

- 50% of all utility wires in SF located above ground, the other 50% are beneath the streets and sidewalks of the City in a process referred to as Utility Undergrounding
 - Communication lines
 - Cable/tv lines
 - electric transmission and distribution lines

- The last project in San Francisco to convert above ground utilities to underground occurred in 2007.

- In recent years, particularly after recent wildfires in Nor Cal, there has been renewed interest in restarting a program to underground remaining wires.

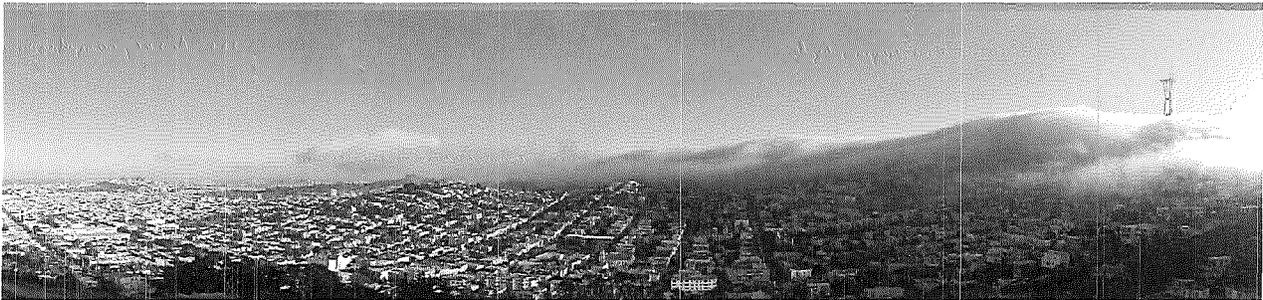
- In 2017 funds were provided to Public Works in order to commission a study as a preliminary step towards a comprehensive Master Plan for future utility undergrounding.

- Today's presentation is meant to be a brief overview of this Study, which is currently underway by Telamon Engineering Consultants.

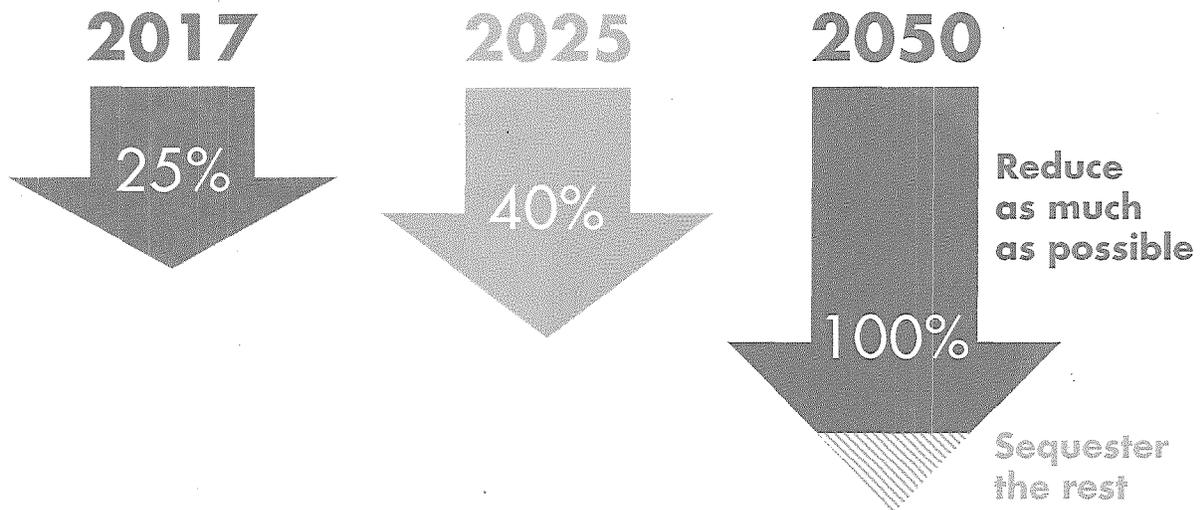
Doug Zuuring, Mennor Chan, Georgina Martinez



