SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco

DRAFT Observations from San Francisco

March 2014

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San Francisco Department of the Environment

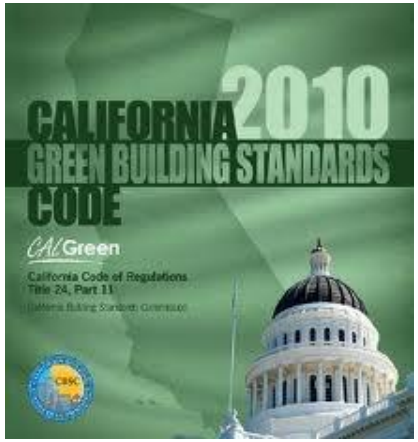
GreenFinanceSF

Saving You Money, Energy and Water

SAN FRANCISCO energy watch

Pacific Gas and Electric Company®

U.S. GREEN BUILDING COUNCIL LEED GOLD 2010



Title 24

STATE OF CALIFORNIA ENERGY COMMISSION

Energy Compliance

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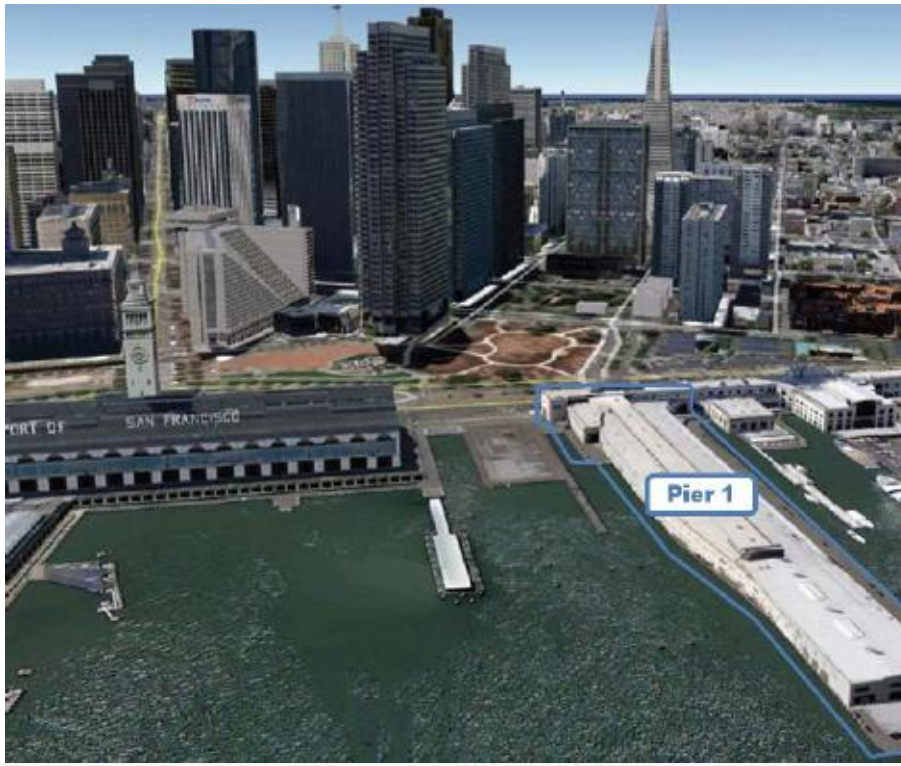
GreenFinanceSF

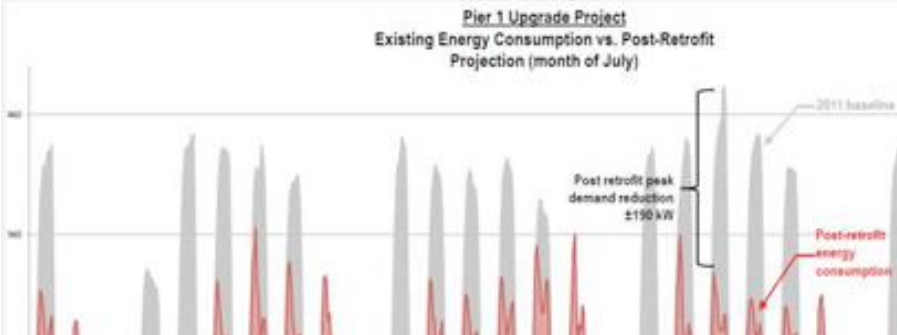
Saving You Money, Energy and Water

Pier 1: Prologis Headquarters

- $1.4 million investment
- Positive cash flow
- 32% energy cost reduction
- 390 MWh/year savings
- 30 jobs, $3.7M in economic development

- **Retrocommissioning**
  - Optimize chilled water setpoints, HW & CHW supply/return temperatures
  - Add pump VFDs
  - Repair air-side economizers
- **Lighting**
  - Upgrade 1,500 fixtures, ballasts and lamps
  - Photocells & occupancy sensors
  - Longer-life equipment reduces





BUSINESS COUNCIL ON
CLIMATE CHANGE

GREEN TENANT TOOLKIT

green lease

A lease is a legally binding agreement between the tenant and the landlord for a specified term and governs the relationship with the leased premises.

There are many steps leading up to the signing of a green lease; there are also important considerations during occupancy and at the time of lease renewal. **At each stage of the leasing process**, there are opportunities for the parties to collaborate in an effort to achieve the goals of energy efficiency and more sustainable building operations.

Click here for information about the leasing process.

Helpful Links

- Introduction to Green Leasing
- Green Policy Statement

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Step 1: Search or Click on the Map

Search Examples: 400 Van Ness Ave 0787/001
Mission and Van Ness 2011.0218
Ferry Building

1455 market st

SEARCH

Measure Distance | Street View | Map Legend | Clear Map

Step 2: Review Property Information

Click tabs below to view property or parcel information

Property | Zoning | Preservation | **Projects** | **Building Permits** | Other Permits | Complaints | Appeals

None

PORT FACILITIES: MAP

None

ASSESSOR'S REPORT: MAP

Send Feedback to the Assessors Office

Address:	1455 SITUS TO BE ASSIGNED ST
Parcel:	3507040
Assessed Values:	
Land:	$6,855,681.00
Improvements:	$144,484,454.00
Fixtures:	$13,831,003.00
Personal Property:	-
Year Built:	1979
Building Area:	1,320,000 sq ft
Parcel Area:	131,147 sq ft
Units:	-
Stories:	22

Recorded Documents for this property
View Assessor's Block Map
View Historic Sanborn Map

back to top

Municipal Facilities

SFPUC 2012 Report:

- 446 buildings, 26 agencies, 46M sq ft
- 79% outperform national median
- Potential for ENERGY STAR:
  - 11 of 33 ratable buildings
  - 42 of 109 schools
- 5 sites rank in bottom 25% compared to national peers
- Carbon reduction:
  - 5% since 2011
  - 7% since 2009

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Existing Commercial Buildings Ordinance

3 year phase-in: 2011-2014

Mandatory:

- Benchmarking + limited public disclosure (annual)
- Energy audit or retrocommissioning (every 5 years)

