



Commercial Building Efficiency Advisory Committee

Meeting 3: Policy Design

Welcome and Introductions

City of Ann Arbor Staff Introductions

Thea Yagerlener, Energy Analyst

Zach Waas Smith, Community Engagement Specialist

Agenda

1. Welcome and Introductions
2. Establishing Ground Rules and Expectations
3. Benchmarking 101 Review
4. Energy Efficiency Case Studies
5. Covered Building Sizes
6. Exemptions
7. Closeout

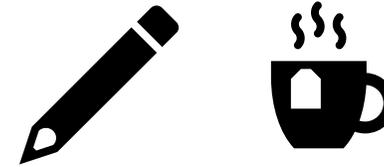
Round Table Introductions

- 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?

Decision Process and Timeline

Q4 2020

Q1 2021

Q2 2021

Stakeholder Task Force

Define Opportunity
and Develop
Evaluation Criteria

Co-Create Policy
Recommendations



Refine Policy
Recommendations
Integrating Public
Feedback

Public Input

Open Public Feedback

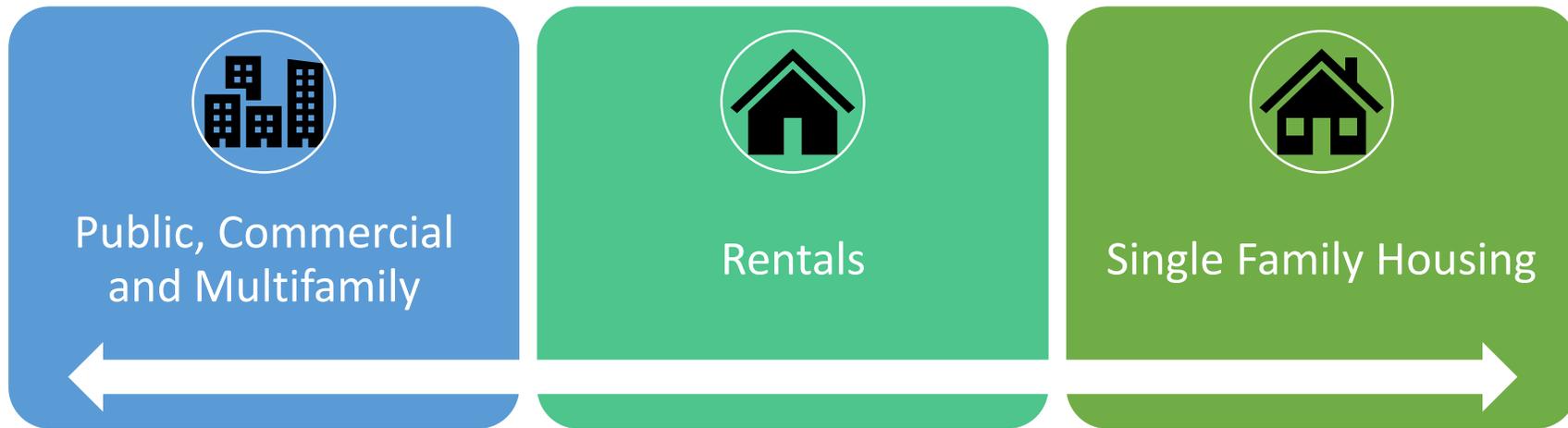
Public Comment
Period

City of Ann Arbor

Ordinance Approval
Process

Implementation

Suite of Programs





Meeting 2 Recap: Benchmarking Policy Review

What is benchmarking?

