

Making the Case for Managing Energy

Learning together to move the needle in building performance



building energy exchange
St. Louis



2025 Champion of Community Engagement
Midwest Energy Solutions Conference - Inspiring Efficiency Awards

Transforming St. Louis' Built Environment for a Healthier, More Efficient Future Together



Join Our Upcoming Events and Trainings

www.be-exstl.org





GETTING STARTED WITH ENERGY BENCHMARKING

March 12
8-9 AM

March 19
8-9 AM

BENCHMARKING EFFECTIVELY:

Compliance and Organizational Value

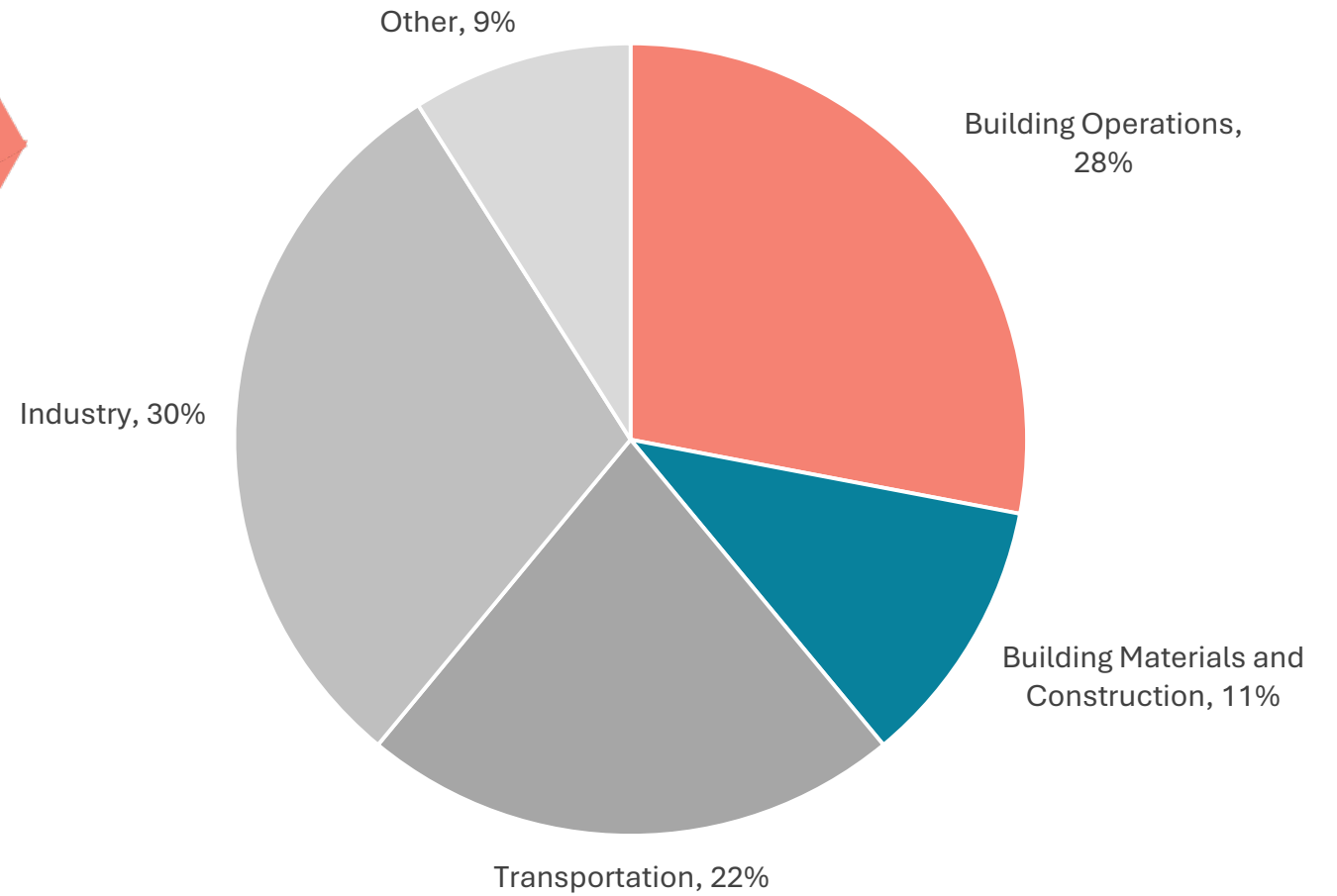
EFFICIENCY

COST



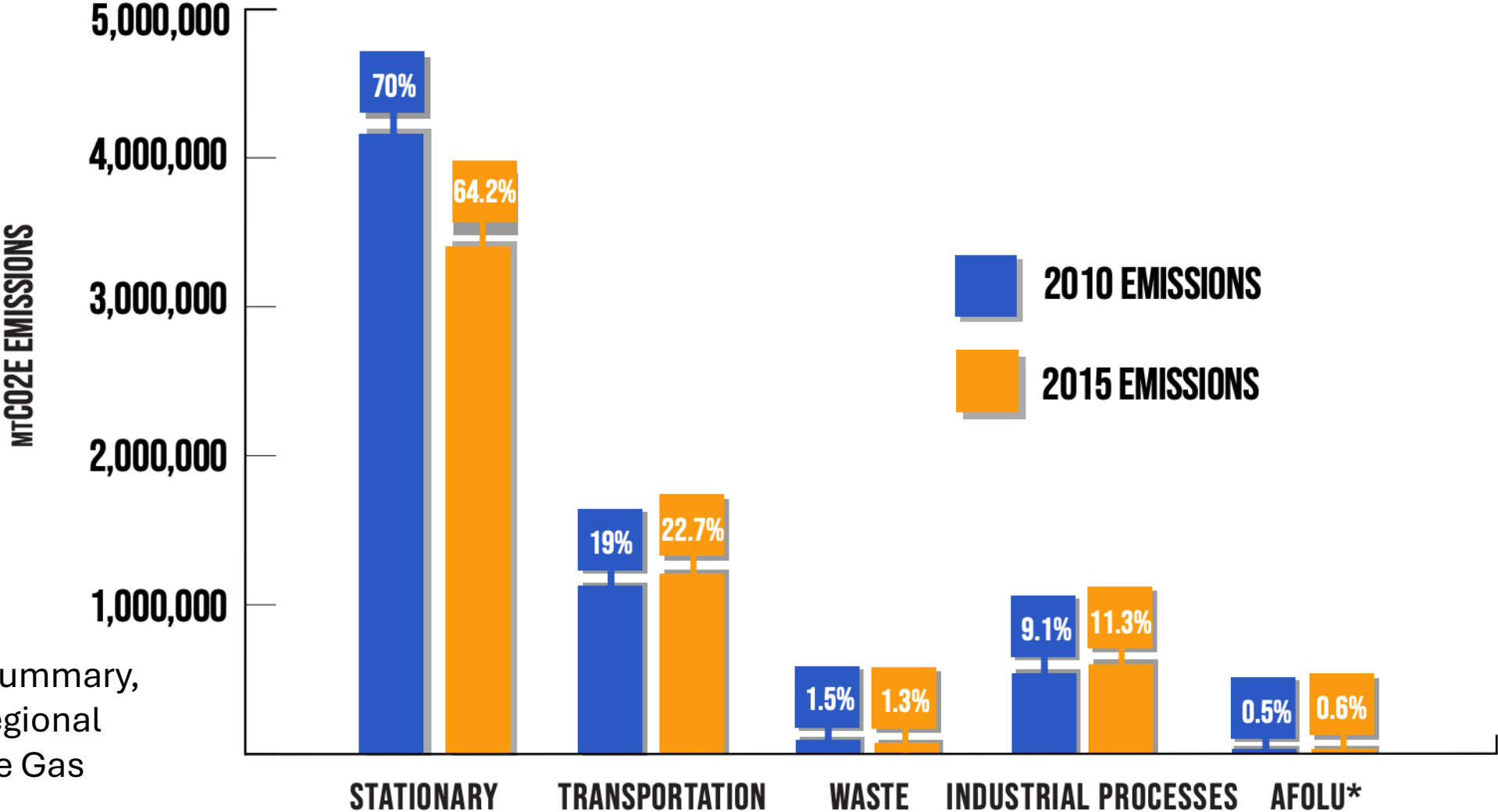
Translating Carbon

Global CO2 Emission By Sector