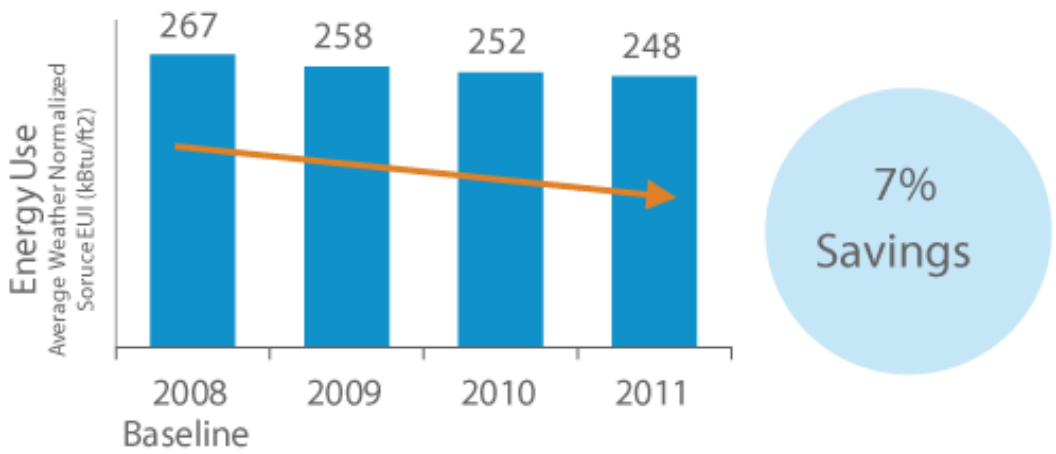
Voluntary:

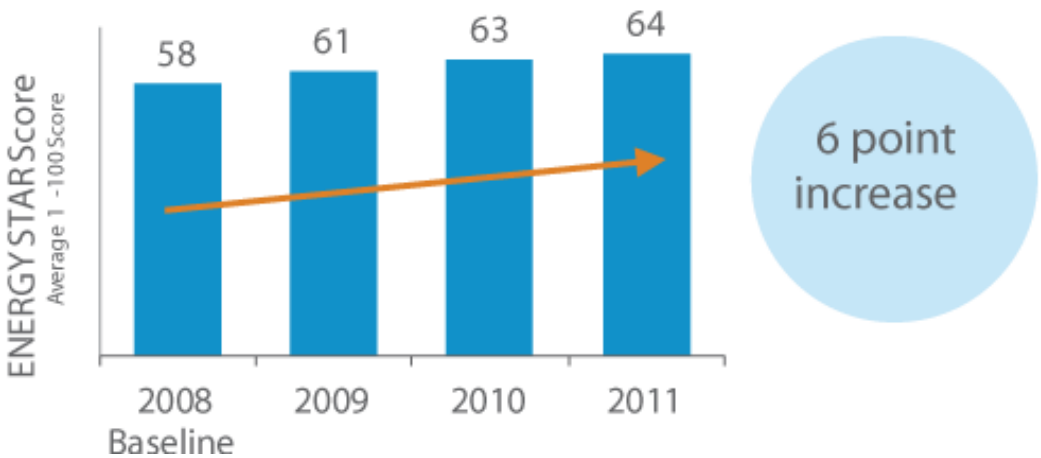
- Capital improvements
- Operations and calibration
- Tenant engagement
- Financing & incentives
- Policy as Customer Relationship Management

Relation to California Law

	SF ECB Ordinance	California AB1103
Requires	***Benchmark and Audit***	***Benchmark only***
Trigger	Annual	Transaction (sale, lease, refinance of entire building)
Tool	***ENERGY STAR Portfolio Manager***	
Data required	Monthly energy consumption for the entire building and Basic characteristics (size, occupancy, use, hours of operation)	
Data Disclosed	***Summary of annual energy performance:*** ***•1 to 100 rating*** ***•Energy use per sq ft per year*** ***•GHG emissions from operations***	***All***
Disclosure :	Public	Counterparty in transaction (available to CEC)

Do Benchmarked Buildings Save Energy?





EPA Study:

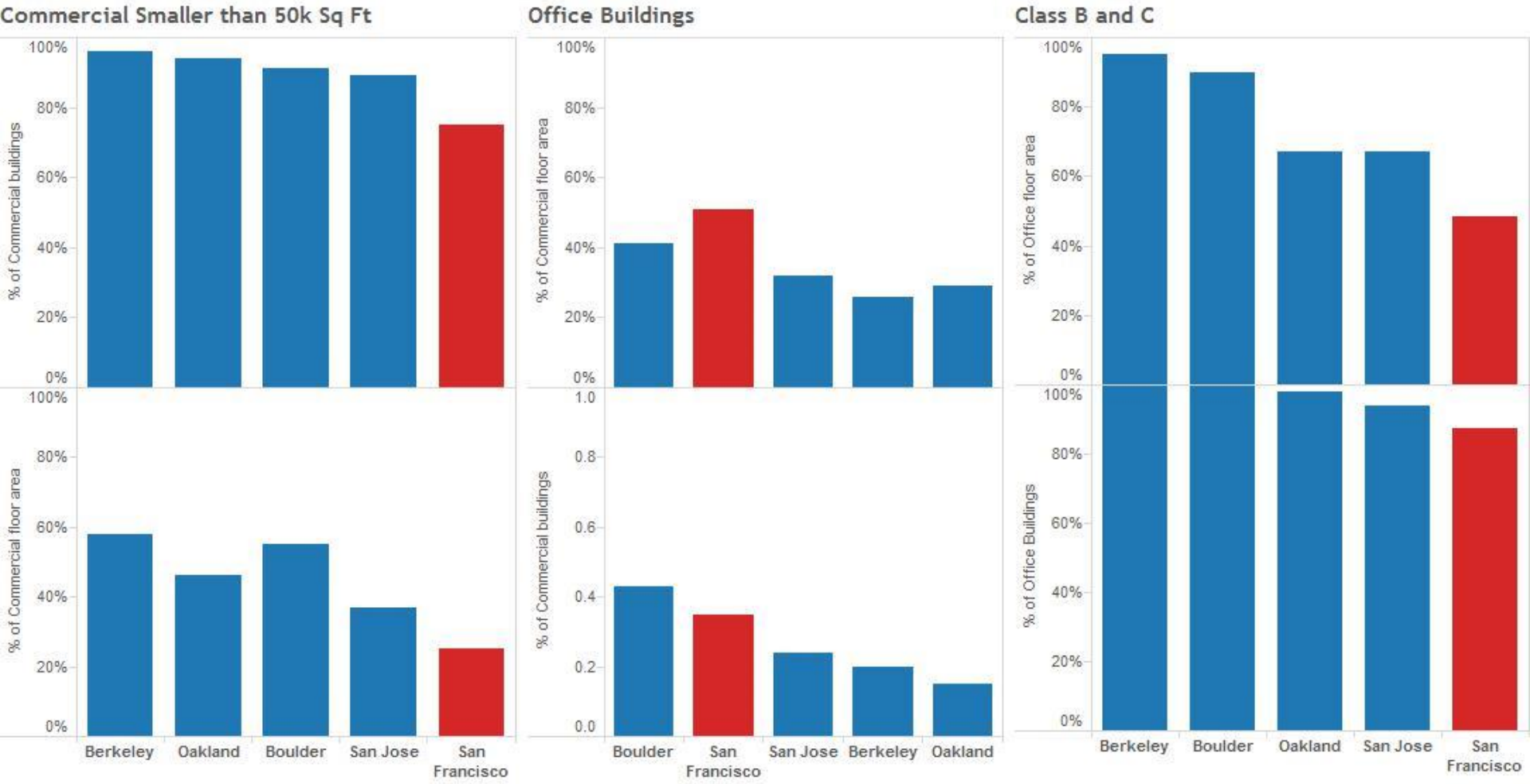
35,000 buildings that benchmarked for 4 years

Average benefits:

- 2.4% annual energy use reduction
- 7% average savings over 4 years
- Buildings with the lowest scores improved the most.

