

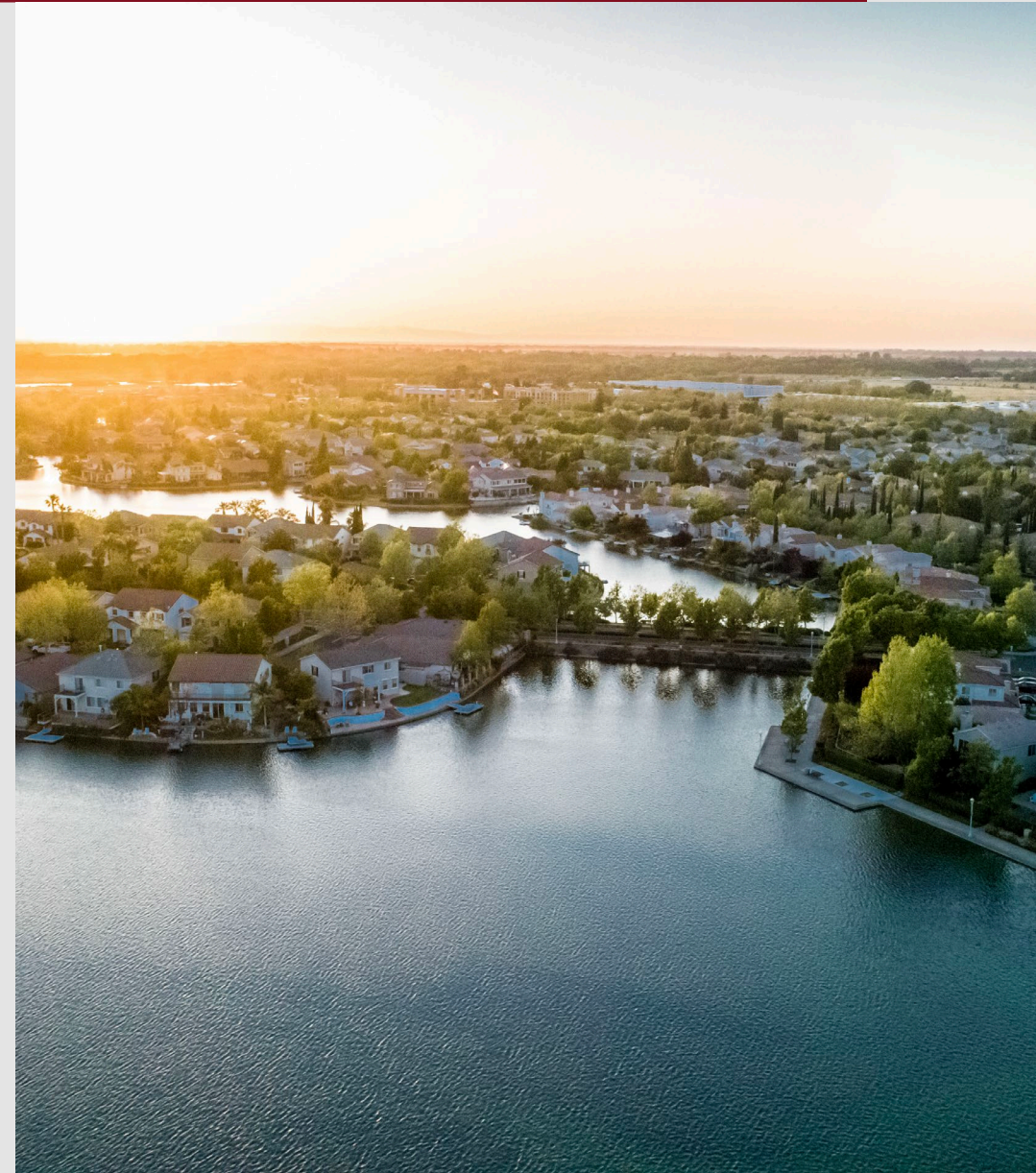


Climate Compass: Building & Energy Sector

August 14, 2024

Summary

- Information sessions on the update to the 2019 Climate Action Plan
- Second of three sessions:
 1. Greenhouse Gas Inventory & Forecast; Potential Strategies/Actions for Resilience/Adaptation, Resource Consumption, the Green Economy
 2. Potential Strategies/Actions for Buildings & Energy
 3. Potential Strategies/Actions for Transportation



