City Energy Project – San José
Benchmarking and Transparency Policy Package

Meeting 2: Building Stock Analysis and Reporting Software

March 15, 2018

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Environmental Services

GLOBAL GREEN USA

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Welcome

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Meeting 1 Recap

Welcome – Director of ESD Kerrie Romanow

Overview of City Energy Project Initiatives in San José

Overview of Benchmarking and Existing Policy Context

Initial Characterization of San José Building Stock

Timeline and Scope of Policy Task Force

Discussion

Stakeholders in Attendance

- City Staff
- Developers
- Owners
- Managers
- Energy Professionals
- Utilities (water)
- Trade Union
- Educational Institution
- NGO

Key Takeaways

Efficient Energy/Building Management Systems

Implementation and Messaging/Communication and Education

Enforcement

Financing

Privacy and Transparency

Fostering Innovation

Water Management

San José Building Stock (in gross ft²)

< 50,000 ft²

- Specialty 4%
- Office 12%
- Flex 8%
- Retail 25%
- Industrial 20%
- Hospitality 1%
- Sports & Entertainment 0%
- Health Care 1%
- Multi-Family 29%

> 50,000 ft²

- Specialty 5%
- Office 15%
- Flex 16%
- Retail 9%
- Industrial 13%
- Sports & Entertainment 0%
- Health Care 2%
- Hospitality 2%
- Multi-Family 38%

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San José Building Stock Analysis

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- *"#1 Commercial Real Estate Information Company"*

- *CoStar Group Inc. has invested $1 billion in research and maintains the most comprehensive commercial real estate database in the industry*

- *San José building stock dataset does not include single-family homes*

- *Building level data from 3rd party vs. parcel level data from County Assessor*
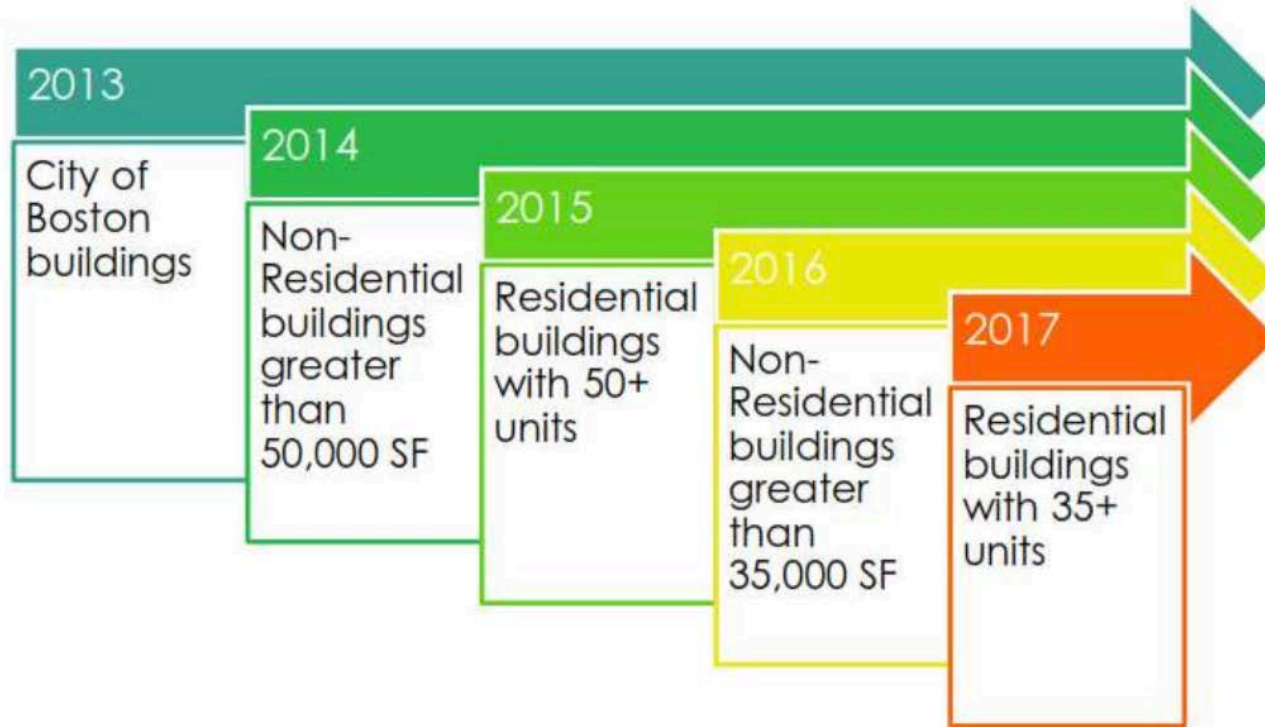
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Coverage Threshold and Timeline

City	Local Threshold	Compliance Deadline
Boston	35,000 ft^2	2016
Denver	25,000 ft^2	2018
Los Angeles	20,000 ft^2	2019
Salt Lake	25,000 ft^2	2020
San Francisco	10,000 ft^2	2014
Seattle	20,000 ft^2	2013

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Example - Boston

2013 — City of Boston buildings

2014 — Non-Residential buildings greater than 50,000 SF

2015 — Residential buildings with 50+ units

2016 — Non-Residential buildings greater than 35,000 SF

2017 — Residential buildings with 35+ units

http://www.swenergy.org/Data/Sites/1/media/documents/programs/government/benchmarking%20for%20LG%20compiled.pdf