Source: US EPA 2012 “Data Trends: Benchmarking and Energy Savings”

SF is different than smaller cities, but less than you might think...



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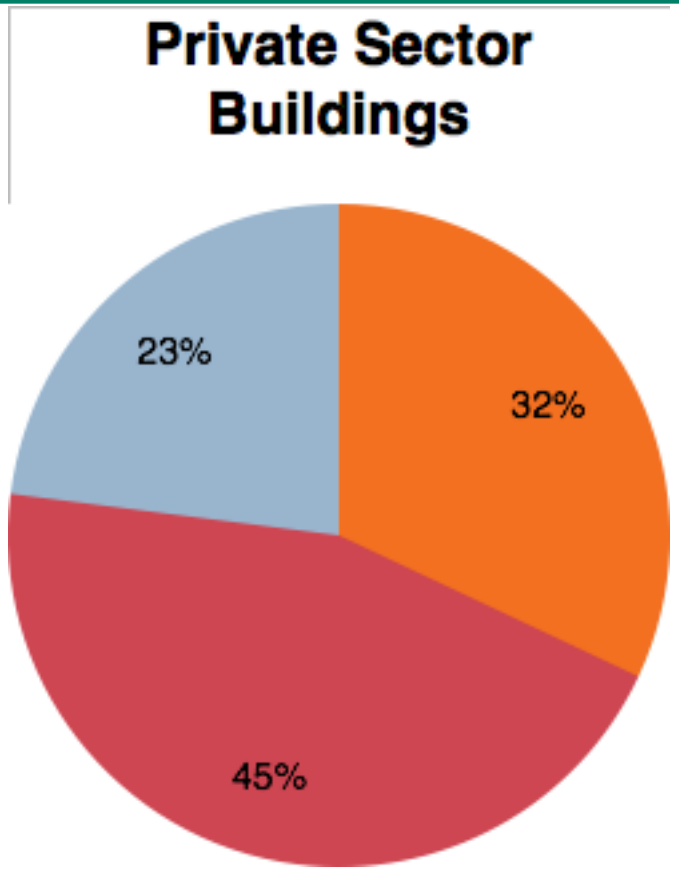
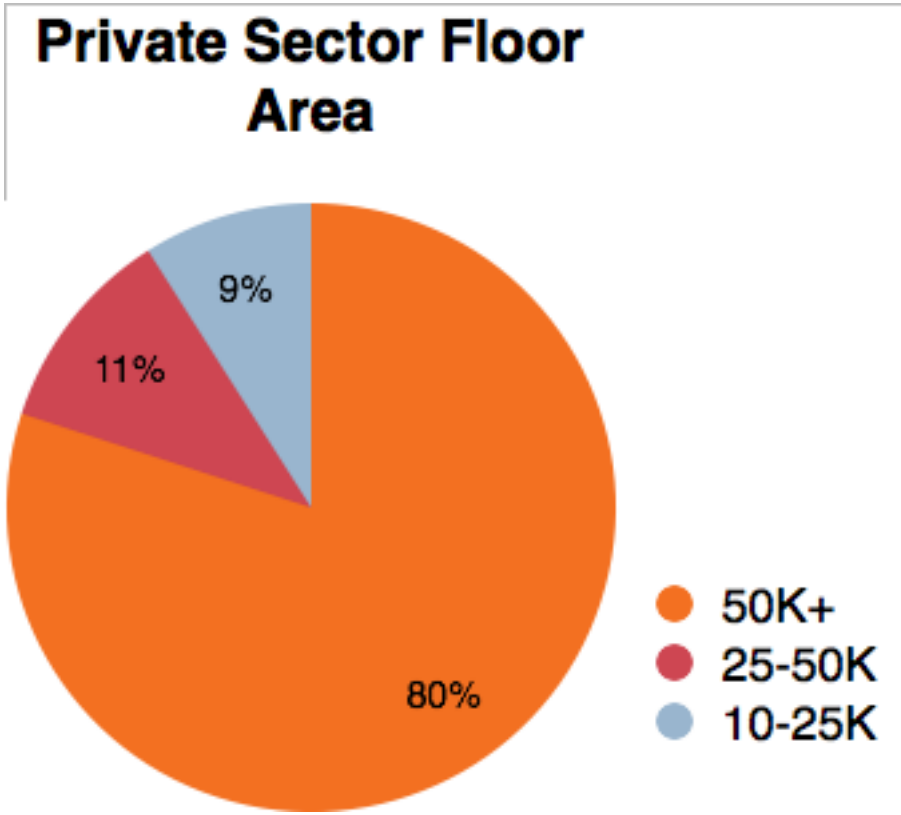
Affected Stock





