

San Francisco 2030 District

A Policy Perspective

SPUR

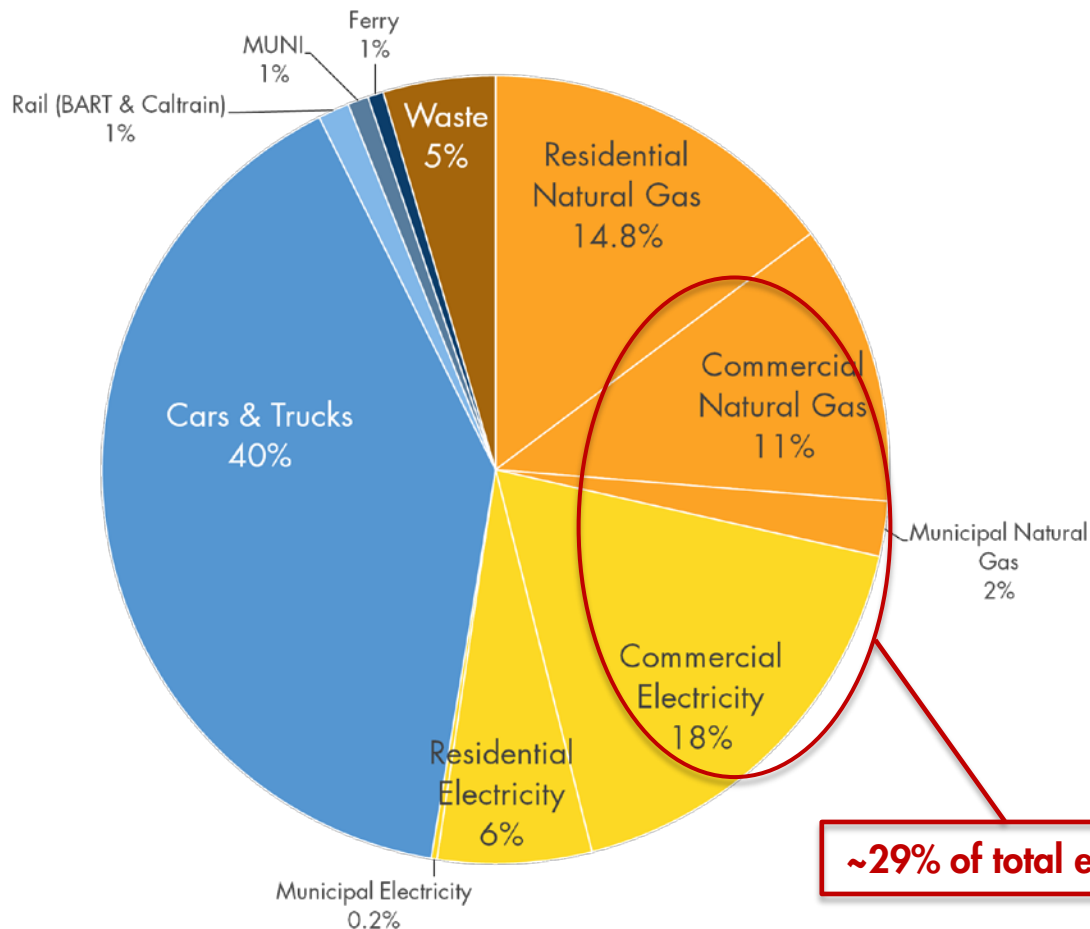
June 18, 2013



Rich Chien, City and County of San Francisco

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2010 Citywide CO₂e by Sector