2019 Building Code Update

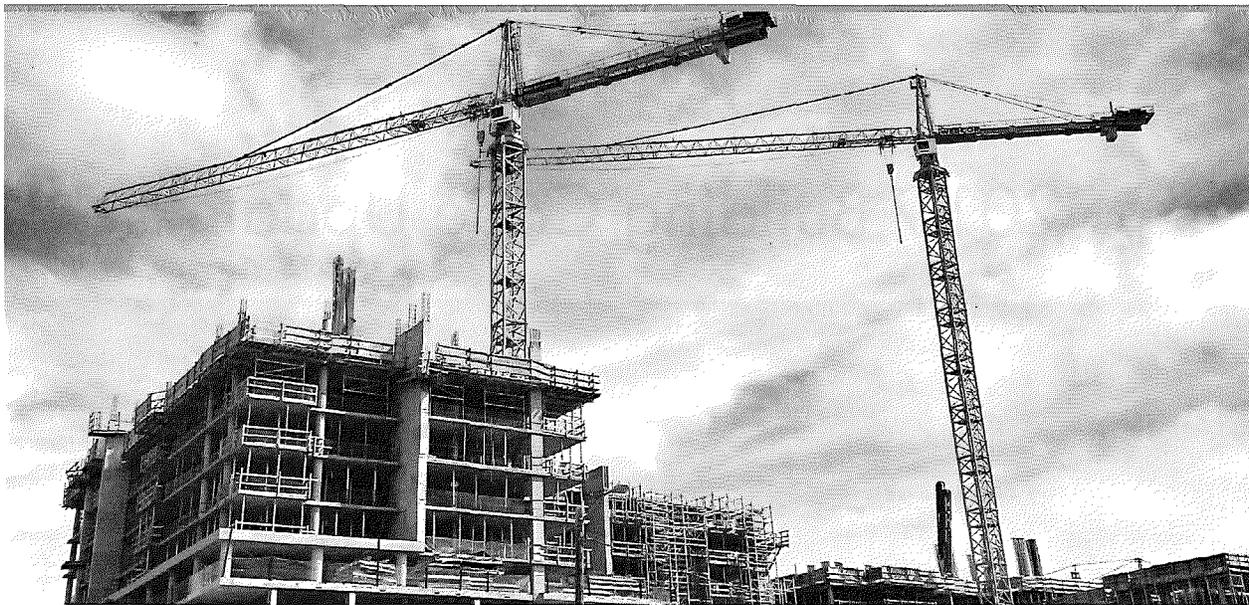


Bold Climate Goals, Aggressive GHG Reduction Targets

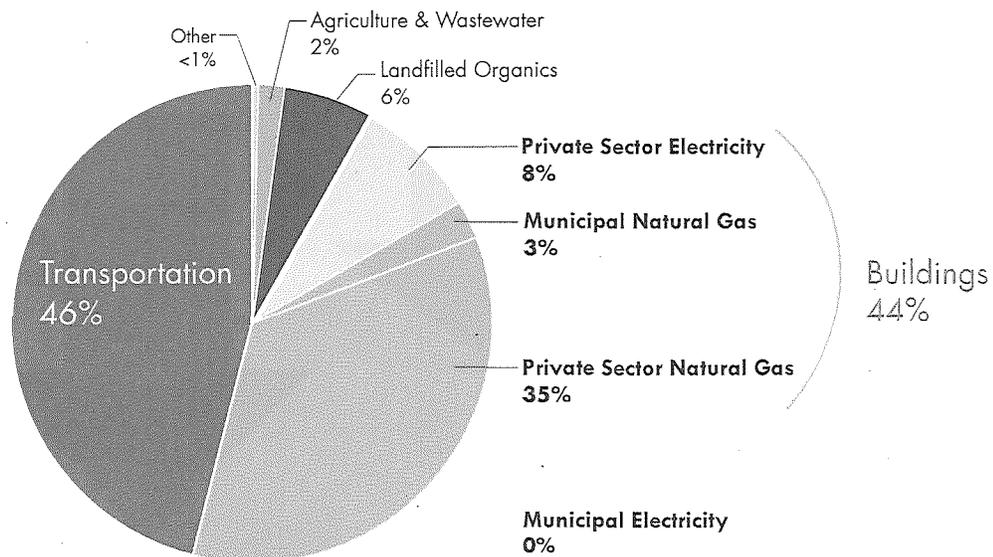




Net Zero Carbon Buildings Declaration



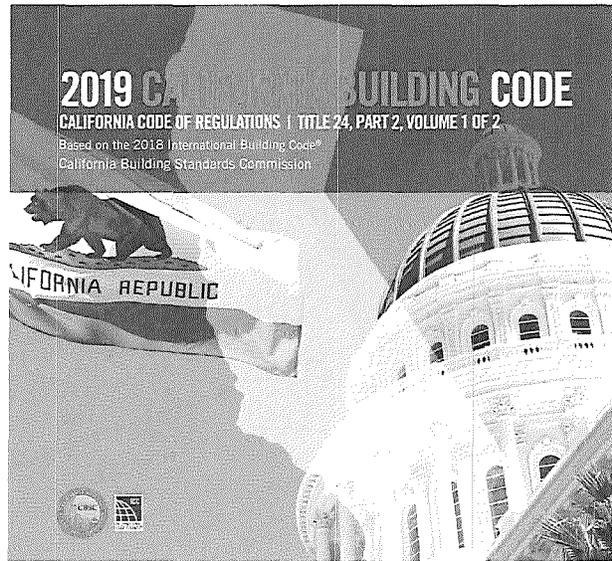
San Francisco's Emissions Sources Today



2019 CA Building Code Update (Every 3 Years)



- Effective 01/01/2020
- San Francisco amends state codes concurrently
- Administratively valuable to implement other building ordinances on the same schedule



Policy Recommendation: All-Electric Preferred



Requirements for new construction and major renovations

		Natural Gas & Electricity: "Mixed-Fuel"	All-Electric:
SF Green Building Code	Municipal	No Natural Gas Allowed Waiver process available	
	Commercial	10% more efficient than Code	Meet Code
	Multifamily ≥4 floors		
	Low-Rise Residential	~25% more efficient than Code	

An Established Waiver Process



SF Environment
Our home. Our city. Our planet.
A Department of the City and County of San Francisco

MUNICIPAL GREEN BUILDING WAIVER REQUEST
For projects applying for building permit on or after January 1, 2017, subject to LEED v4 requirements in San Francisco Environment Code Chapter 7 as amended effective April 16, 2017

Project Name: _____
Project Street Address: _____
Project/Job Number: _____ Date of Waiver Request: _____
Current Design Phase % Completion: _____ Project Sponsor (City Department): _____
City Project Manager: _____ Phone: _____ Email: _____

San Francisco Environment Code CHAPTER 7: Green Building Requirements for City Buildings
SEC. 713. WAIVERS.
(a) Waivers from the requirements of this Chapter are available under the following circumstances.
(2) **Cost Prohibitive.** A City department may request a waiver from the Director on a form provided by the Director if compliance with this Chapter is cost prohibitive. The Task Force shall provide the Director with a recommendation with respect to the waiver request. The Director shall provide the Director with a recommendation with respect to the waiver request.
(A) Demonstrated which specific requirements are cost prohibitive.
(B) If applicable for Sector 705, demonstrate economic, environmental, and health benefits that are not otherwise attainable.
(3) **Alternate Compliance.** An independent...

