

# City Energy Project – San José

## Benchmarking and Transparency Policy Package

Meeting 4: Examining policy structure and strategies, reporting process, and compliance

May 16<sup>th</sup> , 2018



*Environmental Services*



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Welcome



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# Recap Meeting 1-3

## Kick Off

- Benchmarking Overview
- Initial Characterization of Building Stock

## Meeting 2

- In-depth Analysis of Building Stock Coverage and Thresholds
- Introduction to EPA ENERGYSTAR Portfolio Manager

## Meeting 3

- Reporting Process through ENERGYSTAR Portfolio Manager
- Levels of Transparency

# Policy Design Options

- Annual Benchmarking and Reporting
- Transparency
- Performance Standards
- Prescriptive Measures



# Annual Benchmarking and Reporting

## Coverage Thresholds and Reporting Deadlines: Example 1

AB 802  
effective  
date

50,000 ft<sup>2</sup>

June 1, 2018

30,000 ft<sup>2</sup>

June 1, 2019

20,000 ft<sup>2</sup>

June 1, 2020

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# Annual Benchmarking and Reporting

## Coverage Thresholds and Reporting Deadlines: Example 2

AB 802  
effective  
date

50,000 ft<sup>2</sup>

June 1, 2018

25,000  
ft<sup>2</sup>

June 1, 2019

10,000 ft<sup>2</sup>

June 1, 2020

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# Annual Benchmarking and Reporting

## Coverage Thresholds and Reporting Deadlines: Example 3

AB 802  
effective  
date

50,000 ft<sup>2</sup>

June 1, 2018

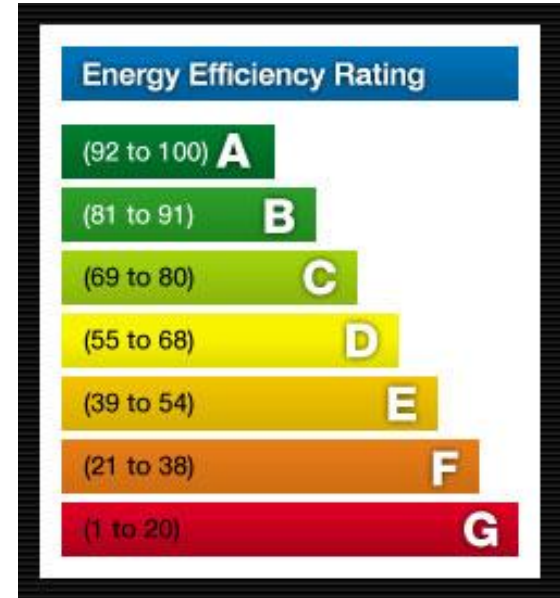
20,000 ft<sup>2</sup>

June 1, 2019

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# Transparency

- Phased-in Data Transparency
  - No public transparency for the first year
  - Not all reported fields to be made public
- Online
  - Data table
  - Summary Report
  - Interactive Map
  - Custom City of San José Scorecard
- On-Site display







# Why Go Beyond Benchmarking?

- DOE estimates 10-20% whole buildings savings associated with RCx
  - Savings persist well over 3-5 years
  - Identifies RCx as the 'single most cost effective strategy for reducing energy costs and GHG emissions'
- Energy audits of over 800 buildings in San Francisco revealed \$60.6 million in opportunities for cost-effective energy efficiency investments
  - NPV of \$170 million
  - Potential to cut annual electricity use by 150 GWh
  - Potential to save 1.4 million therms of natural gas annually
  - Portfolio wide payback in 3 years

# Performance Standards

Demonstrate compliance through basic performance standards that require no further action:

- LEED EBOM Certification or Minimum ENERGYSTAR Score
  - EX) Los Angeles
    - ENERGYSTAR Score of 75
    - Meet Plumbing Code
- Demonstrated Improvement
  - EX) Los Angeles
    - Reduce EUI by 15%
    - Reduce WUI by 20%



# Prescriptive Measures

Further action is required if basic performance standards are not met, for example:

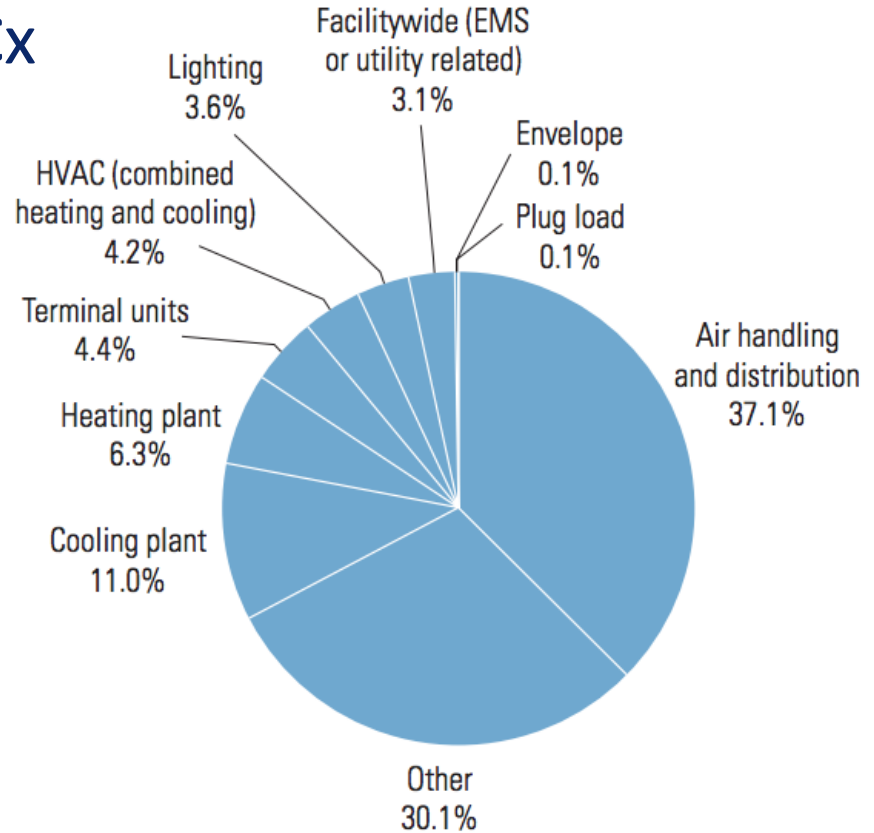
- Energy and/or Water Audits
- Retrocommissioning (RCx)
- Retrofits