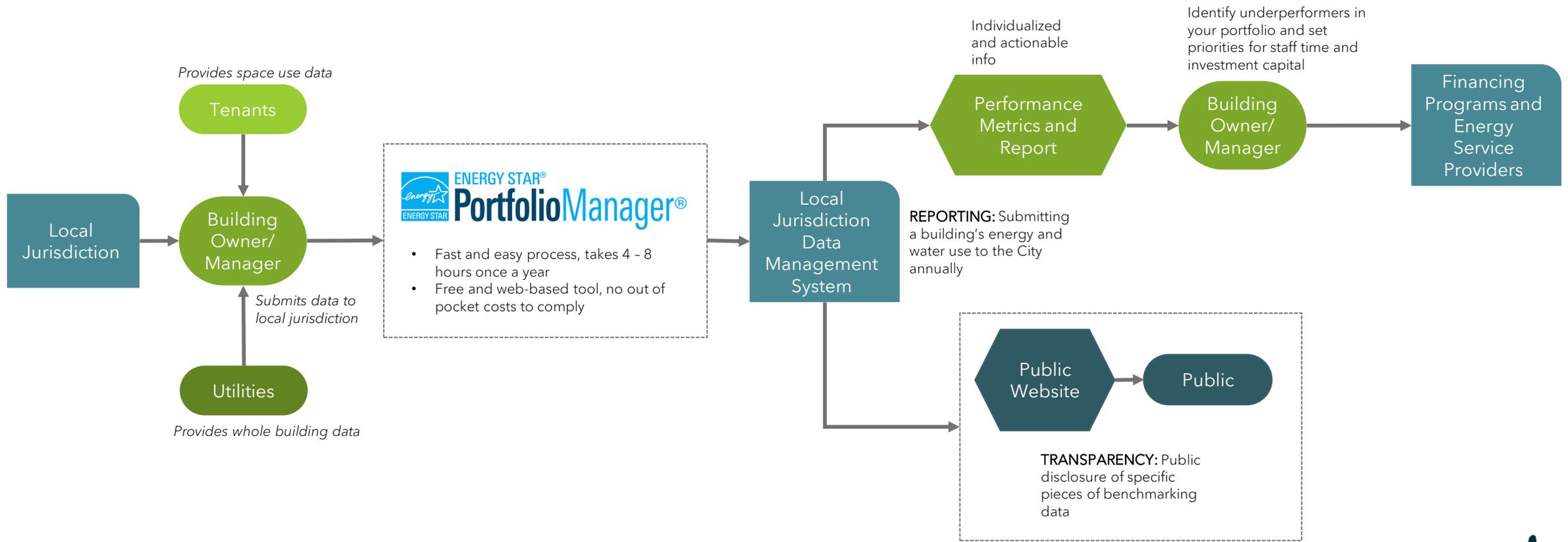
Benchmarking: An established program to understand how a building is performing compared to itself and similar buildings

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



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

Typical Process



Typical Timeline



Why a Policy?