SWEEP
SOUTHWEST ENERGY
EFFICIENCY PROJECT

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Example – San Francisco

Due Date	Benchmarking	Status of Public Disclosure
10/1/2011	Buildings larger than 50,000 square feet must benchmark	No public disclosure
4/1/2012	Buildings larger than 25,000 square feet must benchmark	Public disclosure begins for buildings greater than 50,000 square feet (only)
4/1/2013	Buildings larger than 10,000 square feet must benchmark	Public disclosure for buildings greater than 25,000 square feet
4/1/2014	Buildings larger than 10,000 square feet must benchmark	Public disclosure applies to all affected buildings

GREENOVATE
BOSTON

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Example – Los Angeles

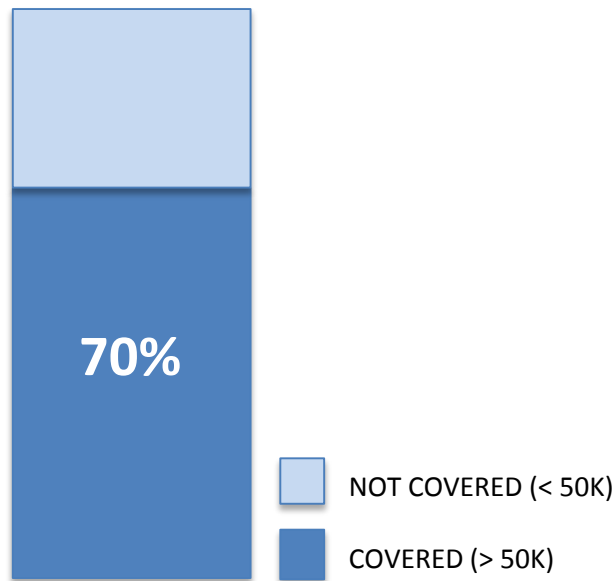| BUILDING SQUARE FOOTAGE	FIRST BENCHMARKING REPORTING DATE	SUBSEQUENT BENCHMARK REPORTING DATE
100,000 +	December 1, 2017	June 1 thereafter
50,000 +	June 1, 2018	June 1 thereafter
20,000 +	June 1, 2019	June 1 thereafter
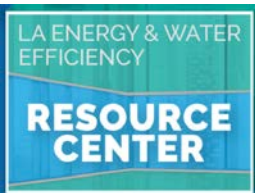
San José Building Stock Analysis: 50K

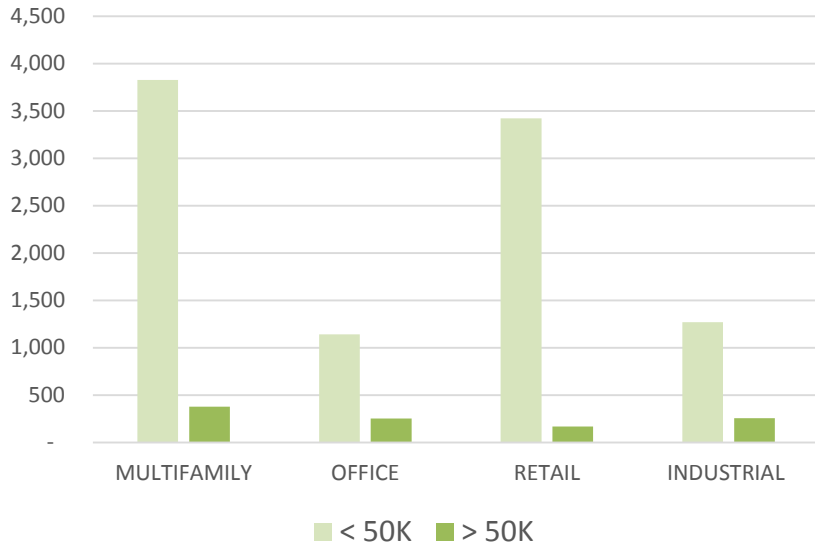**50,000 ft^2 threshold = 1558 buildings**

TOTAL # OF BUILDINGS CITYWIDE
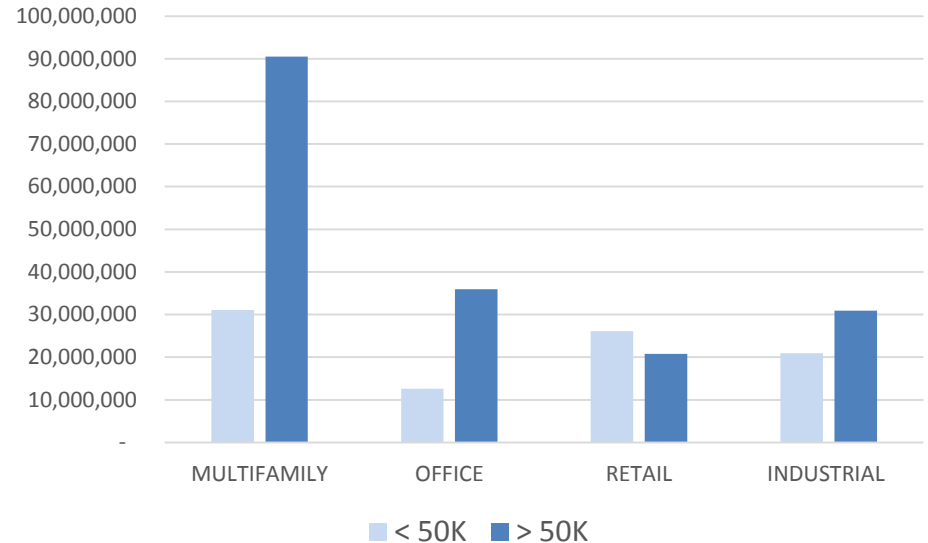
13%

< 50K ■ > 50K

TOTAL FT^2 CITYWIDE

70%

NOT COVERED (< 50K)