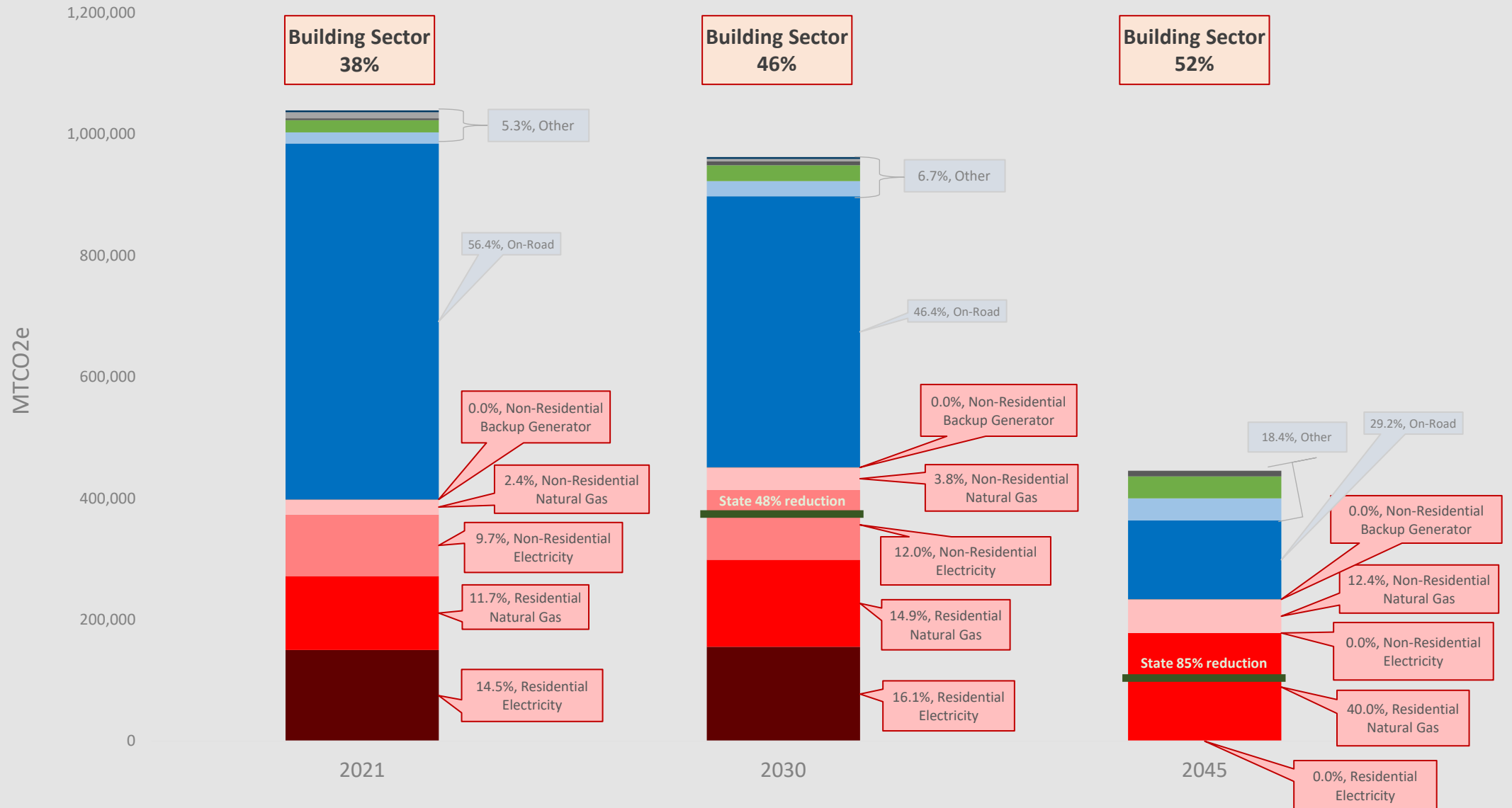
Background

- Adopted in February 2019
- Amended in December 2019 and 2022
- Update CAP every 5-years
- Climate Compass: A Plan for Implementing Elk Grove's Climate, Sustainability, and Resilience Goals
- CEQA Streamlining

