



Cal Broomhead San Francisco Department of Environment MWCOG October 20, 2016



SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco



San Francisco Today

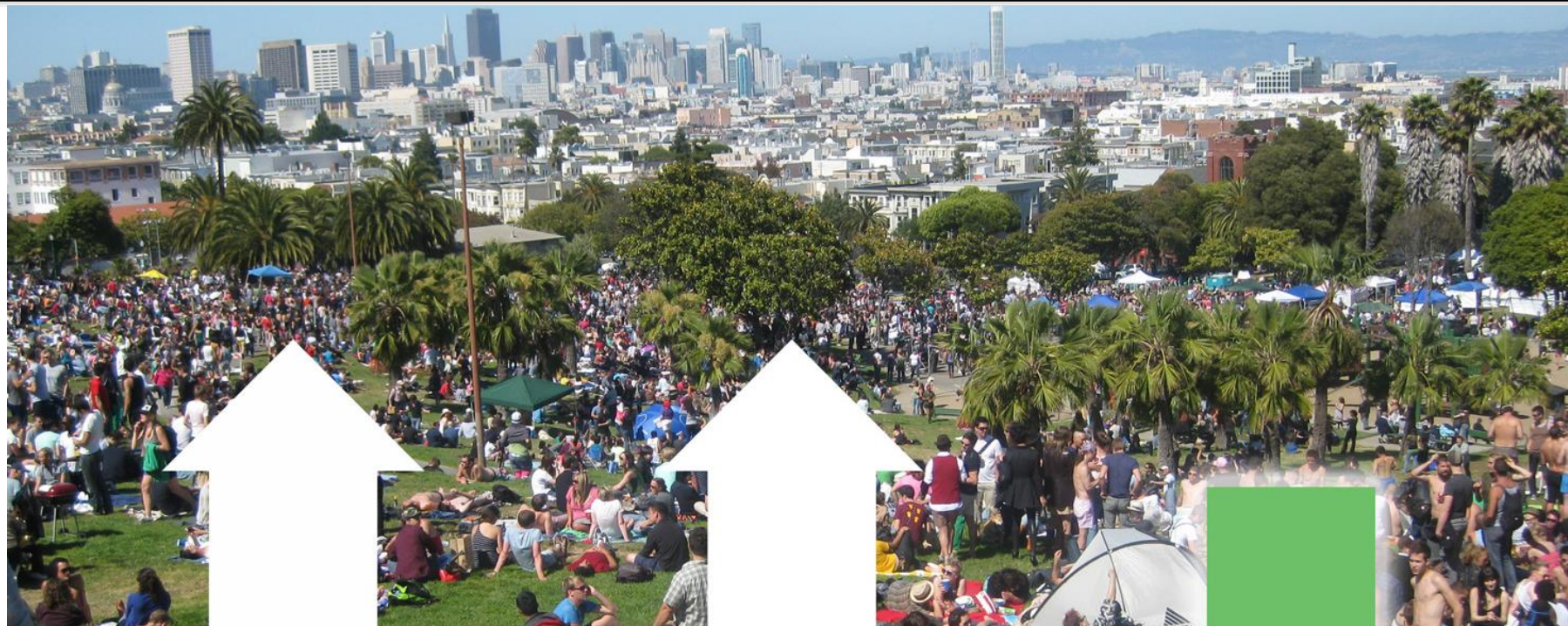


Photo credit: Merri, Flickr

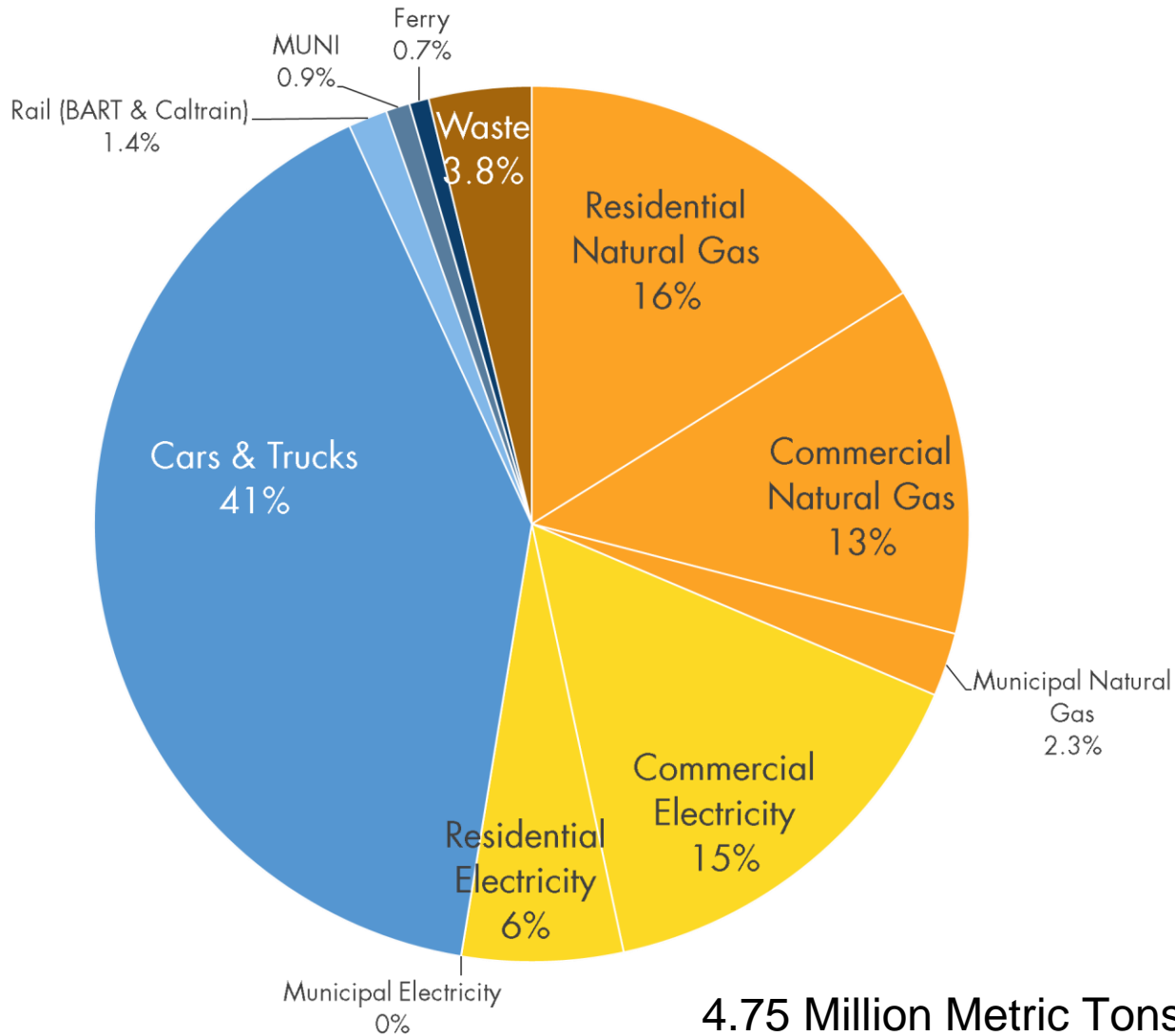
