

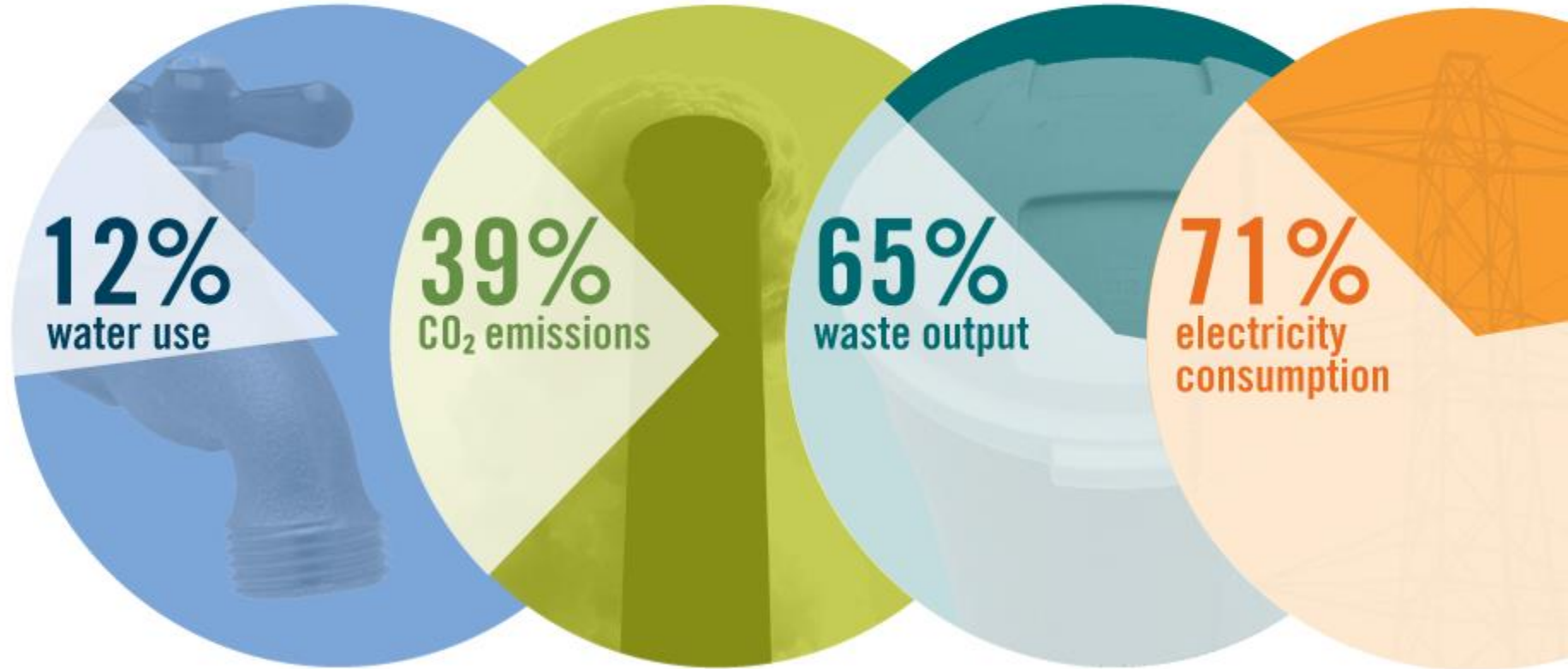
Existing Building Policy Successes in St. Louis



GREEN
A graphic element of the "Green Buildings Are Better" logo, showing stylized green buildings and a wind turbine.
**BUILDINGS
ARE BETTER**