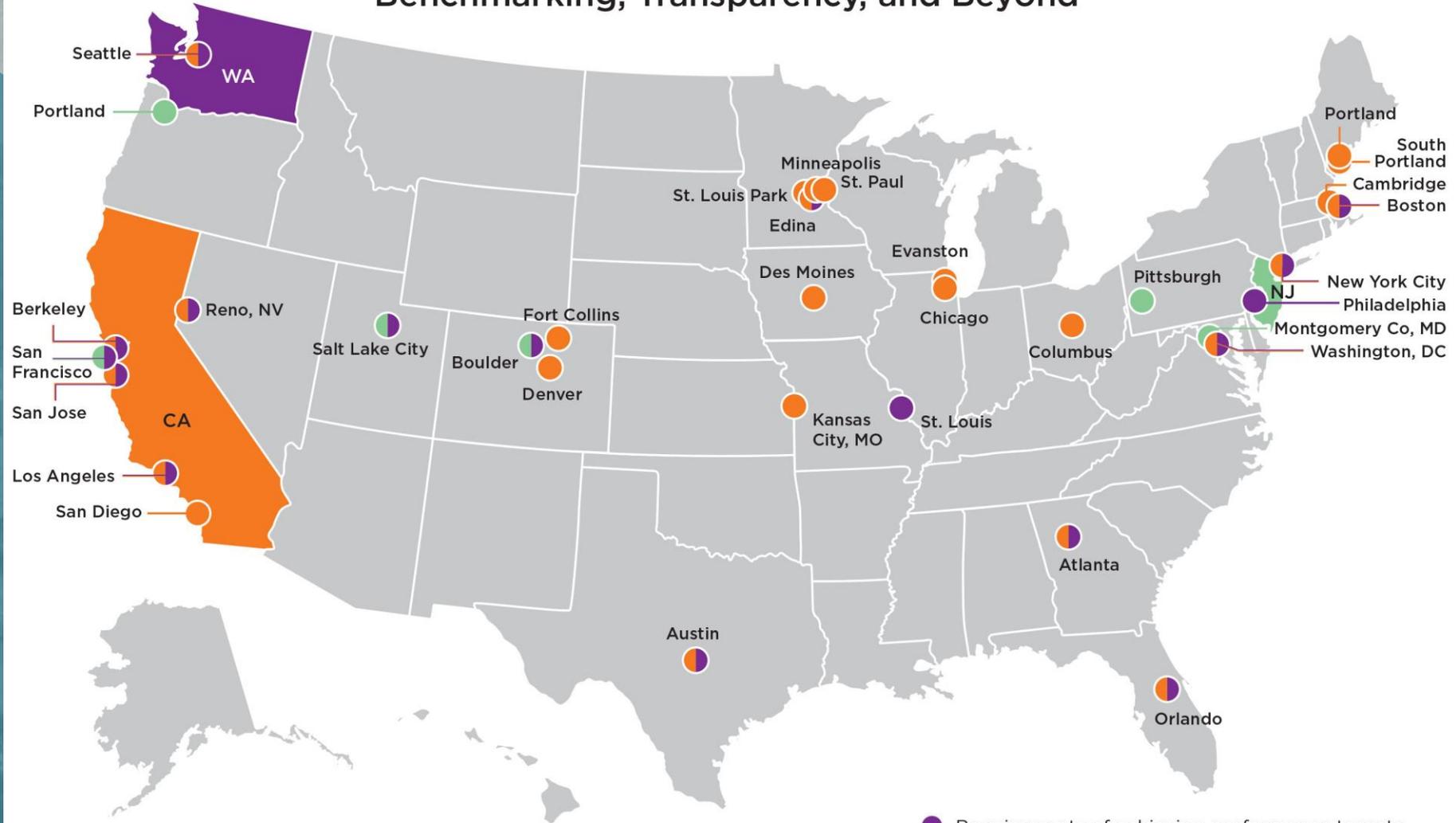
Current landscape has barriers to energy efficiency

