

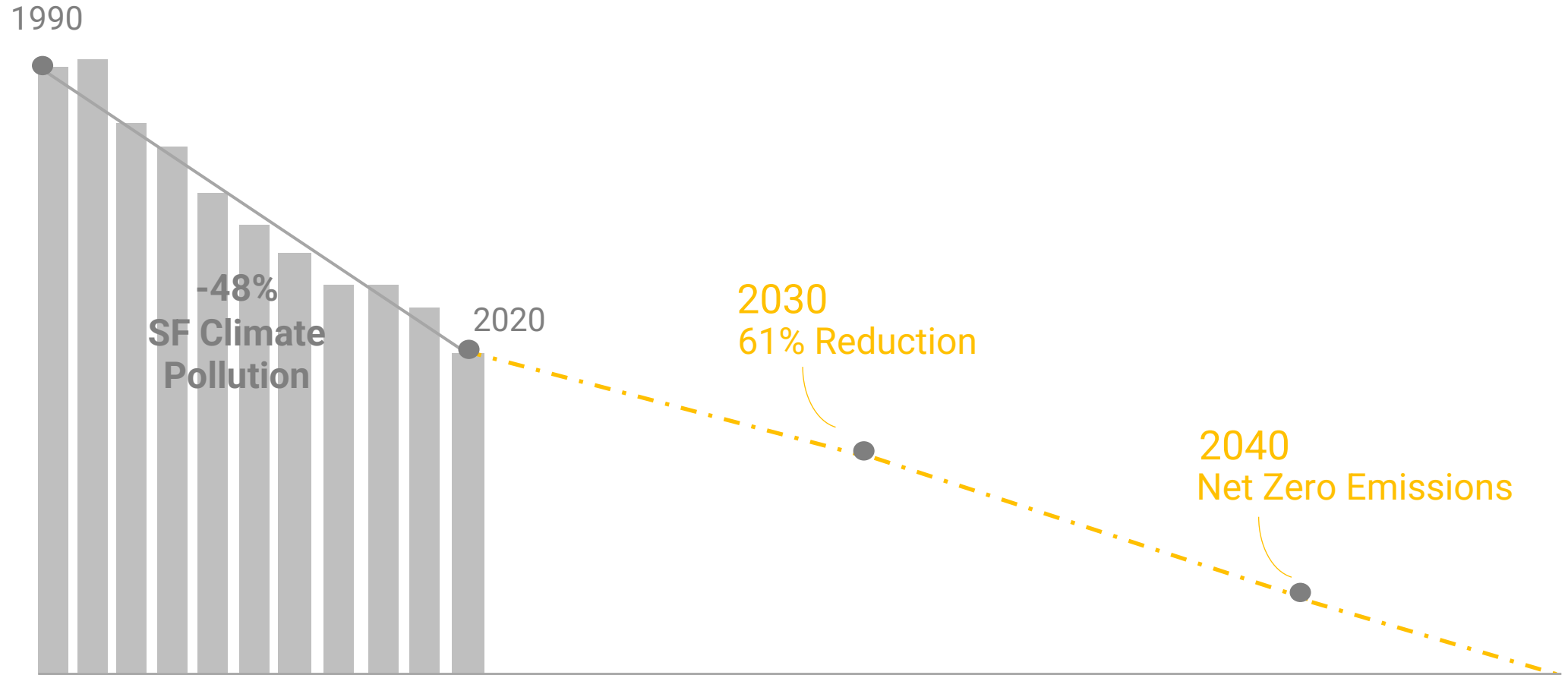


# Environment Code Chapter 7 Update

March 1, 2023

SAN FRANCISCO  
**ENVIRONMENT**  
DEPARTMENT

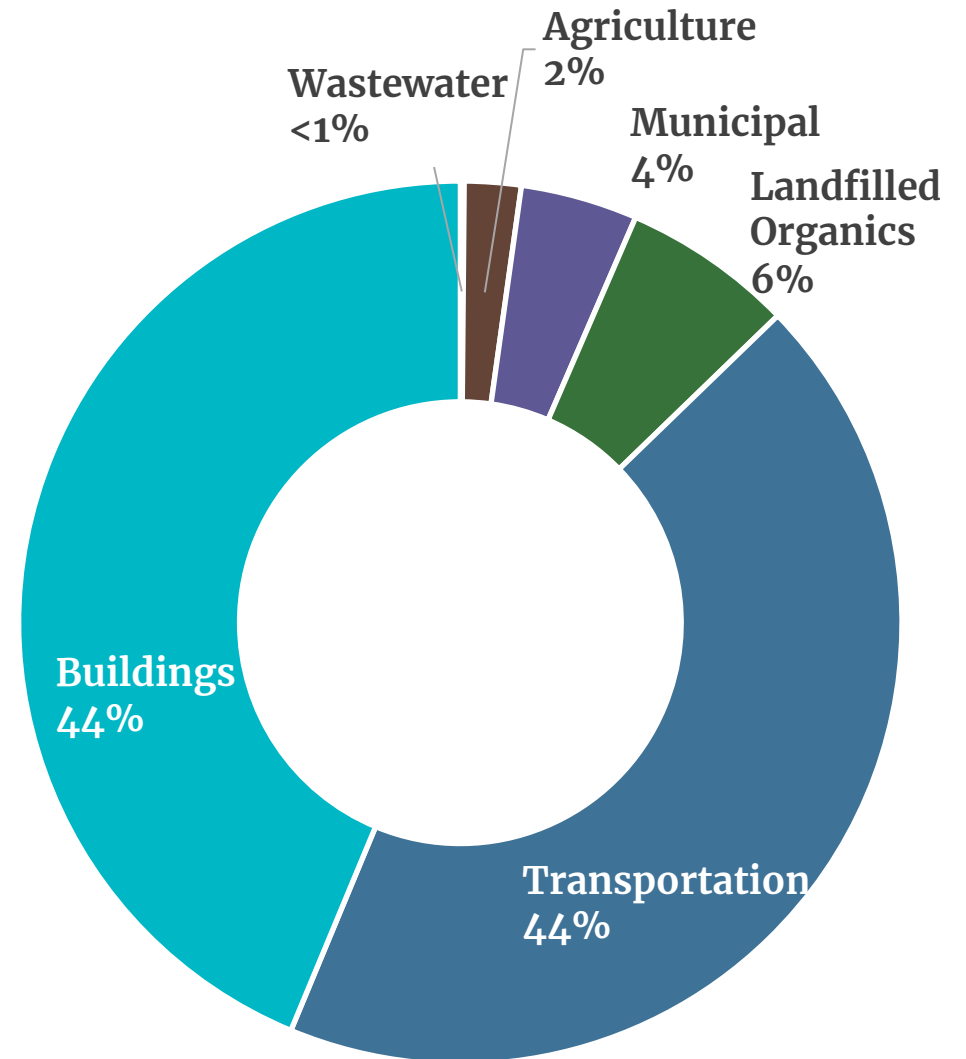
# To mitigate the climate crisis, this is what we need to do:



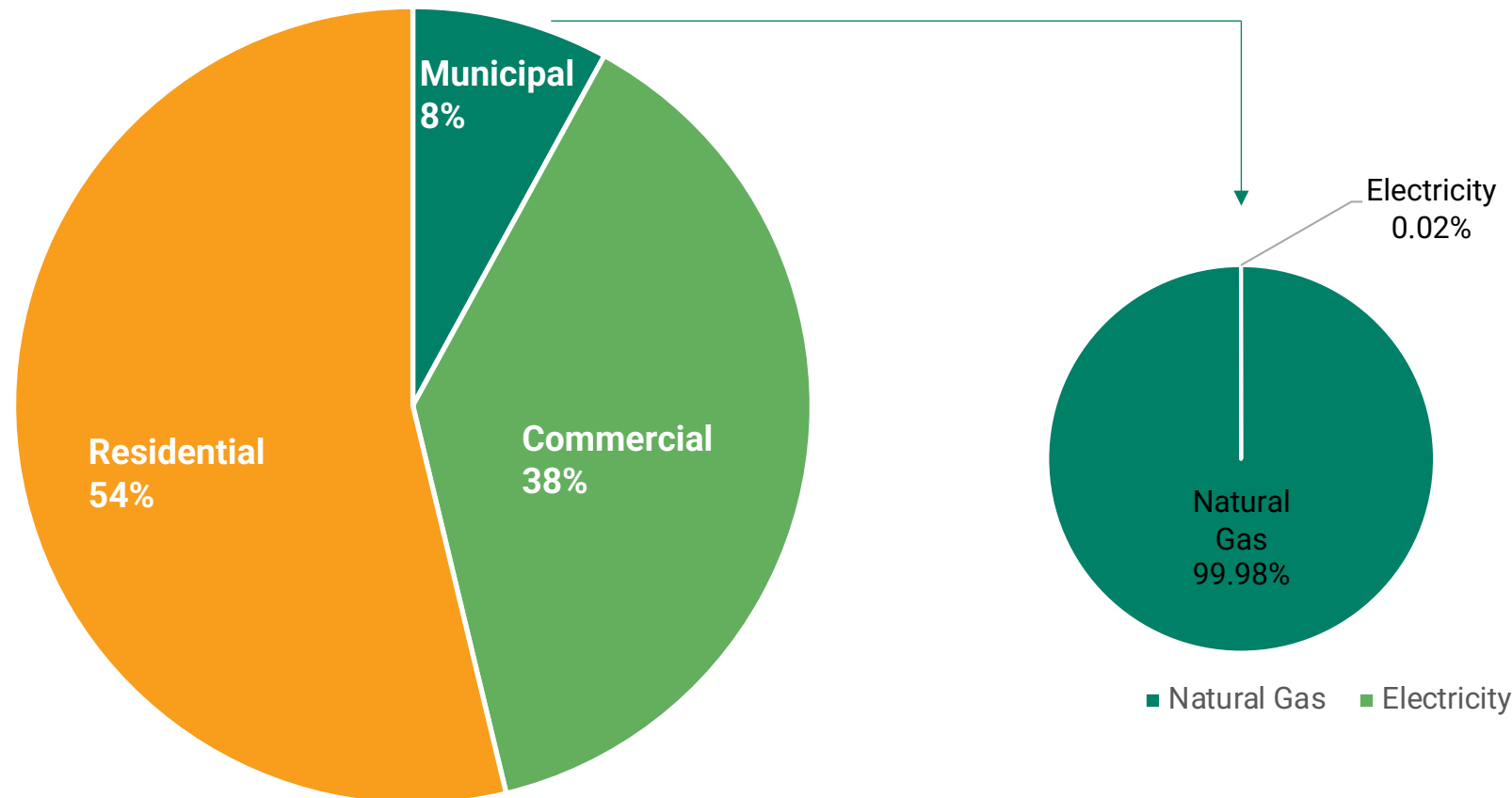
San Francisco's GHG Emission Targets

*Chapter Nine of the Environment Code*

44% of the City's  
emissions are from  
buildings



8% of the building emissions are municipal buildings and almost all those emissions are from natural gas



*San Francisco's 2020 GHG Inventory – February 24, 2023*

Why Update

# Chapter 7 of the Environment Code?

**Incorporate Net Zero Goals &  
Climate Action Plan**

**Align with Updated Codes**

**Simply and Refine language**

**SFE**





# Chapter 7 of the Environment Code

Green Rating Systems  
Energy Optimization  
Waste Reduction/Reuse  
Human and Environmental Health  
Water Conservation  
Biodiversity