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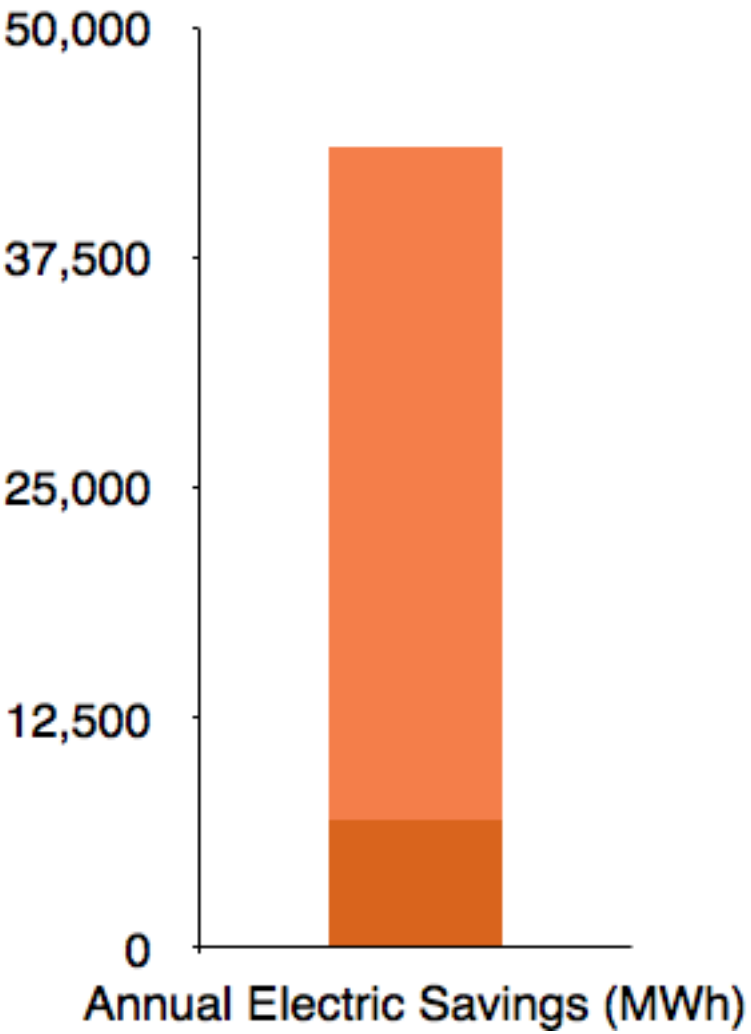
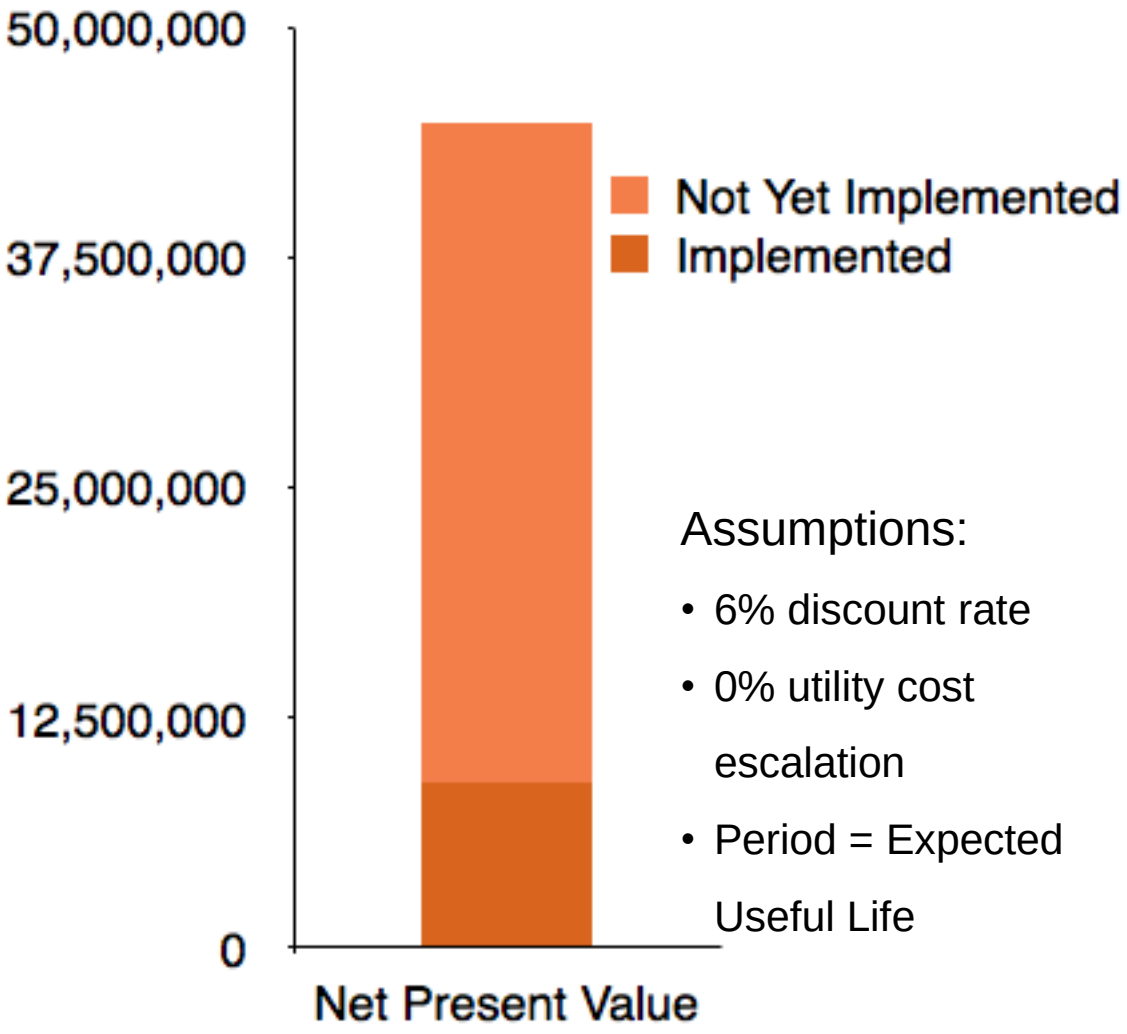
Audits: Uncovering Value

Of the first 26M sq feet audited:





Assumptions:

- 6% discount rate
- 0% utility cost escalation
- Period = Expected Useful Life

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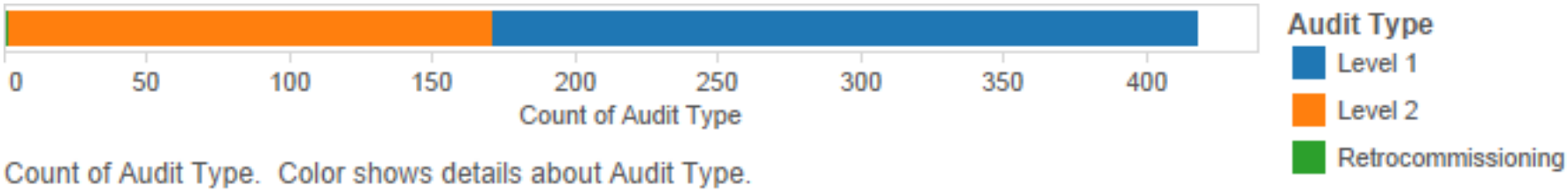
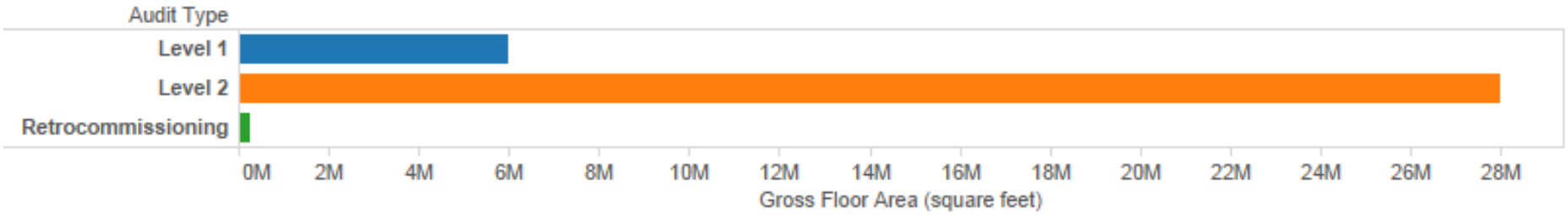
Nature of audits

Audits Completed

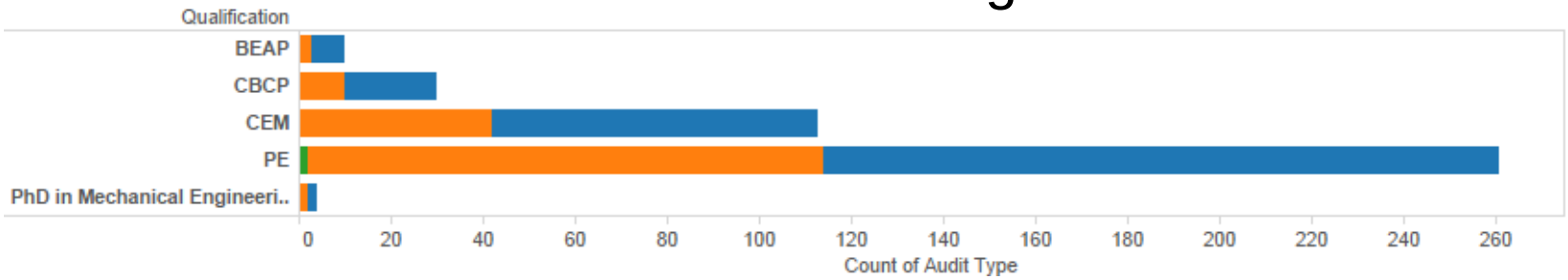


Count of Audit Type. Color shows details about Audit Type.

Floor Area Audited



Who's Performing the Audits?



