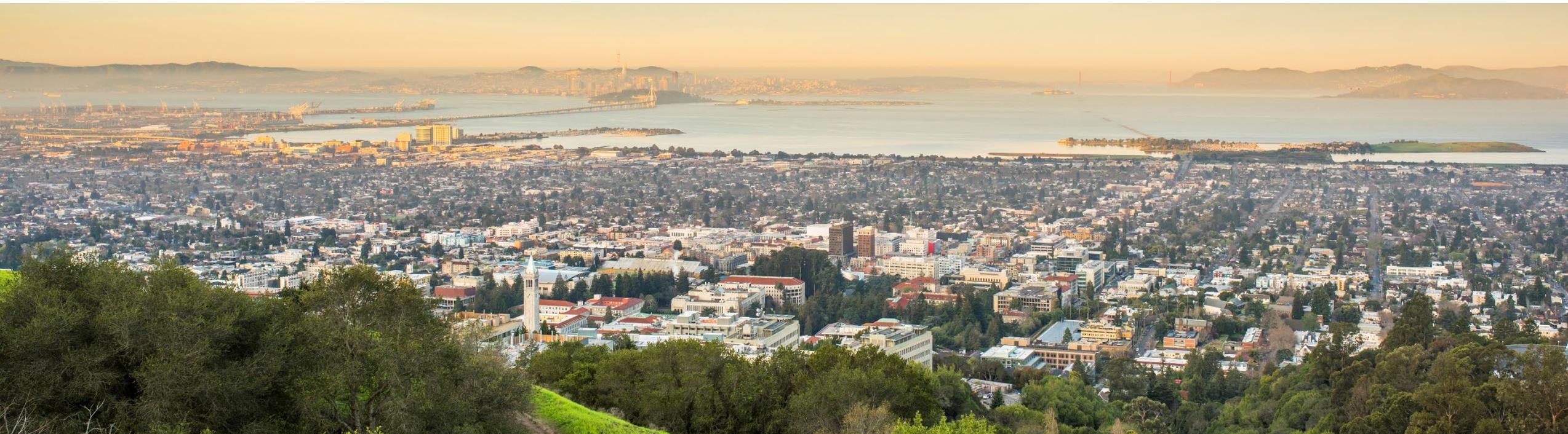


2025 Reach Code Presentation

Environment and Climate Commission

December 3, 2025



Presentation Agenda



- Reach Code Background Info
- Reach Code Options + Staff Recommendation
- Next Steps
- Feedback

Reach Code Background Info

What is a Reach Code?

- Local requirements more restrictive than State code
- Findings of Local Necessity are required
- Demonstration of Cost-Effectiveness required for Energy measures



Reach Code Referral & Current Status



- Council referred to staff to study Reach Code options
- Consistent with provisions of Berkeley's Climate Action Plan (CAP)
- Participation in regional building decarbonization forums

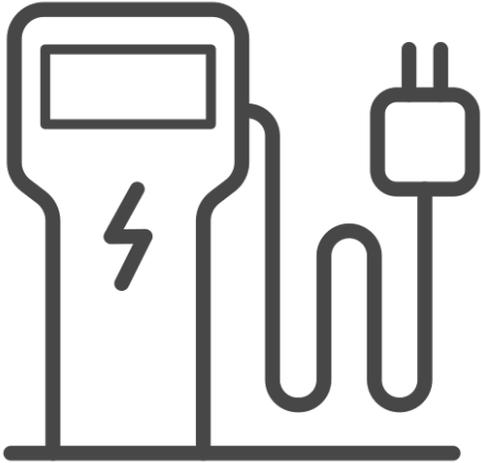
Why a 2025 Reach Code?