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# Other Benefits of RCx

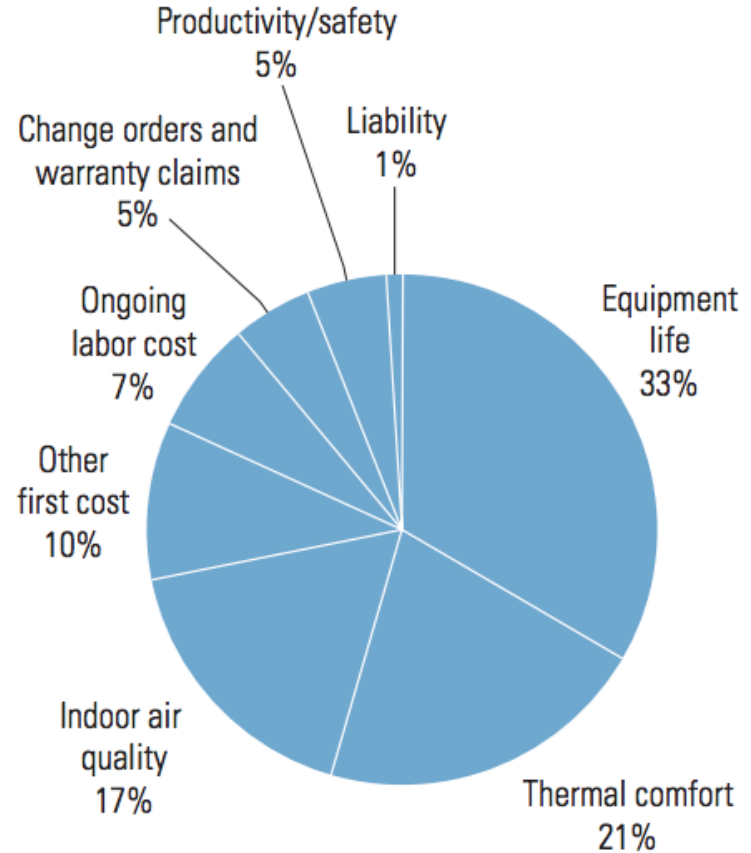
- Energy system deficiencies



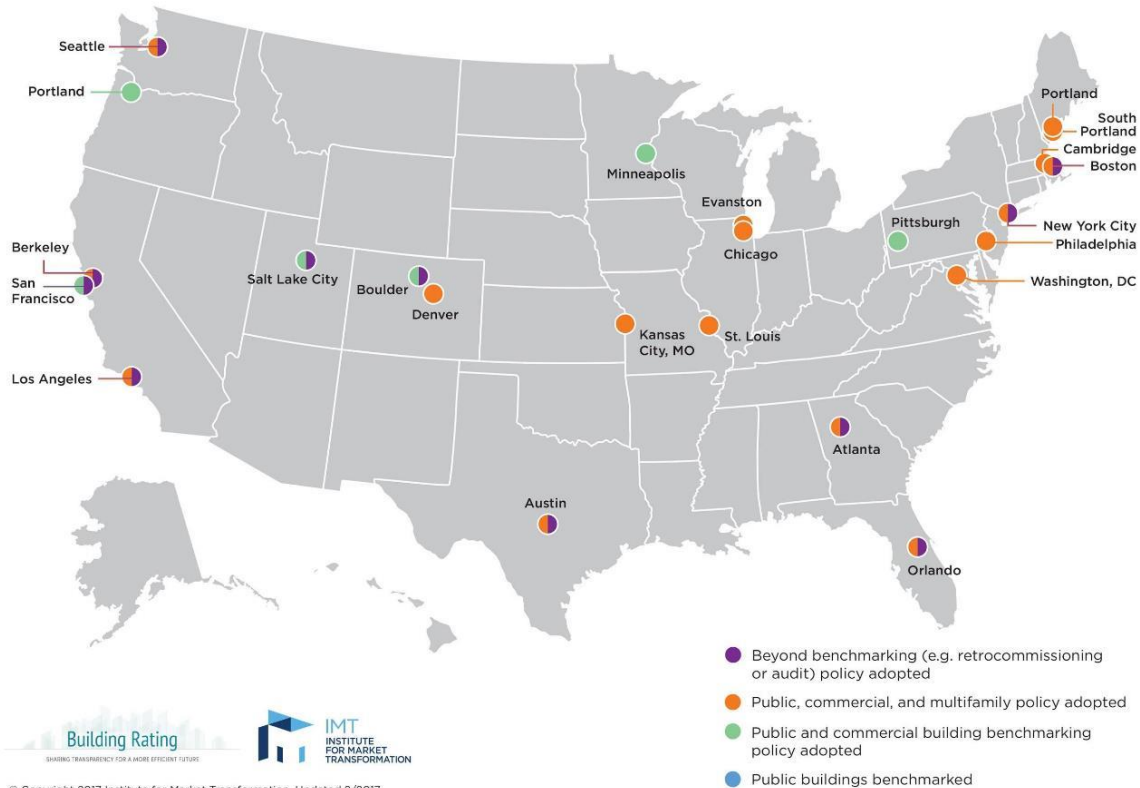
Note: EMS = energy management system.