Source: Architecture 2030

2010 & 2015 EMISSIONS BY SECTOR



One STL
Executive Summary,
St. Louis Regional
Greenhouse Gas
Inventory

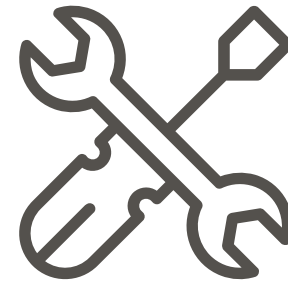
30%


of energy used in
buildings is wasted
through inefficiency
according to the EPA




50%

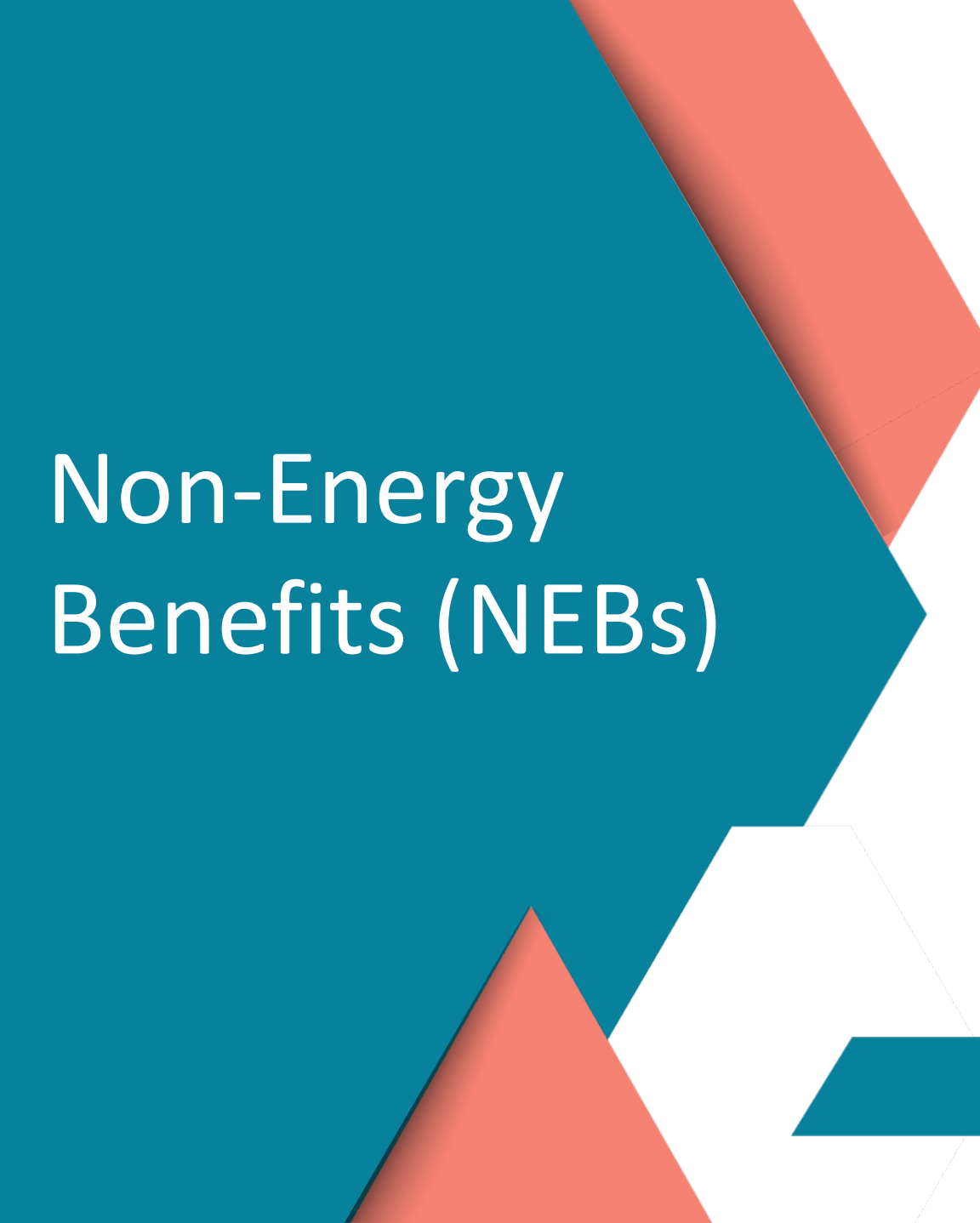
of all energy savings are possible through low-cost or no-cost operational improvements






Energy Use is a
Symptom Signaling
Greater
Opportunities





Non-Energy Benefits (NEBs)

This is what we
really need to get
better at talking
about





2,000
Gallons

The volume of air that
you breathe in every day
according to the
American Lung
Association