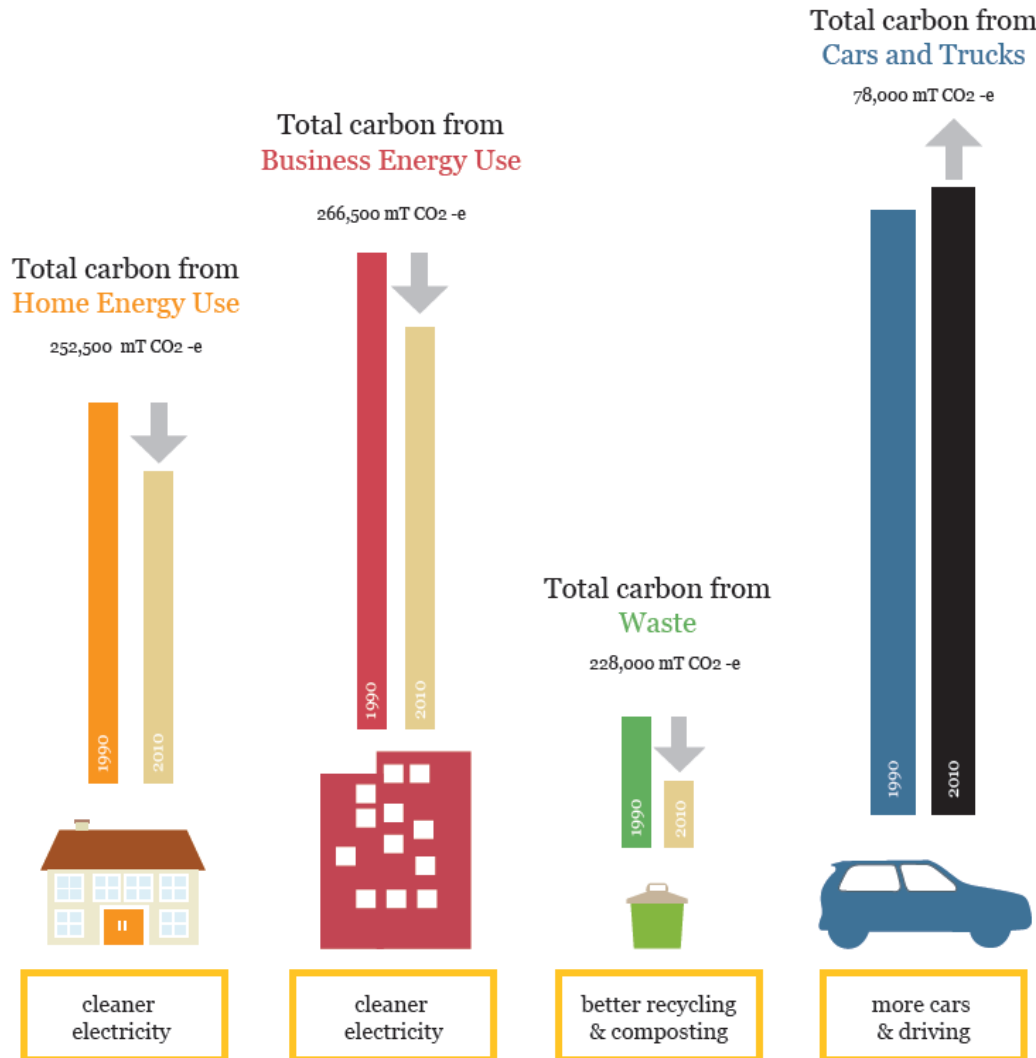


~29% of total emissions

Source	CO ₂ e (MT)
Cars & Trucks	2,118,863
Commercial Electricity	928,785
Residential Natural Gas	782,960
Commercial Natural Gas	609,521
Residential Electricity	335,195
Waste	244,625
Municipal Natural Gas	119,860
Rail (BART & Caltrain)	68,046
MUNI	45,310
Ferry	34,103
Municipal Electricity	12,489
Forestry	-4,717
Total:	5,299,757
Total with Sink:	5,295,040

Category	%
Building Energy Use	52%
Transportation	43%
Waste	5%

Emissions Reductions Progress



**2010 GHG Inventory
14.5% below 1990**

SF Green/Energy Policies



	New Buildings	Alterations to Existing Buildings	Existing Homes	Existing Commercial In Operation
Scale	<1% per year	<1% per year	360k homes	~220M sq ft of buildings larger than 10k sq ft
Rebates	\$	\$	\$	\$\$\$
Policy Tool	Building Code	T24 Energy Code	Retrofit on resale, green labels in County records	Performance disclosure & audits
Outcomes	Motivated other markets	LEED CI is fairly common	1% units = green certified	>24% of rentable office = LEED EB O&M

