background |

Utility benchmarking provides building owners and operators the necessary and critical information on the reliability, cost, and efficiency of their energy systems. The U.S. Department of Housing and Urban Development (HUD) notes utility benchmarking as a fundamental asset management practice, defining it as tracking, analyzing, and reporting the annual utility consumption associated with a property or a portfolio of properties.¹ It allows owners and operators to gain insight into the energy and water performance of properties, suggesting potential improvements and tracks the effectiveness of investments made to improve performance. When investments are shown to be effective, benchmarking demonstrates the impact energy efficiency and renewable energy can have on a building owner or operators' bottom line.

¹ "Utility Benchmarking," HUD Exchange, April 18, 2020, <https://www.hudexchange.info/programs/utility-benchmarking/>.

There are several ways to benchmark a building. Three of the most common usages of benchmarking are as:

- utility usage within a portfolio,
- a comparison to other buildings of similar type, and
- an ENERGY STAR score.

Benchmarking is most useful when both energy usage and costs are tracked. Tracking energy usage provides a better measure of performance efficiency while costs demonstrate how and where investments would improve an owner or operator’s bottom line.

ENERGY STAR Portfolio Manager |

The ENERGY STAR Portfolio Manager is the most complete way to benchmark, track, analyze, and report data.² Developed in 1992 as a voluntary labeling program designed to identify and promote energy efficient products, the tool now delivers technical information and assessments that organizations and consumers need to choose energy efficient solutions and best management practices.

ENERGY STAR Portfolio Manager Quick Facts:

- Measures and tracks energy and water consumption as well as greenhouse gas emissions
- 40% of U.S. commercial building space is benchmarked in the portfolio manager
- Most popular tool used in U.S. benchmarking ordinances and policies

In a recent study, EPA found that buildings that were benchmarked consistently reduced energy use by an average of 2.4% a year, for a total savings of 7%!
ENERGY STAR Portfolio Manager DataTrends, 2016

² From “Best Practices for Providing Whole-Building Energy Data: A Guide for Utilities,” Better Buildings-U.S. Department of Energy. January 2016, <https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Best%20Practices%20for%20Providing%20Whole-Building%20Energy%20Data%20-%20Guide%20for%20Utilities.pdf>, Accessed April 18, 2020.

Why Benchmark? |

- Information: Benchmarking allows an owner or operator to quickly understand the utility performance of buildings. It allows for the tracking of investments, illustrates goals met, and can improve operating costs and asset value.
- Return on investment (ROI): Benchmarking helps building owners and operators determine where they'll see the greatest ROI from efficiency and renewable projects, giving them a stronger platform from which to make investment decisions.
- Resale value: As energy efficiency gains momentum and a following within the real estate industry, utility performance is becoming increasingly important in real estate transactions. Furthermore, reducing operating expenses immediately raises the resale value of a property.
- Inexpensive: Benchmarking is a low-cost, objective initiative that determines an owner or operator's investment and saving priorities.

Benchmarking Ordinances Around the U.S. |

Numerous cities around the U.S. now require certain types of buildings to be benchmarked. Through policies and programs, many municipalities and states are collecting data on the energy performance of buildings in order to track, analyze, and guide investments with the goal of improving energy performance.

Policies at this level tend to have a couple of similar characteristics:

- Benchmarking tends to be introduced in phases, starting with voluntary and leading towards mandatory reporting.
- Most include a minimum square footage or number of units, with all buildings falling under that number exempt but encouraged to report voluntarily.
 - Square footage: this number ranges anywhere from 25,000-100,000 square feet, with the majority of cities placing the mandatory minimum at 50,000 square feet.
 - Number of units: this number changes depending on the city and demonstrates no specific range.
- Buildings affected tend to fall into one of three categories: municipal/ government, commercial, and multifamily residential.

- Policies and programs tend to require the use of the ENERGY STAR Portfolio Manager tool in order to benchmark and report data to the city.

Examples of benchmarking ordinances and their requirements:

- Atlanta, GA: “Commercial Buildings Energy Efficiency Ordinance,” No. 15-O-1101, (2015)³
 - Commercial buildings more than 25,000 square feet and all municipal buildings must track and report their annual energy use using the ENERGY STAR Portfolio Manager Tool. Applicable commercial buildings must disclose their benchmarking data to the city and receive an energy audit at least once every 10 years.
- St. Louis, MO: “Building Energy Awareness Ordinance,” (2017)⁴
 - Owners and operators of existing municipal, commercial, and multi-family residential buildings greater than or equal to 50,000 square feet are required to track whole-building energy and water use and report it to the city annually. This information will be made available to the public on a phased schedule beginning in 2018.
- Boston, MA: “Building Energy Reporting and Disclosure Ordinance,” (2019)⁵
 - Requires nonresidential buildings that are 35,000 square feet or larger, residential buildings that are 35,000 square feet or larger or have 35+ units, and any parcel with multiple buildings that sum to 100,000 square feet or 100 units to report their annual energy and water usage. Additionally, these buildings must complete an energy audit every five years.
 - Uses Portfolio Manager to benchmark energy use in 100% of its municipal buildings.