COVERED (> 50K)

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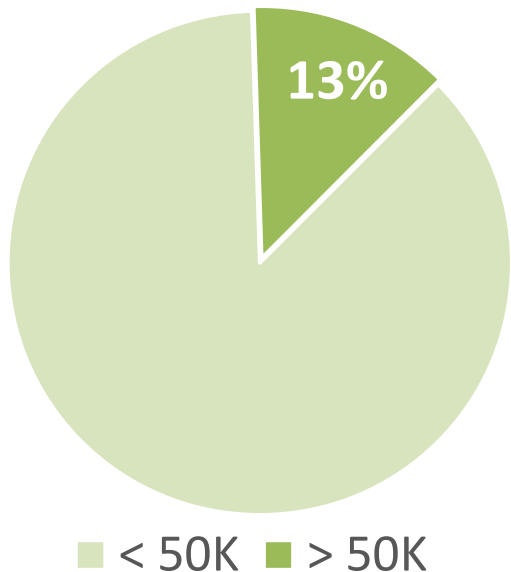
San José Building Stock Distribution: 50K

OF BUILDINGS BY TYPE

Legend: < 50K, > 50K

GROSS FT² BY TYPE

Legend: < 50K, > 50K

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San José Building Stock Analysis: 30K

30,000 ft² threshold = 2280 buildings

TOTAL # OF BUILDINGS

19%

- < 30K
- > 30K

TOTAL FT² CITYWIDE

78%

- NOT COVERED (< 25K)
- COVERED (> 25K)

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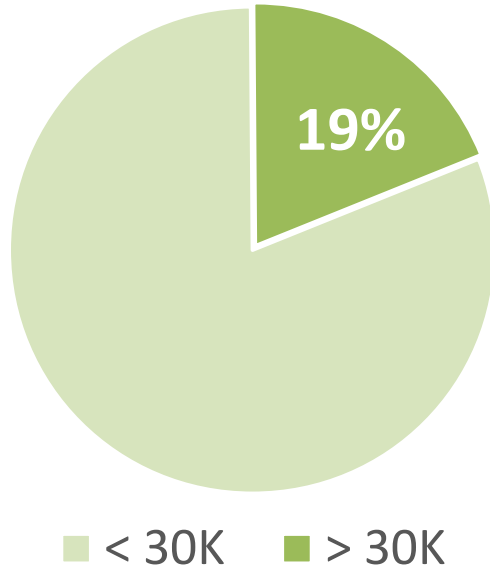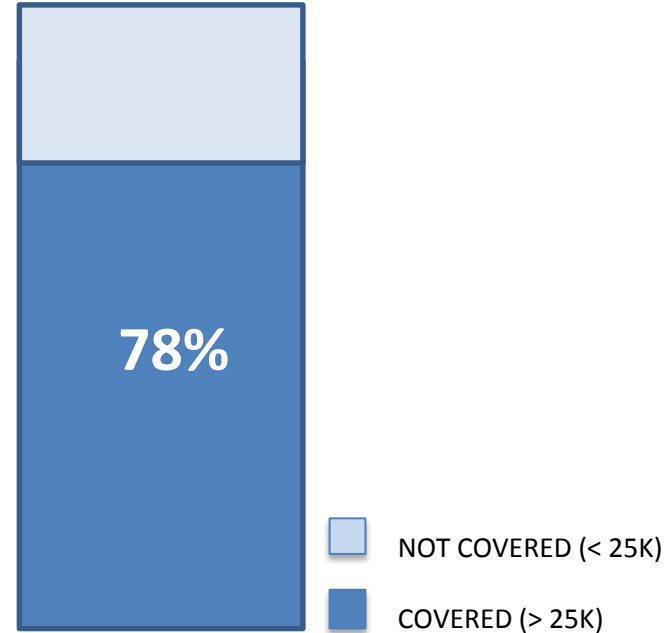
San José Building Stock Distribution: 30K