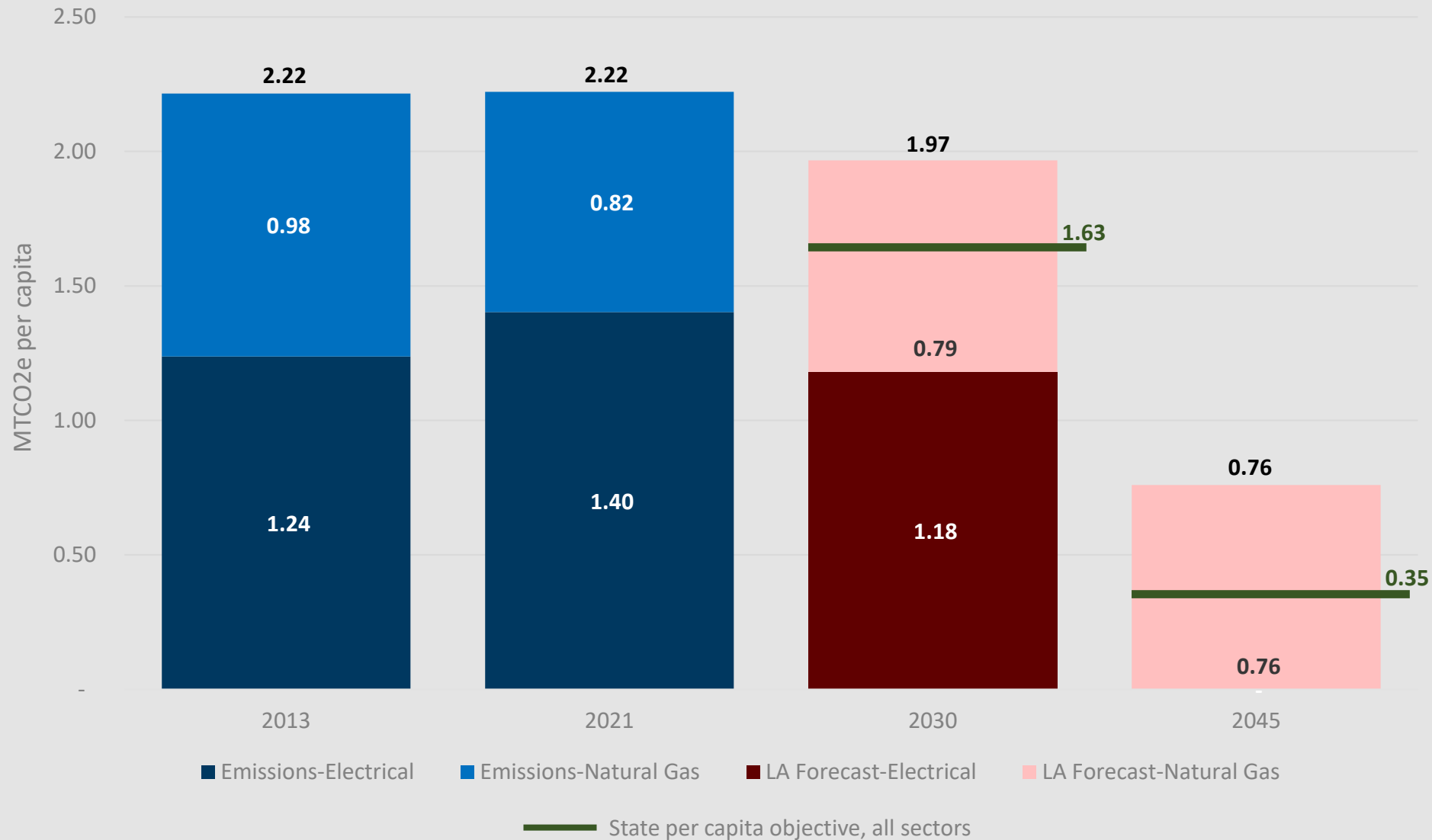
State GHG Emission Reduction Objectives

- Executive Order S-3-05 (2005)
 - GHG emission reductions: 80% below 1990 levels by 2050
- SB 32 (2016) – Global Warming Solutions Act
 - GHG emission reductions: 40% below 1990 levels by 2030
- AB 1279 (2022) – Climate Crisis Act
 - Net Zero GHG emissions by 2045
 - 85% reduction in anthropogenic emissions by 2045
- California Air Resources Board (CARB) Scoping Plan (2022)
 - GHG emissions reductions: 48% below 1990 levels by 2030
 - GHG emissions reductions: 85% below 1990 levels by 2045
 - 15% carbon capture and carbon sequestration by 2045

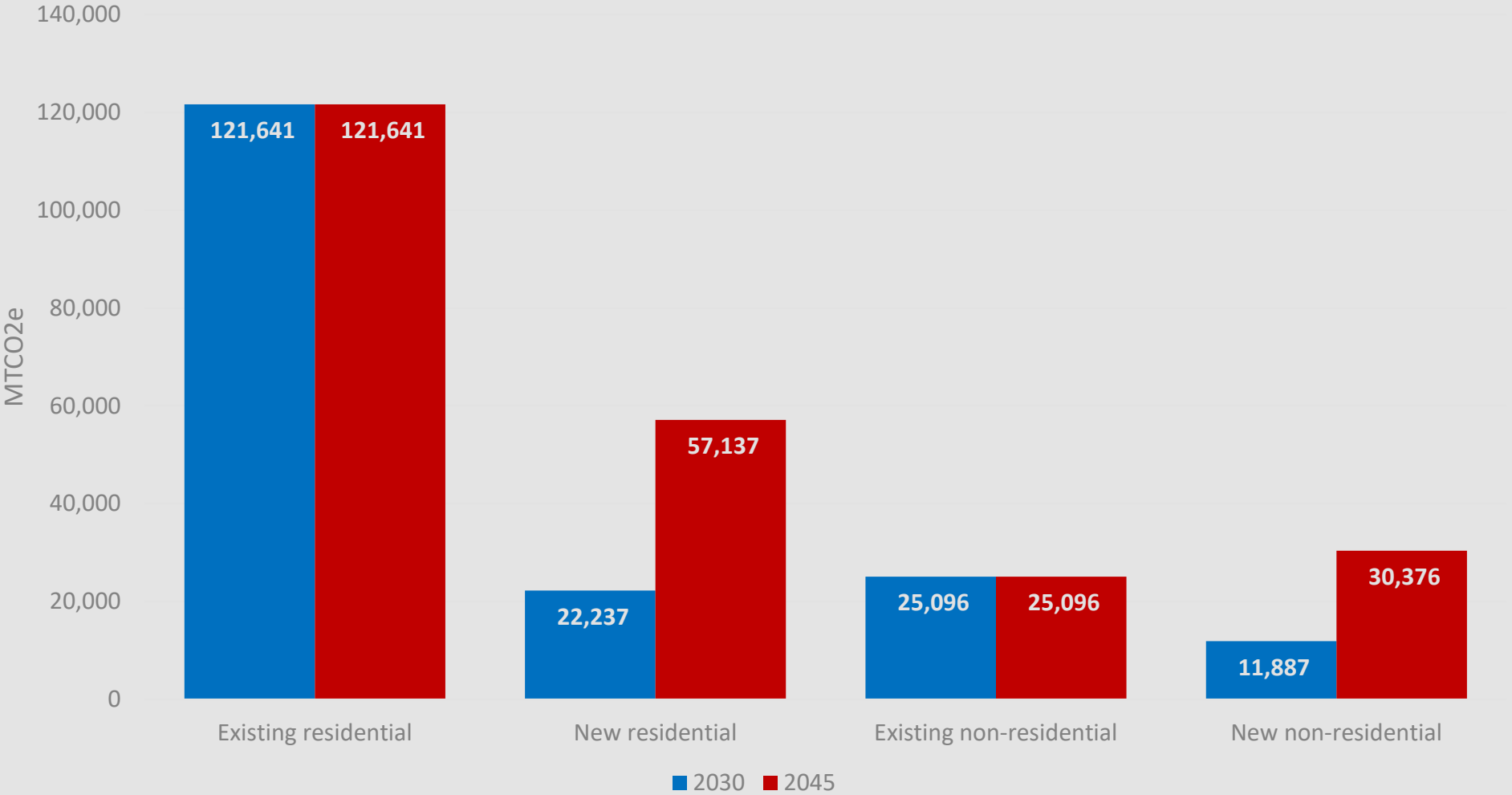
Existing and LA Forecast Emissions, by Sector