14.6%
Population

49.1%
GDP

23.3%
GHG Emissions



Source 2012

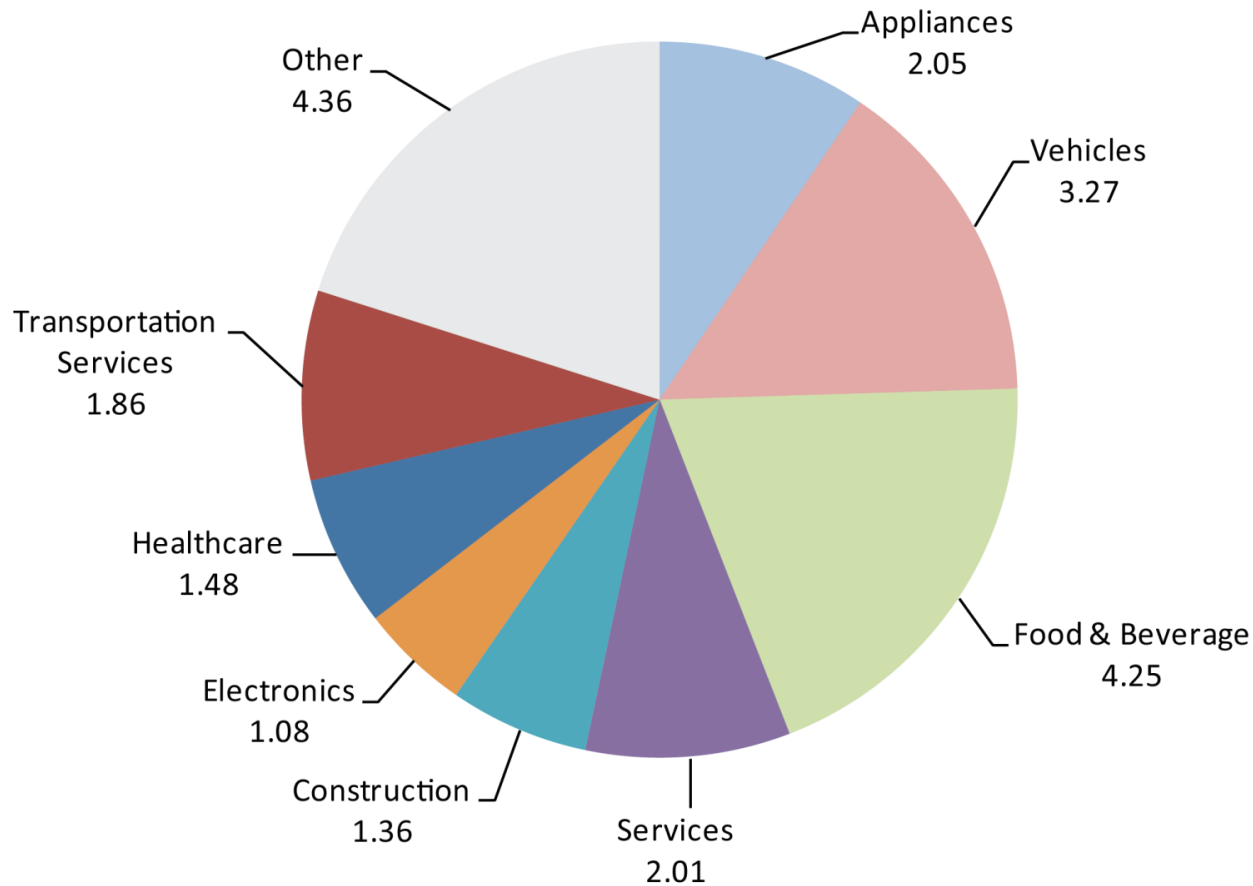


4.75 Million Metric Tons
(23.3% below 1990)

Source	CO ₂ e (MT)
Cars & Trucks	1,928,865
Residential Natural Gas	767,435
Commercial Electricity	725,050
Commercial Natural Gas	613,301
Residential Electricity	283,077
Waste	180,398
Municipal Natural Gas	111,551
Rail (BART & Caltrain)	68,625
MUNI	42,026
Ferry	34,472
Municipal Electricity	177
Forestry	-4,717
Total:	4,754,976
Total with Sink:	4,750,259

