



# Adoption of Proposed Amendments to Regulation 9, Rule 6

Board of Directors Meeting

November 4, 2026

Gregory H. Nudd  
Deputy Executive Officer  
Policy

# Presentation Outline

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- I. Rule 9-6 Background and Overview
- II. Proposed Amendments
- III. Exemption Framework and Implementation Process
- IV. Socioeconomic and Environmental Impacts
- V. Public Comment
- VI. Resolution and Recommendation

# Recommended Action

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Staff recommends that the Board adopt the Resolution, which includes:

- Proposed Amendments to Regulation 9, Rule 6; and
- Findings of necessity, authority, clarity, consistency, non-duplication, and reference.

# Abbreviations

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**AMI:** Area median income

**BTU/hr:** British thermal units per hour;  
measure of heat energy

**CARE:** California Alternate Rates for  
Energy

**CEC:** California Energy Commission

**CEQA:** California Environmental Quality  
Act

**CPUC:** California Public Utilities  
Commission

**EIR:** Environmental Impact Report

**FERA:** Family Electric Rate Assistance  
Program

**GHG:** Greenhouse gas

**HPWH:** Heat pump water heater

**IWG:** Implementation working group

**NOx:** Nitrogen Oxides

**PG&E:** Pacific Gas and Electric

**PM:** Particulate matter

**PM<sub>2.5</sub>:** Fine particulate matter

**WIC:** Women, Infants and Children  
(supplemental nutrition program)

# Part I. Rule 9-6

## Background and Overview



# Current Requirements

- Zero NOx standards adopted in 2023 apply to natural gas fired water heaters (Rule 9-6) and furnaces (Rule 9-4)
- If the Board does not approve the proposed amendments today, current requirements remain in place, these do not include exemptions for affordability installation costs or implementation challenges
- Requirements **phase in over time**: all *new* sales or installations of units manufactured after compliance dates
- Requirements only apply to natural gas-fired water heaters and furnaces

| 1/1/2027 | Water heaters less than 75,000 BTU/hour                                                                   |
|----------|-----------------------------------------------------------------------------------------------------------|
| 1/1/2029 | All applicable natural gas-fired furnaces (e.g., residential and commercial; including direct-vent units) |
| 1/1/2031 | Water heaters 75,000 to 2 million BTU/hour                                                                |

# Decision Before the Board

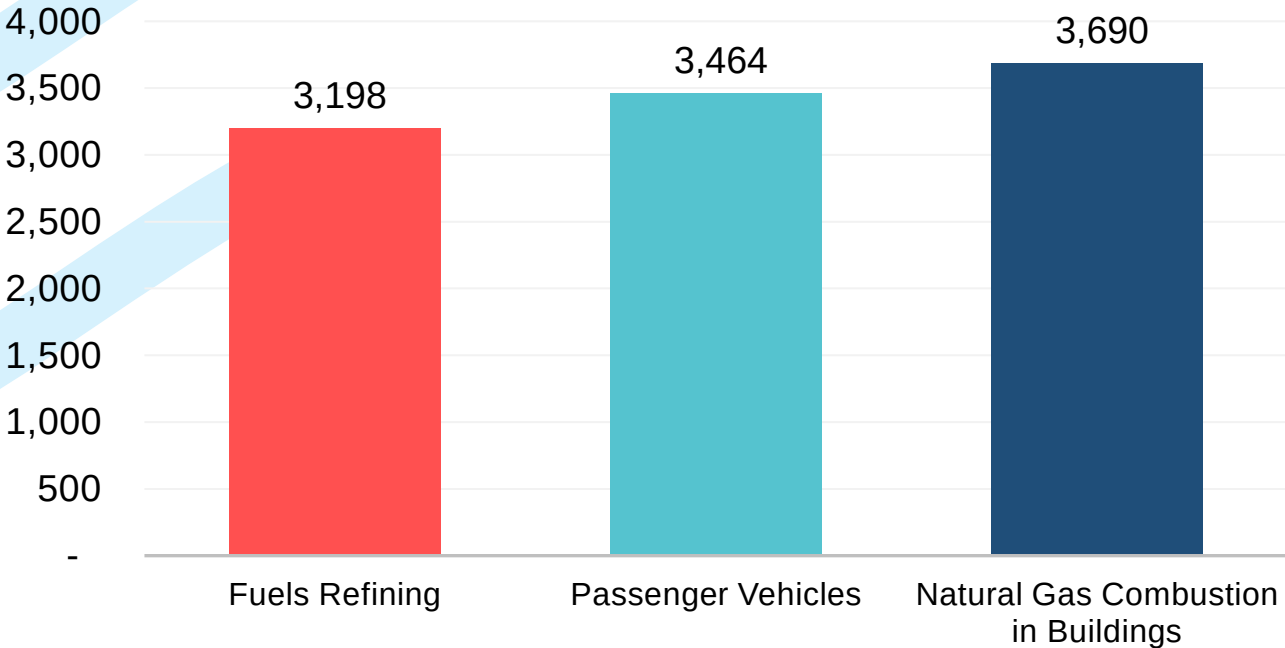
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## THE PROPOSED AMENDMENTS WOULD:

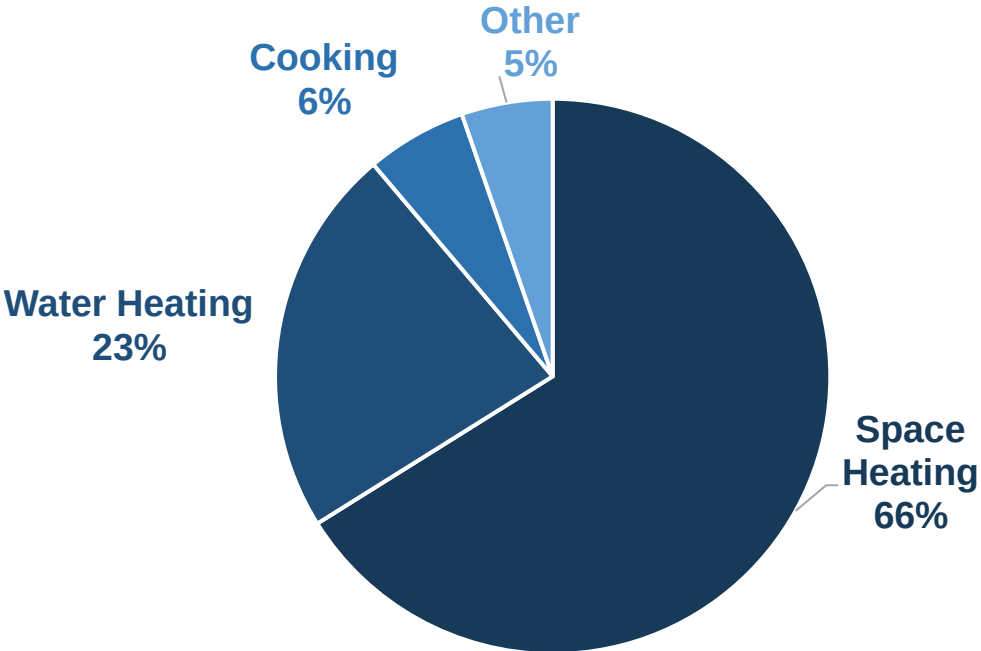
- Allow for continued sales of small-capacity natural gas water heaters
- Establish targeted exemptions for space, electrical, and affordability barriers
- Extend compliance dates for certain water heaters and properties
- Provide additional time for implementation and public outreach

# NOx Emissions from Buildings

2019 Air District NOx Emissions (tons)



Air District Residential Natural Gas Combustion NOx Emissions (2019)

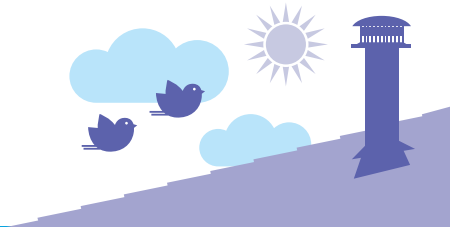


# Major Health Benefits from Rules 9-4 and 9-6

These appliance rules help improve regional air quality by reducing pollution from furnaces and water heaters.