New Buildings: Priority Permit Incentive



Environmental Review and Building Permit

Standard Timeframe: 2013



0

6 - 9
months

LEED Platinum Timeframe: 2013



0 1 month



City and County of San Francisco
Planning Department

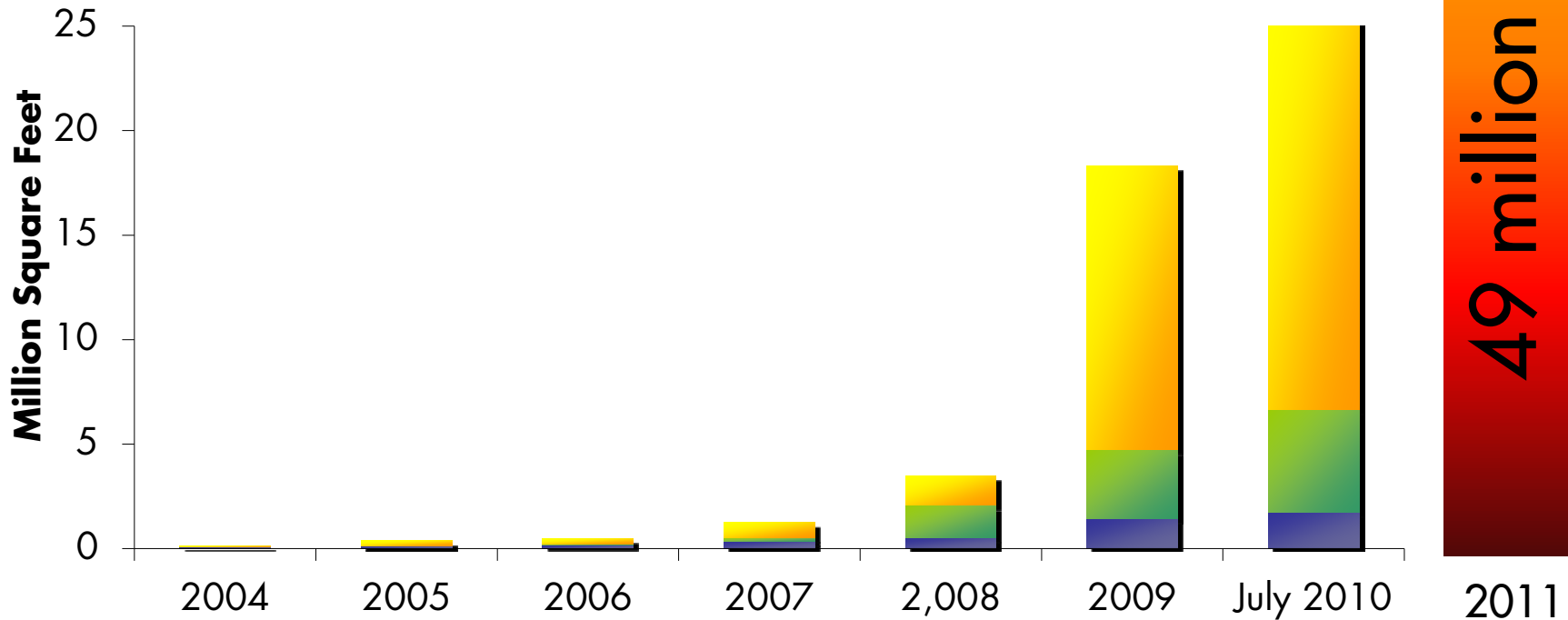


Green Building Code Requirements



	2008	2009	2010	2011	Current
New Commercial					
Large ≥ 25k ft	LEED Certified	LEED Silver			LEED Gold
Other	LEED checklist + Local Priority Measures			CALGreen +75% C&D Diversion +15% Beyond Title 24 2008	
Renovations					
First Time Tenant >25k sq ft	LEED Certified	LEED Silver			LEED Gold
Major Alteration >25k sq ft	LEED Certified	LEED Silver			LEED Gold
New Residential					
High Rise ≥ 75' height	LEED Certified		LEED Silver		
All Other Residential 1+ units	GreenPoints Checklist	25 GreenPoints	GreenPoint Rated	GreenPoint Rated	