## Other Benefits of RCx

- Energy and non-energy benefits

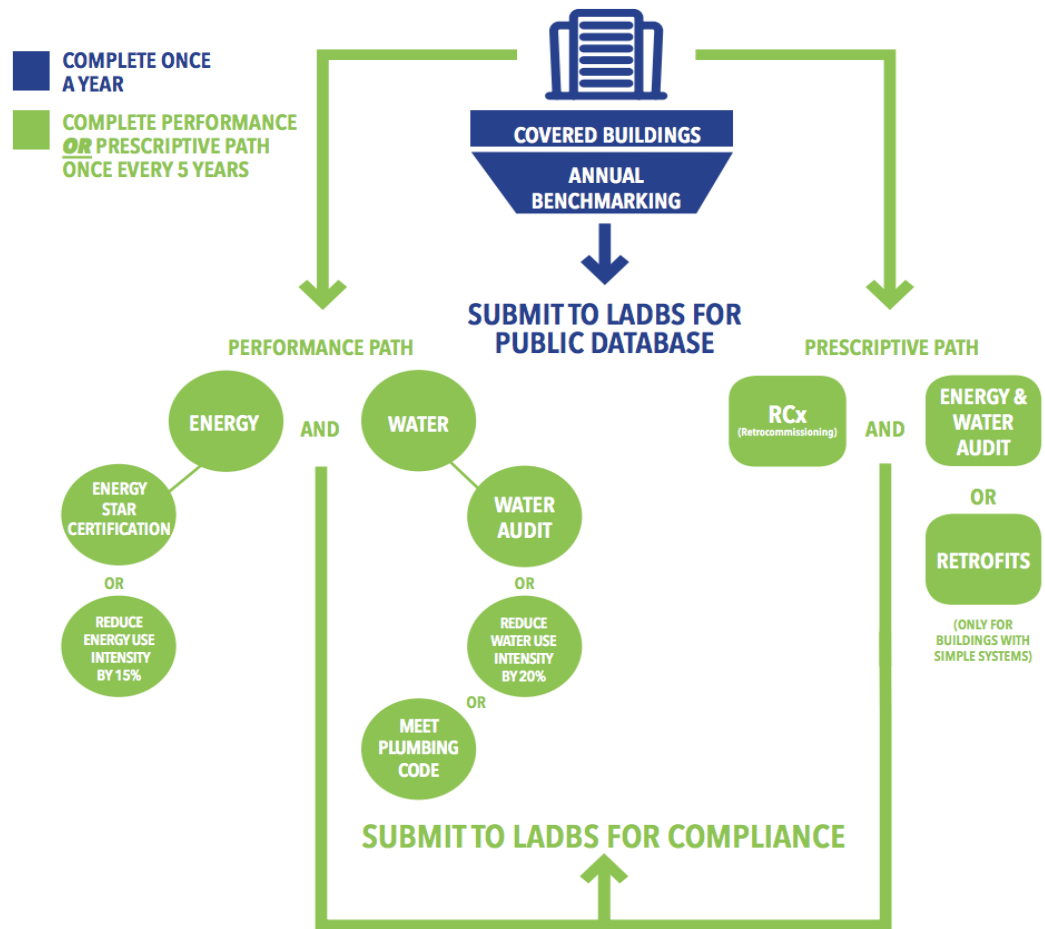


# Current Policy Landscape



# Los Angeles

- Annual benchmarking
- 5 year cycle for compliance with performance or prescriptive path



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# New York

- Local Law (LL) 84 : NYC Benchmarking Law
- Local Law (LL) 87: Requires that buildings over 50,000 ft<sup>2</sup> undergo energy audit and RCx measures every 10 years
- Audit exemptions allowed if 6 out of 7 prescriptive measures are met
  - Individual heating control
  - Common area/exterior lighting
  - Low flow faucets
  - Pipe insulation
  - Domestic hot water
  - Washing machine (front loading)
  - Cool Roof







# Orlando

Orlando's Building Energy and Water Efficiency Strategy (BEWES) says ALL buildings over 50,000 ft<sup>2</sup> MUST

- Benchmark energy and water use annually with ENERGYSTAR Portfolio Manager
- Share benchmarking score with the City of Orlando starting in August 2018
- Buildings with an ENERGYSTAR Score below 50 are required to either perform an audit or RCx once every five years

# BOULDER BUILDING PERFORMANCE

## Requirements for existing commercial and industrial buildings

To help achieve our community energy goals, this ordinance requires owners to:

- Annually rate and report building energy use
- Perform energy assessments every ten years
- Perform building tune-ups every ten years and implement cost-effective measures within two years of the study
- Implement one-time lighting upgrades

\* High performance buildings are exempt from the required energy assessments and efficiency measures

### RATING & REPORTING (R&R)

Measuring and comparing building energy performance metrics

Providing energy use and associated metrics to the city and tenants of the building