OF BUIDINGS BY TYPE

Legend: ■ < 30K ■ > 30K

GROSS FT² BY TYPE

Legend: ■ < 30K ■ > 30K
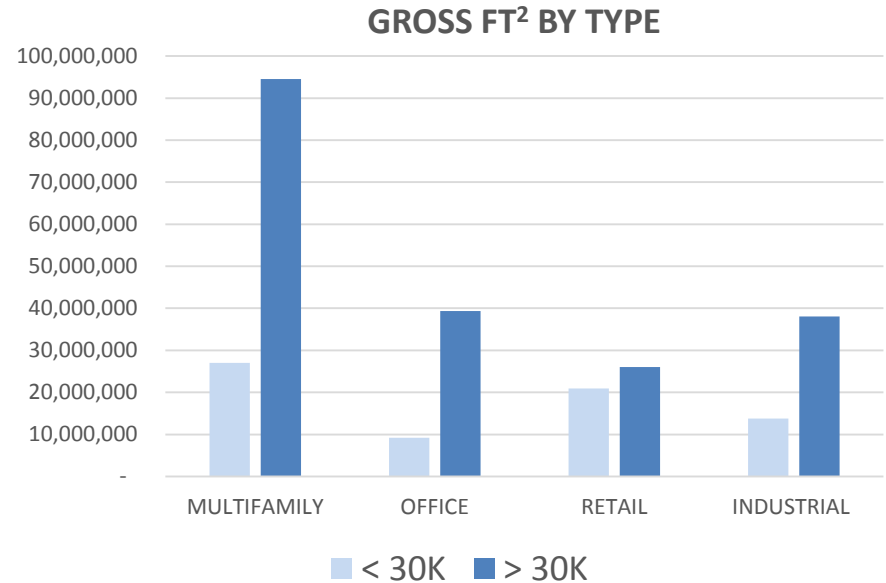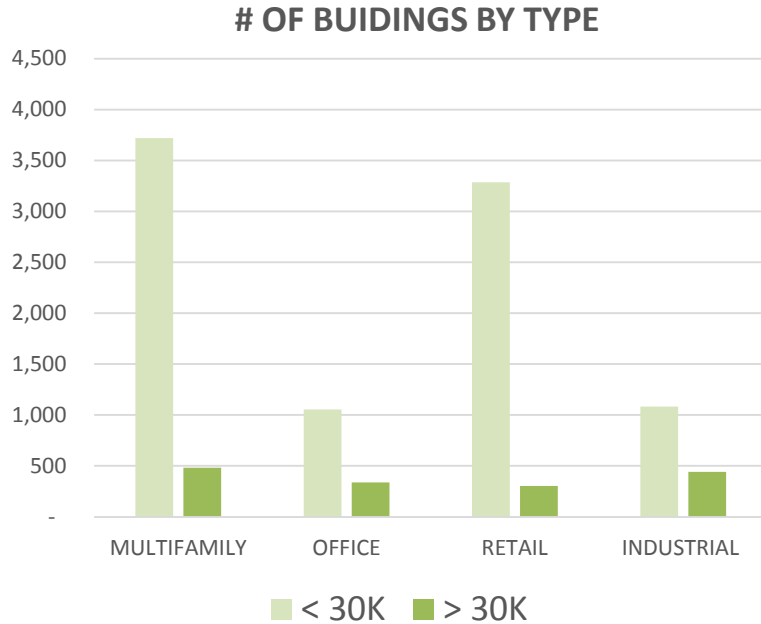
San José Building Stock Analysis: 25K

25,000 ft² threshold = 2607 buildings

TOTAL # OF BUILDINGS
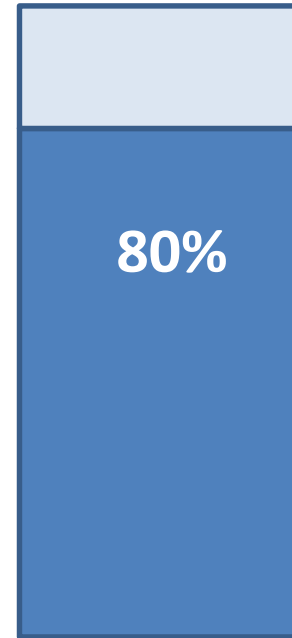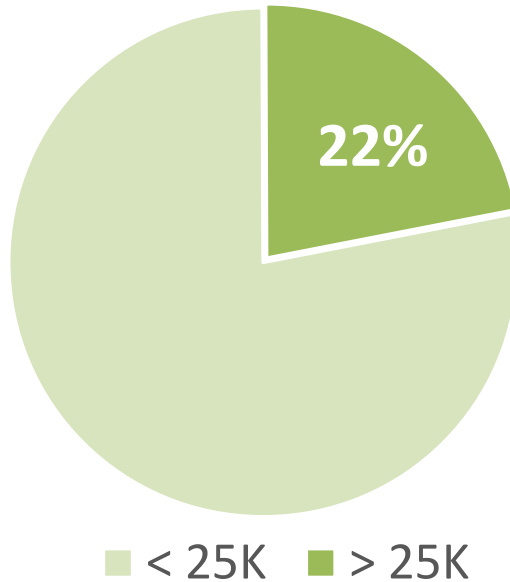
22%

■ < 25K ■ > 25K

80%

☐ NOT COVERED (< 25K)

■ COVERED (> 25K)

San José Building Stock Distribution: 25K

OF BUILDINGS BY TYPE
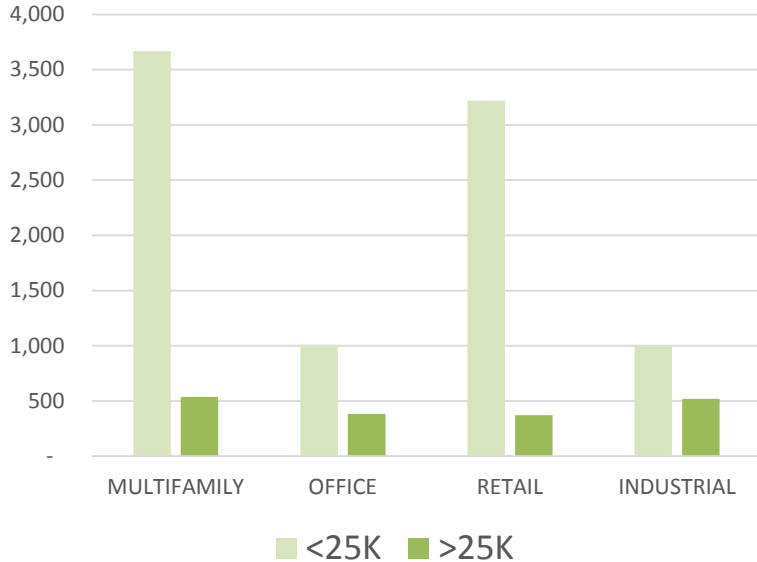
Legend: <25K | >25K