Green Building Growth in SF



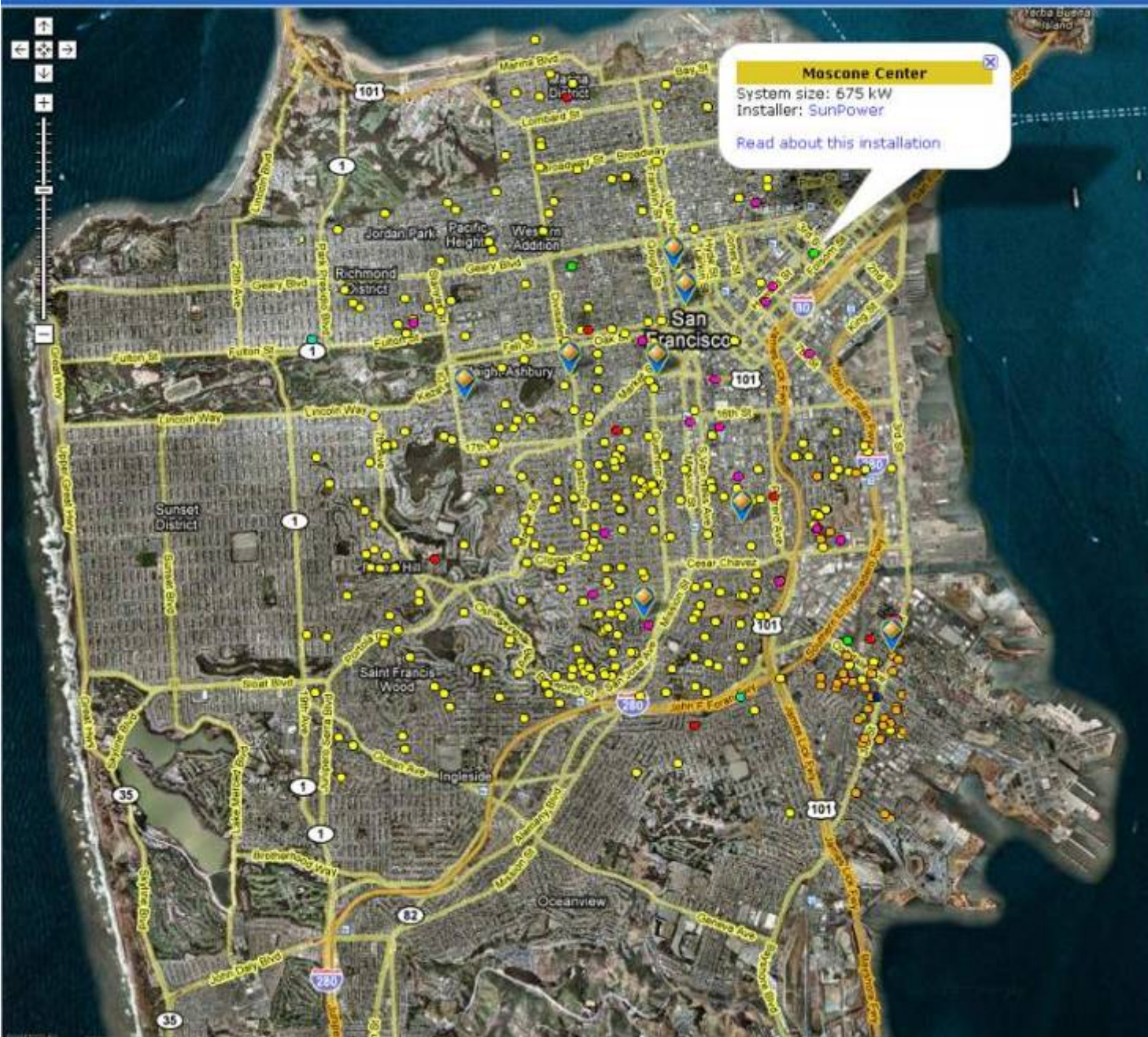
■ Existing Buildings Operations & Maintenance