90%

The amount of time that
the average person
spends indoors according
to the EPA



2-5x

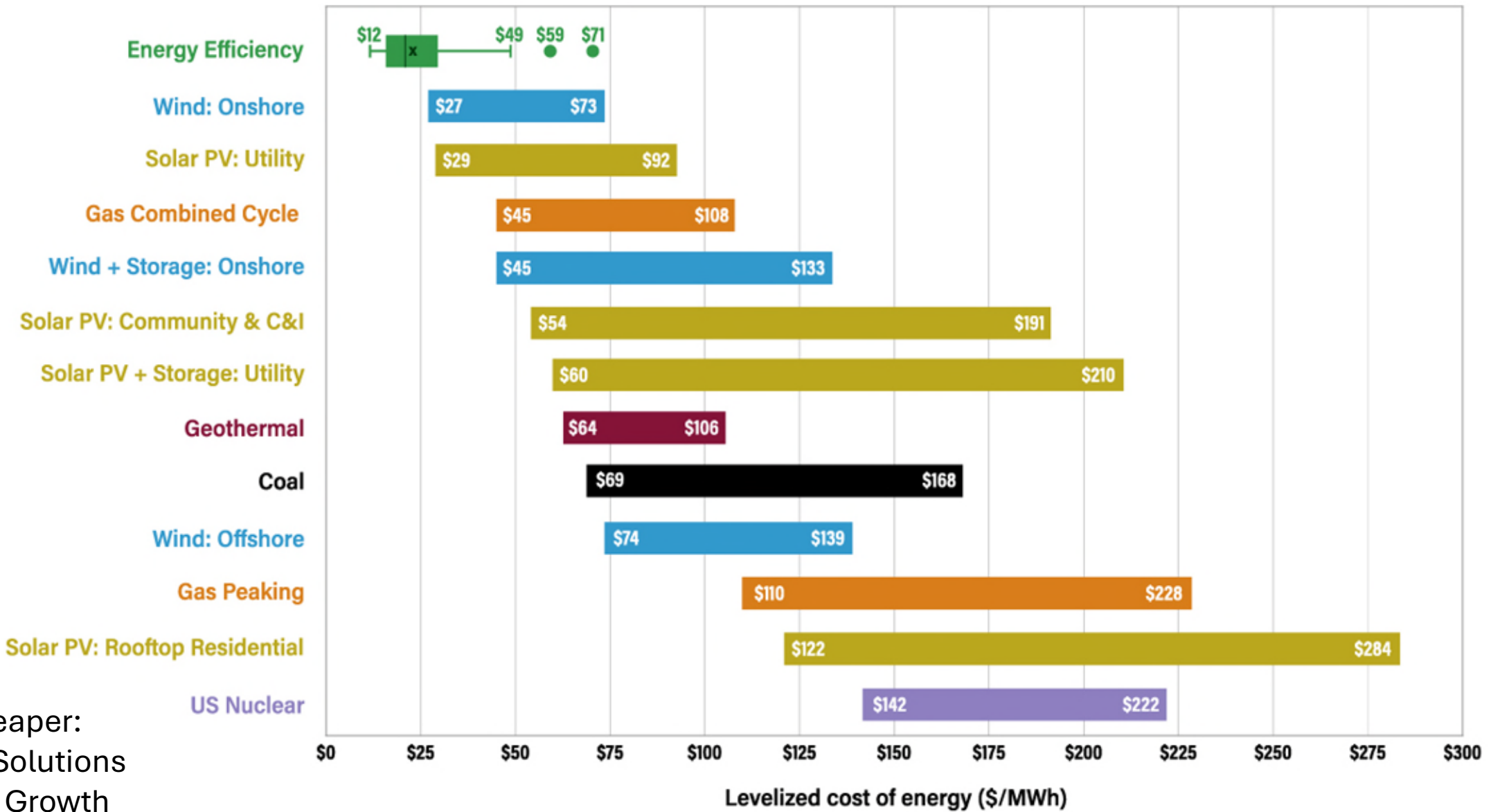
How much more polluted
indoor air is than the air
outside according to the
EPA



The background features abstract geometric shapes in teal and coral colors. On the left, there is a large teal shape with a pointed right side. To its right, a coral shape is partially visible. Below these, a white hexagonal shape is partially shown. At the bottom, a horizontal teal bar spans across the width of the page.

What About Economic Development?

ACEEE
Faster and Cheaper:
Demand Side Solutions
for Rapid Load Growth



The Point?

Productivity, health and wellbeing,
employee happiness/retention are
all related to the built environment
with financial and environmental
consequences



Get Energy Efficiency Done



Measure
Performance



Identify Opportunities
for Improvement



Plan, Budget, Get Buy-In



Implement Solutions.
Rinse & Repeat



Integrate Efficiency into an Organizational Capital Strategy



Benchmark

Understand the opportunity for efficiency savings by tracking energy usage comparatively



Energy Audit

Utilize 3rd party professional to identify projects and returns



Capital Planning

Balance existing capital needs with ROI and organizational goals



Project Execution

If the plan works- follow it
Empower operations teams

The slide features a teal background on the left side, which is partially obscured by a large, stylized arrow shape pointing right. This arrow is composed of several overlapping geometric shapes in teal and a reddish-orange color. The text 'Key Performance Indicators (KPI)' is written in white on the teal background. On the right side, there is a white background with a teal horizontal bar at the bottom. The text 'Yep- This is What We Are Talking About!' is written in black on the white background.


Key Performance Indicators (KPI)

Yep- This is What We
Are Talking About!



What is a
Benchmark

The Standard,
Reference Point, or
Metric for
Comparative Analysis



Asset Management

Lifecycle Modeling Dashboard

Lifecycle Modeling Outcomes

Predictor

Electorate

Downtown
Lower South
Midtown
Upper West

District

Alicante
Ambridge
Ash City
Basin City
Becville
Cabot Cove
Castle Rock
Cliffport
Ember
Fooville
Hazzard County
Hirocisco

1,492

No. of Buildings

33,967

No. of Records Modeled

\$22,618K

Initial Backlog

78.74%

Service Potential

2.15

Overall Condition

\$3.05bn

Asset Value

Service Name

Floor Finish Condition

OSI

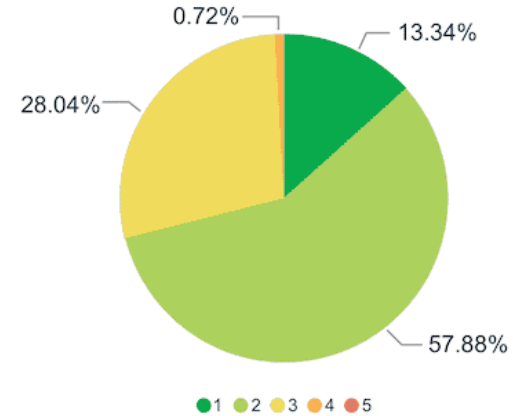
Overall Condition Rating

Report Type

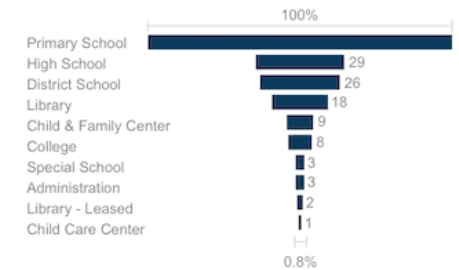
Asset Quantity

Network Measure

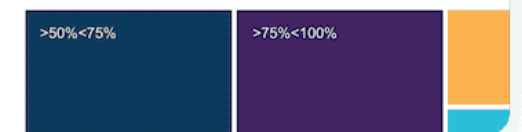
Overall Condition



Facility Type Breakdown



School Occupancy Distribution



A large teal arrow pointing to the right, with a red shadow behind it. The text 'Capital Improvement Plan(CIP)' is written in white inside the arrow.

Capital Improvement Plan(CIP)

Balancing Needs,
Funding, and Viability

Accountable and
Defensible

A solid teal horizontal bar at the bottom of the slide.

Facility Condition
Index (FCI)

$$\frac{\textit{Renewal Costs}}{\textit{Current Market Value}}$$

The slide features a large teal arrow pointing right, with a coral-colored shape behind it. A teal horizontal bar is at the bottom. The text 'Energy Benchmarking' is written in white on the teal arrow.

Energy
Benchmarking

VS. Energy
Accounting

The slide features a large teal arrow pointing right, with a coral-colored shape behind it. A teal horizontal bar is at the bottom. The text 'Split Incentives' is written in white on the teal arrow.