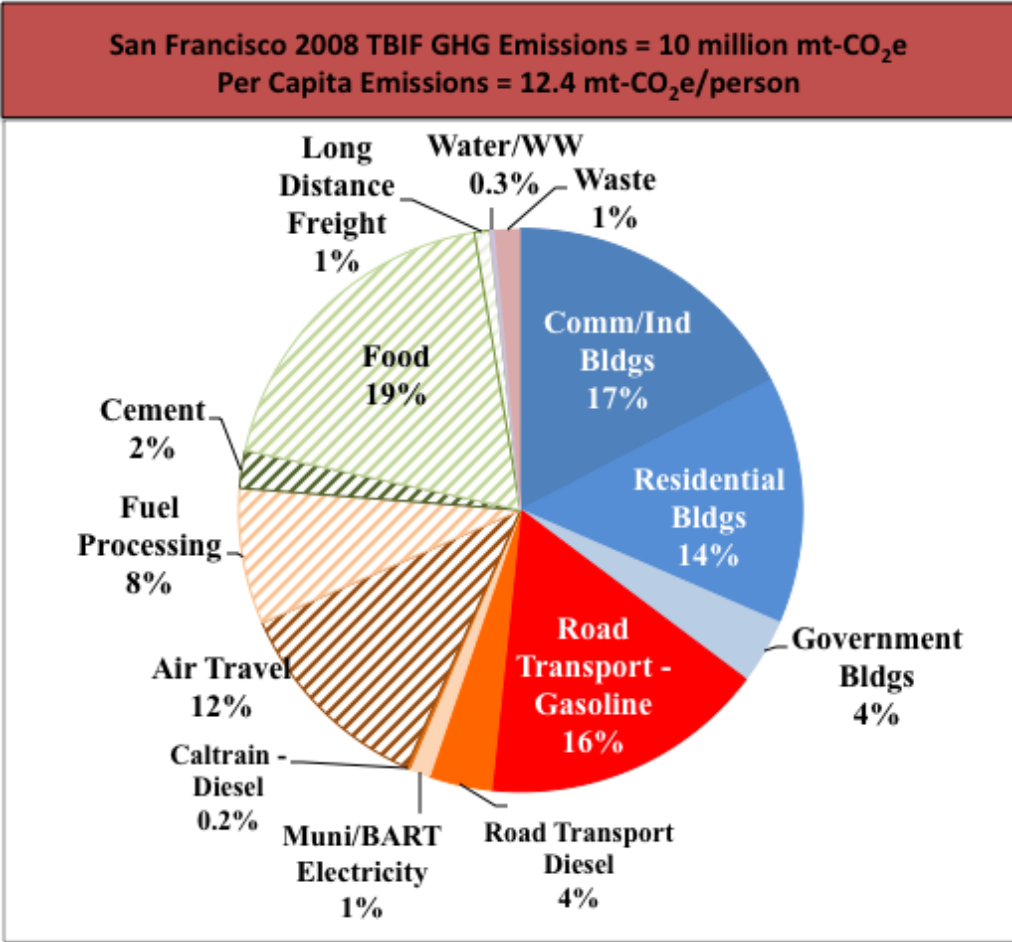
Category	%
Building Energy Use	52%
Transportation	44%
Waste	4%