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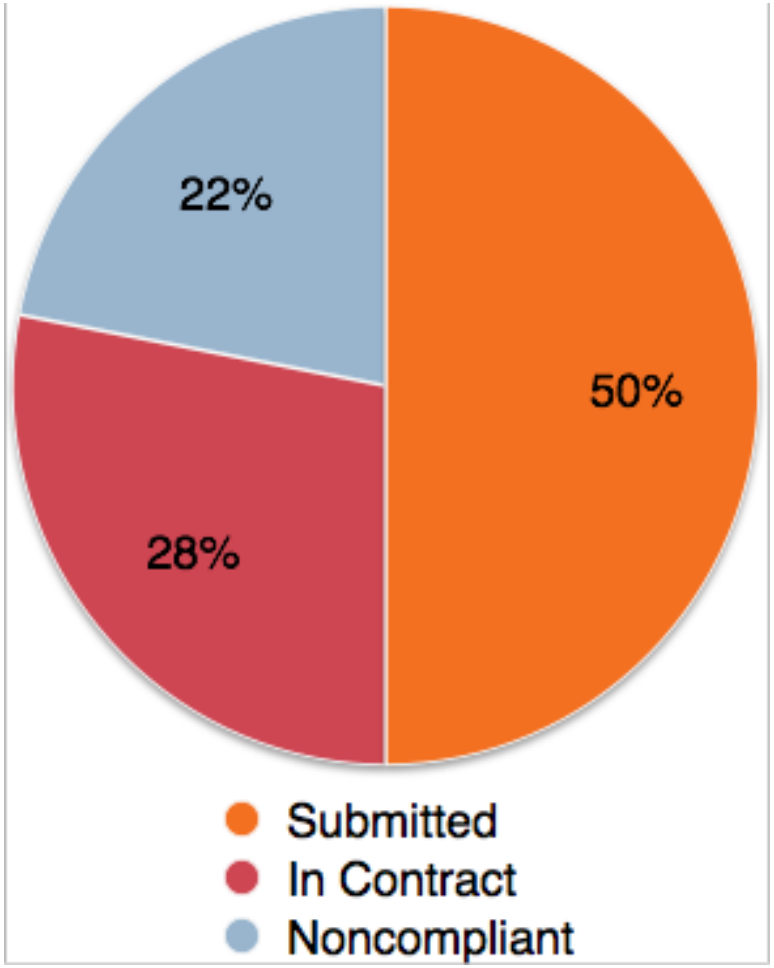
Compliance

Benchmarks

Year Due	Compliance
2011	81%
2012	79%

Audits



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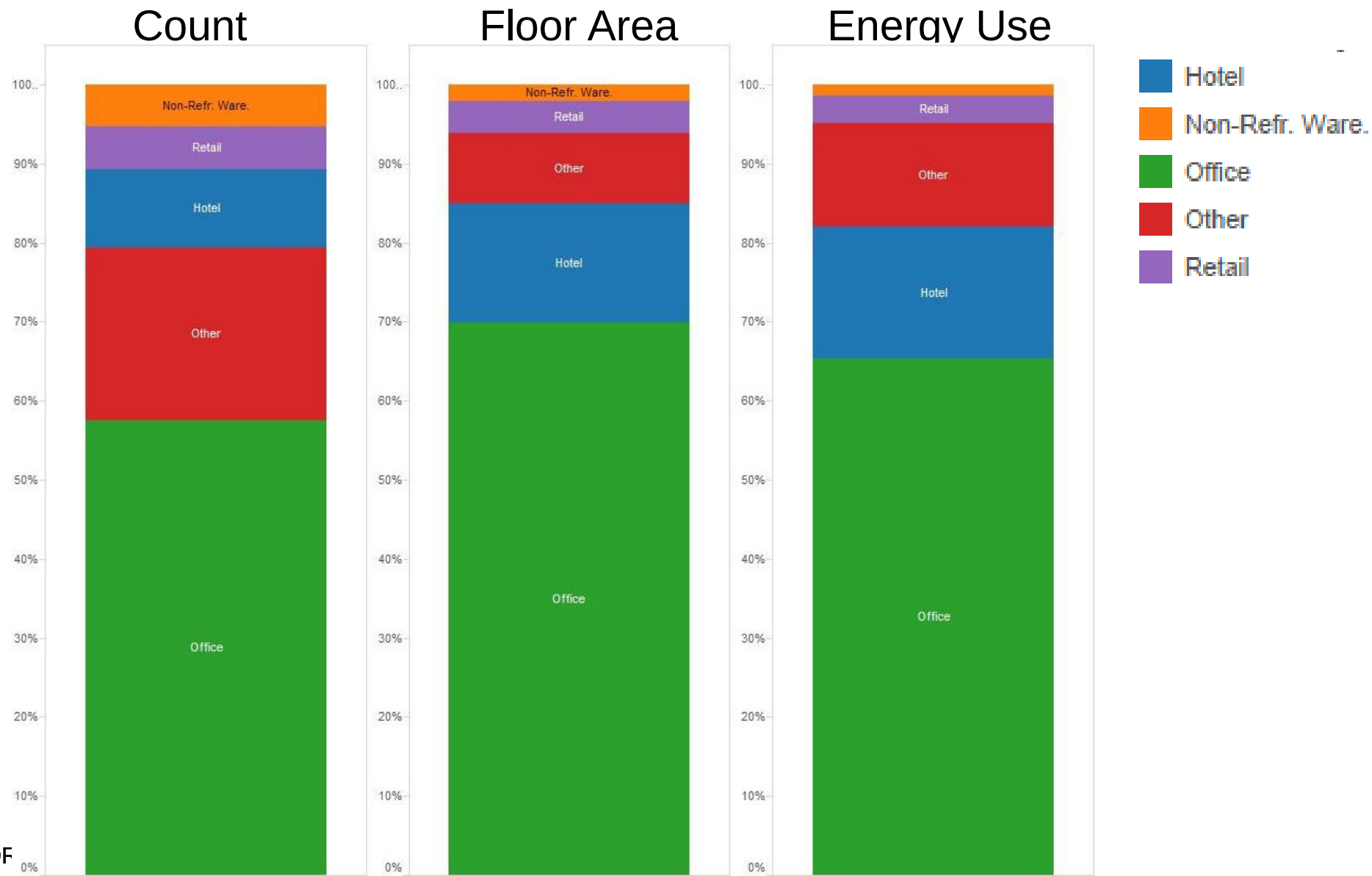
Benchmark - Cohort