Per Capita Existing and Forecast LA Emissions, Building Sector



Natural Gas Emissions LA Forecast from Buildings

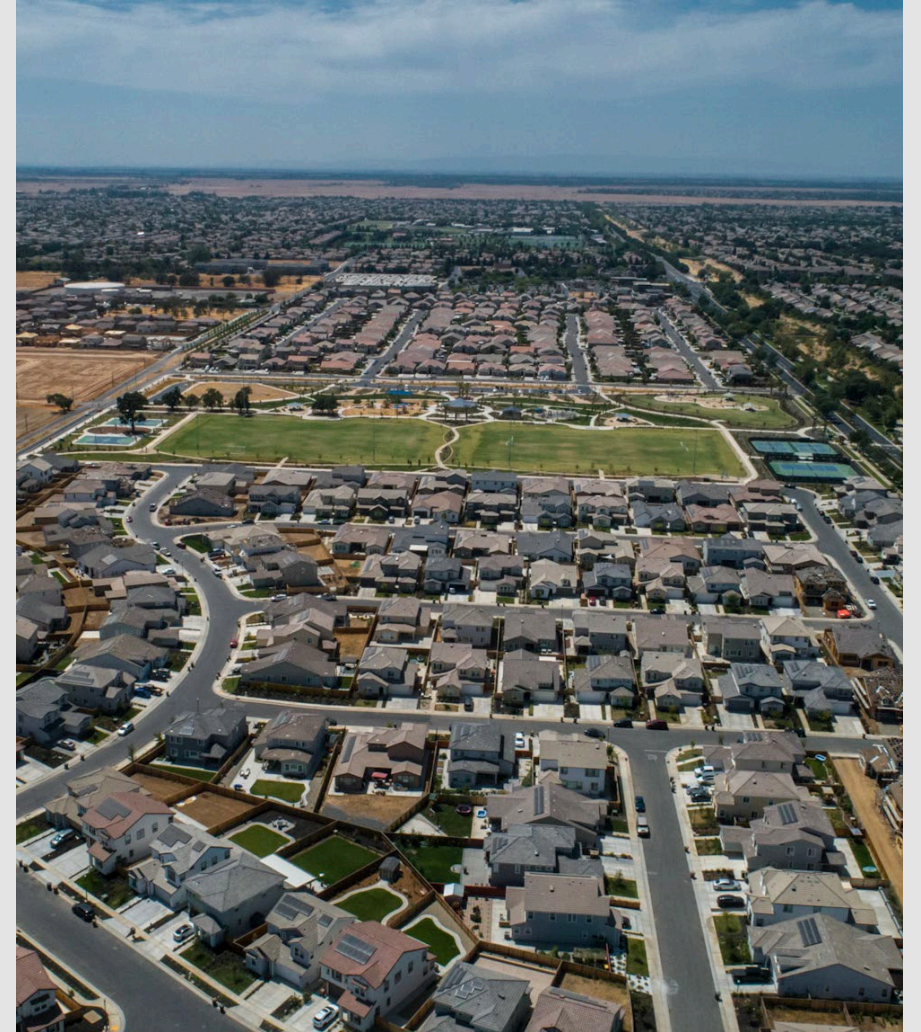


Considerations in the Building Sector

- SB 100
- SB 1020
- SB 350
- CA Code of Regulations, Title 24
 - Part 6: Building Energy Efficiency Standards
 - Part 11: CALGreen
- *California Restaurant Association v. City of Berkeley*

Potential Reduction Strategies

New Residential	Existing Residential
New Non-Residential	Existing Non-Residential



