



Commercial Building Efficiency Advisory Committee

Meeting 2: Benchmarking 101 and Policy Design

Agenda

1. Welcome
2. Introductions
3. Establishing Ground Rules and Expectations
4. Benchmarking 101
5. BREAK
6. Covered Building Size and Sectors
7. Closeout

Welcome and Introductions

City of Ann Arbor Staff Introductions

Thea Yagerlener, Energy Analyst

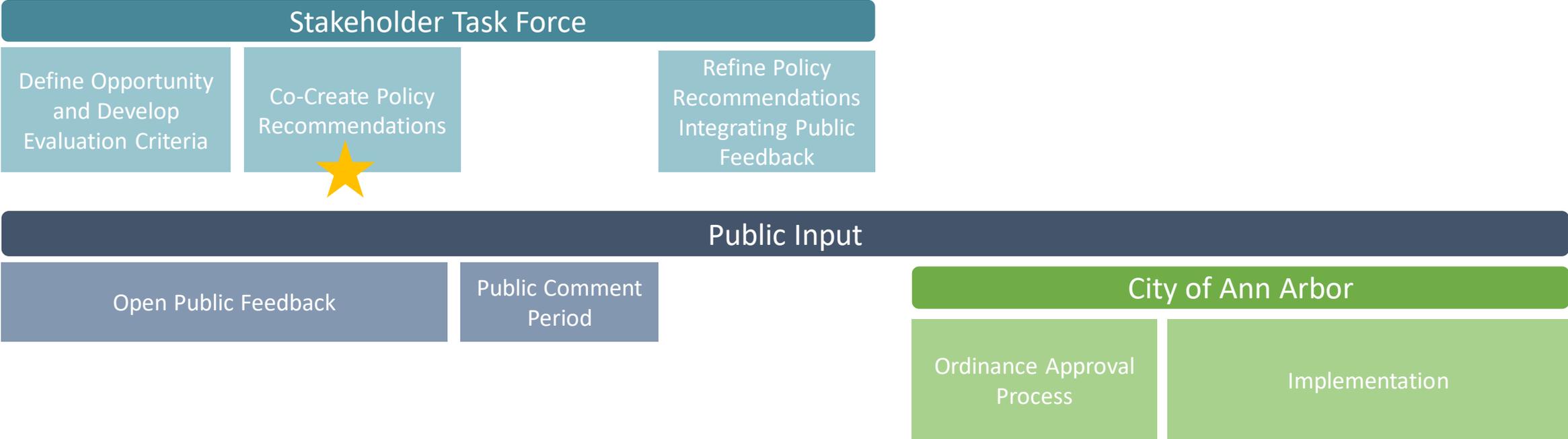
Zach Waas Smith, Community Engagement Specialist