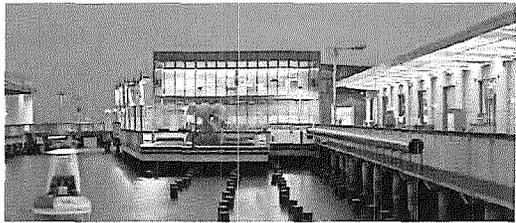
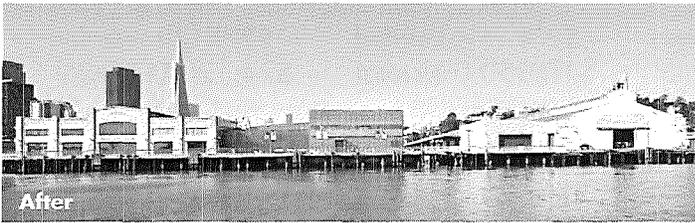
Defined: Major Renovation



“Major Renovation” means any municipal construction project or renovation to an existing structure other than repair or addition. A Major Renovation may include, but is not limited to, a change in occupancy or use, or structural repair to an existing building or facility; or remodeling, rehabilitation, reconstruction, historic restoration, or changes to the plan configuration of wall and full-height partitions, where the scope of work is sufficient to support LEED certification and **extensive enough such that normal building operations cannot be performed while the work is in progress, and/or a new certificate of occupancy, or similar official indication that it is fit and ready for use, is required. Major Renovation does not encompass normal maintenance, reroofing, floor covering, painting, wallpapering, or changes to mechanical and electrical systems.**