■ New Construction & Major Renovations (LEED NC and CS)

■ Tenant Improvements (LEED CI)

Reset Map Back

Map | Satellite | Hybrid



Moscone Center
System size: 675 kW
Installer: SunPower
[Read about this installation](#)

Welcome Legend

Markers

Solar Installations

- Municipal
- Residential
- Commercial
- Schools/libraries
- Non-profits
- Monitoring stations
- Environmental Justice Program
- Case Study

Don't see your solar installation on the map?

What Can Solar Do For You?

Enter your address
(ex. 11 Grove Street or 11 Grove St)
[get my info](#)

SF Solar News

- NEW!** Mayor Newsom's Solar Founders' Circle.
- Find out how you can get money from the City to install solar here.
- Become a Neighborhood Solar Champion!
- SF's solar permitting process
- Free Solar Classes.

SF Solar Facts

- PV Systems Installed: 871
- Total capacity: 5.9MW
- Annual Energy produced: 9,625 MWh
- Annual savings: \$1,585,631
- Annual CO2 savings: 7,180,287 lbs



updated 9/15/2008

SF Solar Resources

- Benefits of Solar Electricity
- Solar Rebates, Tax Credits & Other Incentives
- Frequently Asked Questions (FAQs) about Installing Solar
- Clean Power Estimator
- Find a solar installer
- Solar for Renters and Landlords

San Francisco Energy Watch



- Free energy assessment
- Detailed report
- Technical support
- Quality control
- Financial incentives
- Expert installation
- Lower utility bills
- Turn-key services
- Bilingual staff



Large Commercial & Multifamily



Hotel Nikko

"SF Energy Watch has helped us maintain our energy consumption low."

-Joseph Curran, Marketing Director

SAVINGS SNAPSHOT

Total Project Cost	\$33,862
Program Incentive	\$27,490
Customer's Co-Pay	\$ 6,372
Annual Savings	\$83,414
kW Reduction	96.79
Payback	<1 month



1700 California St

"We received help in financing the work, the installation took place without a hitch, finished ahead of schedule and the lights look great."

-Winnie Chan, Property Manager

SAVINGS SNAPSHOT

Total Project Cost	\$71,762
Program Incentive	\$17,625
Customer's Co-Pay	\$54,137
Annual Savings	\$52,500
kW Reduction	67.7
Payback	~1 year



The Watermark

"We are very happy with the efficiency upgrades. I see the motion sensors as an every-day confirmation of our commitment to lowering energy usage."

-Doug MacAbee, Manager

SAVINGS SNAPSHOT

Total Project Cost	\$4,531
Program Incentive	\$3,111
Customer's Co-Pay	\$ 1,420
Annual Savings	\$19,205
kW Reduction	9.82
Payback	<1 month

ECB Energy Performance Ordinance



Benchmarking and Disclosure

Passage of Ordinance	2011 (October 1)	2012 (April 1)	2013 (April 1)	... and Beyond
Workshops, Earned media, Outreach	Benchmark >50K sq ft ¹	Benchmark >25K sq ft ¹	Benchmark >10K sq ft ¹	Continue

¹ First year data is confidential

Energy Audits

2011	Current: Preparation	2012 (November 15)	2013 (April 1)	2014 (April 1)
Notify all building owners	12 months before first audits are due	33% of buildings obtain an energy audit ²	Second 33% ²	Final 33% ²

² Once every 5 years after initial audit

PACE Basics



Government Sponsor



Upfront Capital

Repaid through
Property Taxes

Property Owner



- Creates financing district & approval process
- Attaches repayment obligation to the building via property taxes
- Private investors provide capital
- Identifies work & chooses contractor
- Repays financing as a line item on the property tax bill (up to 20 years)
- Repayment obligation transfers with ownership