Split Incentives

Does the Facilities
Team Pay the Bills?

ENERGY STAR®
PortfolioManager®

Energy | Water | Waste

**Managing Buildings REQUIRES
Measuring Performance**

Comparing Apples

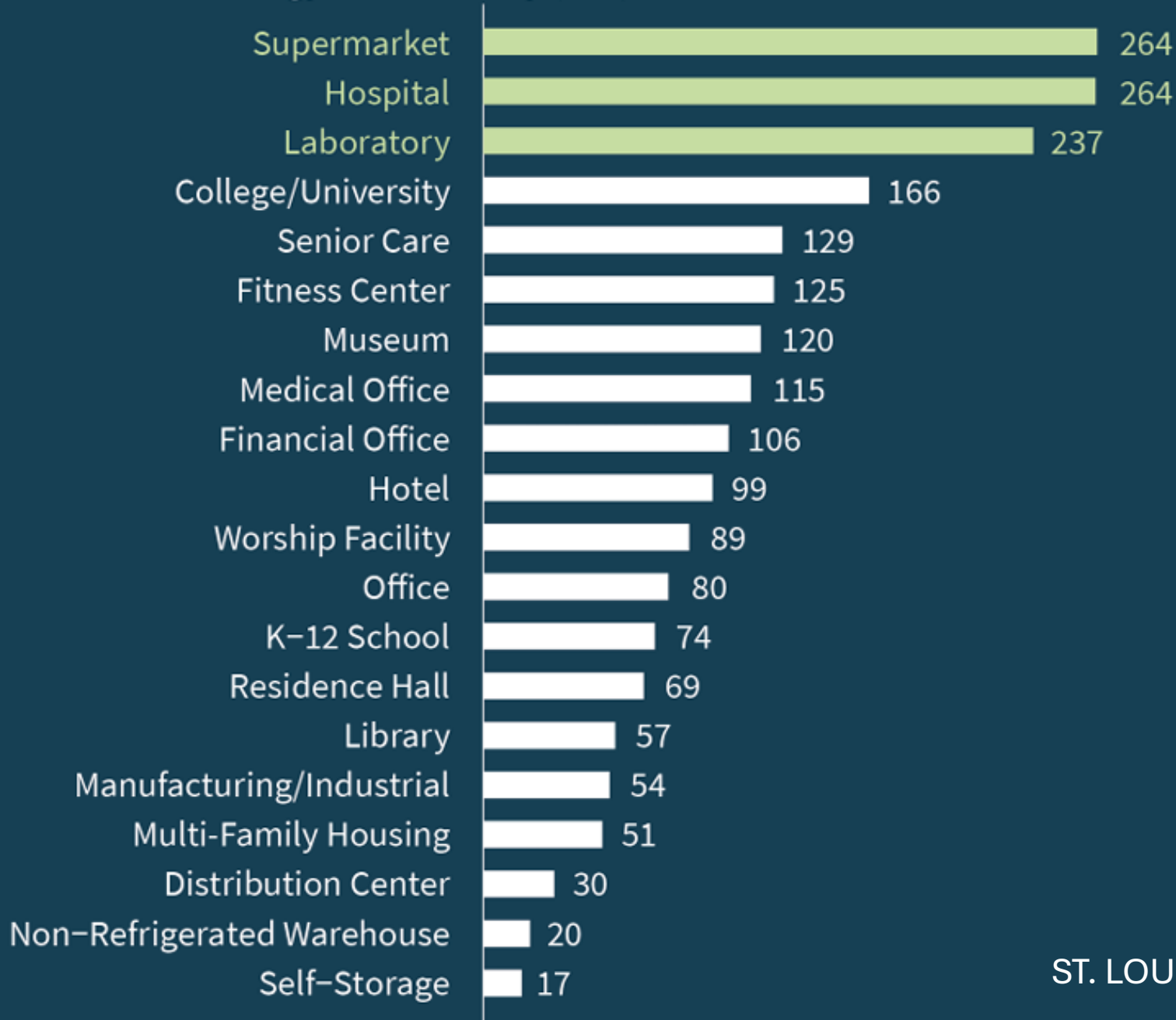
By Building Type

- 1-100 ENERGY STAR Score
- National Medians
- Local Data
- Other Buildings in your Portfolio

Individually

- Past Performance
- Target Performance

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

You Can Have Everything?

MyPortfolio | [Sharing](#) | [Reporting](#) | [Recognition](#)

AA Importing Co

7700 Hall St, St Louis, MO 63147 | [Map It](#)
Portfolio Manager Property ID: 6272814
Year Built: 1905
[Edit](#)

 [Not currently eligible for ENERGY STAR Certification](#)

[Change Metric](#)

Weather Normalized Site EUI (kBtu/ft²)

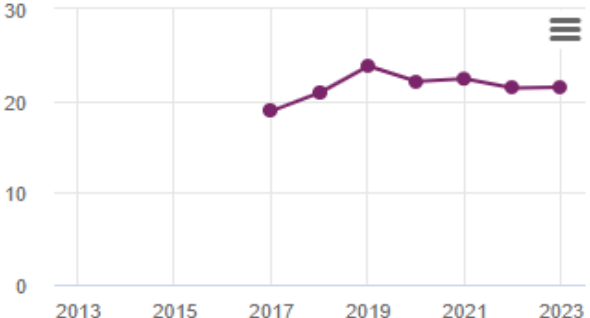
Current: 21.5
(51.79% lower than median.)

Baseline: 20.9
(40.86% lower than median.)

[Summary](#) | [Details](#) | [Energy](#) | [Water](#) | [Waste & Materials](#) | [Goals](#) | [Design](#)

Weather Normalized Site EUI Trend (kBtu/ft²)

[Change Metric](#)



Year	Weather Normalized Site EUI (kBtu/ft ²)
2017	19.5
2018	21.5
2019	24.5
2020	22.5
2021	23.0
2022	22.0
2023	22.0