GROSS FT^2 BY TYPE

Legend: < 25K | > 25K

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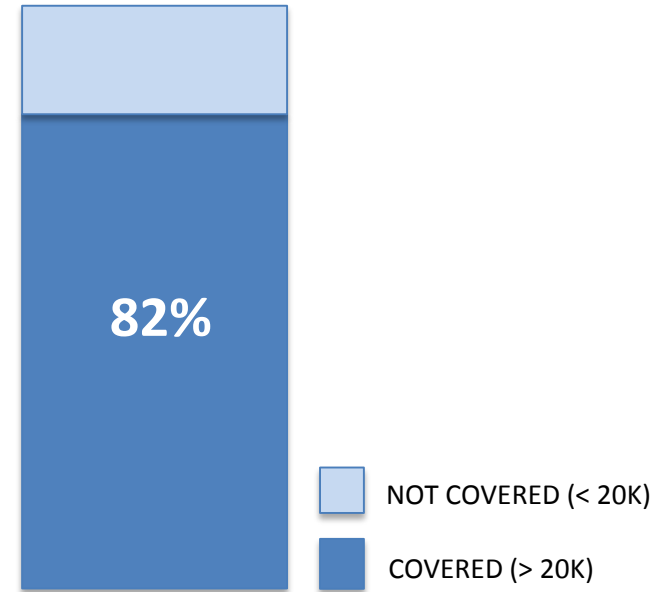
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San José Building Stock Analysis

20,000 ft² threshold = 2930 buildings

TOTAL # OF BUILDINGS

24%

■ < 20K ■ > 20K

TOTAL FT² CITYWIDE

82%

□ NOT COVERED (< 20K)

■ COVERED (> 20K)

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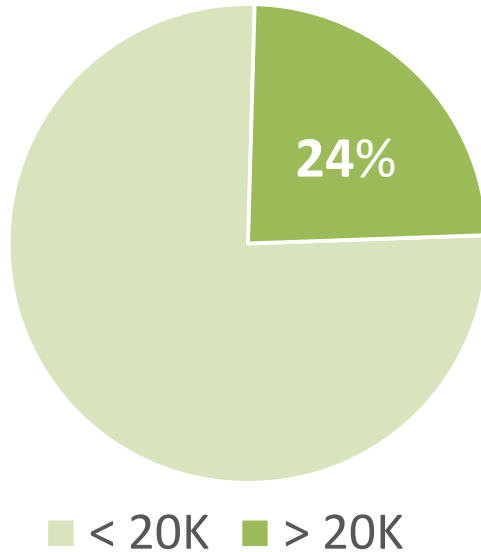
San José Building Stock Distribution at 20K

OF BUILDINGS BY TYPE
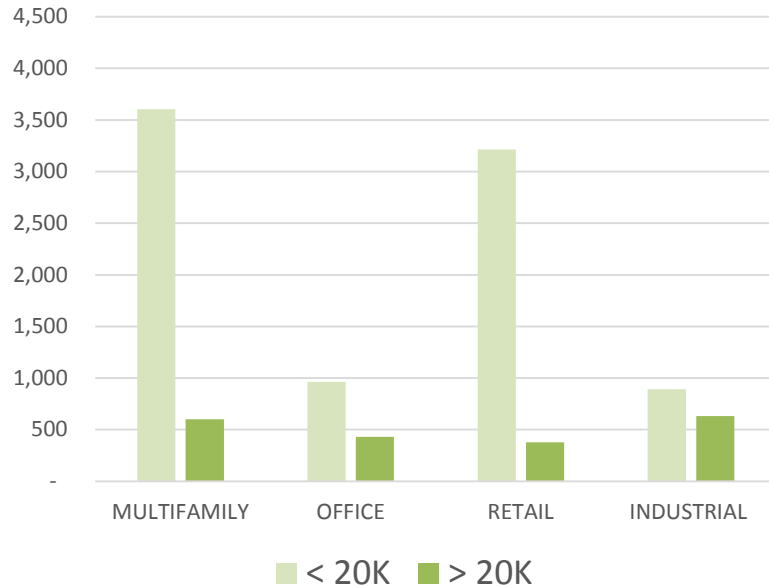
	MULTIFAMILY	OFFICE	RETAIL	INDUSTRIAL
< 20K	~3,600	~950	~3,200	~880
> 20K	~600	~430	~380	~620

Legend: ■ < 20K ■ > 20K

GROSS FT² BY TYPE

	MULTIFAMILY	OFFICE	RETAIL	INDUSTRIAL
< 20K	~24,000,000	~7,000,000	~19,000,000	~9,000,000
> 20K	~97,000,000	~41,000,000	~28,000,000	~43,000,000

Legend: ■ < 20K ■ > 20K

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San José Building Stock Analysis

10,000 ft² threshold = 4766 buildings

TOTAL # OF BUILDINGS

40%

■ < 10K ■ > 10K

TOTAL FT² CITYWIDE

90%

□ NOT COVERED (< 20K)

■ COVERED (> 20K)