## Cleaner outdoor air

Less NO<sub>x</sub> and PM<sub>2.5</sub> from venting



Lower pollution means lower exposure to fine particles (PM<sub>2.5</sub>).

## Cleaner Bay Area communities

Biggest PM<sub>2.5</sub> reductions in communities of color and overburdened neighborhoods



Reducing PM<sub>2.5</sub> and NO<sub>x</sub> exposure can prevent dozens of early deaths every year in the Bay Area.

**Up to 85 early deaths avoided**  
each year from cleaner air



Health improvements from cleaner air avert unnecessary costs from health impacts.

## Up to \$1.1B

Annual health benefits saved in avoided illnesses, hospital visits, and early deaths



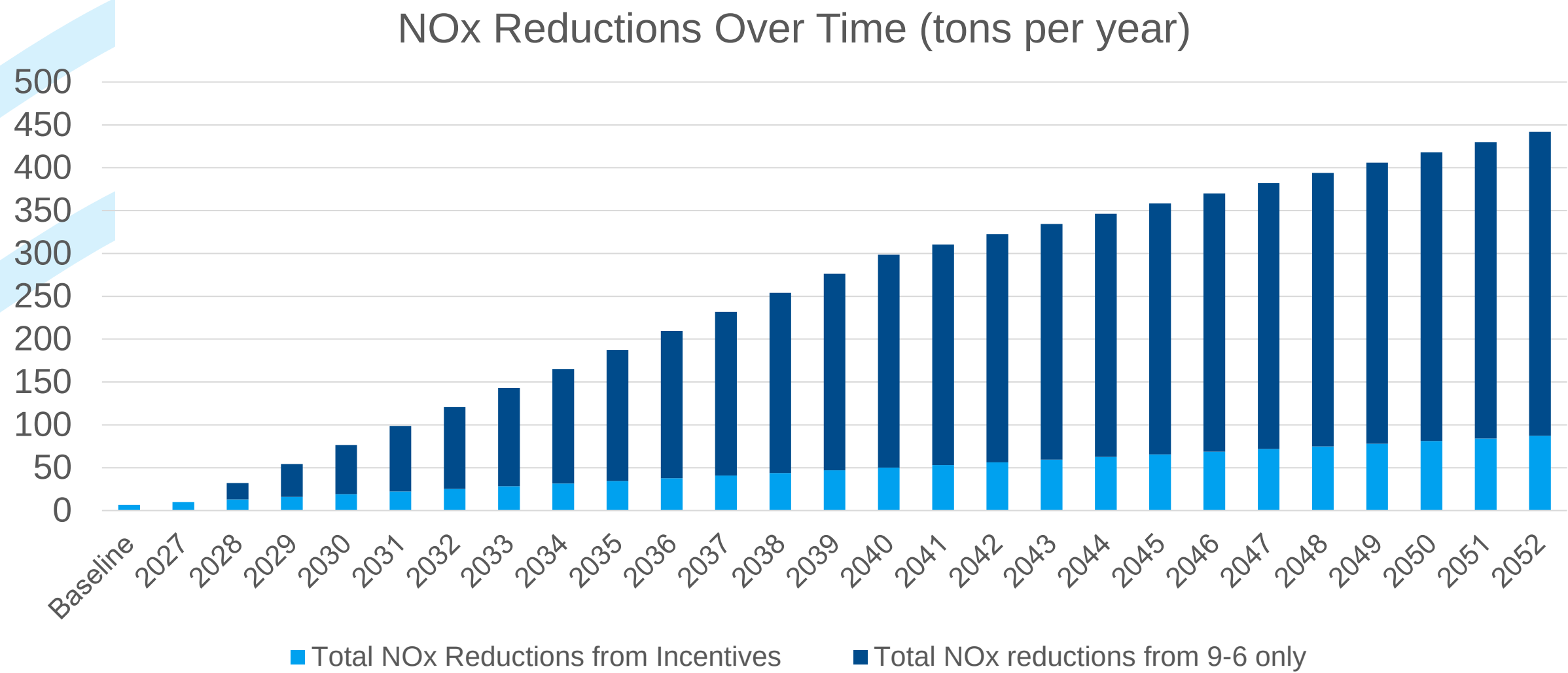
# Health Benefits Not on the Balance Sheet