- 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



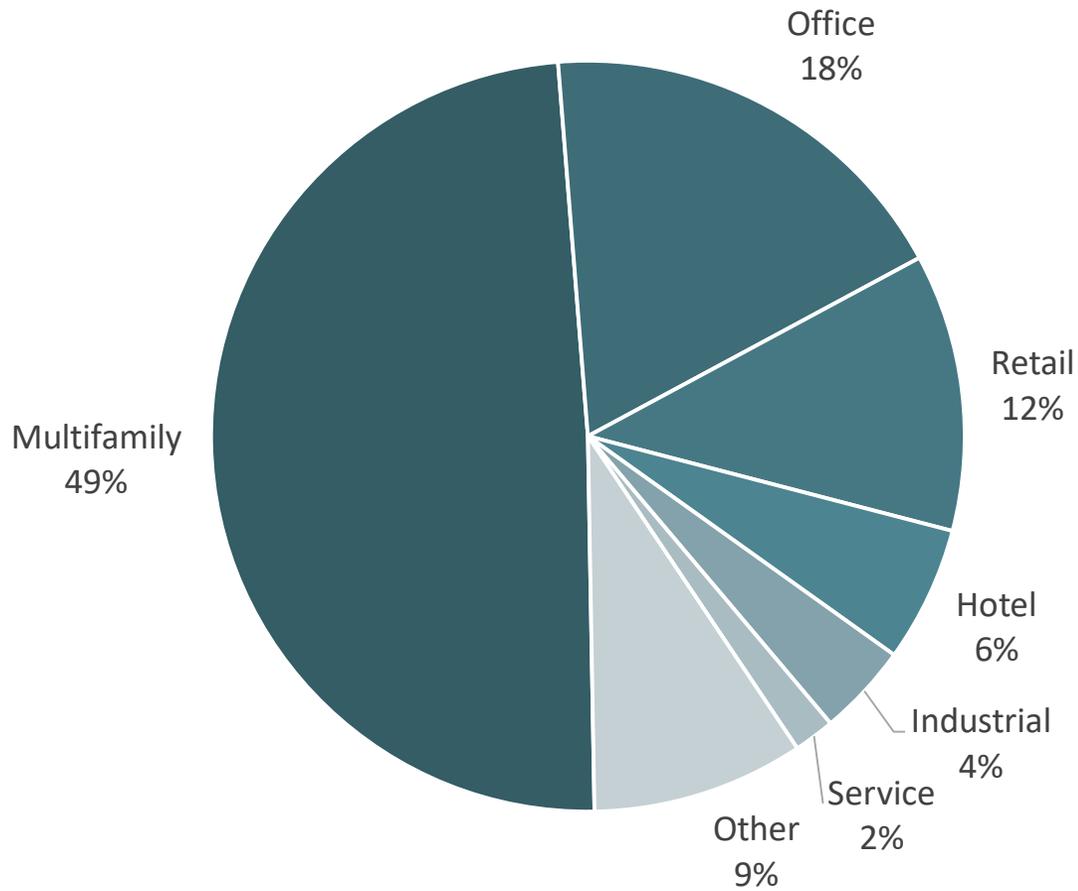
- Requirements of achieving performance targets or completing additional actions
- Benchmarking policy for public, commercial, and multifamily buildings adopted
- Benchmarking policy for public and commercial buildings adopted