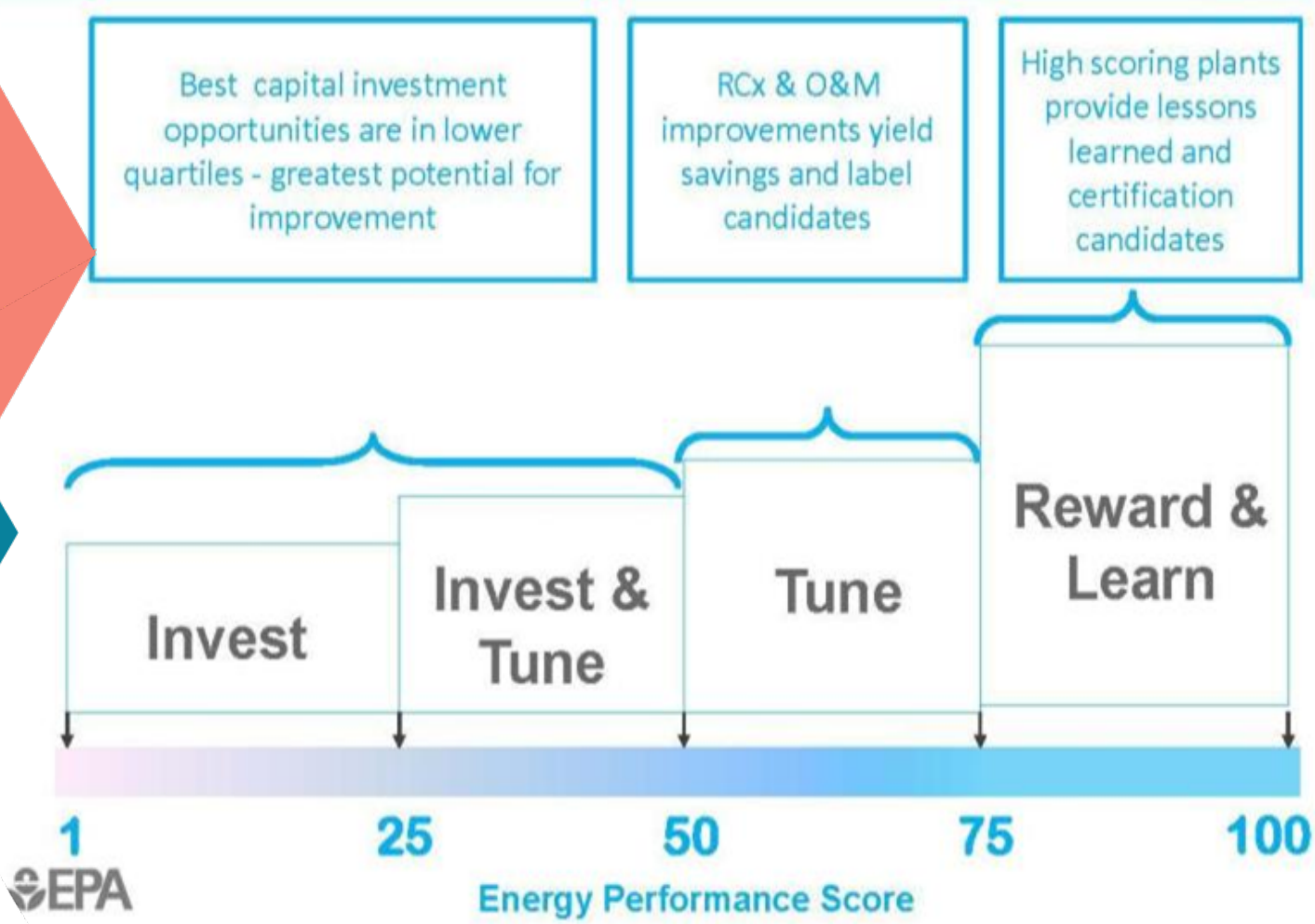
Metrics Summary

[Change Metrics](#)
[Change Time Periods](#)

Metric	Dec 2018 (Energy Baseline)	Dec 2023 (Energy Current)	Change
Energy Cost (\$)			-6,685.41 (-7.30%)
Weather Normalized Site EUI (kBtu/ft ²)	20.9	21.5	0.60 (2.90%)

[Learn more about this feature](#)

Energy Star Score



Energy Use
Intensity (EUI)

$$\frac{\textit{Total Energy Per Year}}{\textit{Square Footage}}$$

Using EUI

- Portfolio Manager generates your weather-normalized EUI
- Your current EUI indicates how close you are to meeting the target for your property type

Property Use Details

All Properties

- Property Name
- Property Address
- Total Gross Floor Area
- Year Built
- Occupancy (%)
- Number of Buildings
- *For Compliance* – St Louis Benchmarking Building ID

Energy Sources

Get Started Setting Up Meters for Test

There are four ways to enter meter data. First, you can enter manually, starting below. Second, you can set up your meter with a formatted spreadsheet with just your bill data. Third, for advanced users, you can use our upload tool that allows you to upload your bill data. And finally, you can hire an organization that exchanges data to update your energy data automatically.



Sources of Your Property's Energy

What kind of [energy](#) do you want to track? Please select all that apply.

- Electric
- Natural Gas
- Propane
- Fuel Oil (No. 2)
- Diesel
- District Steam
- District Hot Water
- District Chilled Water

Don't see your energy sources?

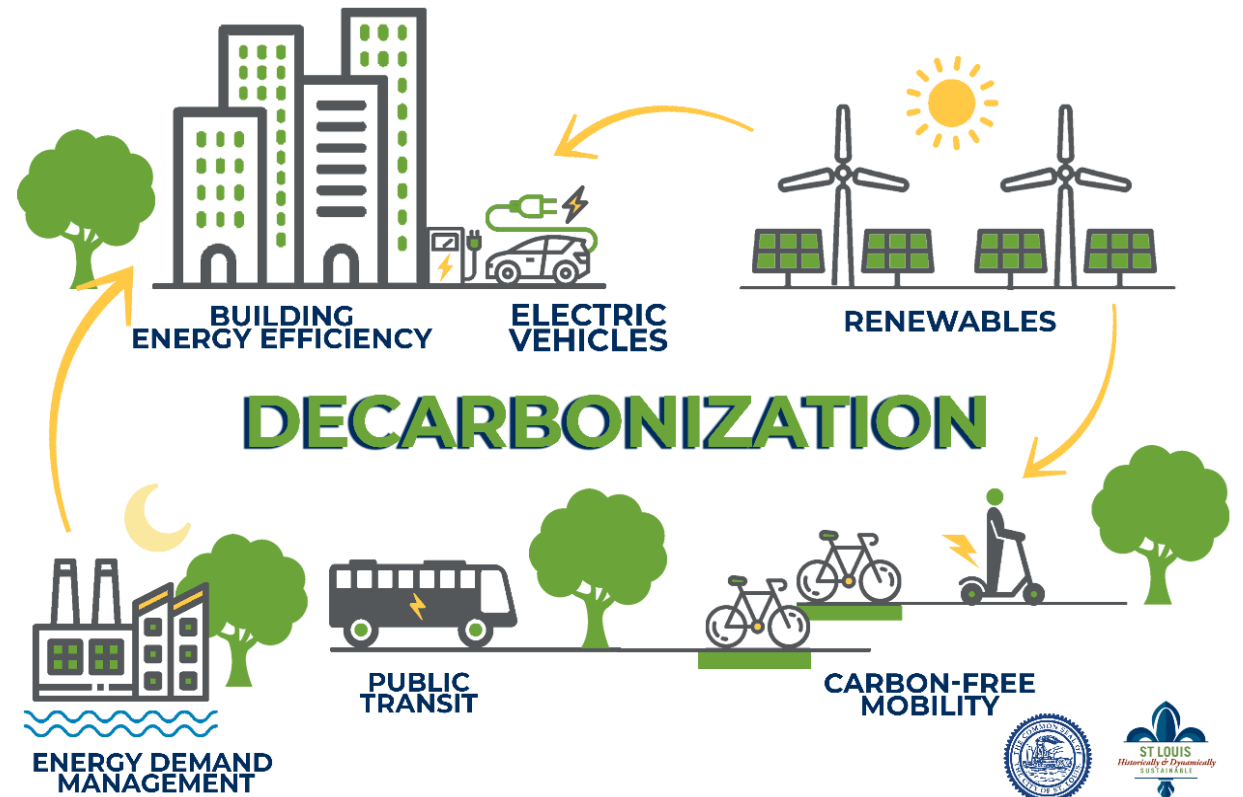
[+ See more energy sources?](#)