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- Avoiding suffering: respiratory distress
- Brain conditions: Dementia/Alzheimer's and Parkinson's
  - More than the cost of the 1<sup>st</sup> hospitalization
- Stroke: caregiving costs, impact on family members
- Sub-clinical benefits: chronic inflammation, oxidative stress, metabolic impacts
- Climate change mitigation benefits and potential indoor air exposure

# Benefits Accumulate Over Time

## NOx Reductions from Incentives and Rule 9-6



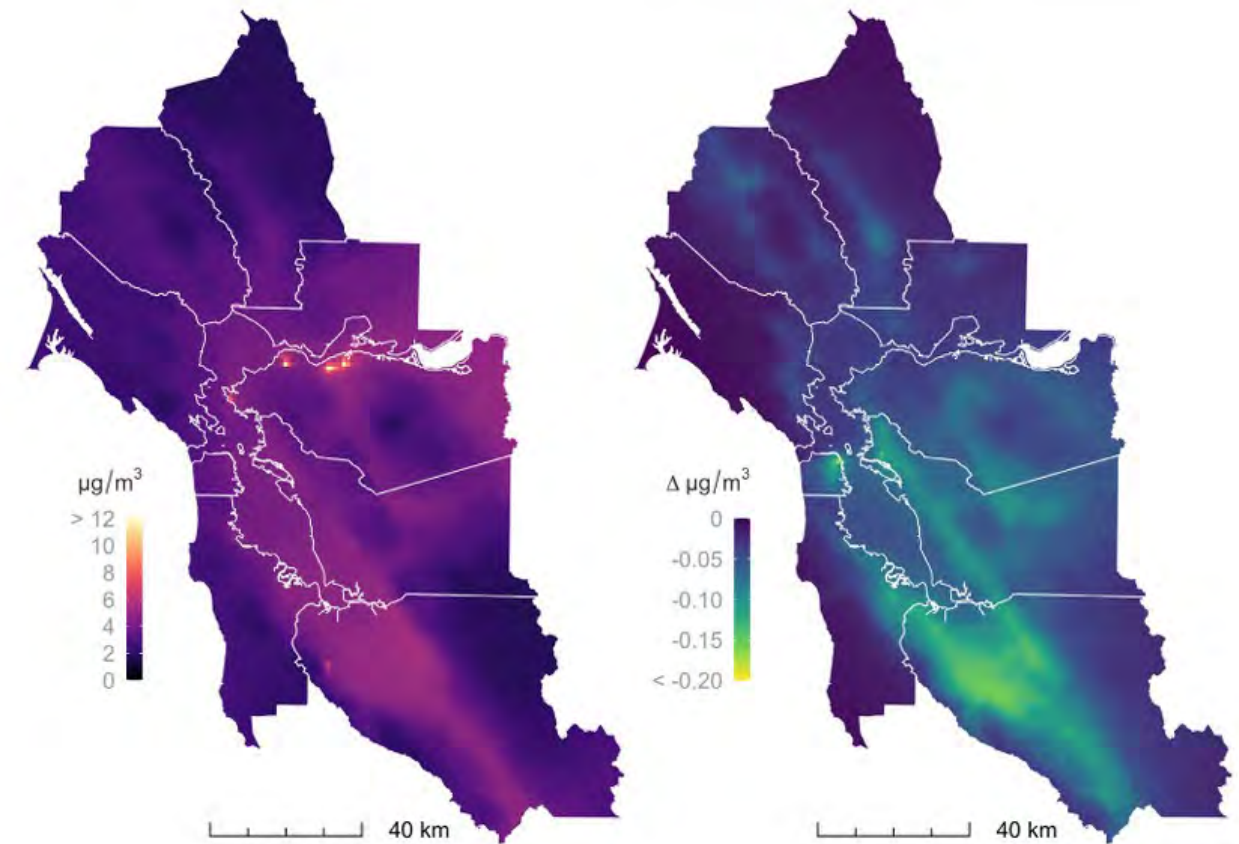
# Long-Term Benefits of Rule 9-6 with Proposed Amendments