# Engagement, outreach, and awareness

10 months of public meetings

12 meetings with department leadership

25+ presentations





# Proposed requirements with largest impacts



Mission Branch Library

**Electrification Retrofits  
“Time of Replacement”**



SF Police Academy

**Energy Resilience &  
Efficiency**



SFO Harvey Milk Terminal 1 Boarding Area B

**Life Cycle Assessment**



# Alignment with new/proposed regional & state laws



Image: Arup, Market Zero

## Electrification

BAAQMD  
(PROPOSED)  
REGULATION 9 RULE 6



## Battery Storage

CA ENERGY CODE  
(AS OF 1/1/23)  
SECTION 140.10



## Life Cycle Assessment

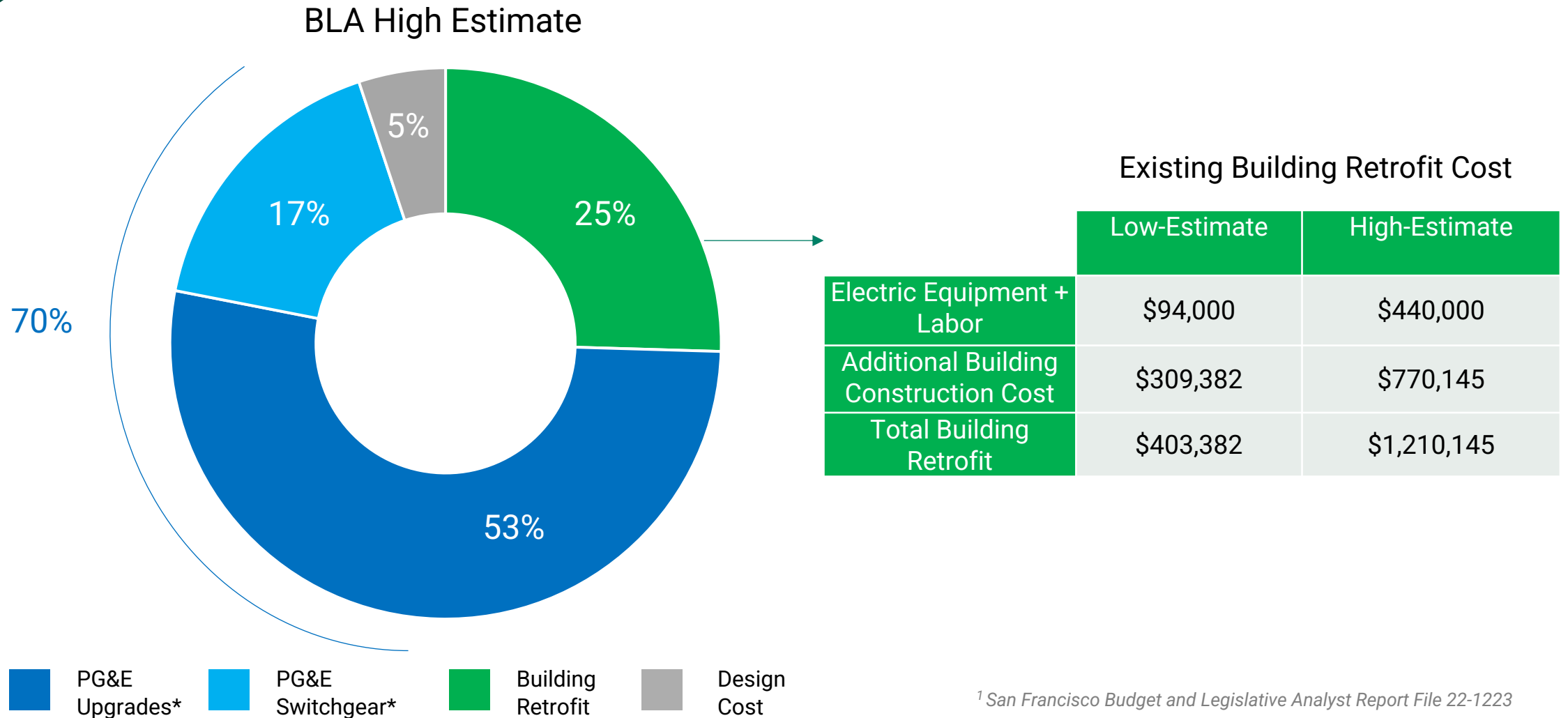
CALGREEN  
(PROPOSED)  
SECTION A5.409

# Cost impacts of Chapter 7 update<sup>1</sup>

	Low Estimate	High Estimate
Electrification of 332 existing buildings	\$246,915,034	\$1,577,721,931
Battery storage for each new construction project	\$160,000	\$270,000
Life cycle assessment for each new construction project	\$15,000	\$20,000



# Breakdown of electrification per municipal building<sup>1,2</sup>



<sup>1</sup> San Francisco Budget and Legislative Analyst Report File 22-1223

<sup>2</sup> Arup Memo "Proposed Environment Code Chapter 7 update: Time of Replacement Electrification - Equipment Cost Impacts" October 7, 2022

\*Specific to Buildings with Hetch Hetchy Power



# Cost benefits of Chapter 7 update<sup>1,2</sup>

\$16.4 M

Utility savings over a 15-20 years as gas equipment is replaced with electric

\$10.1 M

Avoided economic damages from climate change, including sea-level rise, extreme heat, and other weather-related events

\$4.2 M

Reduction in healthcare costs associated with air pollution

1,240 -1,740  
Jobs

Estimates of “job years” related to the decarbonization of existing municipal buildings



<sup>1</sup> Arup Memo “Proposed Environment Code Chapter 7 update: Time of Replacement Electrification - Equipment Cost Impacts” October 7, 2022