- 2025 Energy Code and CALGreen allow Mixed-Fuel Building Design
- Encouraging All-Electric Buildings reduces Climate Risk for our community
- Encouraging All-Electric Buildings improves health outcomes for building occupants



2025 Green Code Amendments Adoption

Adopted Nov 18, 2025



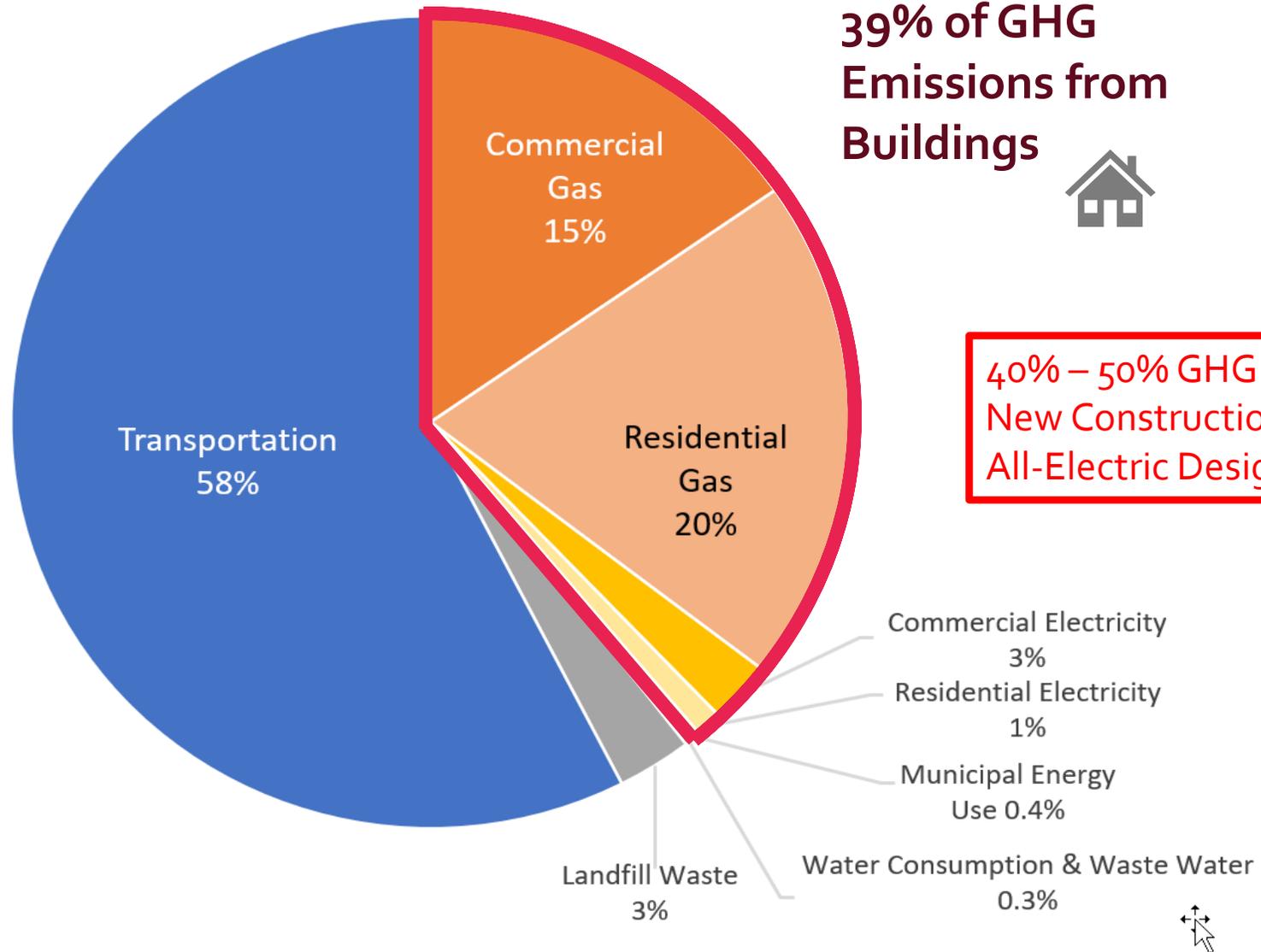
- Low Carbon Concrete
- 100% Waste Diversion on select materials
- Nonresidential EV Charging
 - 20% Capable
 - 10% EVCS



- No new locally-adopted residential standards through 2031
- Exception path 1 allows for substantially similar measures adopted prior to Oct 1, 2025
- Exception path 5 allows for measures supporting local climate or general plans