Decision Process and Timeline

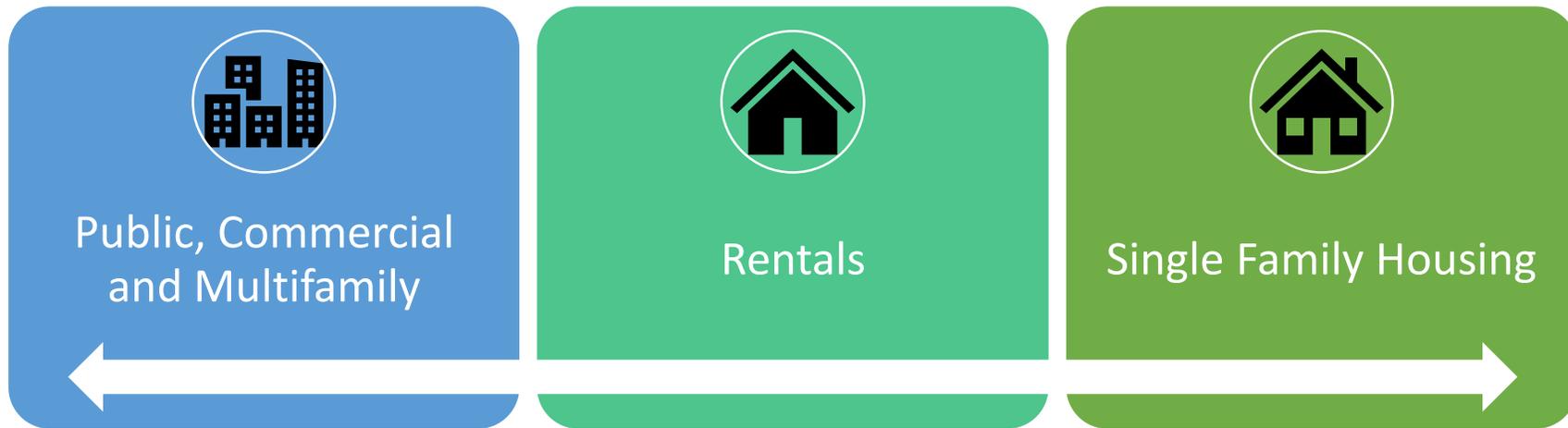
Q4 2020

Q1 2021

Q2 2021

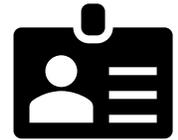


Suite of Programs



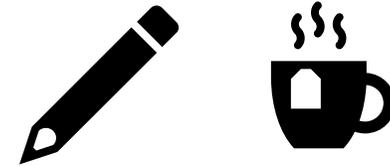
Round Table Introductions

- Name, Pronouns, Organization and Role



Ground Rules

- Stay engaged
 - Minimize distractions
 - Grab something to write with, a drink, a snack
- Chatham House Rules
 - Share the information, not the person
- Practice democracy of time
- Constructive mindset: Deliberation should be positive and future-directed



Expectations of City Staff

- We will look to you for advice and innovation in formulating a solution and will incorporate your advice and recommendations into the decisions to the maximum extent possible.
- Ensure this time serves the stakeholders in the room
- Be available to answer questions and address concerns

benchmarking@a2gov.org

Tyagerlener@a2gov.org

ZWaasSmith@a2gov.org

Expectations of Task Force

- Provide your expertise and lived experience
- Leverage networks to represent a larger group of voices
- Final Product: Co-creating policy recommendations

What do you need to be successful?

A photograph of a cityscape with a teal overlay on the left side. The text 'Recap: Opportunity Framing' is written in white on the teal background. The cityscape includes several buildings, including a prominent white building with a grid of windows and a dark brick building. The sky is overcast.

Recap: Opportunity Framing

Framing Opportunity

We have an opportunity to:

Significantly increase the energy efficiency in our buildings with an ambitious but feasible program and:

- Improve the experience and impact of *all* occupants
 - Safety, health, and comfort
- Achieve a net positive change considering *all* cost and *all* benefits
- Measure to show financial and performative improvement
- Establish clear goals, steps, and criteria for success
- Reflect the priorities of current and new stakeholders

Looking Forward

We hope to achieve:

- Increased resilience of our community
- Reduce operating costs (esp. fixed income households)
- Increased number of buildings benchmarking
- Connect owners with strategies
- Decrease greenhouse gas emissions
 - Energy efficiency
 - Renewable energy

Barriers

We need to address:

- Financial solutions for upfront costs for energy efficiency improvements
- Clear and accurate estimates of payback
- Education: Access to data and understanding the process
- Balancing other priorities/incentives and motivation
- Limited staff time



Benchmarking 101

What is benchmarking?

Benchmarking: An established program to understand how a building is performing compared to itself and similar buildings

Transparency: Sharing information with the market to value energy efficiency and drive market transformation



Why a Policy?