In general, the longer a benchmarking ordinance has been in place, the more growth and investment in energy efficiency has been realized. Benchmarking data provides a platform from which numerous investments, savings, and innovative solutions can be launched.

³ “Atlanta,” Building Rating, 2015, <http://www.buildingrating.org/jurisdiction/Atlanta>, Accessed April 18, 2020.

⁴ “St. Louis,” Building Rating, September 2017, <http://www.buildingrating.org/jurisdiction/St.%20Louis>, Accessed April 18, 2020.

⁵ “Building Energy Reporting and Disclosure Ordinance,” Boston, December 2019, <https://www.boston.gov/environment-and-energy/building-energy-reporting-and-disclosure-ordinance>.

Benchmarking in Alabama |

Basic benchmarking policies have been implemented at the state level through executive order and include only state-owned and operated buildings. As of September 2017, there is no disclosure policy in place.

- ANSI/ASHRAE/IESNA Standard 90.1-2007 (2010): code adopted by the Alabama Building Commission that states and Energy Officer is to be assigned by each agency to oversee the implementation of energy efficient programs and submit annual reports on progress.⁶
- Executive Order 25 (2011-2015): Issued by Gov. Robert Bentley, requiring all state departments and agencies designate an official to collect, analyze, and recommend improvements on energy usage in order to reduce consumption by 30% from 2005 levels by 2015.⁷
 - State agencies are required to use ENERGY STAR Portfolio Manager to benchmark the energy efficiency of their buildings
 - As of 2015, participating state agencies saved over \$16.5 million compared to their 2005 baseline usage, exceeding the required 30% reduction with a 52% reduction in energy consumption.⁸
- Voluntary Residential Energy Benchmarking, State Energy Program:
 - Housed under the Energy Division at the Alabama Department of Economic and Community Affairs (ADECA)⁹ and funded through a U.S. Department of Energy grant.
 - Utilized to plan and implement energy programs in Alabama that are designed to achieve national energy goals such as lowering energy costs and consumption, decreasing reliance on imported energy, reducing impacts of energy production and use on the environment, and to increase energy security and reliability.
 - Alabama Power assists the state's benchmarking initiative by providing energy data related to buildings within the ENERGY STAR Portfolio Manager.¹⁰
 - In July 2017, the ADECA Energy Division received a U.S. DOE State Energy Program Competitive award to create a voluntary home energy benchmarking system that can be applied to residential properties. This cohesive presentation of information will encourage a deeper drive towards energy efficiency by making the market more transparent and thus consumer-friendly.

⁶ "Alabama State and Local Policy Database," American Council for an Energy-Efficient Economy (ACEEE), October 2019, <http://database.aceee.org/state/alabama>, Accessed April 18, 2020.

⁷ "Alabama," Building Rating, <http://www.buildingrating.org/jurisdiction/Alabama>, Accessed April 18, 2020.

⁸ "State and Local Policy Database," ACEEE, July 2019, <http://database.aceee.org/state/alabama>, Accessed April 2020.

⁹ "Energy," ADECA, <https://adeca.alabama.gov/Divisions/Energy/Pages/default.aspx>, Accessed April 2020.

¹⁰ https://www.energystar.gov/sites/default/files/tools/Directory_of_Energy_Efficiency_Programs_Leveraging_Energy_Star_August201..._0.pdf

Benefits of a Municipal Benchmarking Ordinance |

There are numerous proven benefits to establishing a municipal benchmarking ordinance.

- Low upfront capital costs
 - Unlock energy and cost savings opportunities
 - Create economic growth through the improvement of the local built environment
 - Allows the public market to recognize, reward, and drive high-performing buildings
 - Provides a platform for further investment in energy efficiency policies and programs
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Other Considerations |

Building owners and operators frequently cite the inability to gather data in a simple manner as a primary obstacle to data collection, benchmarking, and improving energy efficiency in their buildings.¹¹ Benchmarking can be seen as a burden within the real estate industry, namely viewed as an additional government regulation. Further, the burden tends to affect smaller buildings more because they may not have specialized personnel on hand to handle such tasks.

However, Energy Alabama works to ease the “burden” benchmarking puts on building owners and operators by providing free benchmarking services to all commercial buildings in the State of Alabama.

Opposition forces tend to rely on the argument that benchmarking leads to unexpected and unwanted costs. Sometimes they argue that once people know they could be saving energy and therefore money, this knowledge will force them to make upgrades to their properties that they otherwise would not want to make.

Energy Alabama supports benchmarking precisely for this reason: if building owners and operators know they could be saving money for themselves and tenants through cost-effective energy efficiency, they should be trying to do so. This is especially important in state and locally owned government buildings, which operate with each taxpayer’s dollar. Benchmarking government-owned buildings is necessary to achieve transparent and open governmental processes—and Energy Alabama makes it easy.

¹¹ “Best Practices for Providing Whole-Building Energy Data: A Guide for Utilities,” Better Buildings- U.S. Department of Energy, January 2016, <https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Best%20Practices%20for%20Providing%20Whole-Building%20Energy%20Data%20-%20Guide%20for%20Utilities.pdf>, Accessed April 18, 2020.