|                               | Premature Mortality <sup>1,2</sup> | Asthma Onset <sup>1</sup> | Overall Valuation <sup>1,2,3</sup> |
|-------------------------------|------------------------------------|---------------------------|------------------------------------|
| Annual Projected              | 16 avoided/yr                      | 21 avoided/yr             | \$90 million/yr                    |
| Cumulative benefits 2028–2058 | <b>300 avoided</b>                 | <b>400 avoided</b>        | <b>\$2 billion</b>                 |

1. Incorporating regional population growth forecast by Plan Bay Area 2050+.
2. Upper ends of estimated ranges.
3. Present valuations expressed in 2024 dollars, including a 3% real discount rate.

# Public Health Benefits: Who? Where?

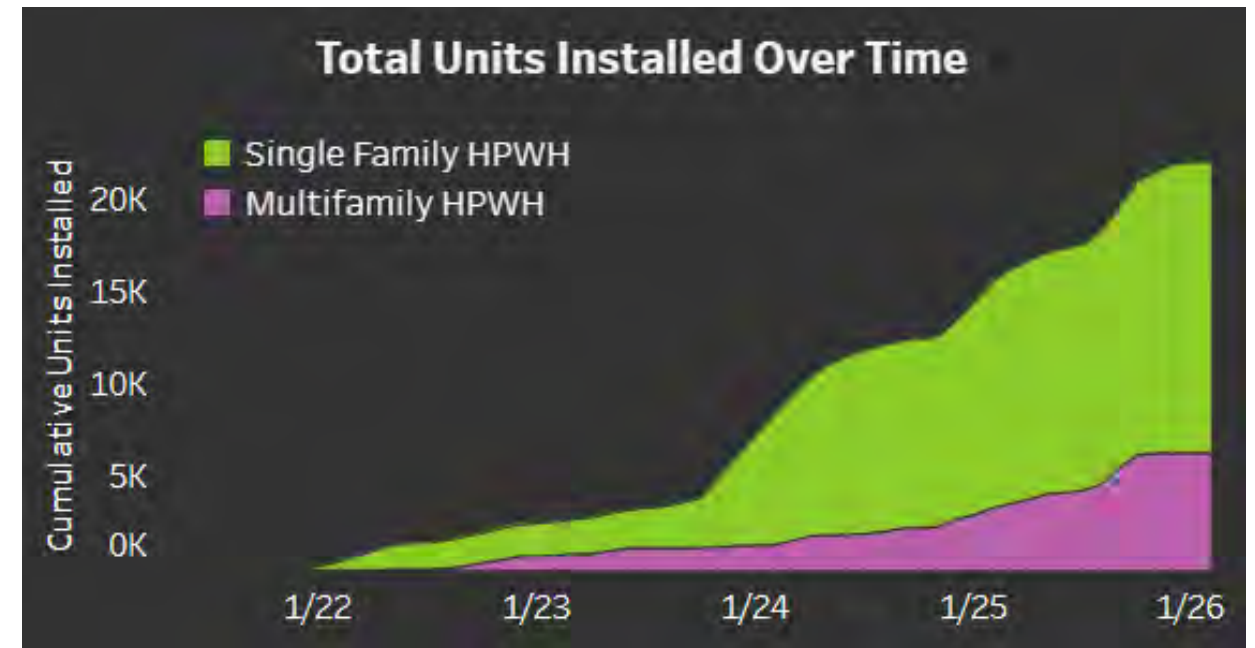
- Benefits are less in your home, they're for neighbors and the region.
- Emissions reductions will take longer to achieve due to exemptions
- Maintains regional benefit due to the reduction in secondary PM<sub>2.5</sub>