New Residential: Potential Strategies

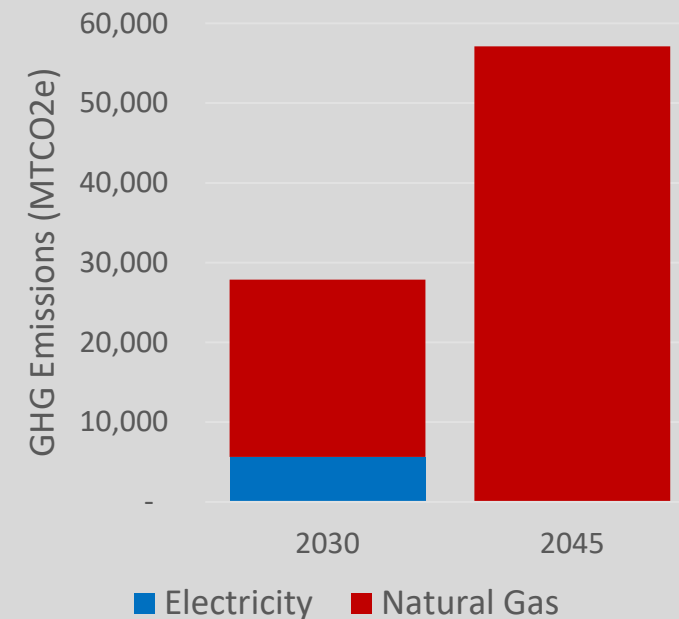
Res-New-1

- Adopt a reach code requiring all new residential construction and major renovations to meet or exceed a specific metric above the minimum building code obligations.

Considerations

- Likely to have greater impact on GHG emissions reduction than Res-New-2.
- Consistent with City of Sacramento adopted CAP and County of Sacramento draft CAP.
- Allows flexibility in fuel source.

Legislative-Adjusted Forecast



New Residential: Potential Strategies

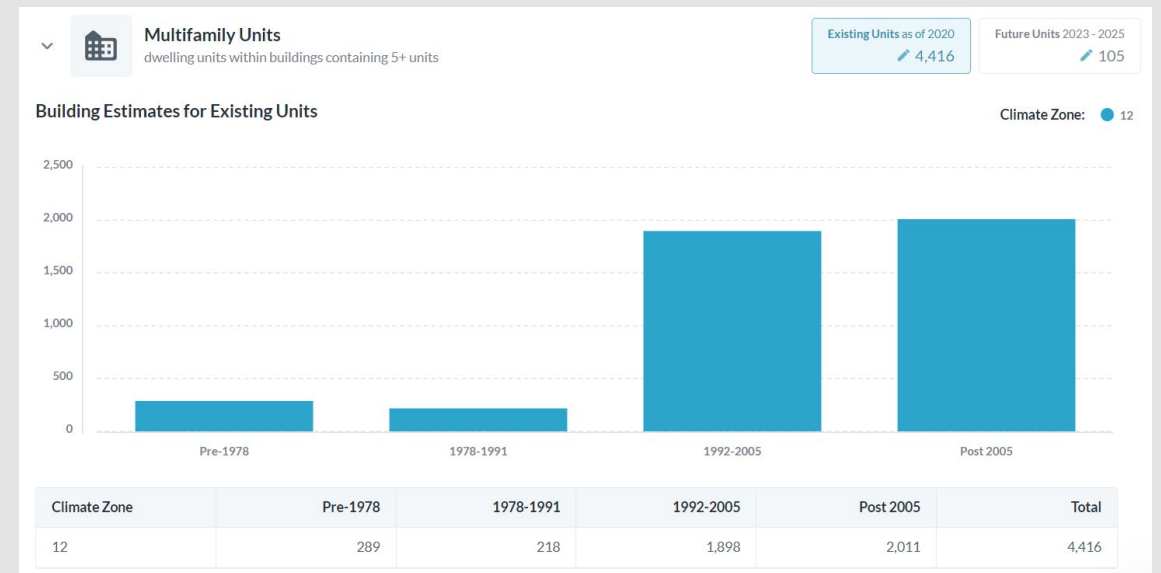
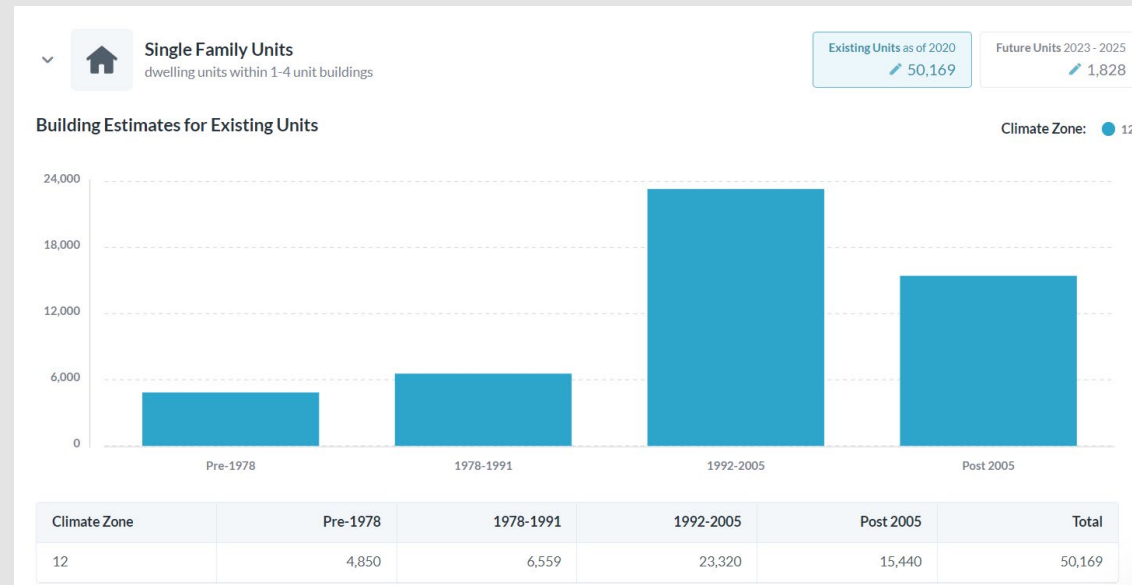
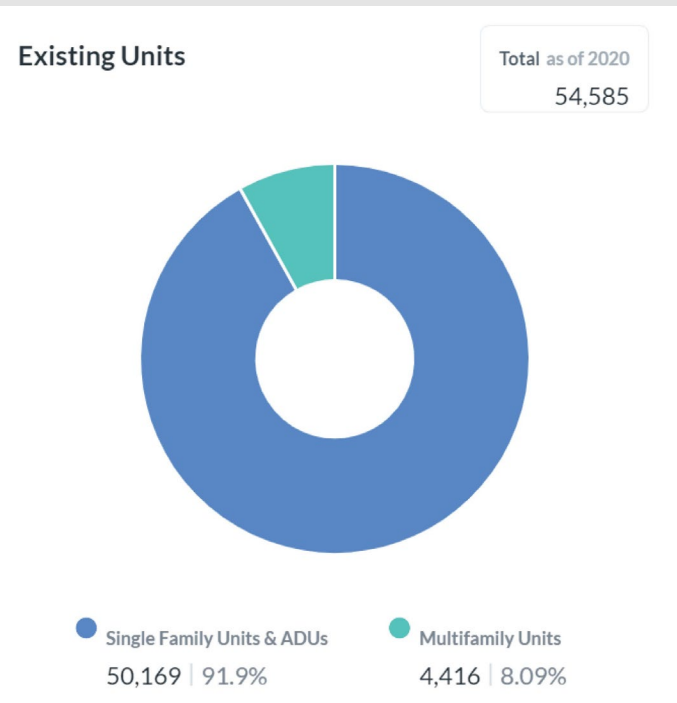
Res-New-2