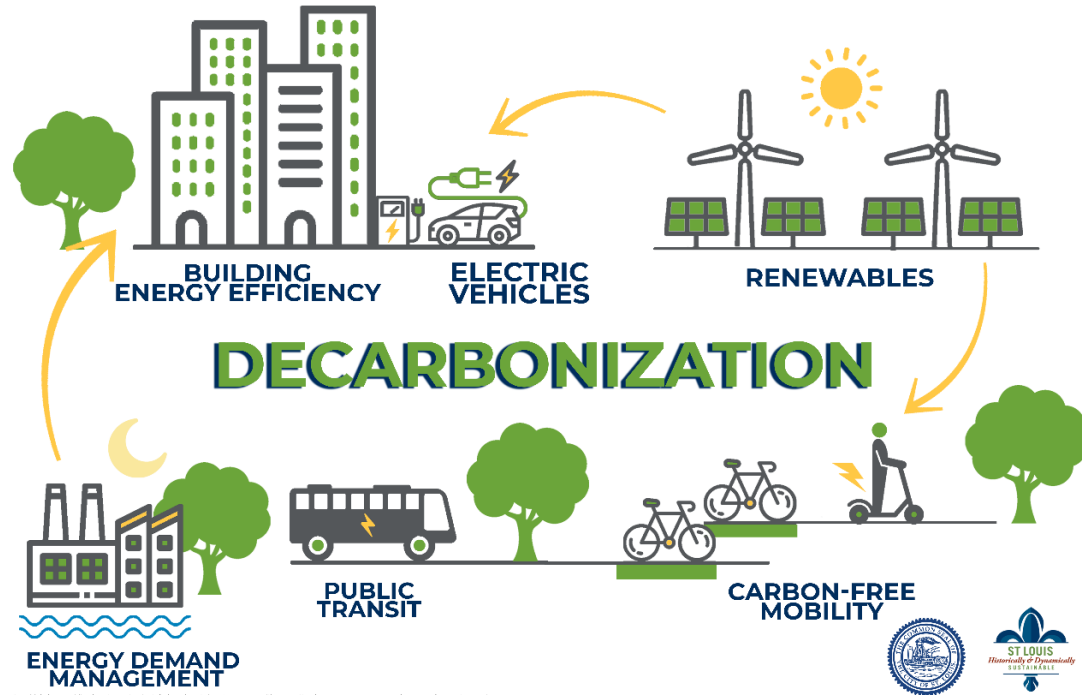
Buildings in the US Have a BIG Impact



Building Energy Efficiency Is a Win-Win Climate Solution that Cities are acting on!

CITY OF ST. LOUIS CLIMATE PROTECTION INITIATIVE

An Integrated Approach Toward Carbon Neutrality



Electric vehicle by monix, electric station by o ferias, Electric bus by 4u,ther 2i, itra, cycling by mynamepong, arrow by SANE, factory by Fetal,ent's 2000, green energy by mace, oil, dings by mace, tree guilherme furada, Electric Scooter by u's Prods from the Hour Project from the Hour Project

Building Energy Awareness: Benchmarking Requirements



SUPPORTERS INCLUDE



Building Energy Awareness: Support & Feedback

- Benchmarking 101 Session
- Benchmarking Jams & Help Sessions
- Reporting Checklists & Fact Sheets
- Implementation Advisory Group



Energy Efficiency Checklist

Explore Opportunities to Save Energy

Understand Your Performance

You Can't Manage What You Don't Measure

- ❑ **Benchmark Your Building Energy Use**
 - Energy Benchmarking is the process of tracking your building's energy use and comparing your performance to similar buildings and to past performance.
 - Any building can use ENERGY STAR Portfolio Manager, a free, online tool administered by the U.S. Environmental Protection Agency, to benchmark their energy, water and waste performance. Visit www.stlbenchmarking.com to learn more and get assistance.

Invest in Your Building

No-Cost Operational Changes & Low-Cost Improvements



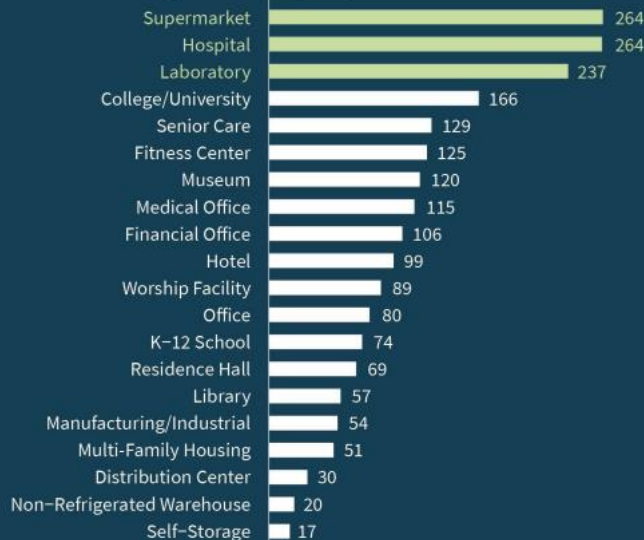
“Building energy efficiency is an essential part of creating a healthier, more equitable, more sustainable, and more resilient St. Louis.”