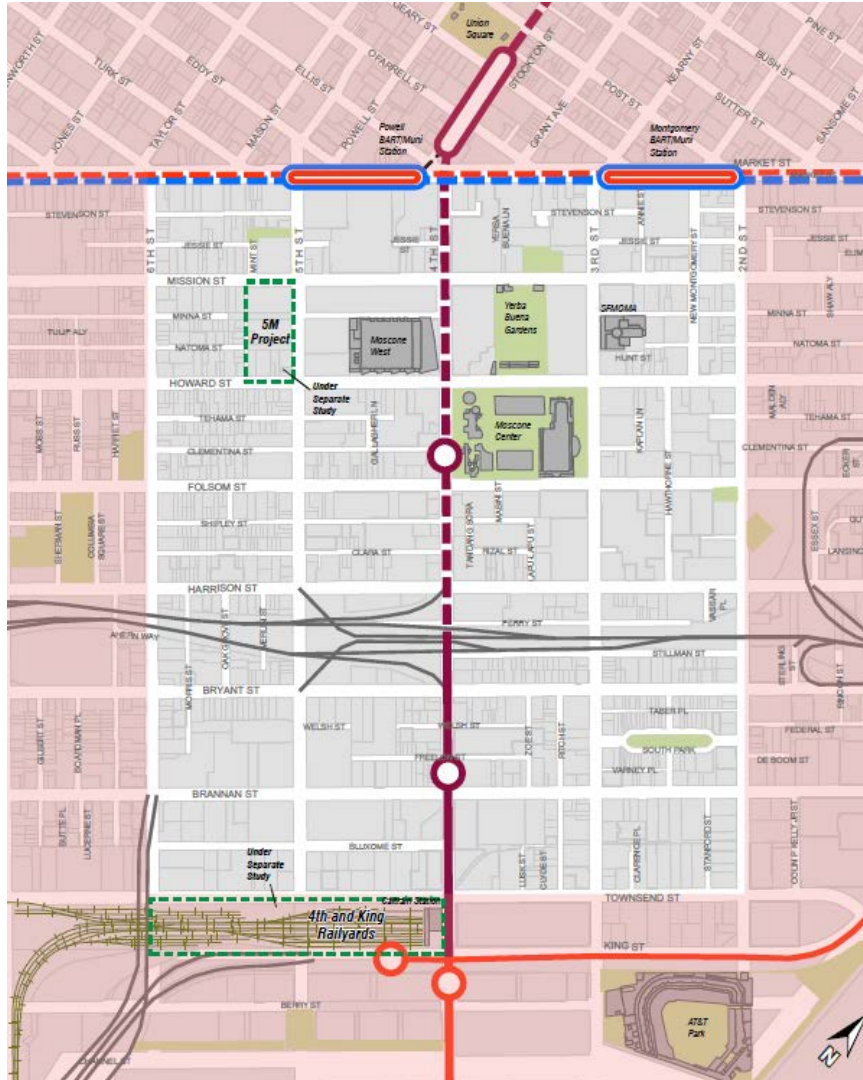
GreenFinanceSF 
Saving You Money, Energy and Water



Pier 1, San Francisco

- \$1,400,000 PACE bond purchased by Clean Fund
- Johnson Controls Inc. developed turn-key whole building energy solution
- HVAC + lighting + 200kW rooftop solar = 32% demand reduction (\$98,000/year)
- Annual assessment matches projected energy savings





Central Corridor Eco-District



PROGRAM FRAMEWORK, OCTOBER 2012
SAN FRANCISCO PLANNING DEPARTMENT

District Scale + Built Environment



- Demand and data aggregation
 - Audits and benchmarking (ECB ordinance)
 - SF Energy Watch (incentives)
 - GreenFinanceSF, utility OBR (EE financing)
 - Increase energy efficiency awareness and implementation
 - Market development for technologies, services, resources
 - Information sharing and transparency
 - Tracking and reporting on progress
- Economic development and competitiveness
- Regional (global?) showcase for high performance buildings
- Complement EcoDistricts work already underway



Questions?

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