- Increase the minimum percentage of new residential development that must be all electric.

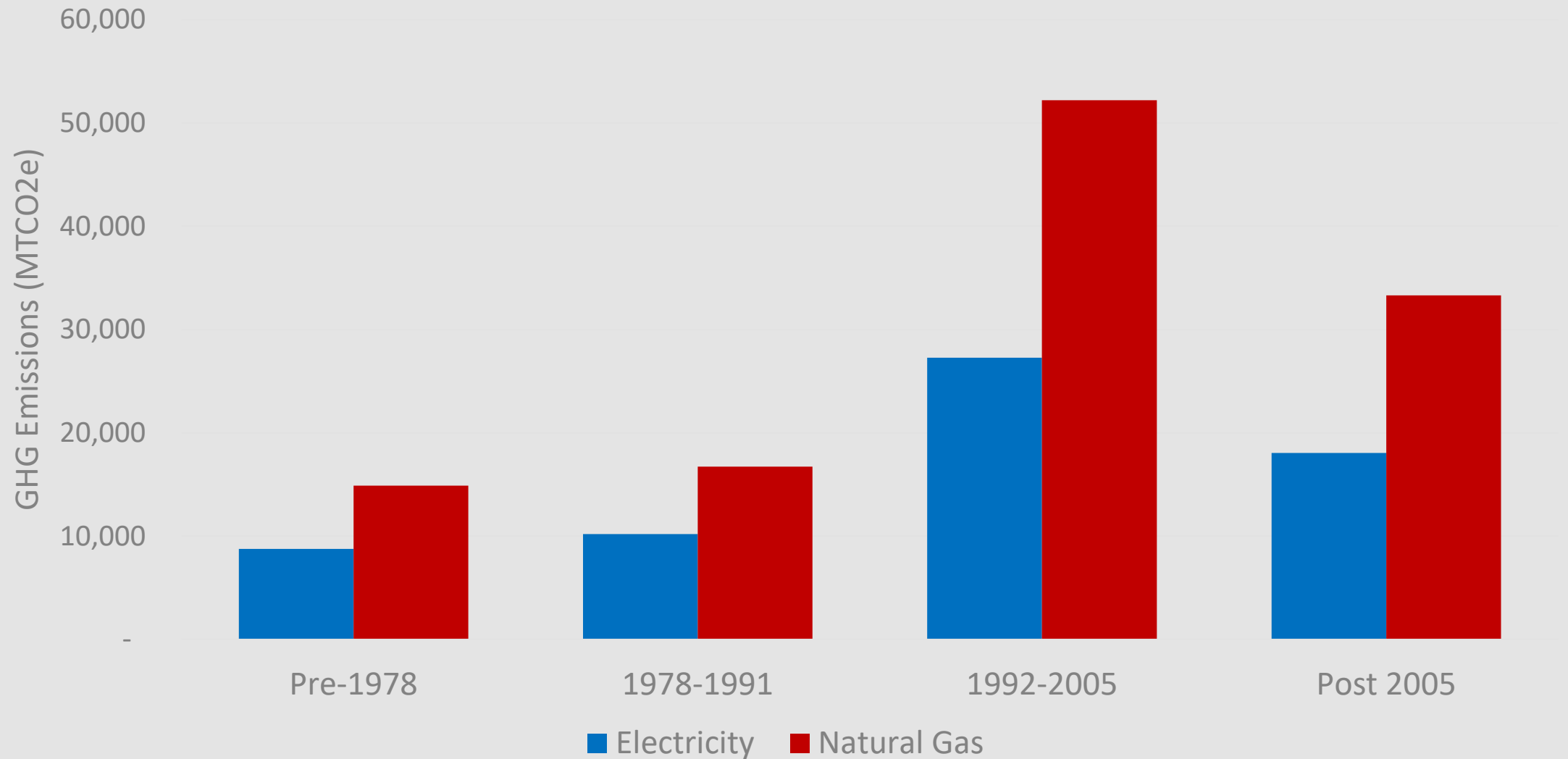
Considerations

- Depending on the percentage identified, could have a significant impact on GHG emission reduction from new development.
- Is less flexible on fuel source than Res-New-1 as a specific number of units would be required to be all electric.
- More difficult to implement as it requires tracking on a building permit level for developments.
- Could be legally questionable given the Ninth Circuit Court decision.

Existing Residential



Existing Residential: GHG Emissions in Single-Family Homes by Vintage



Existing Residential: Potential Strategies

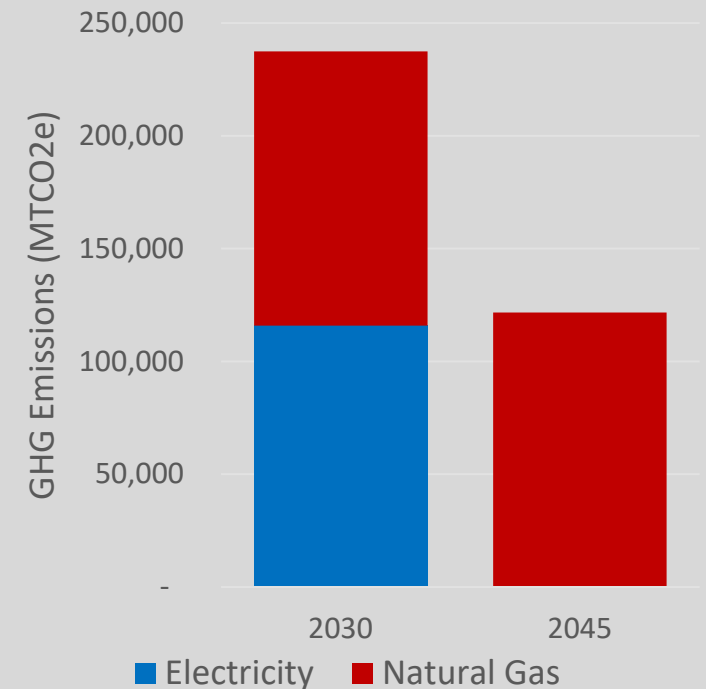
Res-Ex-1

- Adopt a reach code requiring higher efficiency requirements.

Considerations

- Likely able to implement more quickly than Res-Ex-2.