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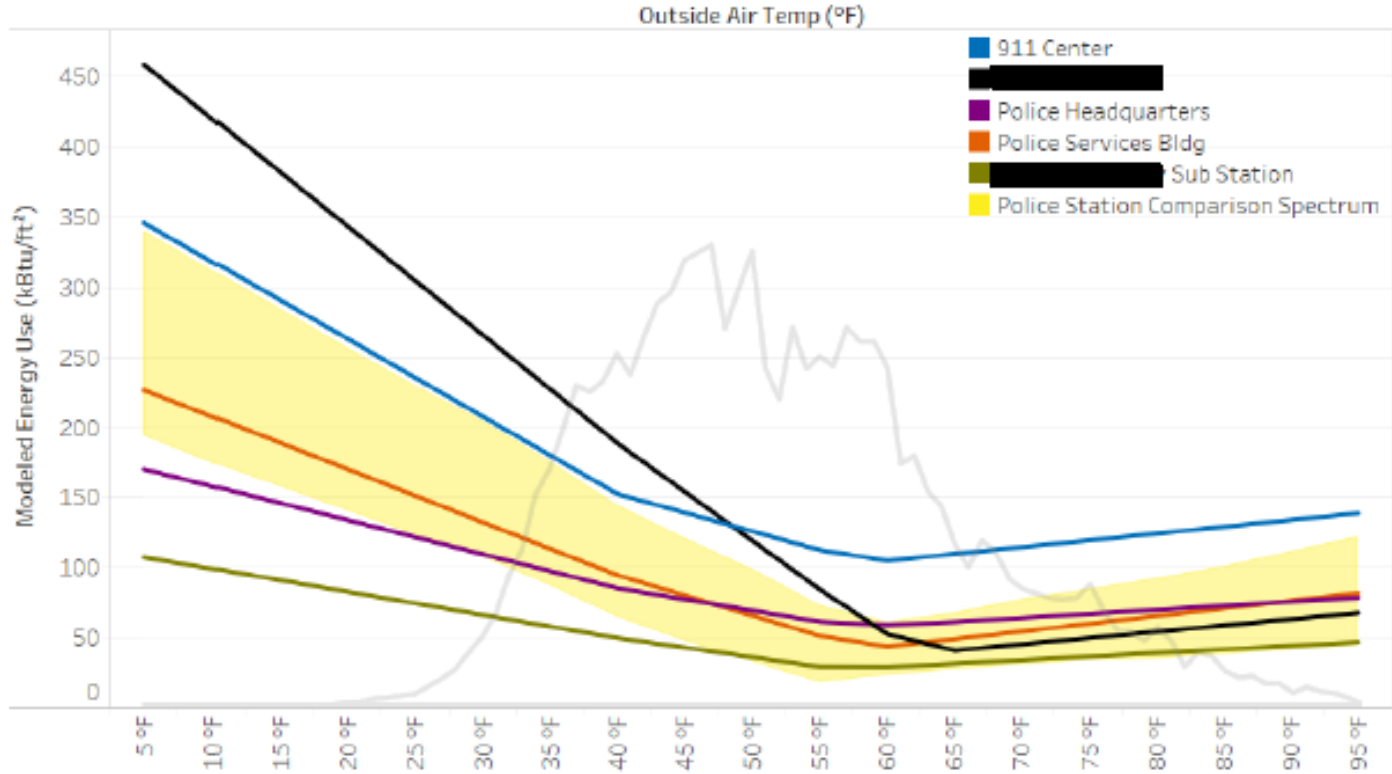
# Other Beyond Benchmarking Options

- DOE's Building Energy Asset Score
- Building Scorecards
- Remote audits  
(Ex: New Building Institute's First View)

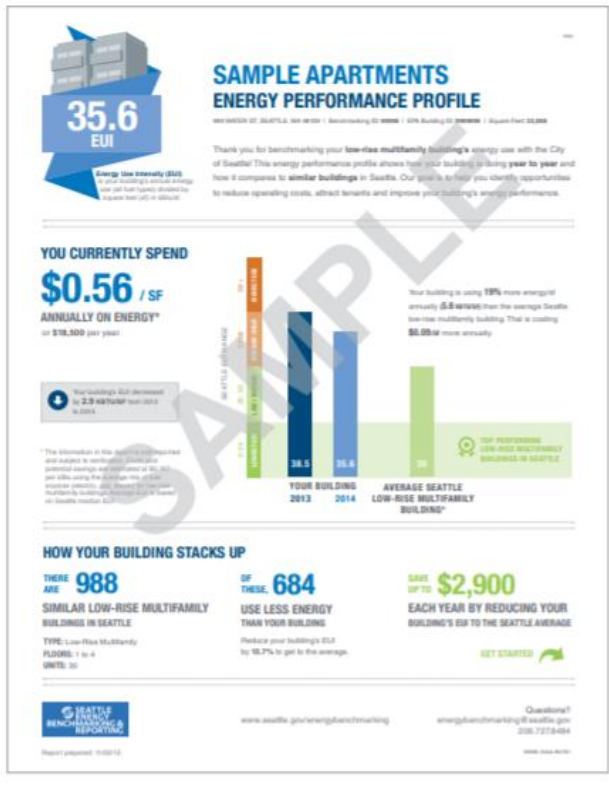


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# FirstView Analysis



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# Ensuring Data Quality

- Portfolio Manager data quality checks (by submitter)
- Additional automated data error checks (by City)
- Automated uploads of utility meter data
- Certification for benchmarking and audit professionals
- Third party verification (annual or periodic)
- Robust help center and training offerings



# Task Force Timeline and Next Steps

**Meeting 5:** Implementation and Enforcement

June 14 , 2018

**Meeting 6:** Review Draft Ordinance

July 18, 2018

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# Discussion

Questions about the material covered or information presented?

What “beyond benchmarking” program elements should be incorporated/required for San José?

What should the timeline look like for phasing in reporting? For transparency?

How long should the compliance cycle be – 5 years, longer?

What data verification measures should be considered?