In 2018, 532 of the 983 buildings covered by the benchmarking ordinance submitted performance data, up from 440 in 2017.

As in 2017, the most energy-intensive property types were supermarkets, hospitals, and laboratories.



Median Site Energy Use Intensity (EUI)



If every building reduced its energy use by 10%, we would collectively save:

\$8.4 million

on electric and gas bills each year

171,000

metric tons of CO₂ each year

**Bloomberg
Philanthropies**

**American Cities
Climate Challenge**

CLIMATE ACTION PLAYBOOK BRIEF

A STRATEGIC BRIEF TO ACCELERATE AND DEEPEN CLIMATE ACTION IN CITIES



The Climate Challenge winning cities are:

Albuquerque	Atlanta	Austin
Boston	Charlotte	Chicago
Cincinnati	Columbus	Denver
Honolulu	Indianapolis	Los Angeles
Minneapolis	Orlando	Philadelphia
Pittsburgh	Portland	Saint Paul
San Antonio	San Diego	San Jose
Seattle	St. Louis	St. Petersburg
	Washington, DC	

BUILDINGS PATHWAYS



**REDUCE
BUILDING
ENERGY USE**



**INCREASE
RENEWABLE
ENERGY**



**ELECTRIFY
BUILDINGS**



**REDUCE
VEHICLE MILES
TRAVELED**



**ELECTRIFY
VEHICLES**

Next Phase: Building Energy Performance Standard





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[OUR EXPERTS](#)
[OUR STORIES](#)
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EXPERT BLOG • STEFAN SCHAFFER & MARIA STAMAS

Smaller Cities Like St. Louis Lead on Energy Efficiency

April 20, 2020 | Stefan Schaffer & Maria Stamas

St. Louis passed its highly ambitious Building Energy Performance Standard (BEPs) ordinance, making it the fourth jurisdiction in the United States and first in the Midwest to do so. Mayor Lyda Krewson is expected to officially sign the ordinance into law in the coming weeks. With the adoption of this policy, the city will accomplish a major goal in creating more energy-efficient buildings.

What's more, as a city of just over 300,000 residents, St. Louis is setting an example for other cities of all sizes, by demonstrating that it can drive climate action and unlock a wide range of associated benefits for building owners and the entire St. Louis

Building Energy Performance Standard

SUPPORTERS INCLUDE:



BEPS Policy Elements

What IS the standard?

- Performance metric: Site Energy Use Intensity (EUI)
- Standard will be set no lower than the 65th percentile of site EUI for similar buildings in St. Louis
- Standards finalized by May 4, 2021
- All commercial, institutional, multi-family and municipal buildings that are 50,000 square feet and above must comply.



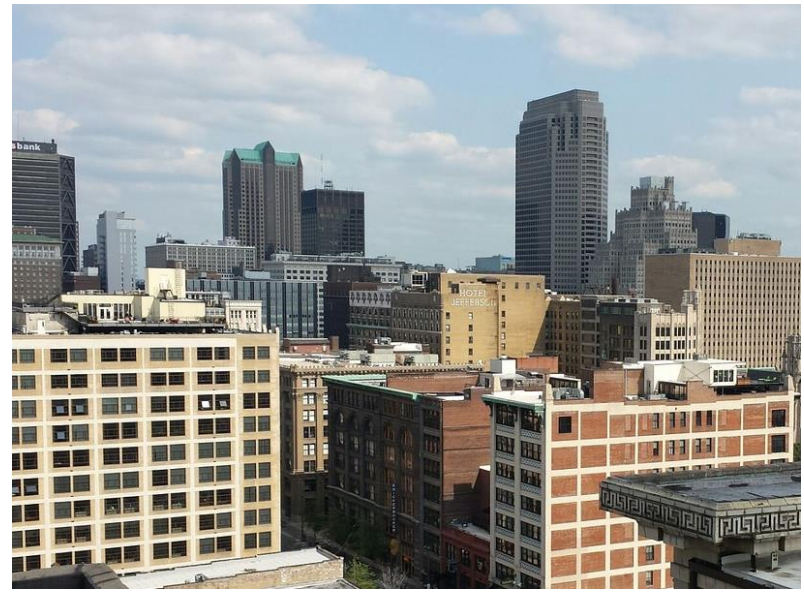
BEPS Policy Elements

- Most buildings will have four years to meet the standard (May 4th, 2025); Affordable housing has six
- Building owners will use ENERGY STAR Portfolio Manager tool to document compliance with the BEPS as part of the existing annual benchmarking reporting process.
- Data verification will be required when compliance is due.