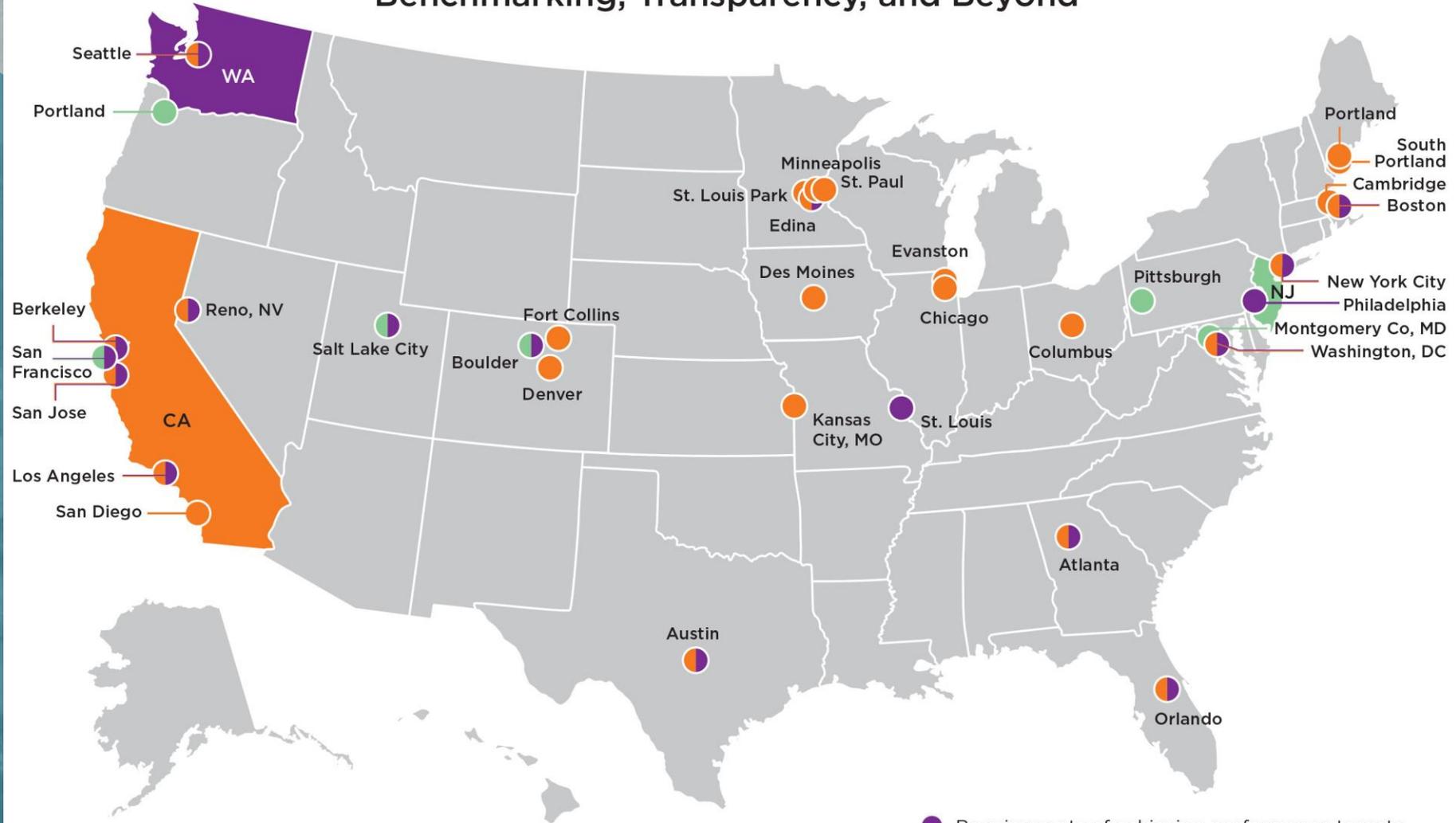
Current landscape has barriers to energy efficiency

- Building owner access to whole-building utility data
- Lack of market awareness of building performance

Participation from entire building population, not just voluntary benchmarking and transparency

- City Goal: 90% compliance
- Achieve widespread efficiency (3-8%) and financial results (\$2.4 MM savings/year)

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



- Requirements of achieving performance targets or completing additional actions
- Benchmarking policy for public, commercial, and multifamily buildings adopted
- Benchmarking policy for public and commercial buildings adopted

Building Rating

SHARING TRANSPARENCY FOR A MORE EFFICIENT FUTURE



Results

Chicago

↓ 4.4% Energy consumption in properties reporting for 4 consecutive years
\$12.7M Bill savings/year