Greenhouse Gas Inventory

2023 Berkeley
GHG Inventory



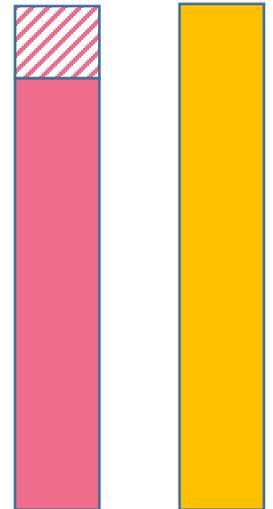
Reach Code Options Staff Recommended

Single Source Energy Margin Reach Code

1. State code allows a baseline energy use 
2. Single Margin requires less energy than State by a certain margin 
3. Project compliance with more PV, Battery, or better envelope; costs vary
4. Can apply to all new construction types



Single Margin



Single Margin - Energy Reach Code

Why a Single Margin Reach Code?

1. Encouraging All-electric new construction reduces GHGs
2. Reduce lock-in risk with mixed-fuel multifamily as Central Gas Water Heaters still allowed
3. Single Margin approaches have not been legally challenged
4. Complements Bay Area Air District Rules

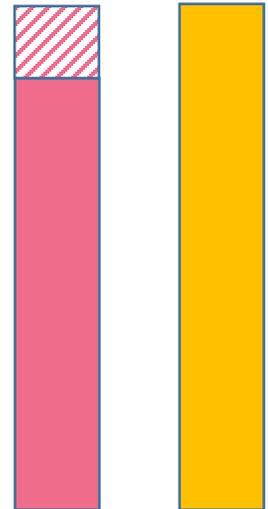
How?

Use published Reach Code template and customize margins for Berkeley's Climate Zone (CZ3)

14 jurisdictions adopted in 2022 Code Cycle



Single Margin



Recommended for further
study

AC to Heat Pump - Energy Reach Code

1. Could cover existing single family, multifamily, and/or nonresidential
2. Setback Thermostat is required
3. Does not conflict with Bay Area Air District rules (both AC and HP are Zero NOx)
4. Cost effectiveness report (Single Family) 'first costs' ~ \$500 to \$3500 (Nonresidential) ~ \$75K-\$110K



AC to Heat Pump (Existing Buildings)

Why an AC to Heat Pump Energy Reach Code?

1. Heat Pumps up to twice as efficient as AC
2. Could reduce cooling loads by nearly 50%
3. Energy Efficiency measure, not Electrification

How?

Use published Reach Code template and customize for Berkeley CZ3

2 jurisdictions adopted



Flex Path - Energy Reach Code



1. Could cover existing residential and/or nonresidential buildings
2. Designers choose measures from a table
3. Individual measures support Bay Area Air District rules (Smart Panel or Heat Pump)

Flex Path Measure	Pre 1978	1979-1991	1992-2010
Windows <0.24 U-f	8	5	4
Heat Pump Water Heater	7	7	7
Heat Recovery	6	5	5
Rigid Insulation	6	5	5

Flex Path (Existing Buildings)

Why Flex Path Energy Reach Code?

1. Provides existing buildings increased health and efficiency
2. Flexibility allows project to choose best matched measures
3. Several Cost-Effective measures for CZ3 reduce emissions



How?

Use published Reach Code template and customize point thresholds for building stock vintages in table

9 jurisdictions adopted in 2022 Code Cycle

Further Research



1. AC to Heat Pump and Flex Path require more study
2. BESO Time of Sale requirements begin Jan 2026
3. Review incentives for Setback Thermostats



Not Recommended

Reach Codes Not Recommended

Building Code Amendment

Ultra Low NOx

Zero NOx

Furnace to Heat Pump

Not a Building Code Amendment

Passive House Incentives



Next Steps

Next Steps



- Outreach
- Review Cost Effectiveness studies
- Council 1st & 2nd Readings
- CEC and CBSC submission + approval
- Further study of other options

Suggested ECC Feedback Topics



- 1. Alignment with ECC's objectives?**
- 2. Other options of interest?**
- 3. Is the focus on both Berkeley's new construction and/or existing buildings preferred?**
- 4. Are there specific stakeholder groups that staff should engage with?**

Thank You!



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