Existing Building Policy

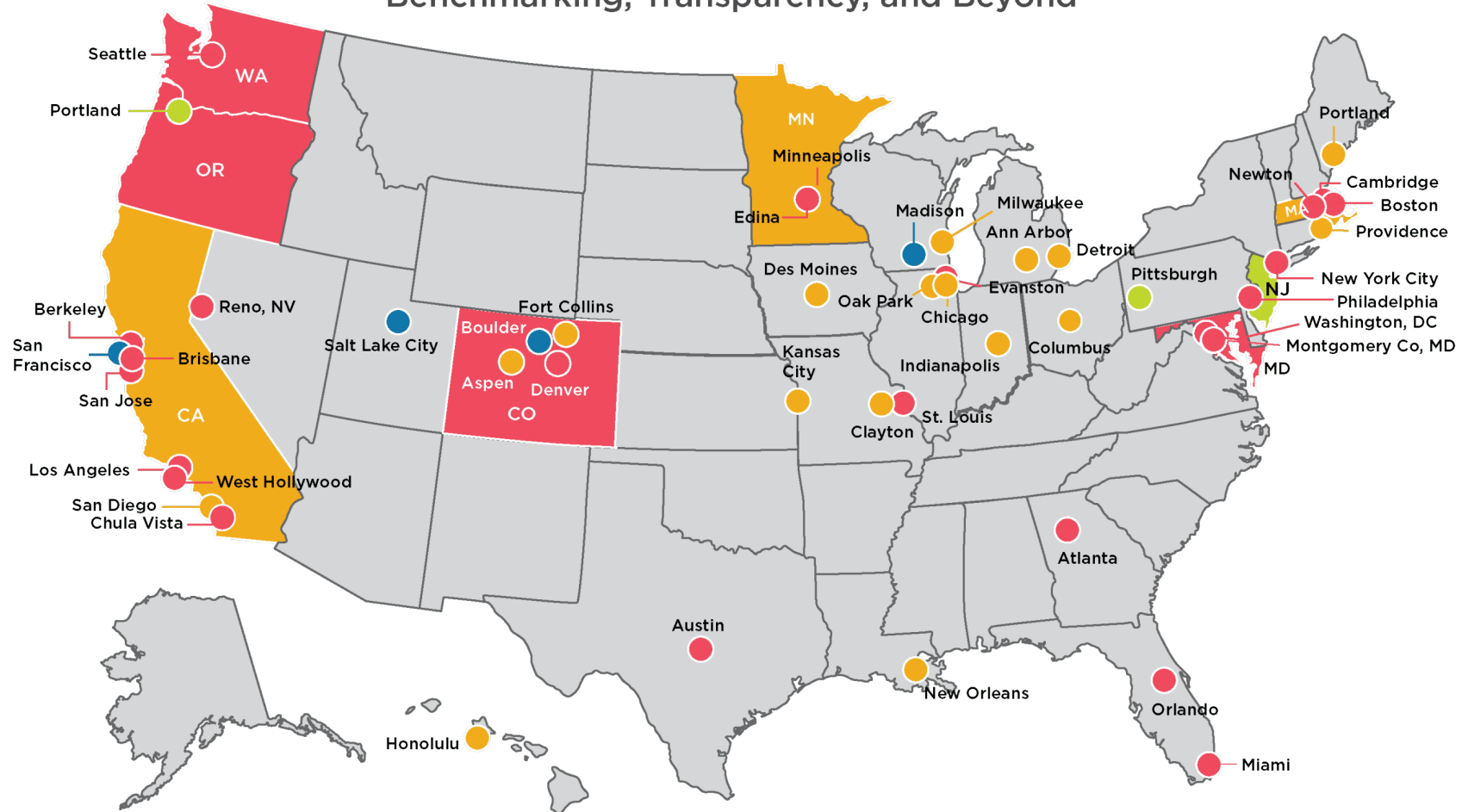
- Reduce buildings' impact on the environment
- Stay competitive with other cities!
- Supports Building Division goals to maintain and improve building stock
- Critical to help meet the City's climate goal to be carbon neutral by 2050

CITY OF ST. LOUIS CLIMATE PROTECTION INITIATIVE

An Integrated Approach Toward Carbon Neutrality



U.S. City, County, and State Policies for Existing Buildings: Benchmarking, Transparency, and Beyond