San Francisco's Consumption Based Emissions Inventory 21.7 MMT



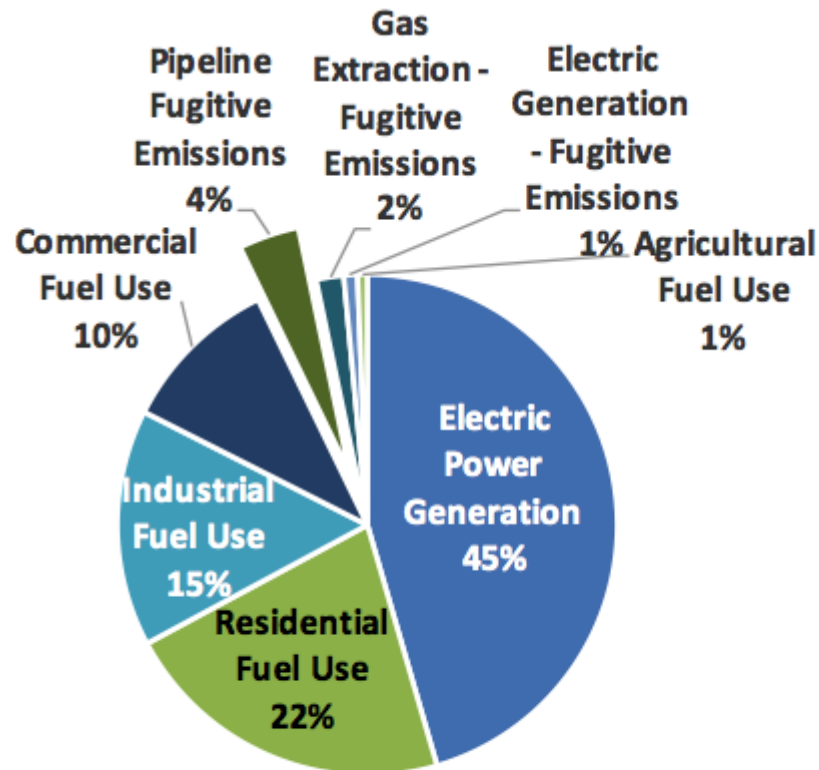
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Trans-Boundary Infrastructure Footprint 10 MMT