Building Rating

SHARING TRANSPARENCY FOR A MORE EFFICIENT FUTURE



Ann Arbor Composition





Energy Efficiency Investment Case Studies

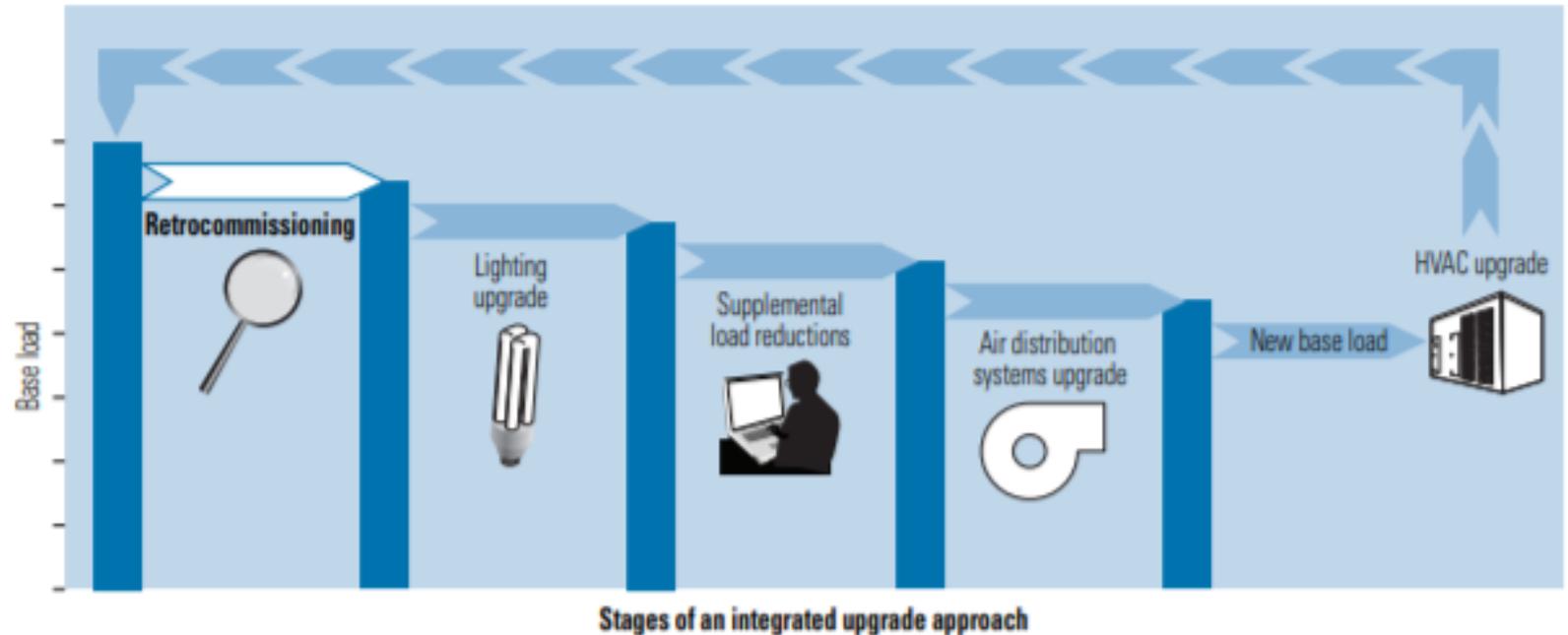
Energy Efficiency Process

Benchmarking

Energy Audit

1. Retro-commissioning
2. Reduce lighting loads
3. Reduce supplement loads (equipment, behavior, windows, insulation)
4. Improve air distribution systems
5. Upgrade heating and cooling equipment

Onsite renewable energy, etc.



Goodyear Building

Property: ~21,000 SF, 1867

Financing: A2 PACE, 1 of 4 buildings for combined \$500,000

Savings: Positive cash flow required for approval

Energy Reduction Measures: HVAC replacement (boilers and A/C), lighting upgrades

GHG Reductions: 8% reduction

2011 – 2018: 6% reduction in energy use

Energy Star Score Improvement: 77 to 82

New Amadore Apartments, Saginaw

Property: 63 units, 6 stories, 1929

Financed: MI PACE, ~\$300,000

20 Year Savings: \$610,000

Energy Conservation Measures: Replacing 88-year old windows with high efficiency

Energy Reduction: 250,000 kWh, 18,500 MCF

Improved tenant comfort / reduced turnover

GHG Reduction: 2,300 metric tons



Cambridge Court Apartments, Greenville

Property: 32-unit, 2 story, affordable housing community

Financing: MI PACE: \$118,000 + REAP grant

Energy Conservation Measures: Efficient boilers, mechanical controls, LED lighting, 20 kW solar, low-flow water fixtures, Energy Star appliances

Savings: 40% reductions in electricity and natural gas consumption, 29% reduction in water use

Tenants save on utility bills, update to important community asset



Benchmarking Details

Using Energy Star Portfolio Manager

- ***FREE ONLINE TOOL & TRAINING***
- First Time: Training (2 hours)
- First Time: Add a Property (1 – 2 hours)
 - Building Type
 - No. of Buildings Making Up Property
 - Construction Status
 - Location, Year Built, Gross Floor Area
 - Use Details Depending on Building Type
- Annually: Add Energy Data
 - 2030 District Piloting Automatic Data Upload