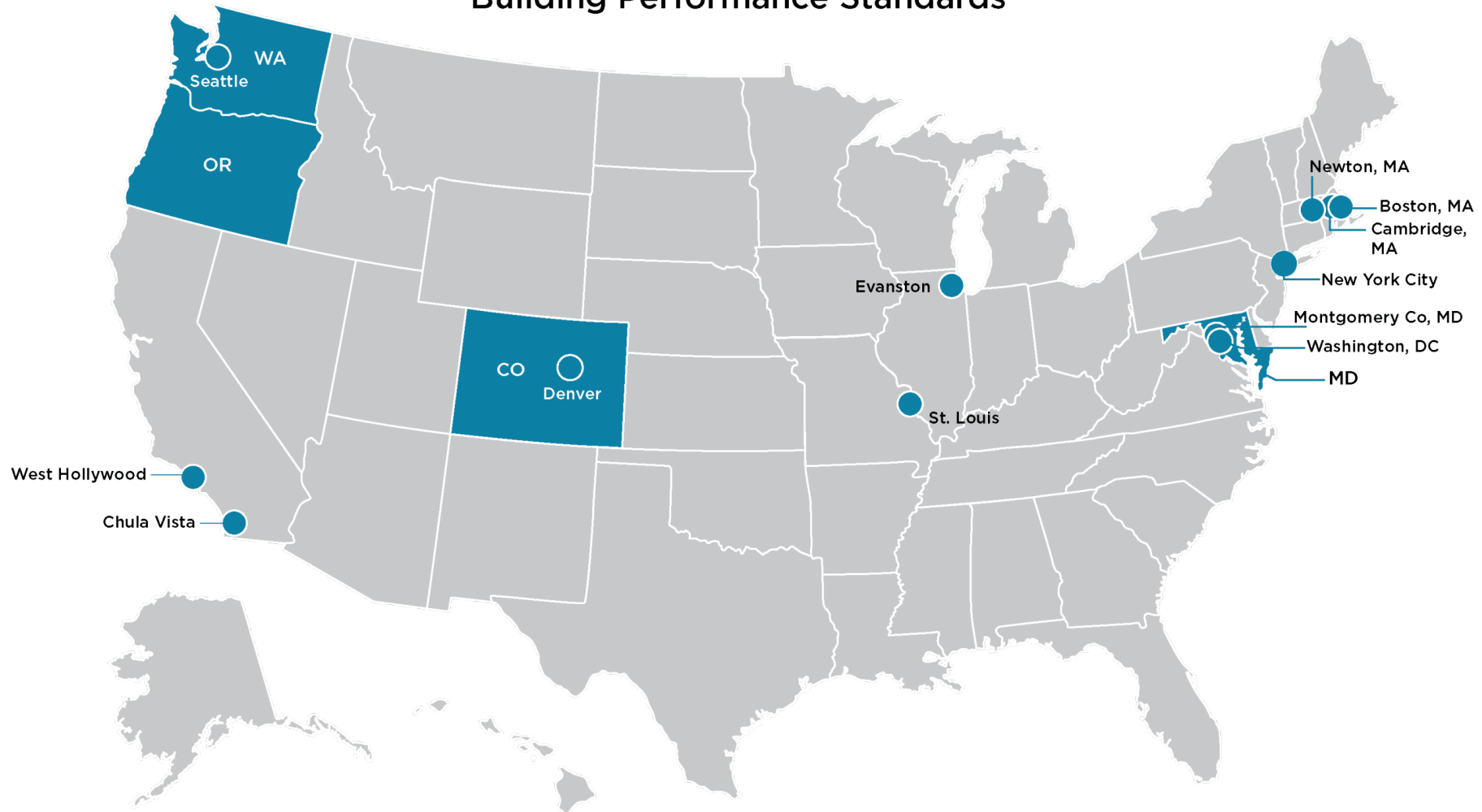


- Benchmarking required for public and commercial buildings
- Benchmarking required for public, commercial, and multifamily buildings
- Benchmarking and additional actions required for public and commercial buildings
- Benchmarking and additional actions required for public, commercial, and multifamily buildings



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U.S. City and State Policies for Existing Buildings: Building Performance Standards



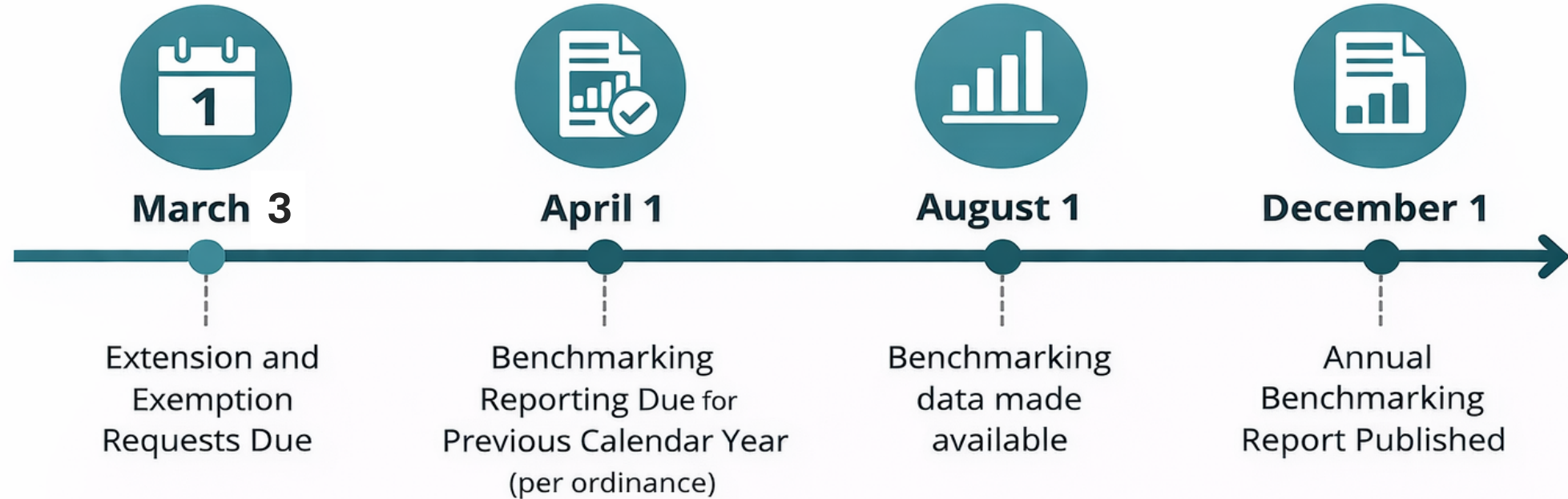


Building Energy Awareness Ordinance (2017)

i.e. Benchmarking Ordinance

- Municipal and private buildings 50,000 square feet and larger must track and report energy and water use annually – including multi-family
- Some exemptions (low or no occupancy, manufacturing, financial duress, state & federal buildings)
- Buildings not in compliance with the ordinance will *not* be eligible for new residential or commercial occupancy permits