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Fugitive Emission



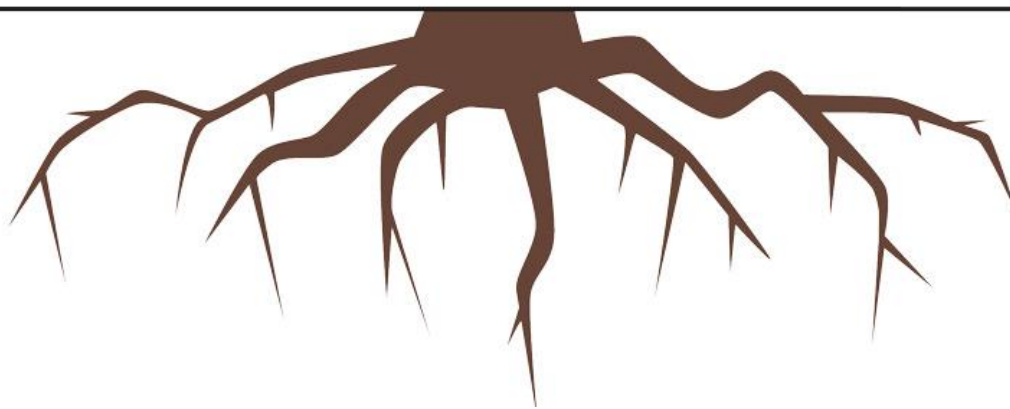


San Francisco Climate Action Strategy



SAN FRANCISCO CLIMATE ACTION

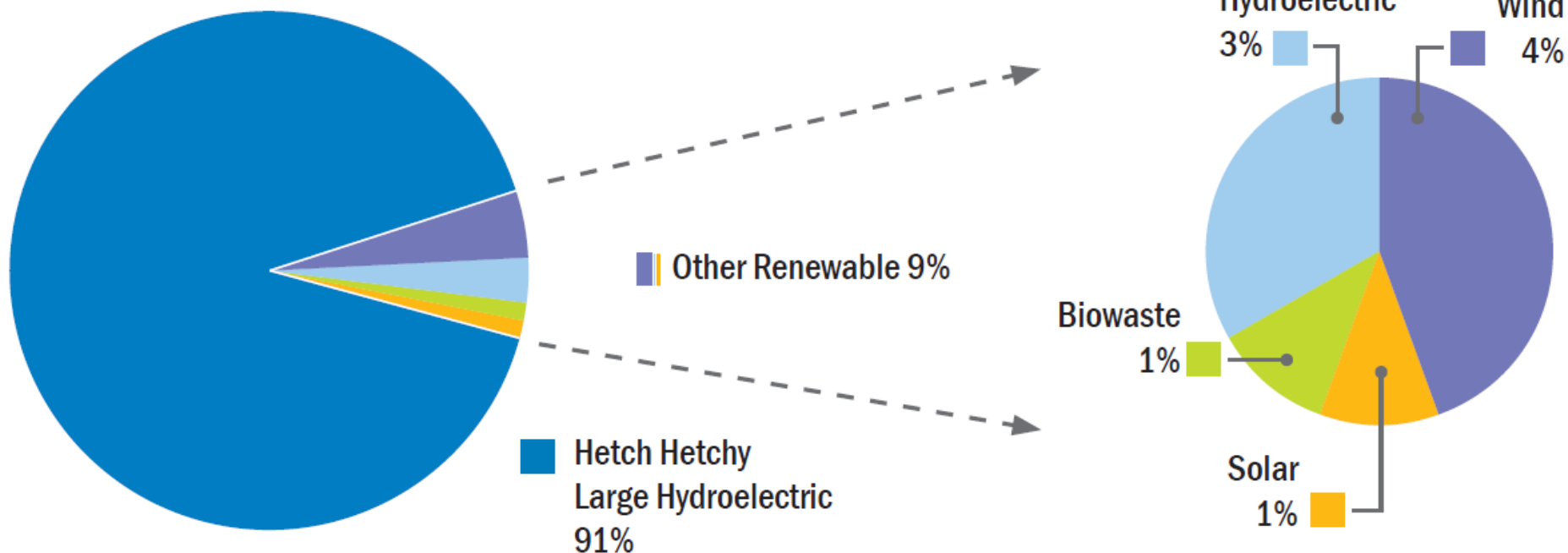
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100% Carbon-Free Electricity