Minneapolis

↓ 3.4% Energy Consumption from 2014-2016
\$21 M Cumulative bill savings

New York City

↓ 6% Cumulative reduction over three years

Denver

↓ 4.5% Energy Consumption 2017-2018
\$13.5M Bill savings/year

Seattle

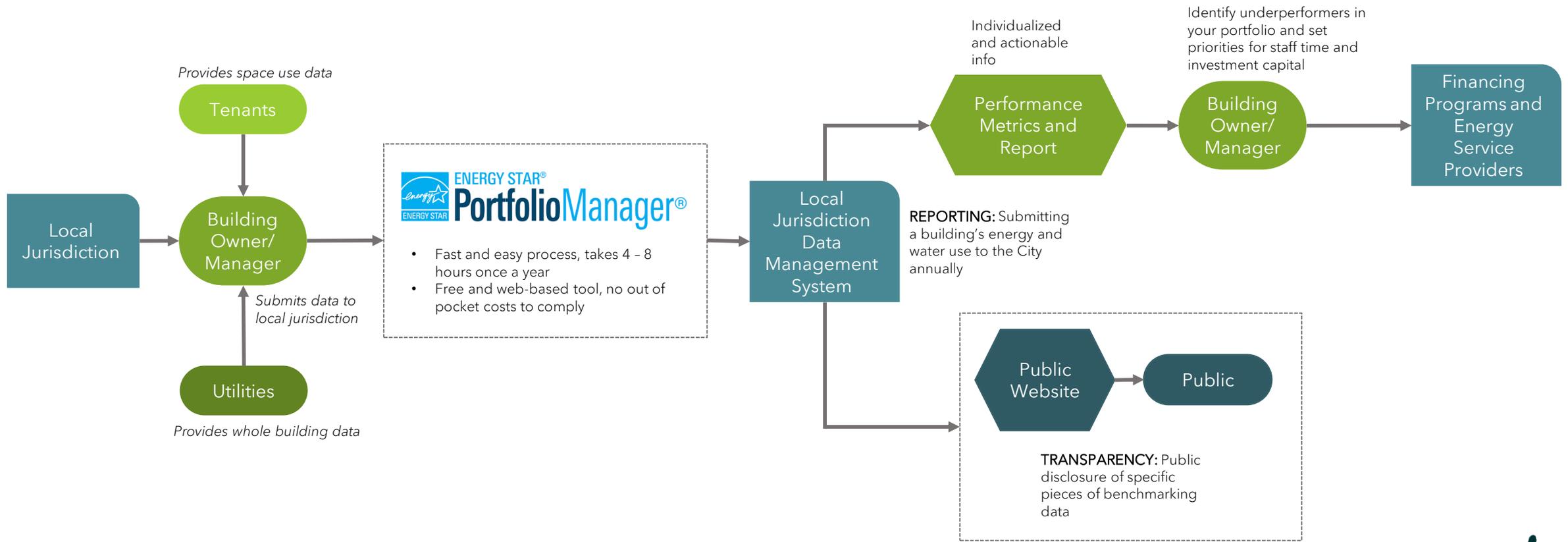
↓ 3% Reduction in properties reporting for three or more years

San Francisco

↓ 7.9% Cumulative reduction over three years

BENCHMARKING: On-going review of building energy performance compared to itself as well as other buildings of similar size

Typical Process



Typical Timeline



Trends and Best Practices

- Energy and Water Benchmarking
- Reporting and Transparency
- Recognition Approaches
- Certification/Verification
- Building Energy and Water Audits and/or Retro-Commissioning
- Green Leasing
- Alignment with Utility Programs
- Partnering with Nonprofits, Industry, and Utilities

Summary

What have other cities done that interests you?

What are you concerned by?

What do you need to know more about?



Break

A photograph of a city skyline, featuring several multi-story buildings. The image is partially obscured by a large, semi-transparent teal overlay on the left side. The text 'Policy Direction' is written in white on the teal background.