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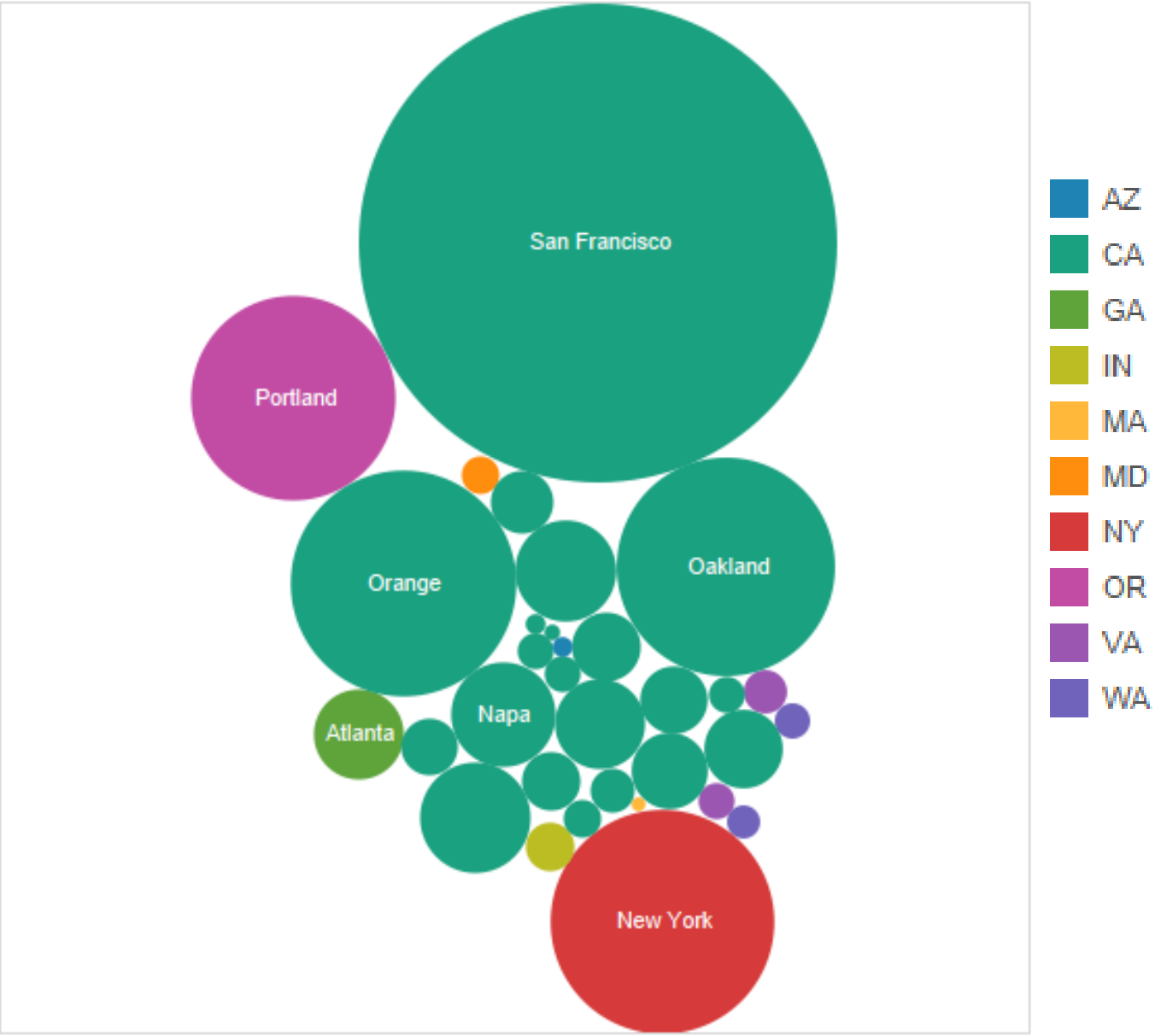
Energy Benchmark & Audit Workforce



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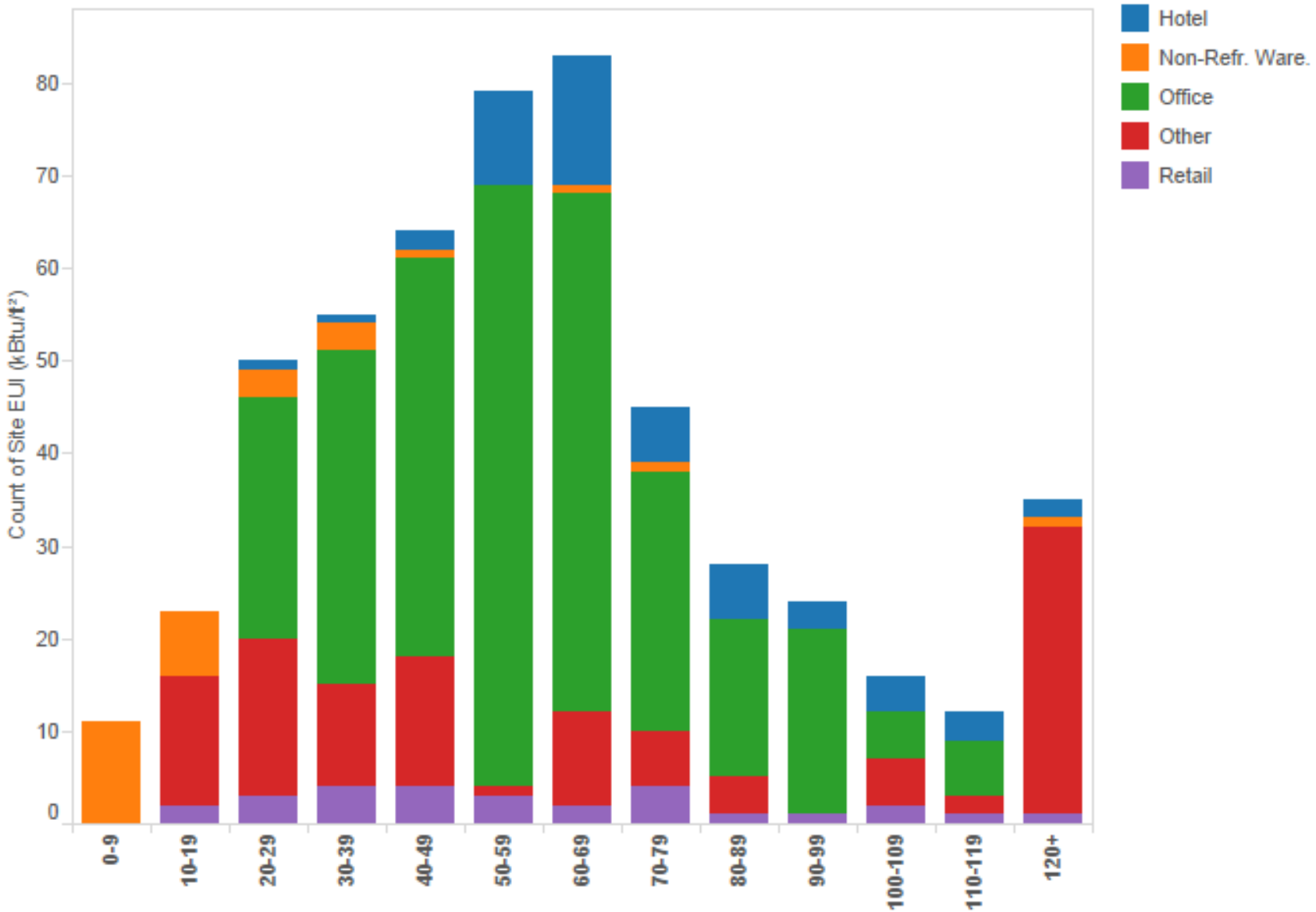
Site Energy Use Distribution