- Allows flexibility on fuel source and flexibility on what measures to implement.
- Consistent with approach taken in County of Sacramento draft CAP.
- Unclear on staff resources needed to ensure compliance.

Legislative-Adjusted Forecast



Existing Residential: Potential Strategies

Res-Ex-2

- Develop a comprehensive building energy retrofit plan to decarbonize existing residential buildings.

Considerations

- Would allow for a more comprehensive approach to decarbonizing existing buildings.
- Since the specific obligations/standards would be undefined, the reduction potential of this option is variable as the level of reduction benefit has higher uncertainty.
- Likely to delay implementation of decarbonization of existing buildings during plan development.

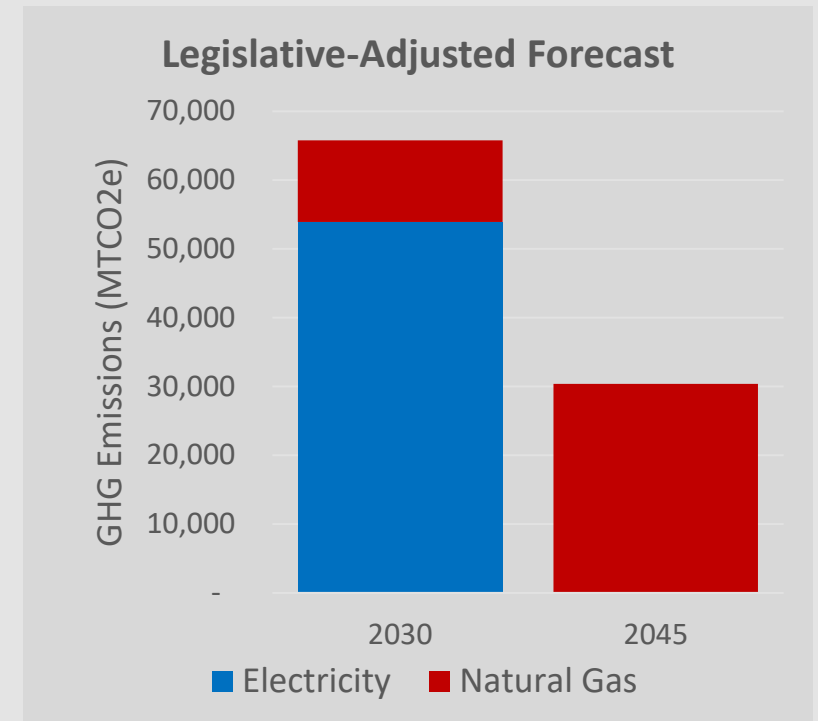
New Non-Residential: Potential Strategies