Unique Elements of BEPS

- Passed unanimously @ City of St. Louis Board of Aldermen at their first ever virtual meeting
- Building Energy Improvement Board will oversee implementation
- No alternative compliance pathways outlined in ordinance, but buildings can present plan to Board for consideration



BEPS Timeline + Next Steps

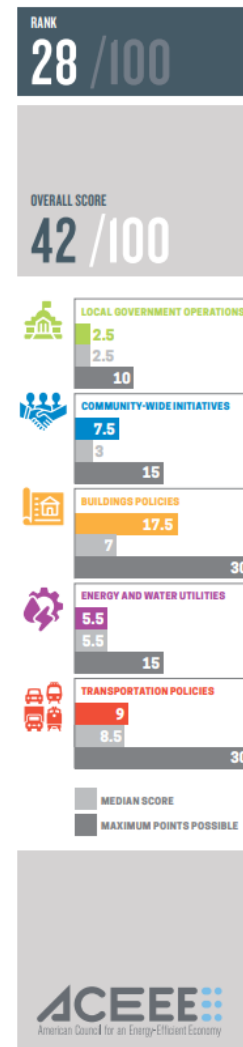
Timeline



Learn more about City of St. Louis Benchmarking & BEPS
@ www.stlbenchmarking.com

Progress Recognized!

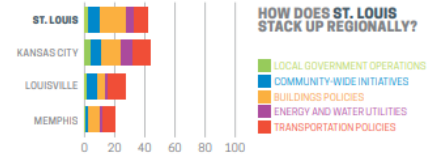
- City of St. Louis went from a rating of 36/100 cities in 2019 to 28/100 cities in 2020 on the ACEEE City Clean Energy Scorecard!
- Actions that helped to improve the rating were:
 - Solar Ready Ordinance
 - **Building Energy Performance Standard**
 - Green Tariff MOU signed by Mayor with Ameren



2020 CITY CLEAN ENERGY SCORECARD

St. Louis

St. Louis was one of the two most-improved cities in the 2020 City Scorecard. The city's April 2020 adoption of its Building Energy Performance Standard bill was the primary driver of its improved score. By adopting it, St. Louis became the third city in the country—and the first in the Midwest—to enact a performance standard bill for buildings. St. Louis also adopted a solar readiness requirement for residential, multifamily, and commercial construction. Additionally, to demonstrate support for the program, the city signed a memorandum of understanding with its electric utility, Ameren Missouri, to participate in a planned green tariff program. To maintain its spot in the rankings, St. Louis will need to continue to take bold policy action.



LOCAL GOVERNMENT OPERATIONS (2.5 OF 10 POINTS)

The city integrates clean energy into its procurement and construction by converting streetlights to LEDs and following inclusive contracting processes for city projects. It also benchmarks the energy use in some municipal buildings. The city has greenhouse gas (GHG) emissions reduction and renewable energy goals for local government operations. Based on past years of emissions data, ACEEE projects the city will not achieve its near-term local government operations climate mitigation goal to reduce GHG emissions 25% below 2005 levels by 2020. The city can adopt fleet efficiency requirements and install renewable energy systems on municipal buildings. In addition to continuing to benchmark energy use, the city can develop a comprehensive retrofit strategy.

COMMUNITY-WIDE INITIATIVES (7.5 OF 15 POINTS)

St. Louis's GHG emissions reduction and renewable energy goals set the vision for a clean energy future. The city adopted a long-term GHG emissions reduction goal of 80% below 2005 levels by 2050. Based on past years of emissions data, ACEEE projects the city will achieve its near-term, community-wide GHG emissions reduction goal of 25% below 2005 levels by 2020. St. Louis supported the creation of district energy and community solar within the city. The city has not adopted a quantitative goal to mitigate the urban heat island effect.

BUILDINGS POLICIES (17.5 OF 30 POINTS)

St. Louis requires commercial and residential buildings to comply with the 2018 International Energy Conservation Code. The codes are highly stringent when compared to those in effect in other cities. Commercial and multifamily buildings must adhere to solar-readiness requirements. St. Louis has taken ambitious action to reduce energy use in existing buildings, recently enacting a requirement that large existing buildings meet a to-be-determined performance standard by 2025. It also requires benchmarking in commercial and multifamily buildings in accordance with the Building Energy Awareness Ordinance.