Policy Direction

Benchmarking Policy Elements

- Covered Market Sectors
- Covered Building Size
- Benchmarking and Transparency Exemptions
- Party responsible for reporting
- Schedule for initial benchmarking and transparency
- Data verification
- Transparency approach
 - Beyond benchmarking
 - Implementation

Benchmarking Policy Elements

- **Covered Market Sectors**
- **Covered Building Size**
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Policy Variable: Building Type



Commercial

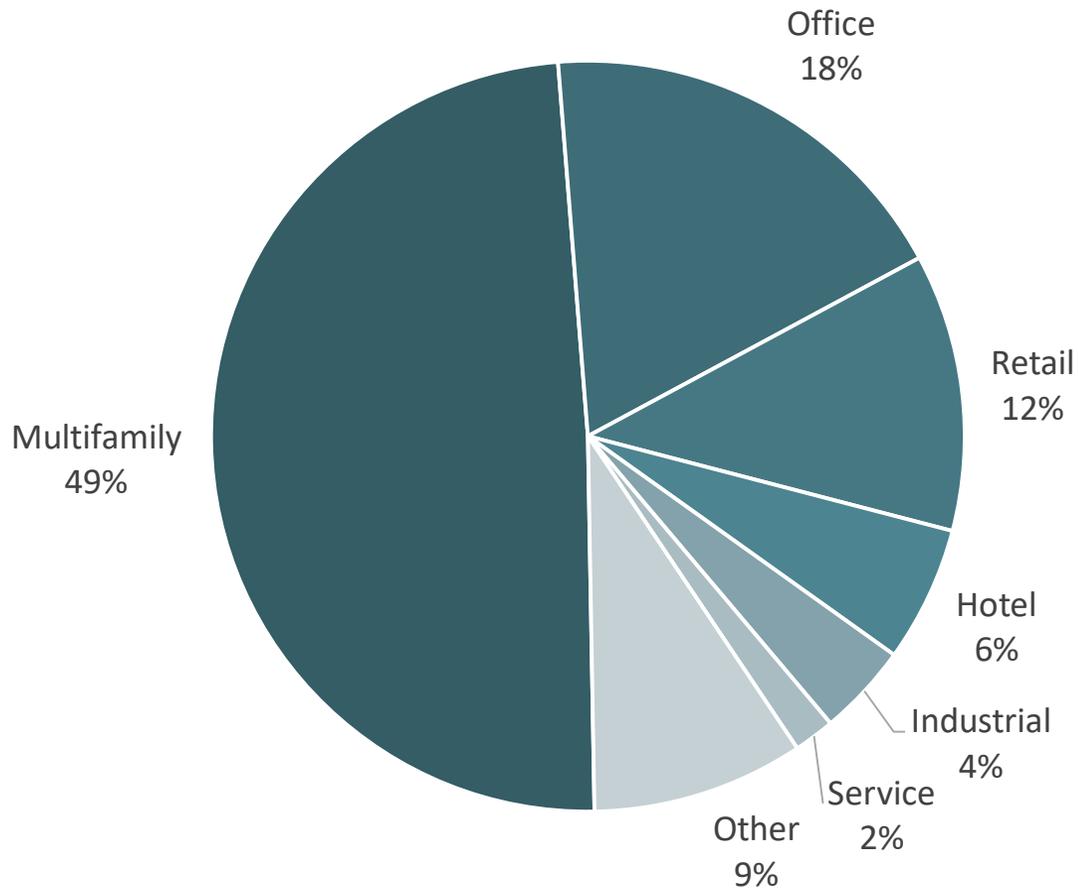


Multifamily



Public

Ann Arbor Composition

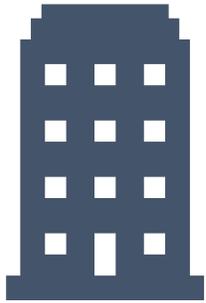


ENERGY STAR Score

Available for over 15 building types, including:

- Multifamily housing
- Office (office, bank branch, financial office, etc.)
- Hotel
- Retail store
- Hospital and medical office