Baseline concentrations (left) and reductions (right) for secondary PM<sub>2.5</sub> (Source: 2023 Rule 9-6 Staff Report)

# Zero NOx Water Heater Technology is Widely Available

- Diverse technology options available for installation
- 20,000+ units installed in California and growing



Source: [TECH Public Reporting Heat Pump Data Visuals](#)

# Implementation Working Group Phase 1 Small Water Heaters



**Technical  
Readiness**



**Equitable  
Transition**

**40+ members**

Environmental  
Justice and  
Community-  
Based  
Organizations

Subject Matter  
Experts on  
Energy,  
Buildings, and  
Technology

Regional/Local  
Government  
and State  
Agencies

Labor and  
Trade  
Organizations

Utilities and  
Community  
Choice  
Aggregators

**20+ Meetings**

**6** Public  
Plenary

**5** Steering  
Committee

**5** Technical  
Subcommittee

**5** Equity  
Subcommittee

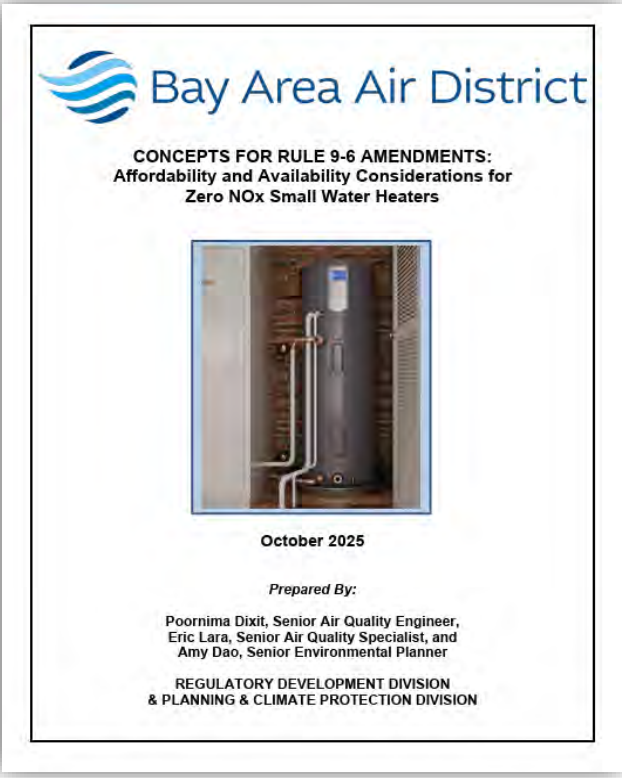
# Board and Committee Timeline

| Date               | Venue                       | Summary                                                                                                                                                                                                                      |
|--------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| March 15, 2023     | Board of Directors          | Adoption of zero NOx amendments to Rules 9-4 & 9-6<br>Board directed staff to come back with a Rule 9-6 implementation report in 2024                                                                                        |
| December 4, 2024   | Board of Directors          | Informational report on staff's research and a summary of IWG findings for Rule 9-6 implementation                                                                                                                           |
| October 24, 2025   | Public Comment Period       | Public Release of Rule 9-6 Concepts Paper (flexibility options) informed by Phase I of the IWG                                                                                                                               |
| December 10, 2025  | Stationary Source Committee | Presentation on potential flexibility amendments based on affordability and availability issues for Rule 9-6<br>Committee directed staff to come back with information on possible exemptions for low-income property owners |
| February 11, 2026  | Stationary Source Committee | Presentation on the definition of "low-income" including considerations for housing cost burden and how much it costs to help low-income households switch to zero NOx water heaters.                                        |
| May 6 and 13, 2026 | Stationary Source Committee | Staff to returned with a full set of proposed changes so the full Board can give clear directions on how to proceed with the rule                                                                                            |