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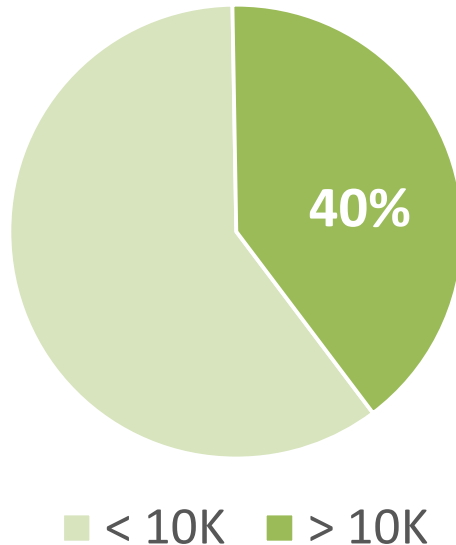
Environmental Services
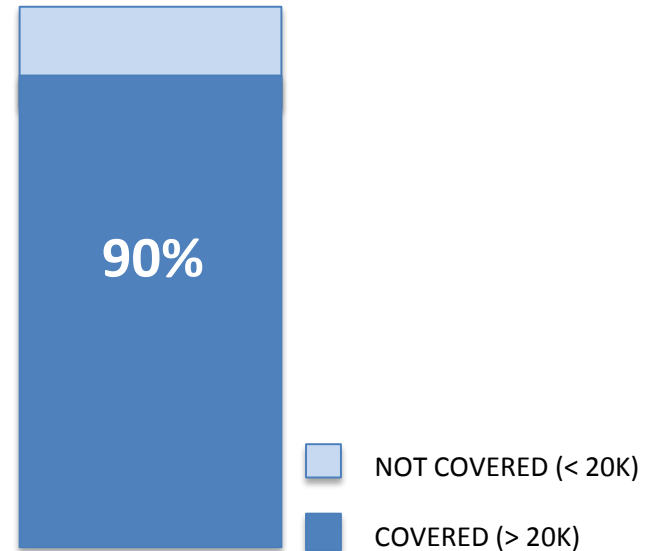
San José Building Stock Distribution at 10K

 # OF BUIDINGS BY TYPE
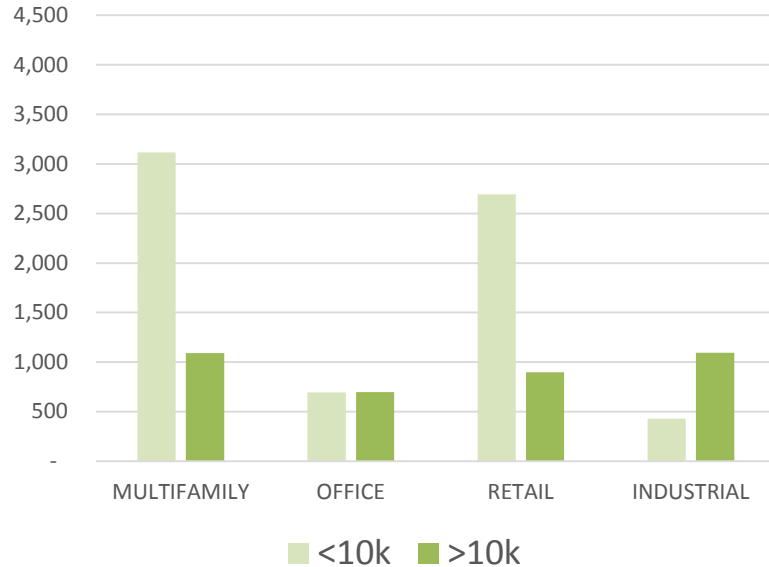
GROSS FT² BY TYPE
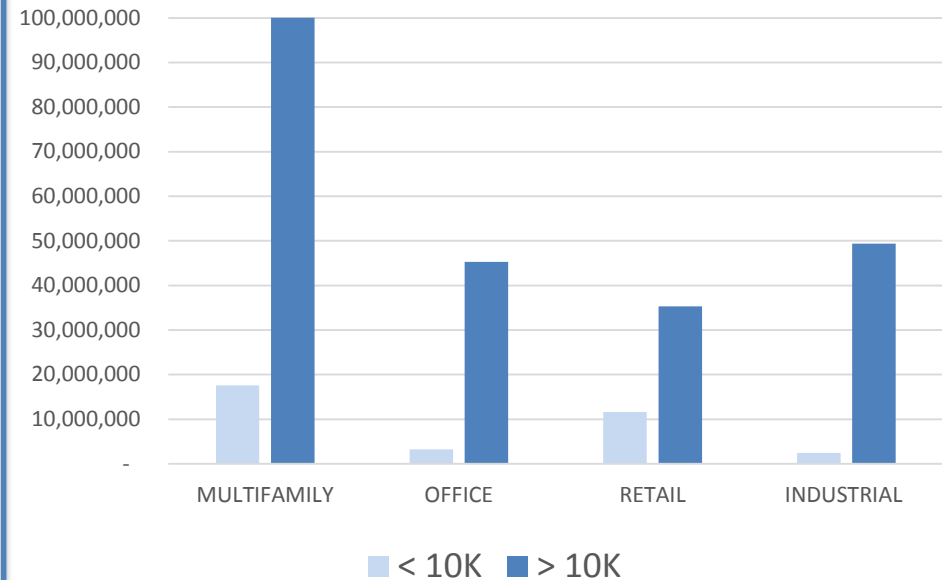
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Threshold Summary

THRESHOLD	# OF BUILDINGS	% OF GSF
50,000	1558	70%
30,000	2280	78%
25,000	2607	80%
20,000	2930	82%
10,000	4766	90%

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Considerations and Potential Exemptions

- Unique Industries
- Industrial Operations vs. System Performance
- Financial Considerations

BREAK

Benchmarking and Reporting Software

EPA ENERGY STAR Portfolio Manager is the leading universal free software for building energy and water benchmarking

Send a connection request from your utility account to upload data directly to Portfolio Manager

Educational and other resources at energystar.gov

MyPortfolio   Sharing   Reporting   Recognition

Eleni:

Your account has been created. Here is how to get started:

- <u>Set up your first building</u>. If you have any questions or run into trouble, please check out our <u>support</u> pages or <u>contact our help desk</u> for assistance.
- <u>Learn about using Portfolio Manager</u> and about <u>ENERGY STAR recognition</u>

Properties (0)

Add a Property

Manage Portfolio

<u>Upload and/or update multiple properties</u> at once using an Excel spreadsheet if you are a pro. This can be done to create new properties, add use details, create meters and add meter consumption data.

