



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

# Proposed Amendments to Building Appliance Rules 9-4 and 9-6

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# Presentation Outline



- Background
- Health and equity impacts
- Schedule and next steps
- Incentives

# Background: Rules for Amendment



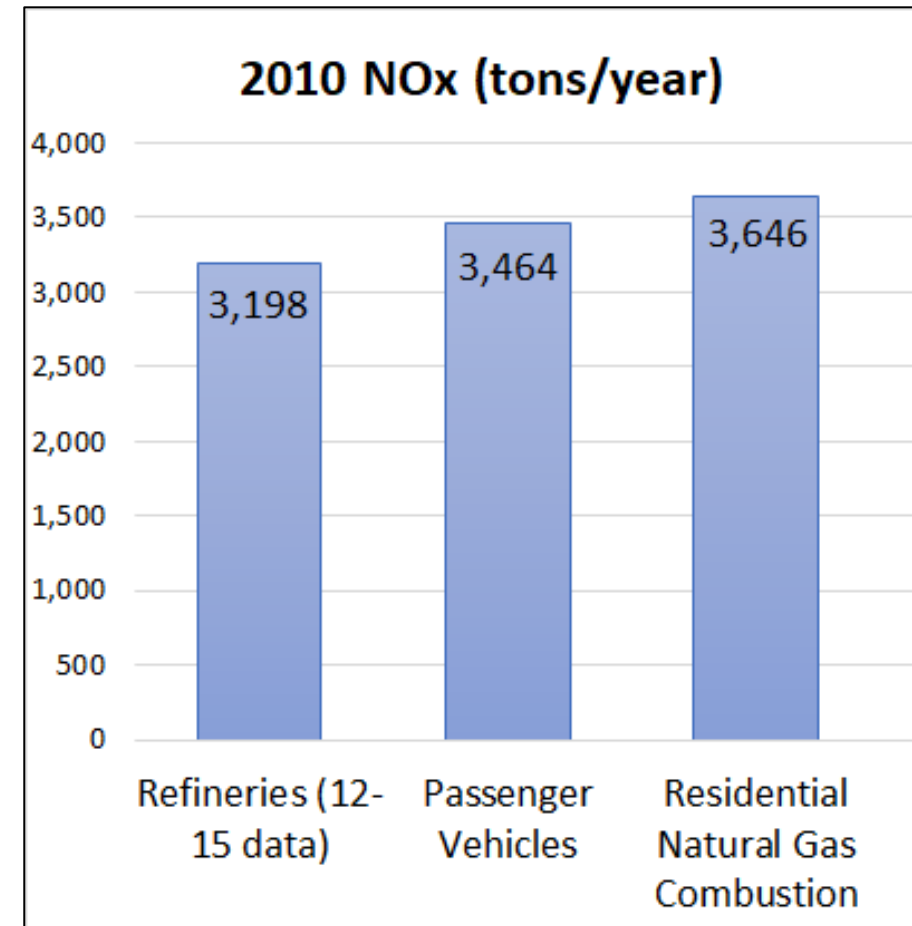
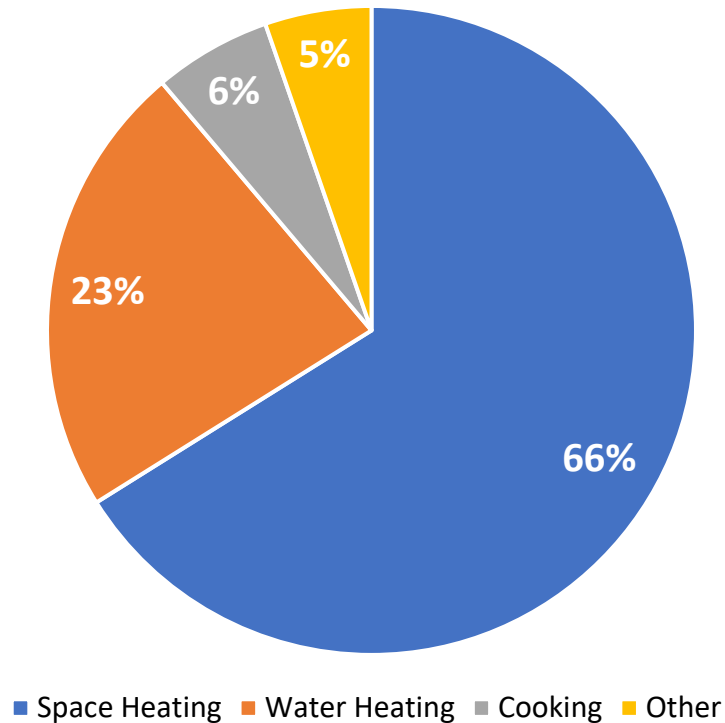
- To address Oxides of Nitrogen (NO<sub>x</sub>) emissions associated with buildings, amend:
  - Regulation 9, Rule 4 (Rule 9-4): Nitrogen Oxides from Fan Type Residential Central Furnaces
  - Regulation 9, Rule 6 (Rule 9-6): Nitrogen Oxides from Natural Gas-Fired Boilers and Water Heaters
- Emissions Standard & Compliance Date:

|                         |          |   |
|-------------------------|----------|---|
| Ultra low Nox (14 ng/J) | 1/1/2024 | Central natural gas-fired furnace         |
| Zero NO <sub>x</sub>    | 1/1/2027 | Water heaters less than 75,000 BTU/hr     |
| Zero NO <sub>x</sub>    | 1/1/2029 | All applicable natural gas-fired furnaces |
| Zero NO <sub>x</sub>    | 1/1/2031 | Water heaters 75,000 to 2 million BTU/hr  |