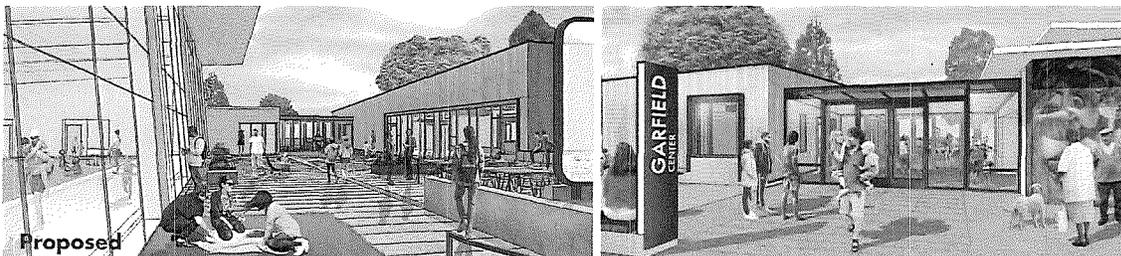
- Environment Code, Chapter 7

Example of Major Renovation: The Exploratorium



Images: After - Bruce Damonte

Example of Major Renovation: Garfield Pool



Images: Proposed - Paulett Taggart Architects, Existing - Google

Cost Effectiveness

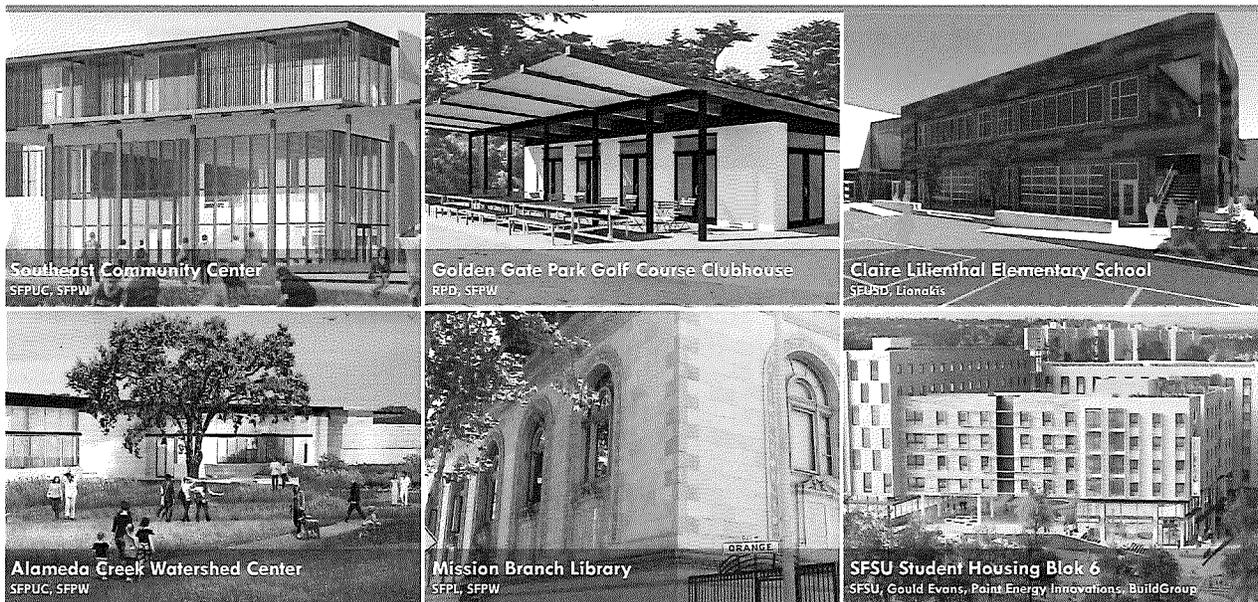


	Large Office with EV charging stations	Recreation Center with Pool	Outpatient Healthcare
Building Size	498,600 sq ft 12+ floors	20,100 sq ft	26,800 sq ft space for procedures, MRI, offices
Construction Cost	-/+ \$1 per sq ft to project (0.1%)		
	~\$499k of estimated \$274,230,000 total assumes \$550/sq ft	~\$20k of estimated \$10,050,000 total assumes \$500/sq ft	~ \$27k of estimated \$24,120,000 total assumes \$900/sq ft
Payback	5.3 years	10 months	7 months

Calculations based on SFPUC's General Use Municipal Electricity Service Rate

ARUP (2019) *San Francisco Municipal Facility Case Studies*

SF All-Electric Examples: City Family



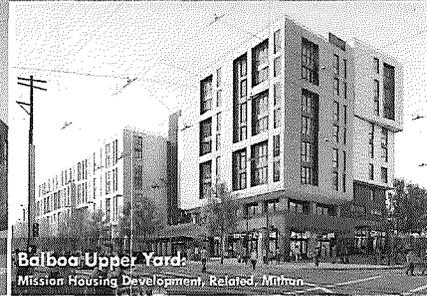
SF All-Electric Examples: Affordable Housing



Casa Adelante, 681 Florida:
TNDC & MEDA, Mithun



Hunters Point Shipyard Block 54:
McCormack Baron Salazar, Mithun



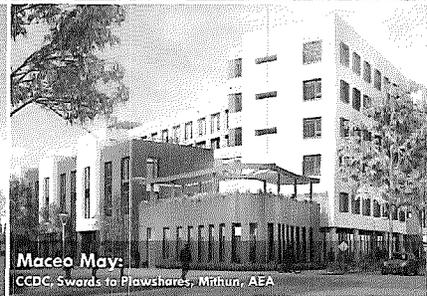
Balboa Upper Yard:
Mission Housing Development, Related, Mithun