2014 Greenhouse Gas - Free, Renewable Power Supply



Single Family

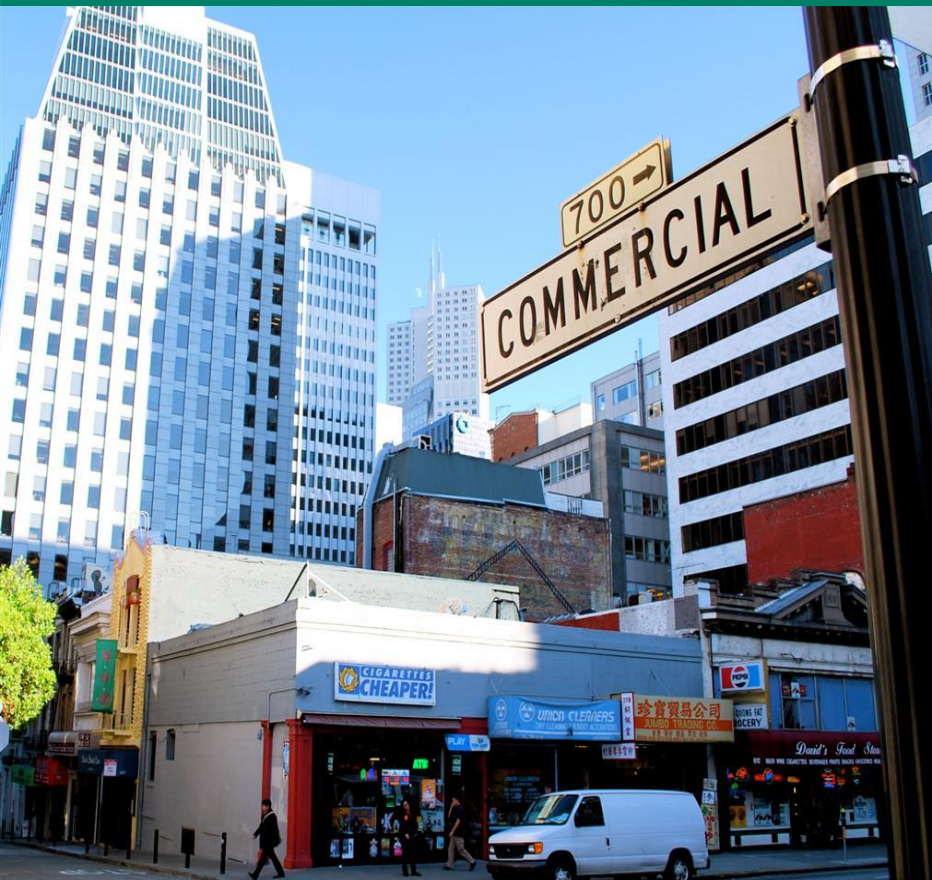


Qualifying Customers by Program Areas



Small – Medium – Large
Businesses & Nonprofits

Multifamily Properties
Condos & Apartments





Solar Market Development



- Solar Task Force
- Streamlined permitting
- Solar Map
- Tours
- Aggregated purchasing
- GoSolarSF incentive
- Affordable Housing
- Municipal facilities



220 Y 027

 SFEnvironment.org


BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT


SF Environment
TOYOTA

CA Hybrid
1268259

TOYOTA
HYBRID

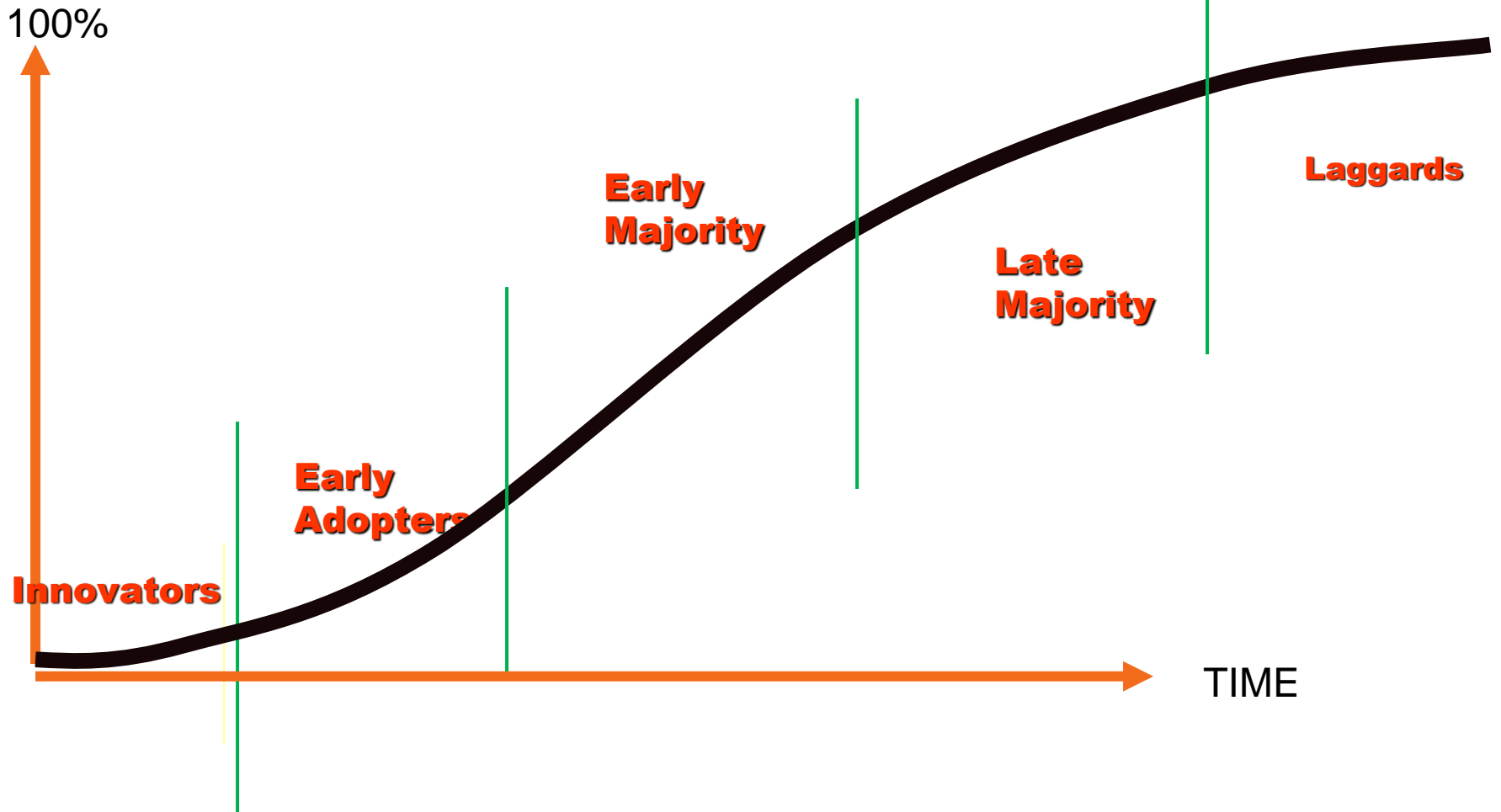
This hybrid plugs in 100mpg
and gets up to 48mpg