NonRes-New-1

- Adopt a reach code requiring all new non-residential construction and major renovations to meet or exceed a specific metric above the minimum building code obligations.

Considerations

- Consistent with City of Sacramento adopted CAP and County of Sacramento draft CAP
- Allows flexibility in fuel source.



New Non-Residential: Potential Strategies

NonRes-New-2

- Encourage (or require) new construction projects to comply with CALGreen Tier 1 standards.

Considerations

- Consistent with current 2019 CAP
- Unclear how much GHG emission reduction would result.
- The reduction potential of this option is less than in NonRes-New-1, based upon how the CALGreen code is currently structured.

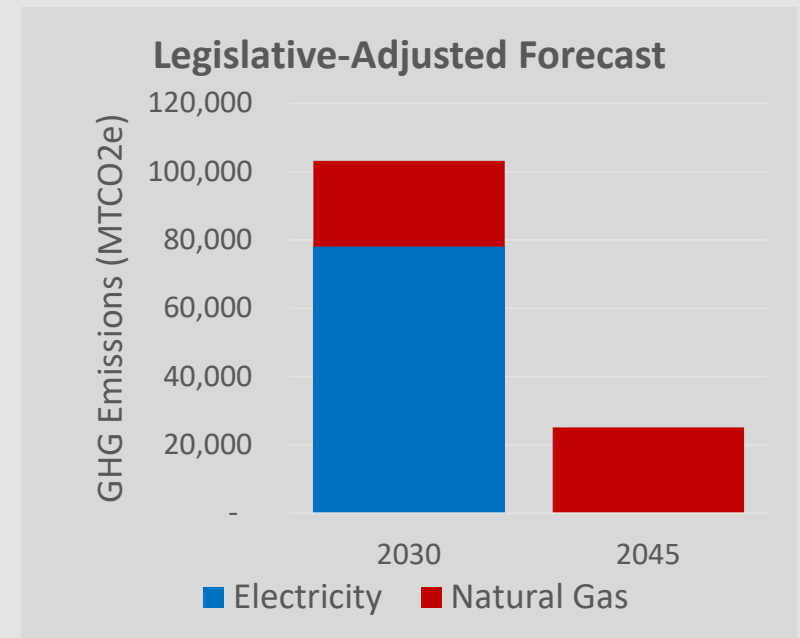
Existing Non-Residential: Potential Strategies

NonRes-Ex-1

- Adopt a building energy performance ordinance for existing non-residential buildings. Existing nonresidential buildings must reduce their non-electricity-related emissions by a specified percentage over a set timeframe.

Considerations

- Likely able to implement more quickly than NonRes-Ex-2.
- Consistent with City of Sacramento existing building decarbonization strategy and County of Sacramento draft CAP
- Allows flexibility on achieving emission reductions.
- Unclear on staff resources needed to ensure compliance.



Existing Non-Residential: Potential Strategies

NonRes-Ex-2

- Develop a comprehensive building energy retrofit plan to decarbonize existing nonresidential buildings.

Considerations

- Would allow for a more comprehensive approach to decarbonizing existing buildings.
- Since the specific obligations/standards would be undefined, the reduction potential of this option is variable as the level of reduction benefit has higher uncertainty.
- Likely to delay implementation of decarbonization of existing buildings during plan development.

Summary of Ideas

Land Use/Development Type	Idea
Residential	
New Residential	Res-New 1: Adopt a reach code Res-New 2: Increase the minimum percentage of new residential development that must be all electric
Existing Residential	Res-E2-1: Adopt a reach code requiring higher efficiency requirements. Res-Ex-2: Develop a comprehensive building energy retrofit plan to decarbonize existing residential buildings
Non-Residential	
New Non-Residential	NonRes-New-1: Adopt a reach code NonRes-New-2: Encourage (or require) new construction projects to comply with CALGreen Tier 1 standards
Existing Non-Residential	NonRes-Ex-1: Adopt a building energy performance ordinance for existing nonresidential buildings NonRes-Ex-2: Develop a comprehensive building energy retrofit plan to decarbonize existing nonresidential buildings

Staff Recommendation

- Provide input and direction on the various ideas for each building type for further analysis by staff
- Unless there are specific concerns staff will continue to evaluate all options as the Plan is further developed



Thank you

August 14, 2024