# Background: Residential Appliance Emissions



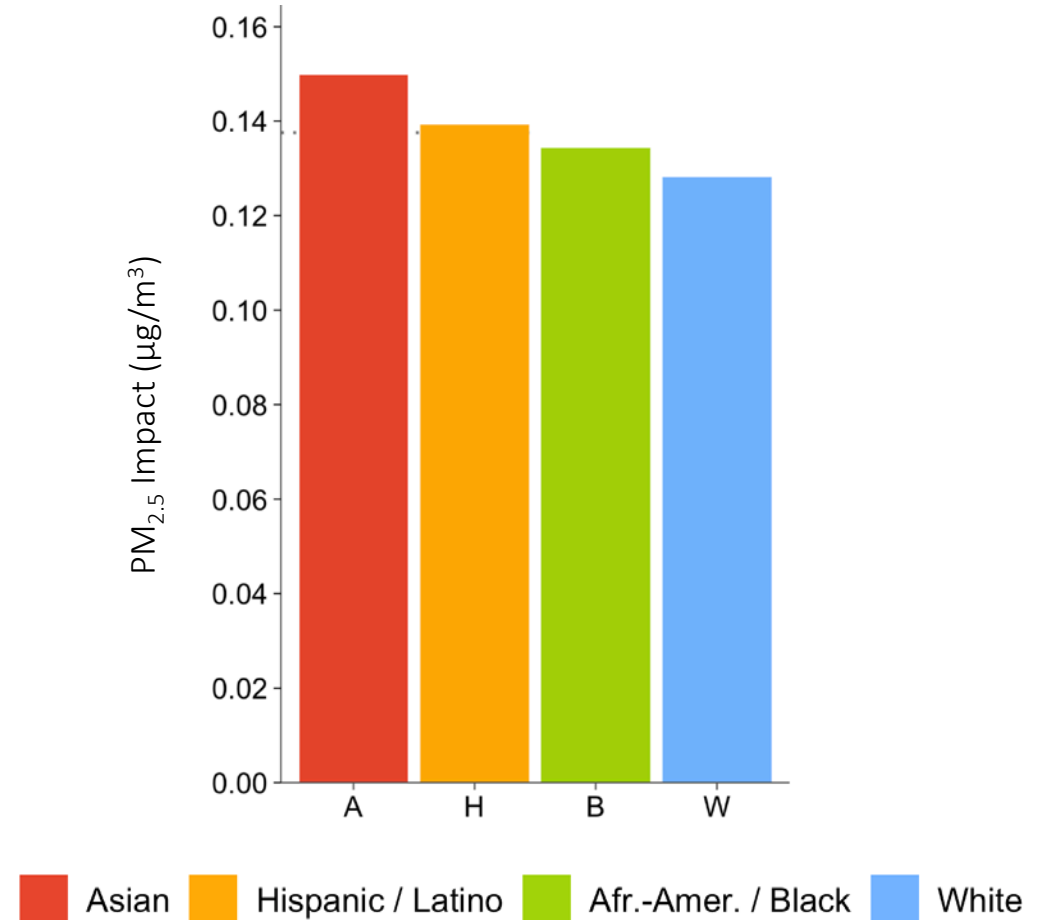
**District Residential Natural Gas  
Combustion NOx Emissions in 2019**



# Equity Assessment



- The counties most affected by these sources, like Santa Clara, tend to be higher % Asian / Pacific Islander. This explains most of the regional pattern (shown at right).
- Within every county, the most-impacted residents tend also to be people of color: primarily Hispanic and African-American/Black.



# Summary of Impacts



- Potential premature deaths avoided: 37–85 deaths per year
- Potential total benefit valuation: \$400–890 million per year
- About 60% of benefits accrue from eliminating NO<sub>x</sub> emissions
- About 40% from eliminating PM<sub>2.5</sub> emissions (electric appliances)
- People of color most impacted by PM<sub>2.5</sub> attributed to combustion of natural gas for residential space and water heating
- Some reduction to peak air pollution levels, relevant to attainment

# Building Appliances Rule Amendment Schedule



- Public package released December 20<sup>th</sup>
- End of Comment period February 6, 2023 (48 days)
- February/March: Staff develop Response to Comments document and prepare final package for Board Hearing
- Board Hearing March 15, 2023



# Implementation Working Group

- Purpose: convene group of sector experts, community members, government, labor and others to provide thought leadership on addressing technical and financial barriers to equitable appliance electrification
- Will provide input in support of Air District staff's periodic reporting to the Board on the implementation of amendments to Rules 9-4 and 9-6.
- Kick-off "Meet and Greet" meeting held on December 14<sup>th</sup>



# Proposed State & Federal Funds



## **Inflation Reduction Act**

- \$4.275B for point-of-sale rebates to income-qualified entities
- \$4.3B for energy efficiency home rebates
- 30% tax credits on purchase costs at \$2,000 maximum per year

## **Governor's Budget**

- CA building decarb programs will receive ~\$1B in funds

## **CPUC programs**

- \$84.7M for Self-Generation Incentive Program
- \$1.04B for energy efficiency and fuel-switching programs

# Discussion