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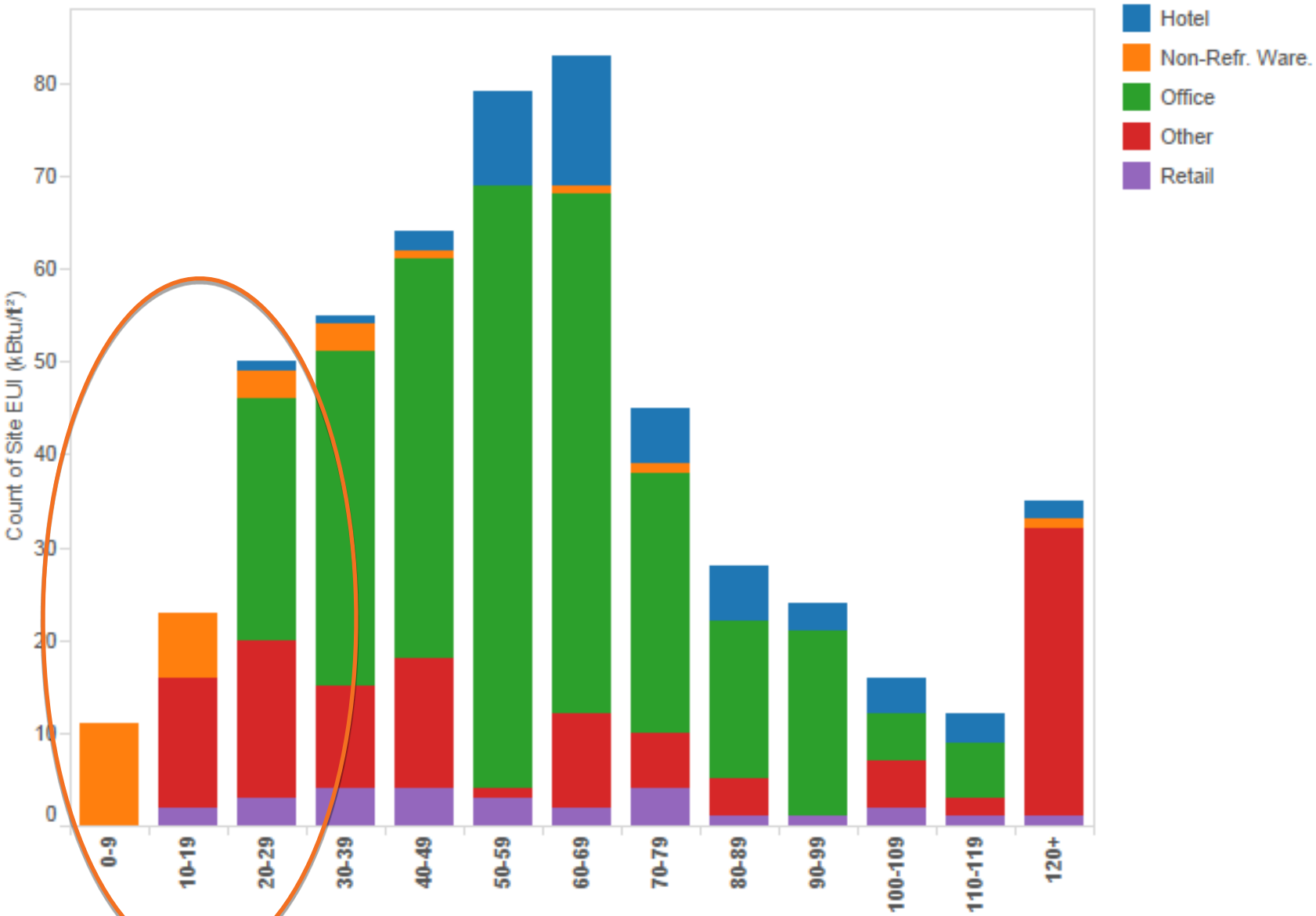

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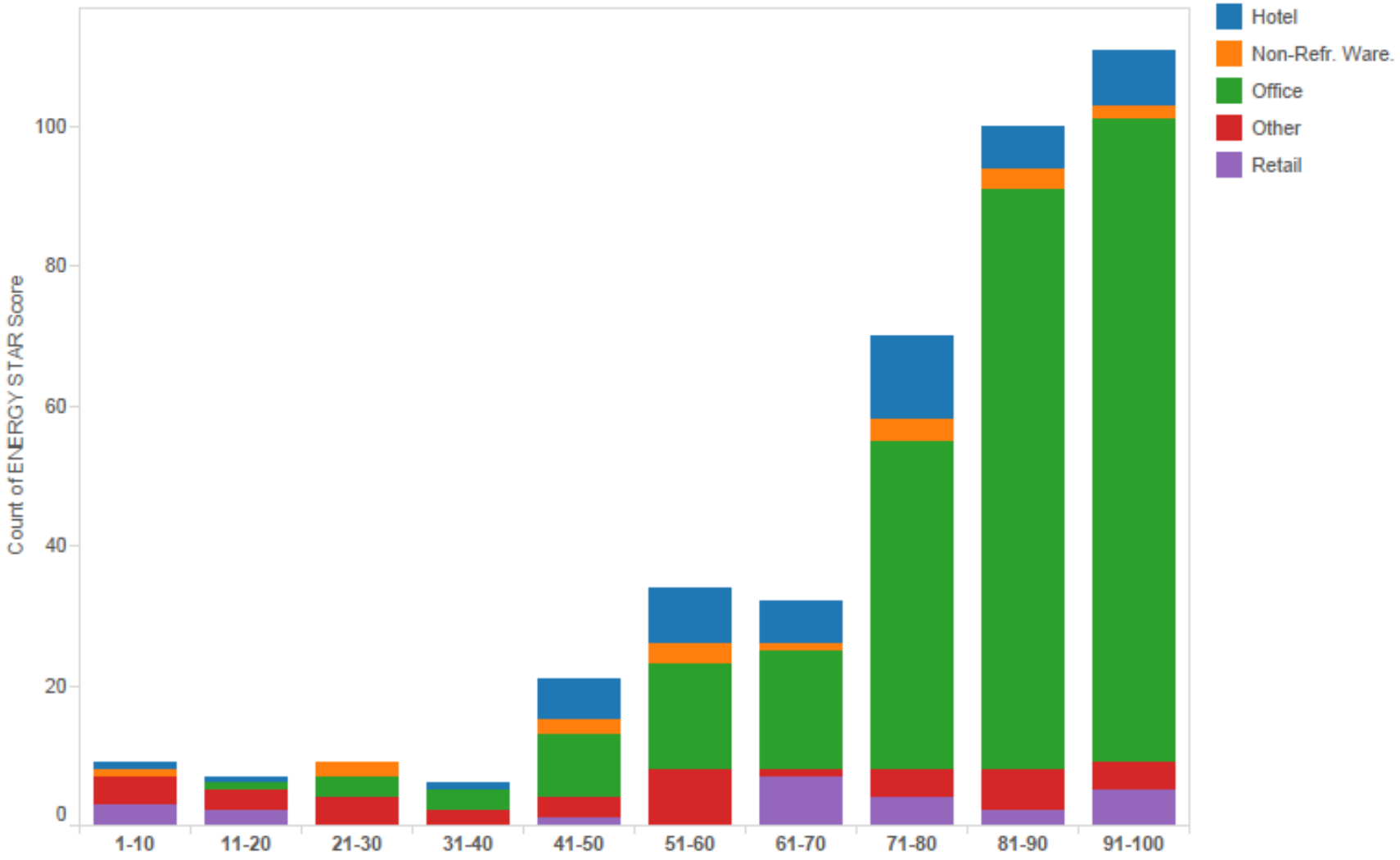
Distribution of ENERGY STAR Ratings