Policy Variable: Building Size



50,000 ft²
and up



10,000 ft²
and up



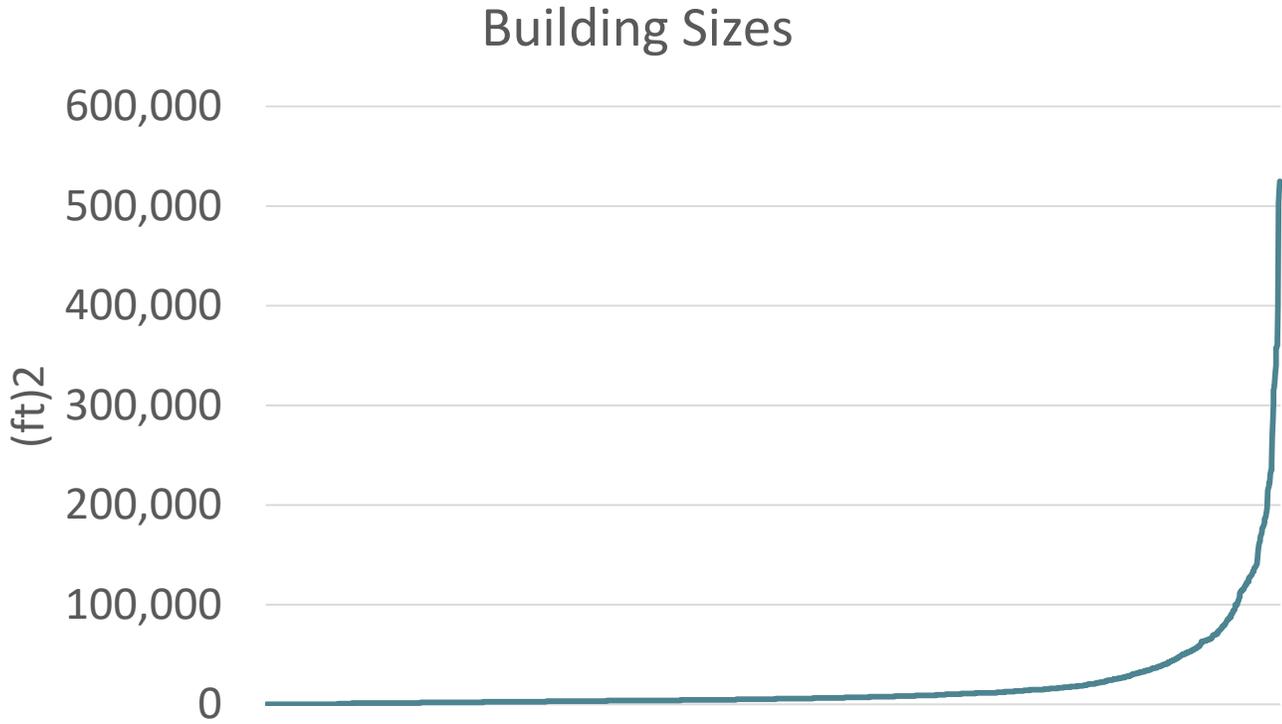
25,000 ft²
and up



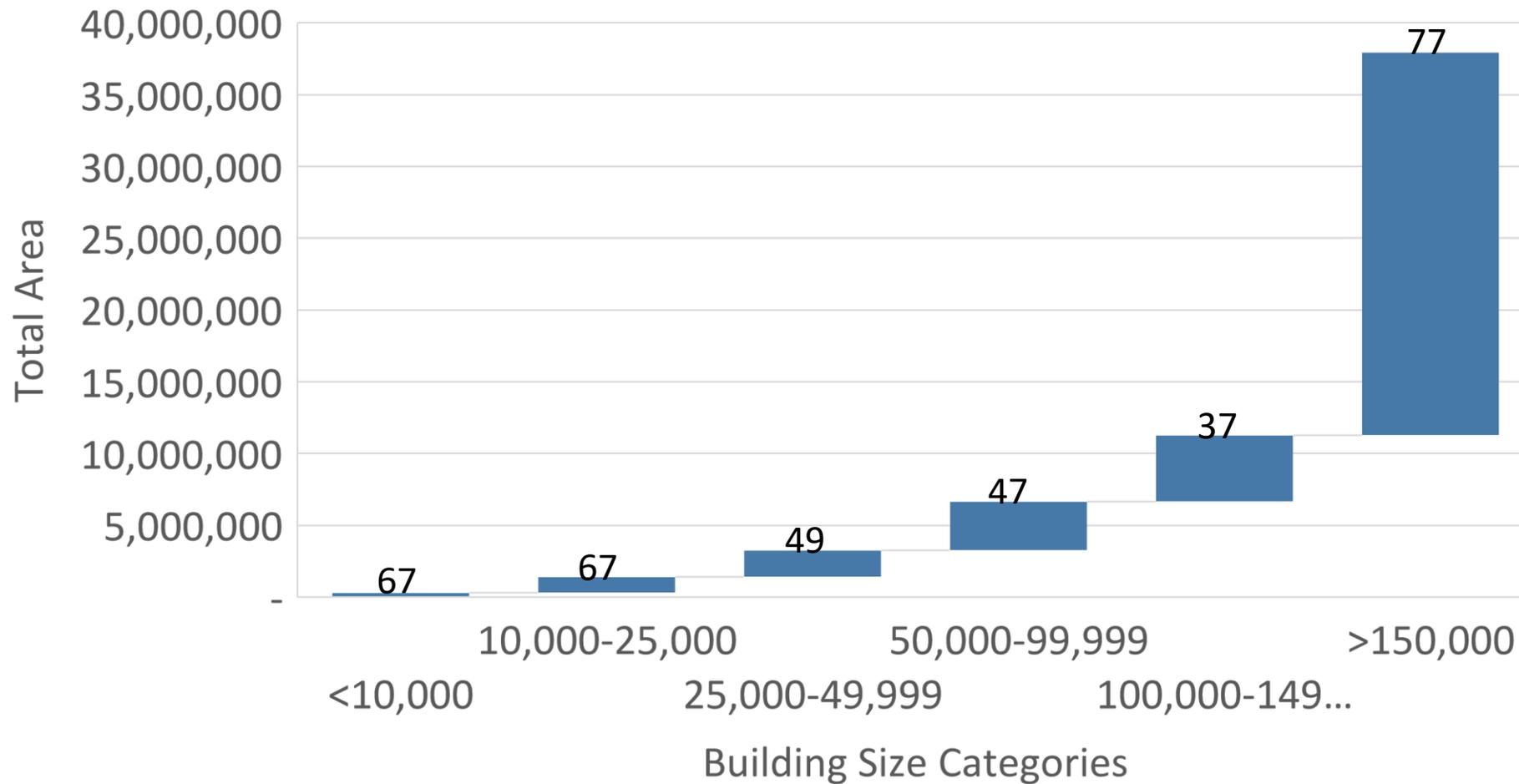
All

Example Covered Buildings

Threshold (ft) ²	% Buildings Covered	% (ft) ² Covered
10,000	32%	87%
20,000	19%	77%
30,000	15%	72%
40,000	11%	66%
50,000	9.6%	62%



Current Benchmarking



City	Buildings Included	City	Buildings Included
Atlanta	Com & MF > 50k, 25k	Evanston, IL 557 Buildings, 45.6 M SF	Com & MF > 100k, 50k, 20k
Austin	Com > 10k MF > 5 units	Kansas City, MO	Com & MF > 100k, 50k
Berkeley 257 Buildings, 13.7M SF	Com & MF > 50k, 25k	Los Angeles	Com & MF > 100k, 50k, 20k
Boston	Com > 50k, 35k MF > 50 k/50 units, 35k/35 units	New York City	Com & MF > 50k, 25k
Boulder 457 Buildings, 26 M SF	Com > 50k, 30, 20 New Com > 10k	Orlando	Com & MF > 50k
California	Com > 50k MF > 50k	Philadelphia	Com & MF > 50k
Cambridge 1,100 Buildings, 78 M SF	Com > 50k, 25k MF > 50 units	Pittsburgh	Com > 50k
Chicago	Com & MF > 250k, 50k	Portland, ME 285 Buidlings	Com > 20k MF > 50 units
Denver	Com & MF > 50k, 25k	Portland, OR	Com > 50k, 20k
San Francisco	Com > 10k	Washington, D.C.	Com & MF > 50k
Seattle	Com & MF > 20k	Washington State	Com > 10k



Close Out

Next Meetings

Thurs, Dec. 17 (3:30 PM): Policy Design Recommendations

- Responsible party
- Schedule
- Data Verification
- Transparency approach

Friday, Jan. 8 (11 AM): Confirm and Refine Policy Design Recommendations

Open to public comment

Final Meeting (TBD): Responding to public comment and finalize recommendations



Thank You for Your Time!

Thea: TYagerlener@a2gov.org

Zach: ZWaasSmith@a2gov.org