<u>Download your entire portfolio to Excel</u> or create a <u>custom download.</u>

You currently do not have any properties within your Portfolio Manager account. You can set up your first property or add up to five sample properties with pre-populated data to your portfolio. If this is your first time using Portfolio Manager, you may want to add sample properties to your portfolio in order to test out available features and see the look of a complete property.

<u>Set up your first property</u>

<u>Add up to five sample properties</u>

? Help

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Manage Portfolio

Transfer ownership of a property that you manage to another Portfolio Manager user.

Upload and/or update multiple properties at once using an Excel spreadsheet if you are a pro. This can be done to create new properties, add use details, create meters and add meter consumption data.

Download your entire portfolio to Excel or create a **custom download.**

Set a portfolio baseline and/or target to help measure progress.

Add sample properties to your account. Up to five sample properties with pre-populated data will be added to your portfolio for testing purposes.

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Source EUI Trend (kBtu/ft²)

2015: 112.4

Total GHG Emissions Trend (Metric Tons CO2e)

Metrics Summary

Metric ✎	Dec 2015 (Energy Baseline) ✎	Nov 2017 (Energy Current) ✎	Change ❓
ENERGY STAR Score (1-100)	77	76	-1.00 (-1.30%)
Source EUI (kBtu/ft²)	112.4	113.7	1.30 (1.20%)
Site EUI (kBtu/ft²)	55.2	55.1	-0.10 (-0.20%)
Energy Cost ($)	61,003.83	61,624.88	621.05 (1.00%)
Total GHG Emissions Intensity (kgCO2e/ft²)	4.5	4.6	0.10 (2.20%)
Water Use (All Water Sources) (kgal)	621.1	626.8	5.70 (0.90%)
Total Waste (Disposed and Diverted) (Tons)	70.31	68.26	-2.05 (-2.90%)

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My Shared Properties (0)

Share (or Edit Access to) a Property

Set Up Web Services/ Data Exchange

Download Sharing Report

Sharing Notifications (0)

You have no new notifications.

More About Sharing

No properties are currently shared between you and your contacts. Sharing can be helpful if you want to allow other people to view your property or help maintain or update information about it (e.g. property use details or meter data). You may also want to consider sharing with an organization who exchanges data to automatically update your meter information. Learn more about exchanging data.

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Charts & Graphs

Site EUI

What is the site energy of my properties, as reported on my utility bills?

ENERGY STAR
Performance Documents

- Statement of Energy Performance (SEP)
- Statement of Energy Design Intent (SEDI)
- Data Verification Checklist
- Progress & Goals Report
- ENERGY STAR Scorecard
- Water Scorecard

MyPortfolio   Sharing   **Reporting**   Recognition

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Templates & Reports (9)

Create a New Template

⬍	Name ⬍	Status ▼	Action
	Performance Highlights	No Report Generated	I want to... ⬍
	Energy Performance	No Report Generated	I want to... ⬍
	Emissions Performance	No Report Generated	I want to... ⬍
	Water Performance	No Report Generated	I want to... ⬍
	Fuel Performance	No Report Generated	I want to... ⬍
	ENERGY STAR Certification Status	No Report Generated	I want to... ⬍
	Partner of the Year Report	No Report Generated	I want to... ⬍
	Sustainable Buildings Checklist Report	No Report Generated	I want to... ⬍
	Waste Performance	No Report Generated	I want to... ⬍

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Scores and Transparency

- Reporting Details

- Compliance vs. ENERGY STAR score

- How will ENERGY STAR scores inform compliance?