Resource Management



Today - 80% Diversion Rate
2020 - Zero Waste

Market Adoption



formation



San Francisco Solar Map

A MAP OF SOLAR ACTIVITY AROUND THE CITY



Reset Map Back

Map | Satellite | Hybrid

Map Details | Director's Message

Markers

Solar Installations

- Municipal
- Residential/Commercial
- Environmental Justice Program
- Solar-Powered Business Leader

What Can Solar Do For You?

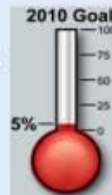
Enter your address

(ex. 11 Grove Street or 11 Grove St)

get my info

SF Solar Facts

- Installations:
 - Current: 585
 - 2010 Goal: 10,000
- Energy produced (MWh):
 - Current: 3,548
 - 2010 Goal: 60,646
- Annual savings:
 - Current: \$405,514
 - 2010 Goal: \$6.9M
- CO₂ Reduction (lbs):
 - Current: 2.6M
 - 2010 Goal: 45.2M



Current Solar User

System size: 1.9 kW
 System output: 2,600 kWh/year
 Electric savings: \$270/year
 Installer: Dedination Solar

System owner says: *Installing solar panels helped us put our beliefs into practice, and save money in the long run!*



District Systems



Technical Assistance





Ince

GOLDEN PHOENIX regional cuisine of china

茶中心

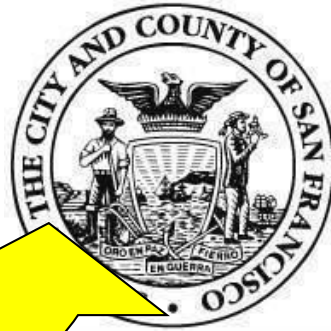


GreenFinanceSF

Saving You Money, Energy and Water

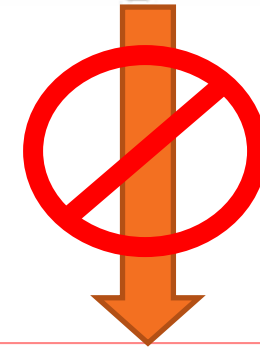


**FINANCE
AGENT**



Law





- Technology & Standards
- Installer Recruitment
- Training
- Marketing
- Tracking (data)
- Audits
- Finance
- Quality Control
- Evaluation (EM&V)

- Sales
- Installation
- Incentive Payments