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

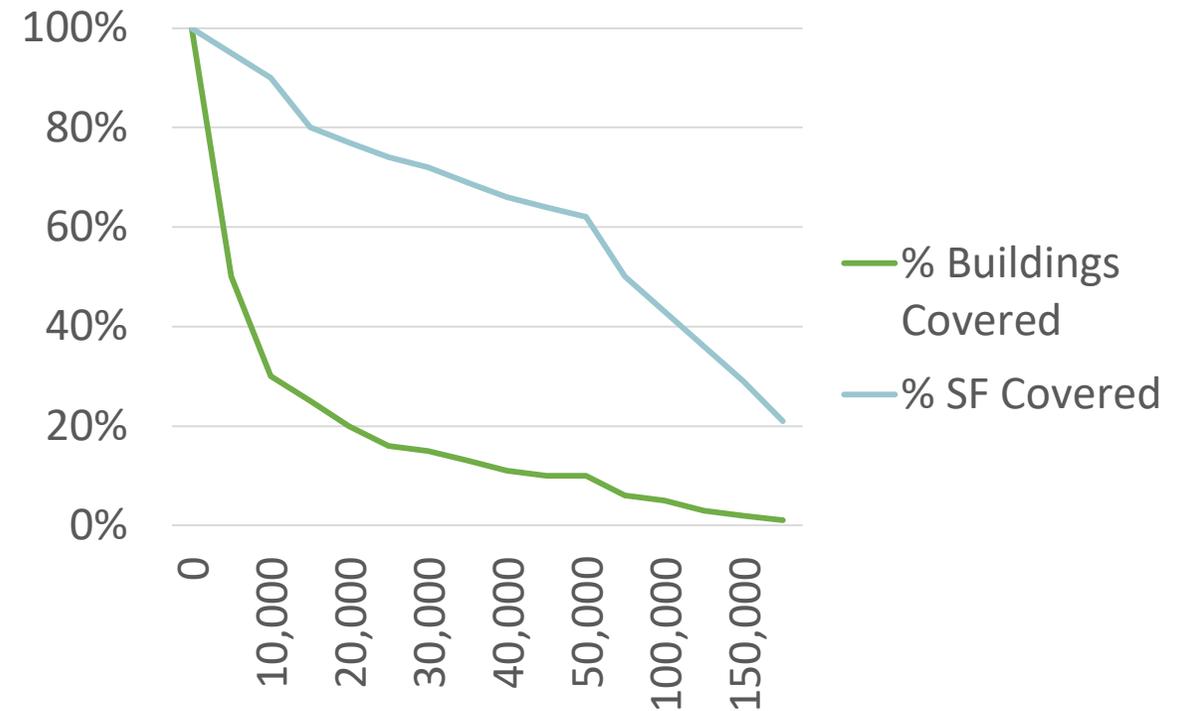
- Covered Market Sectors
- Covered Building Size
- Benchmarking and Transparency Exemptions
- Party responsible for reporting
- Schedule for initial benchmarking and transparency
- Data verification
- Transparency approach
 - Beyond benchmarking
 - Implementation

Benchmarking Policy Elements

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

Ann Arbor Building Stock

SF Threshold	# of Buildings	% Buildings Covered	SF Covered	% SF Covered
All	2,000	100%	39,000,000	100%
5,000	1,000	50%	37,000,000	95%
10,000	660	30%	34,000,000	90%
15,000	470	25%	31,500,000	80%
20,000	390	20%	30,000,000	77%
25,000	330	16%	29,000,000	74%
30,000	300	15%	28,000,000	72%
35,000	260	13%	27,000,000	69%
40,000	230	11%	25,500,000	66%
45,000	210	10%	25,000,000	64%
50,000	200	10%	24,000,000	62%
75,000	120	6%	20,000,000	50%
100,000	90	5%	16,500,000	43%
125,000	60	3%	14,000,000	36%
150,000	40	2%	11,000,000	29%
200,000	20	1%	8,000,000	21%



*SF based on property assessed area.
Currently excludes tax exempt buildings

Policy Variable: Exemptions

Benchmarking vs Transparency

- Residential buildings with less than 5 units
- Standard Industrial Classification
- Properties owned by government bodies not subject to the authority of the City
- Buildings facing financial hardship
- Unoccupied/vacant: No permit, less than 50% occupied
- Planned to be demolished
- Does not receive energy/water utility
- Not in the public interest



Close Out

Next Meetings

- **Friday, Jan. 8 (11 AM):** Policy Design Cont.
- **ADDITIONAL MEETING:** TBD January
- 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