<sup>2</sup> Inclusive Economics “Employment Impacts Analysis of San Francisco’s Climate Action Plan: Methodology and Assumptions” November 12, 2021

# Other notable updates

- References updated:

  - Construction & Demolition and  
Source Separation Requirements

  - Biodiversity Guidelines



- Embodied Carbon Checklist

- Environmental Product Declarations





# Waiver requests: when compliance is not possible

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

**MUNICIPAL GREEN BUILDING WAIVER REQUEST**  
Environment Code Chapter 7; Ordinance No. 204-11; SFE Regulations SFE13-03-GB  
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

London N. Breed  
Mayor  
Deborah O. Raphael  
Director

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

**San Francisco Environment Code CHAPTER 7: Green Building Requirements**  
**SEC. 713. WAIVERS.**  
(a) Waivers from the requirements of this Chapter are available upon request to the Director if compliance with this Chapter is not possible. A City department may request a waiver with respect to the requirements of this Chapter from the Director if compliance with this Chapter is not possible. A City department may request a waiver with respect to the requirements of this Chapter from the Director if compliance with this Chapter is not possible.  
(1) A City department may request a waiver with respect to the requirements of this Chapter from the Director if compliance with this Chapter is not possible.  
(2) **Cost Prohibitive.** A City department may request a waiver with respect to the requirements of this Chapter from the Director if compliance with this Chapter is not possible.



# Questions?

**Cyndy Comerford**  
Climate Program Manager

[SFEnvironment.org](https://SFEnvironment.org)



**SAN FRANCISCO**  
**ENVIRONMENT**  
**DEPARTMENT**

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