- Transparency Format

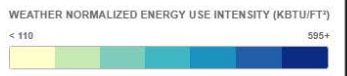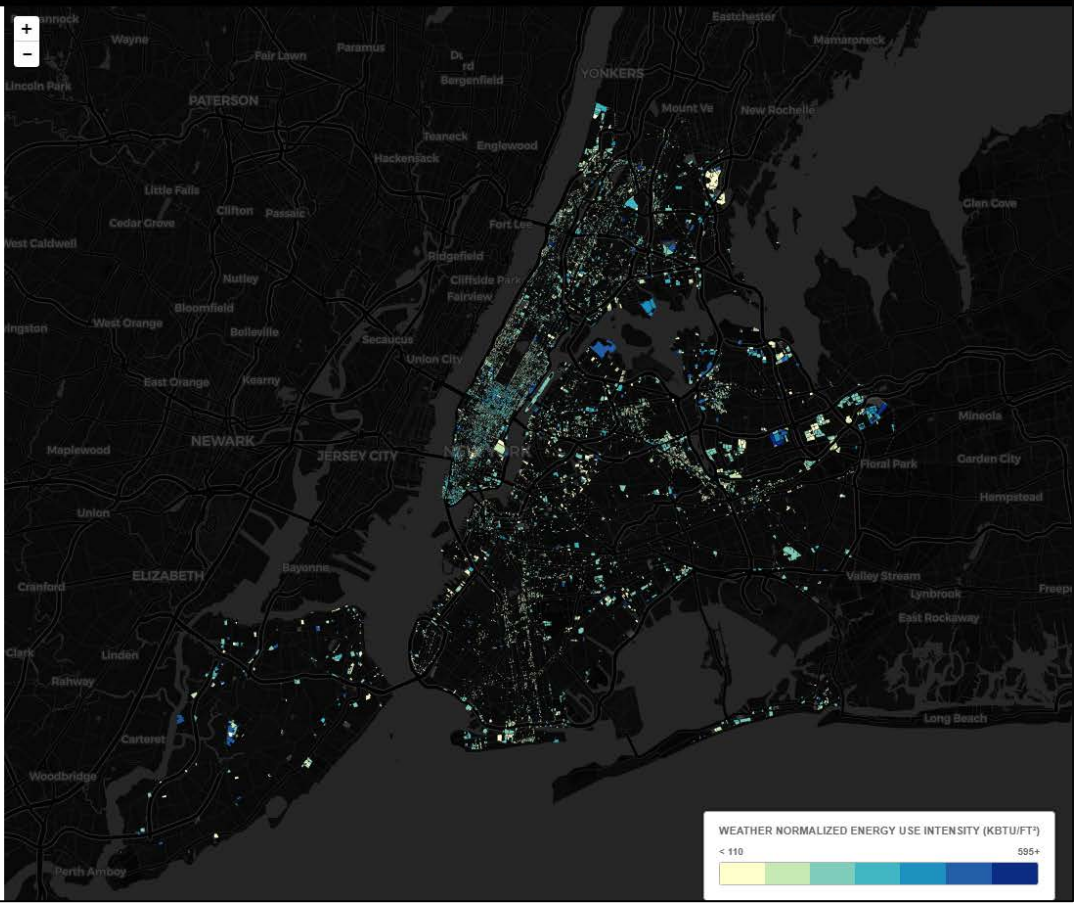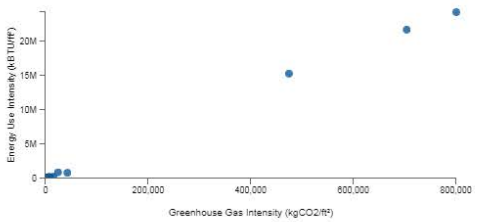| Parcel	Building Name	Building Address	Postal Co	Floor Ar	Full.Address	Property Type - Self Select	Benchmark 2016 Stat
0283/018	White Swan Inn	845 BUSH ST	94108	16,210	POINT (-122.411246 37.789851)		Violation - Did Not Report
0667/011	1430. 1450, 1480 Van Ness Ave	1430 Van Ness	94109	28,300		Retail Store	Violation - Did Not Report
0742/015	700-710 Van Ness	700 Van Ness	94102	10,467		Office	Complied
1691/019	850 La Playa	850 LA PLAYA	94121	97,422		Supermarket/Grocery Store	Complied
3715/001	1 MISSION	100 The Embarcadero	94105	31,740		Office	Complied
3715/002	110 THE EMBARCADERO	110 THE EMBARCADERO	94105	12,274			Violation - Did Not Report
3715/013	Bayside Plaza	188 THE EMBARCADERO	94105	97,025		Office	Complied
3741/035	2 Folsom	250 THE EMBARCADERO	94105	700,079		Office	Complied
4288/004	1750 Cesar Chavez	1750 Cesar Chavez	94107	31,546		Mixed Use Property	Complied
4288/005	1740 Cesar Chavez	1740 Cesar Chavez	94107	60,573		Mixed Use Property	Complied
4304/002	Pier 80 - Admin Bldg.	501 Cesar Chavez	94124	41,390		Office	Complied
3763/001	400 2ND ST	400 2ND ST	94107	64,432	POINT (-122.395004 37.784179)		Violation - Did Not Report
6959/031	4950 Mission St	4950 MISSION ST	94112	35,715	POINT (-122.438349 37.720004)		Violation - Did Not Report
9900/278	Pier 2 - Agriculture Building	101 The Embarcadero	94105	15,586		Office	Complied

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Energy Use Intensity   Water Use Intensity   Greenhouse Gas Intensity   Building Floor Area

Year built: 1900   to   2015   Filter
Floor area: 50000   to   500000   Clear

Address, e.g. 300 Cadman Plaza West, Broo   Search   Reporting   2015 ▼
                                                         Year:
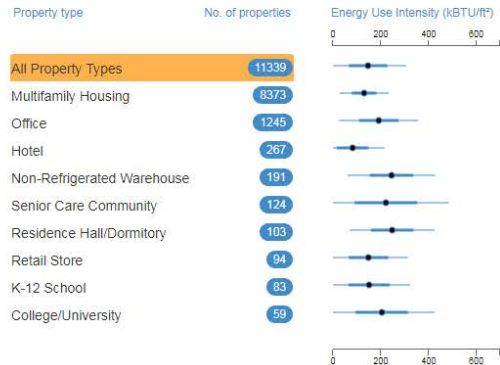
Property type	No. of properties	Energy Use Intensity (kBTU/ft²)
		0 200 400 600
All Property Types	11339	
Multifamily Housing	8373	
Office	1245	
Hotel	267	
Non-Refrigerated Warehouse	191	
Senior Care Community	124	
Residence Hall/Dormitory	103	
Retail Store	94	
K-12 School	83	
College/University	59	
		0 200 400 600

WEATHER NORMALIZED ENERGY USE INTENSITY (KBTU/FT²)

< 110   595+

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Task Force Timeline and Next Steps

Meeting 3: Data Access: Privacy, Reporting and Automation   April 19, 2018

Meeting 4: Compliance Pathways   May 16 , 2018

Meeting 5: Implementation and Enforcement   June 14 , 2018

Meeting 6: TBD   July 18, 2018

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Discussion

Questions about the material covered or information presented?

What is a reasonable coverage threshold for San José?
How will different thresholds impact the building stock and stakeholders?

What is a reasonable compliance timeline for San José?
How will different compliance timelines or 'phasing' impact stakeholders?

What else do we need to consider about the building stock?

How can the City support benchmarking and reporting for building owners?

Do any working groups need to be designated?

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