Casa Adelante, 2060 Folsom:
TNDC/CCDC, Mithun, YA Studio, AEA



Hunters Point Shipyard Block 54:
McCormack Baron Salazar, Mithun



Maceo May:
CCDC, Swords to Plowshares, Mithun, AEA

A Developer's Perspective

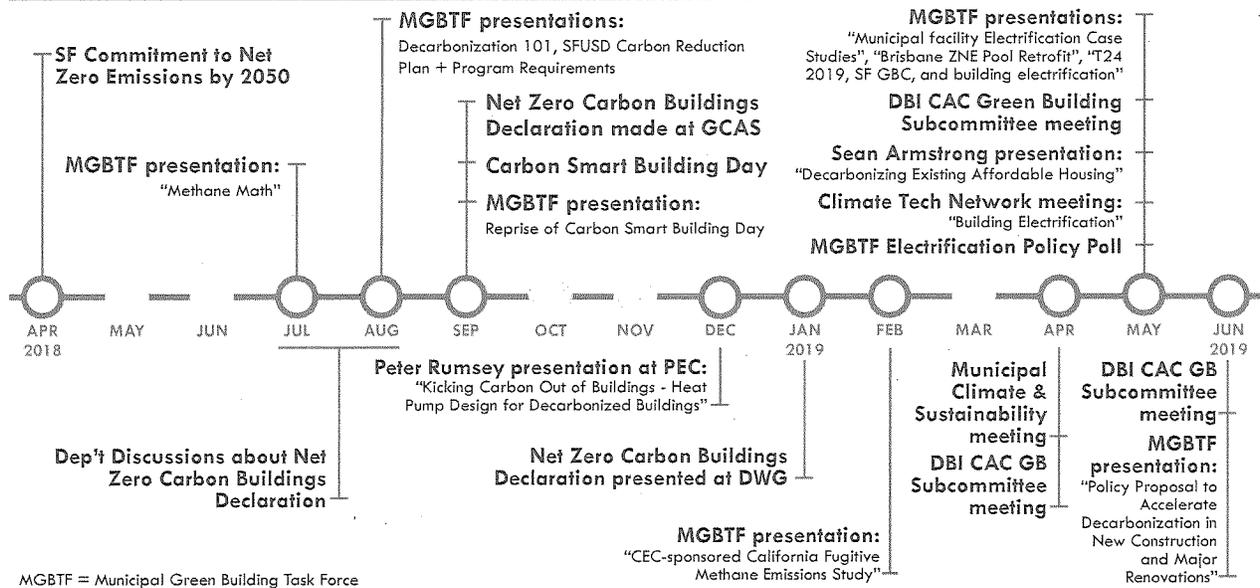


Why CCDC is Building All-Electric:

Design Objective	How All-Electric Supports the Design Objective
High Efficiency	Build more efficient than code
Low Capital Cost	Design is cost neutral
Low Operating Cost	Built right from day one; future-proof design
Ease of Maintenance	Simple systems
Great resident/user experience	Better indoor air quality, comfortable

Image: Maceo May Veterans Apartments, a Project of CCDC, Swords to Plowshares, Mithun, and Association for Energy Affordability

Twelve Months of Outreach and Education



Next Steps



- Ongoing: Refinements to draft policy language based on input from City departments' staff and leadership
- August: To DBI Code Advisory Committee
- September: To Board of Supervisors Land Use Committee (along with entire San Francisco Building Code)
- October: To full Board of Supervisors

Carroll, John (BOS)

From: Richard Cardello <richard@cardellodesign.com>
Sent: Thursday, July 25, 2019 8:39 AM
To: Fewer, Sandra (BOS); Mandelman, Rafael (BOS); Stefani, Catherine (BOS); Waltonstaff (BOS); Carroll, John (BOS)
Subject: RE: SFCUU / BOS SAFETY CMTE / HEARING THURS 07-25-2019 10AM CITY HALL RM 263 ITEM 2 OVERHEAD WIRES

Categories: 190395, 2019.07.25 - PSNS

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

My intended testimony at this morning's BOS Safety Committee hearing:

Good morning Chair Mandelman (D8) and Supervisors Stefani (D2), Walton (D10).

My name is Richard Cardello; I have lived on Russian Hill since 1983.

I am a board member of (RHN) Russian Hill Neighbors and a long supporter of (SFCUU) San Francisco Coalition to Underground Utilities.

Thank you to Supervisors Fewer (D1) and Stefani (D2) for raising this important safety issue and thank you to this committee for hearing it today.

Sadly, we are all too aware of the recent devastating fires attributed to downed power lines, which resulted in the great loss of life and property.

The existence of the very many remaining overhead wires in San Francisco makes the ever-present danger of an impending earthquake that much more ominous.

I wonder if all of these wires are still in active use, or if many have been abandoned.

I was first attracted to the cause of undergrounding for aesthetic reasons.

I have grown to appreciate that the tangles of wires above our heads also represent an extreme hazard for residents and visitors to our City.

Please move to remove this danger and blight.

Thank you.

Richard Cardello, ASID CID

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