Yearly Benchmarking Process



Equivilant Area Under Benchmarking and BEPS Ordinances

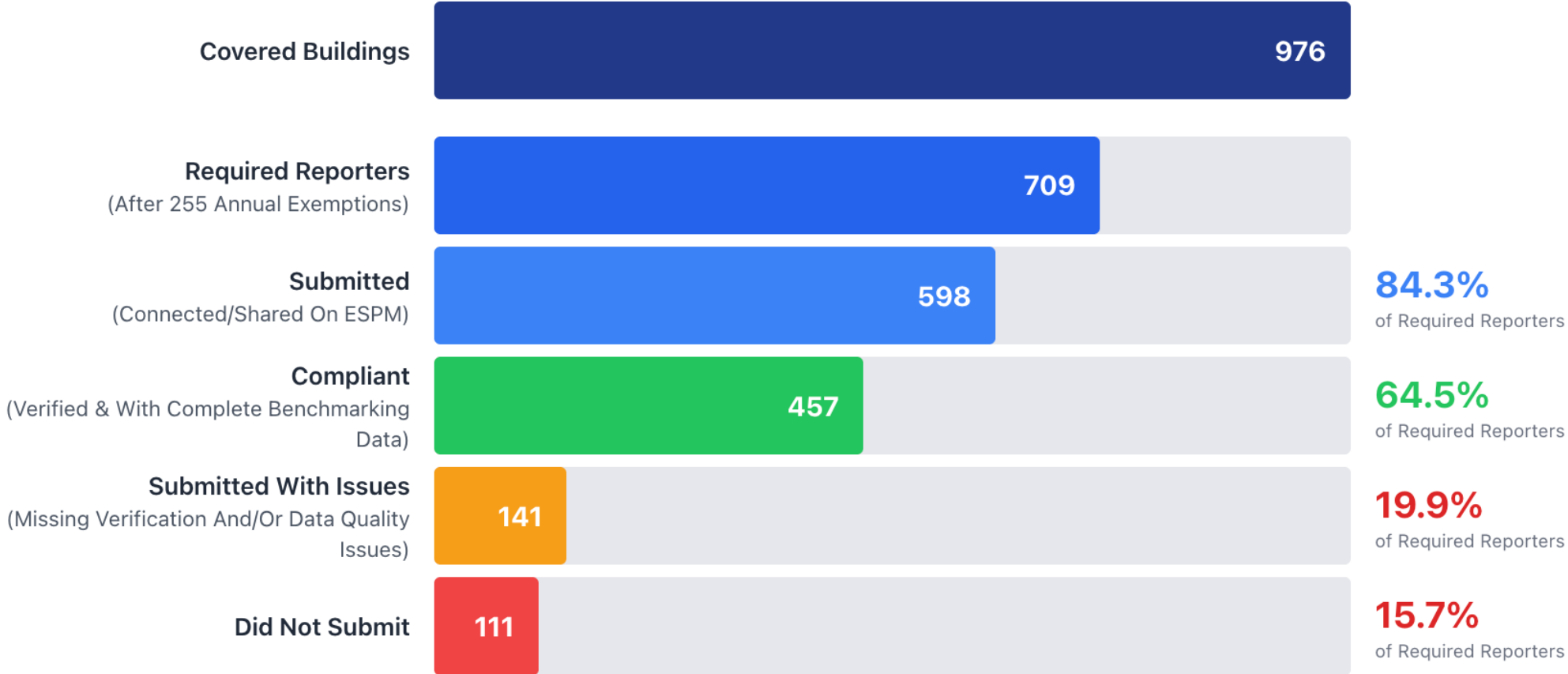
120,831,077 sf

Legend
○ BEPS 2023



Benchmarking Compliance

Reporting Status as of 1/7/26





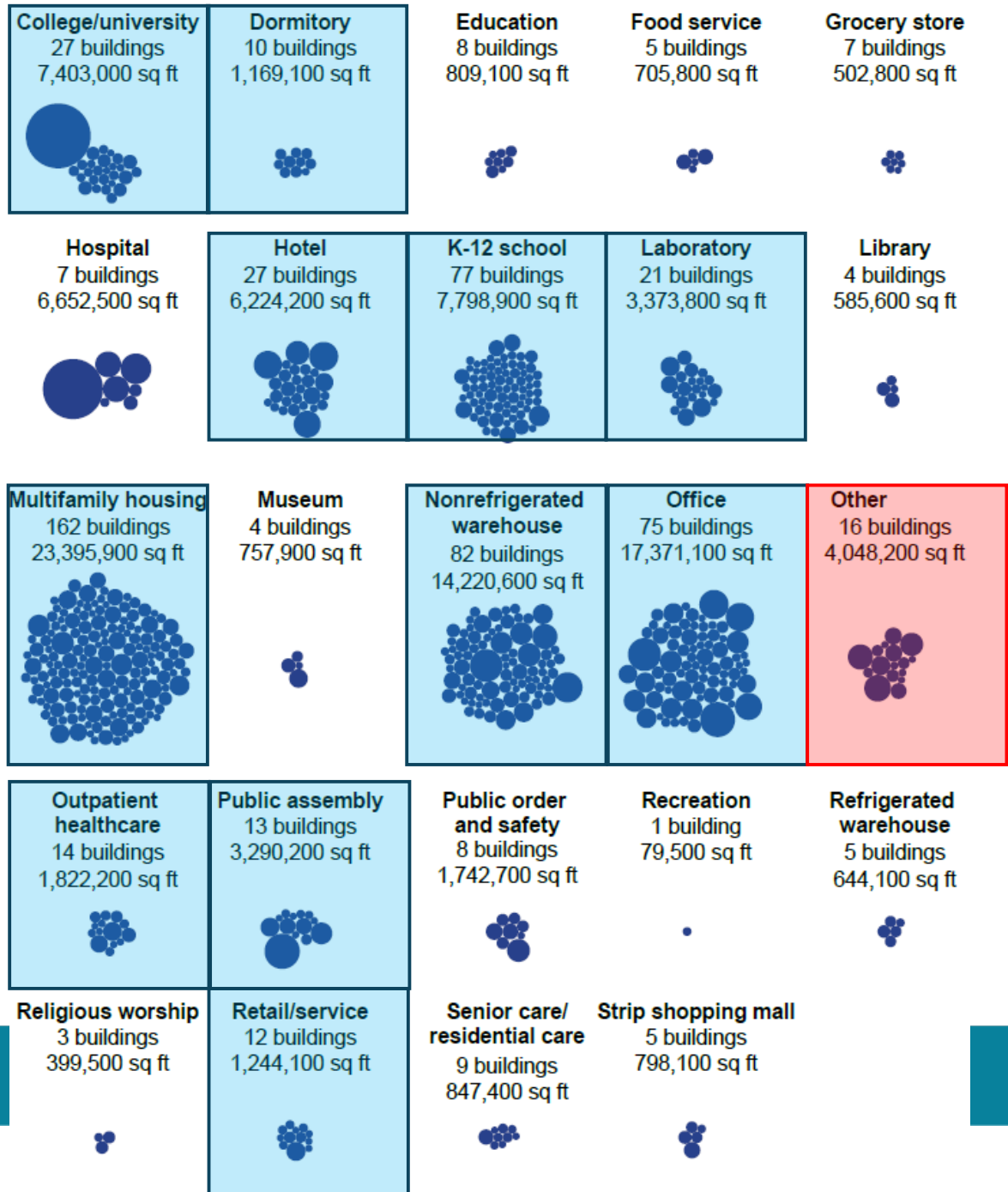
Building Energy Performance Standard (2020)

Builds on Benchmarking!

Passed Unanimously

- Performance metric: Site Energy Use Intensity (EUI)
- Creates local data-based targets to drive investments in energy performance of St. Louis Buildings at Scale

2023 Reporting Buildings





Knowledgebase

We have listed a number of Knowledgebase articles for your perusal in the following categories. Please check to see if any of these articles address your problem prior to opening a support ticket.

Benchmarking

Learn more about the City of St. Louis's Energy Benchmarking Ordinance #70474, including Who's Covered, How to Comply, How to Report Benchmarking Data, How to Submit an Exemption or Extension request, St. Louis Building ID#'s, Gross Floor Area, Entering Utility Data, and more.

[View articles](#)

Building Energy Performance Standards (BEPS)

Learn the background and basics of the City of St. Louis Building Energy Performance Standards (BEPS) Ordinance #71132. Read the BEPS Handbook to: Learn about Energy Targets and the 4 Pathways to Comply - Performance, Early Adopters, Narrow the Gap and the Custom Alternative Compliance Pathway. Learn about 3rd Party Verification, see if your Building is On Track To Comply, and more!

[View articles](#)

Custom Alternative Compliance Pathway (CACP)

Properties will implement Energy Saving Measures (ESM) to improve in energy efficiency and hit their Building Energy Performance Standard (BEPS) Target. However, some buildings may underperform due to unique constraints or circumstances - they can pursue a customized path to compliance. **Custom Alternative Compliance Pathway (CACP) plans** are designed to accommodate properties that cannot hit their BEPS Target.

[View articles](#)

Building Owner Portal

What Is the Building Owner Portal?

This web-based application platform for building owners to view the compliance status of any submitted reports, previous compliance data, and correspondence with the St. Louis Office of Building Performance related to the Benchmarking and BEPS Programs. The Building Owner Portal is open to all building owners, property managers, reporters, and consultants.

[View articles](#)

Forms & Info

Find the form you need to comply with Office of Building Performance (OBP) programs - Benchmarking and Building Energy Performance Standards (BEPS) - their implementation, compliance, and enforcement.

Learn How to Comply with the City of St. Louis Building Energy Awareness Ordinance and the Building Energy Performance Standard Ordinance (BEPS).

[View articles](#)

Trainings, Financial Assistance and Resources

Find out more about training, funding opportunities, rebates, resources and tools needed to help improve energy efficiency in your building!

[View articles](#)

Contact Us



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