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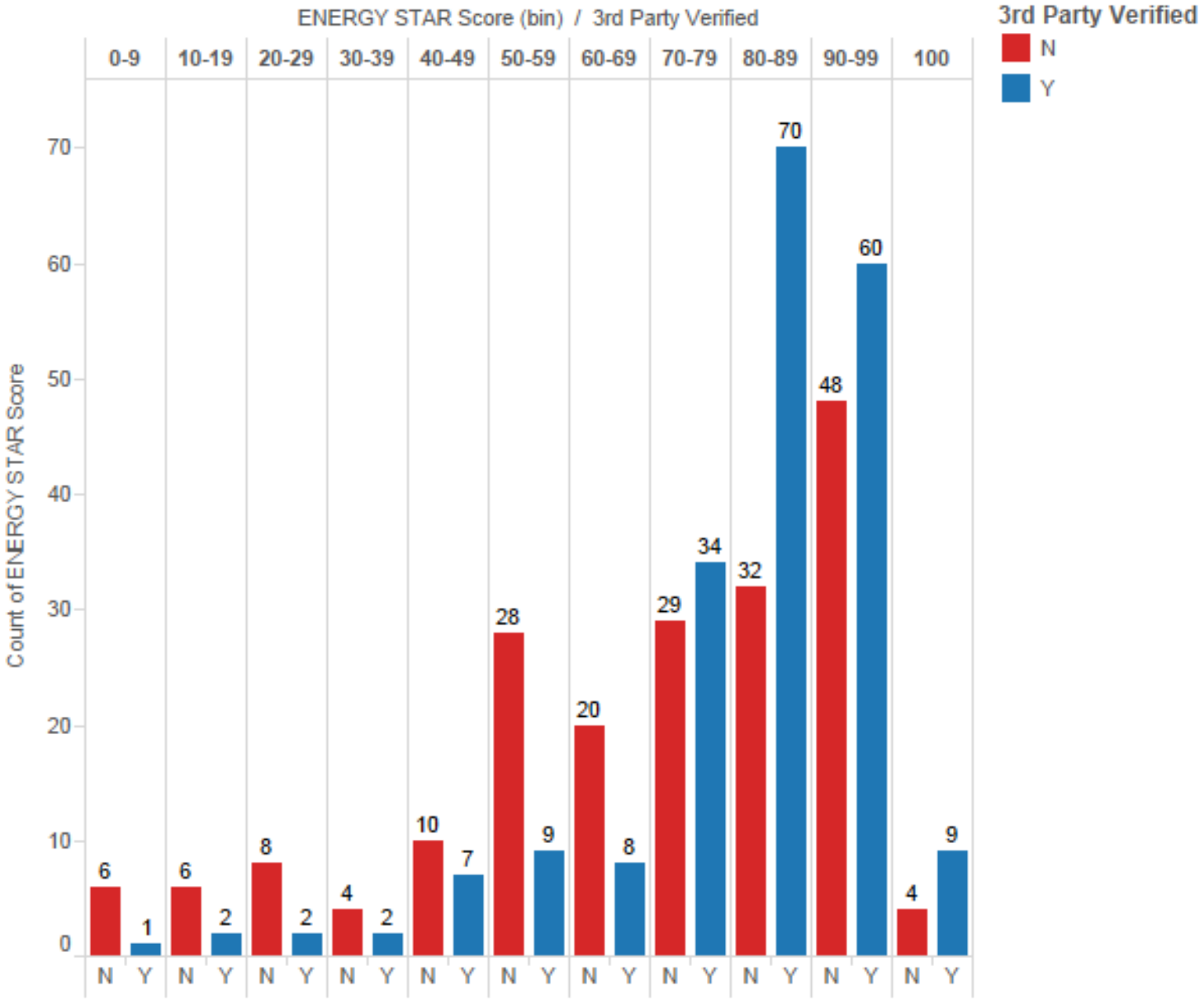
... distribution is similar with verification



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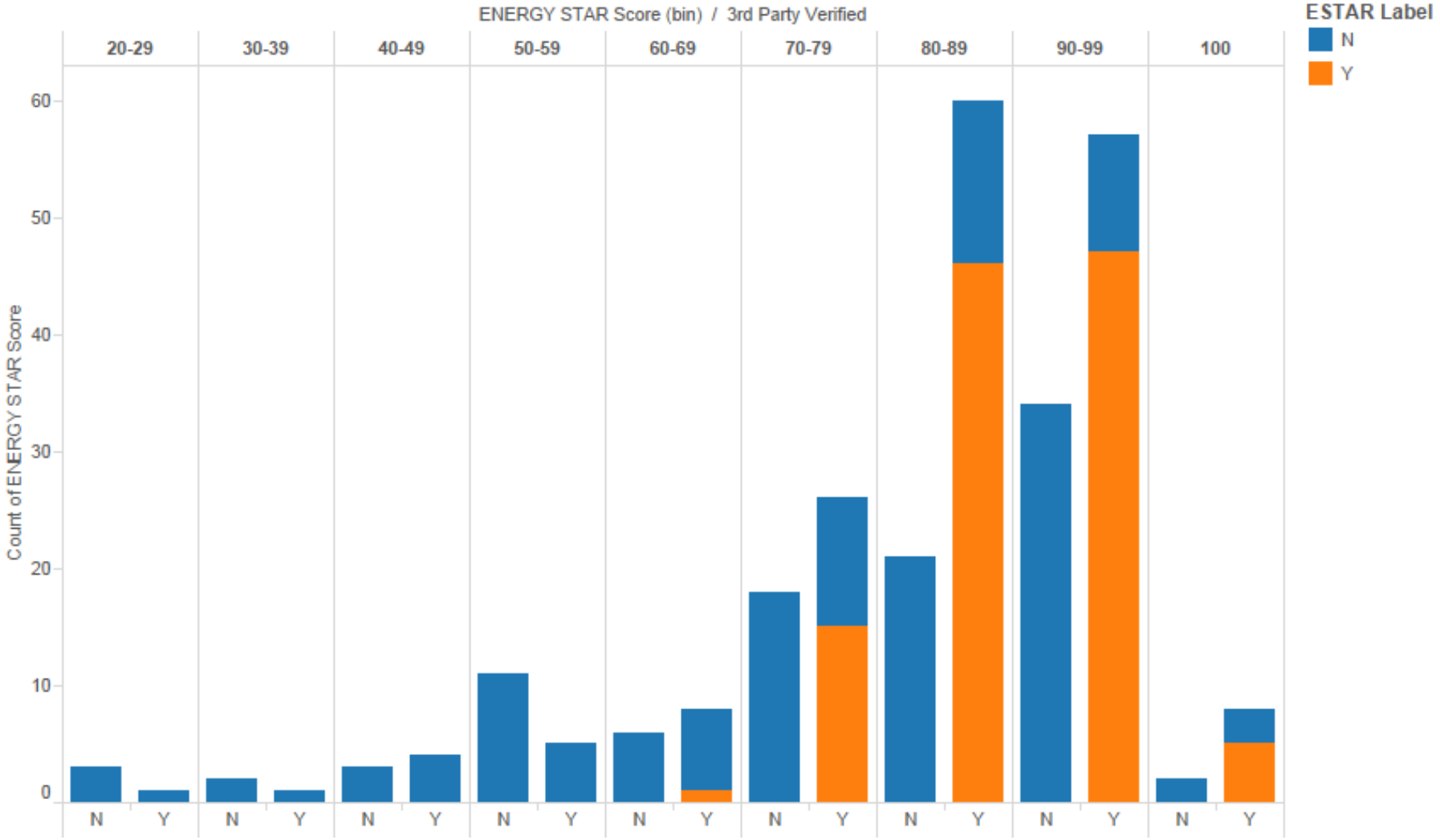
Office Distribution



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Audit Example: Flood Building

- 290,000 sq ft historic landmark
- Level 2 Audit in Q3 2012
- Updated lighting and HVAC controls
- $1.2M estimated lifetime savings

Sources: Carbon Lighthouse, Flood Building management

Image : Joe Mabel

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Total Savings Potential Uncovered

608 MW	Demand reduction
60 GWh	Annual electric savings
789,000	Annual therms
$11M	Annual energy cost savings
$6M	Estimated rebate eligibility
4.4	Year average simple payback

Potential reported by auditors as of February 2014

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San Francisco Energy Watch Since 2006

- Installed **>10,500** efficiency measures
- **$4,500** average annual cost savings
- Paid **>$37 million** in incentives
- Reduced **91,000 tons** of carbon

Equivalent to:

- Powering **44,000** San Francisco homes for a year

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Learn more

www.sfenvironment.org/ecb

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