ENERGY AND WATER UTILITIES (5.5 OF 15 POINTS)

Compared to other utilities, Ameren Missouri shows moderate savings as a percentage of sales for electric efficiency programs. Spire Missouri reports low savings for natural gas efficiency programs. The two utilities jointly offer a low-income multifamily program. St. Louis partners with both utilities to use PACE financing to implement energy upgrades in residential, industrial, and multifamily buildings. The city can also increase the energy and water efficiency of water services and wastewater treatment plants.

TRANSPORTATION POLICIES (9 OF 30 POINTS)

The city encourages mode shift through its complete streets policy and bikeshare programs. It also encourages location efficiency through a form-based overlay district. St. Louis's Sustainability Plan includes provisions to improve the energy efficiency of the city's transportation sector. Relative to other city systems, St. Louis's transit system is underfunded and moderately accessible. The city can promote sustainable transportation by abolishing minimum parking requirements citywide, offering a greater number of incentives for compact and mixed-use development, and for the installation of electric vehicle charging infrastructure.

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June 2020



Developed by USGBC-Missouri Gateway Chapter with support from Washington University in St. Louis and Bloomberg Philanthropies.



Missouri
Gateway
CHAPTER



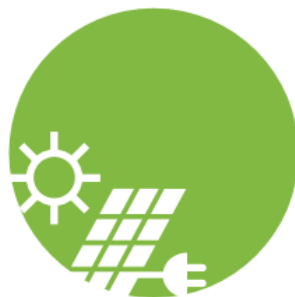
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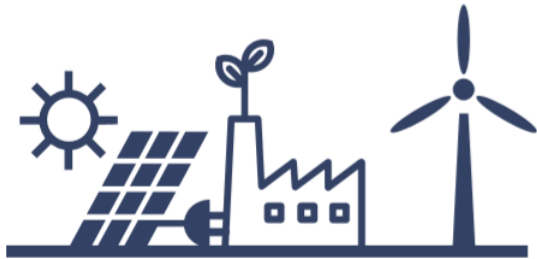
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Each Policy Covered Includes:

- Sample policy
- Walking the Talk: focus on action
- Examples of where this is happening
- Resources for more information



BUILDING ENERGY & WATER USE BENCHMARKING REQUIREMENTS

Benchmarking is the process of tracking a building's energy and water use and comparing performance to the building's past performance and to similar buildings. Benchmarking is a building management best practice and the first step towards making energy efficiency improvements in a building because "You Can't Manage What You Don't Measure." Cities around the country – including the City of St. Louis – have implemented benchmarking and transparency policies that require large buildings to report their energy and water use annually using the US EPA's free online tool, ENERGY STAR Portfolio Manager. Benchmarking helps buildings owners and managers understand how their properties compare with similar buildings and can motivate energy efficiency improvements. According to the US EPA, buildings that benchmark can save 7% on average over three years. (Source: [US EPA](#)) Benchmarking policies allow local governments to better understand how buildings in their jurisdiction use energy. Making data publicly available can empower owners and tenants to make changes in how buildings use energy. It can also drive market demand and competition for more energy efficient buildings and tenant spaces.

SAMPLE POLICY

A Benchmarking & Transparency Policy should include:

- Type of buildings required to comply (typically municipal, commercial, institutional and multi-family) and what (if any) types of buildings are exempt.
- Square footage threshold of buildings required to comply (10,000 – 50,000 square feet depending on building stock).
- Annual date for compliance and fees or penalties for non-compliance.
- How buildings will comply (ENERGY STAR Portfolio Manager).
- Who is responsible for submitting data and whether third-party data verification is required.
- What data will be made public, as well as how and when it will be shared.

Where to find policy examples:

- St. Louis, MO [Building Energy Awareness Ordinance](#) - passed Jan 2017
- Kansas City, MO [Energy Empowerment Ordinance](#) - passed in 2015
- Des Moines, IA [Energy & Water Benchmarking](#) - passed June 2019
- Evanston, IL [Energy & Water Benchmarking Ordinance](#) – passed December 2016
- Edina, MN [Efficient Buildings Benchmarking Ordinance](#) – passed May 2019

Thank You!



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