# Continuous Public Reporting



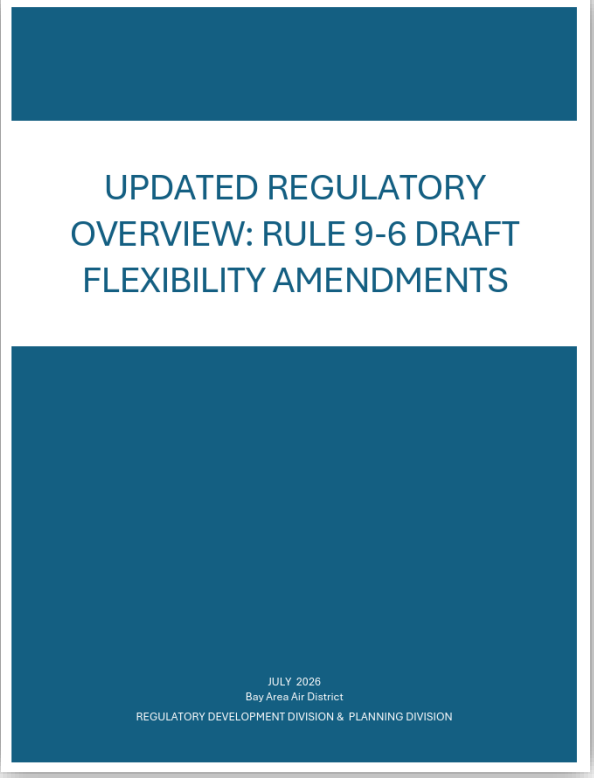
DECEMBER 2024



OCTOBER 2025



APRIL 2026



JULY 2026

***During this time, staff has received and responded to over 5000 public comments, as well as engaged with many stakeholder groups***

# Part II. Proposed Amendments



# Proposed Amendments

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## ➔ IMPLEMENTATION CHALLENGE 1:

- *Additional time needed to establish the exemption process and conduct public outreach*

## ☑ PROPOSED SOLUTION:

- **Extend Compliance Date to January 1, 2028**
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## ➔ IMPLEMENTATION CHALLENGE 2:

- *Limited availability of small capacity Zero NOx water heaters*

## ☑ PROPOSED SOLUTION:

- **Continued Sales of Small Capacity Units (< 30 gallons)**

# Proposed Amendments (cont.)

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## ➡ IMPLEMENTATION CHALLENGE 3:

- *Certain water heater installations require additional long-term planning to address technical or infrastructure challenges*

## ☑ PROPOSED SOLUTION:

- **Extend Compliance Dates to January 1, 2033 for:**
  - Multi-family buildings (5 units+), Deed-restricted affordable housing, Non-Profit Mutual Housing Cooperative
  - Larger capacity units (>75,001 Btu/hour)
  - Hydronic systems
  - Qualifying Businesses with specialized applications and high hot water demand

# Proposed Amendments (cont.)

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## ➡ IMPLEMENTATION CHALLENGE 4:

- *Emergency water heater replacements may not allow for sufficient time to install compliant equipment*

## ☑ PROPOSED SOLUTION:

- **Allow for Temporary Emergency Replacements**
  - **Require Removal Within 12 Months or Obtain an Exemption Certificate**
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## ➡ ADDITIONAL APPLICABILITY PROVISIONS:

- Wholesale sales: Clarify the applicability of requirements to wholesale transactions
- Mobile home water heaters: Clarify the existing exemption for natural gas-fired mobile home water heaters

# Proposed Amendments (cont.)

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## ➡ IMPLEMENTATION CHALLENGE 5:

- *Some installations may require more costly space modifications or electrical upgrades*

## ☑ PROPOSED SOLUTION:

- **Establish One-Time Limited Exemptions for Qualifying Projects with:**
  - *Insufficient space for heat pump water heaters*
  - *Electrical infrastructure limitations*

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## ➡ IMPLEMENTATION CHALLENGE 6:

- *Some property owners may be unable to afford equipment replacement costs*

## ☑ PROPOSED SOLUTION:

- **Establish a Low-Income Qualified Property Owner Exemption**
- **Eligibility Based on Qualifying Assistance Programs or Household Income**

# One-Time Exemptions: Space and Electrical Constraints

## 5: Electrical Constraints

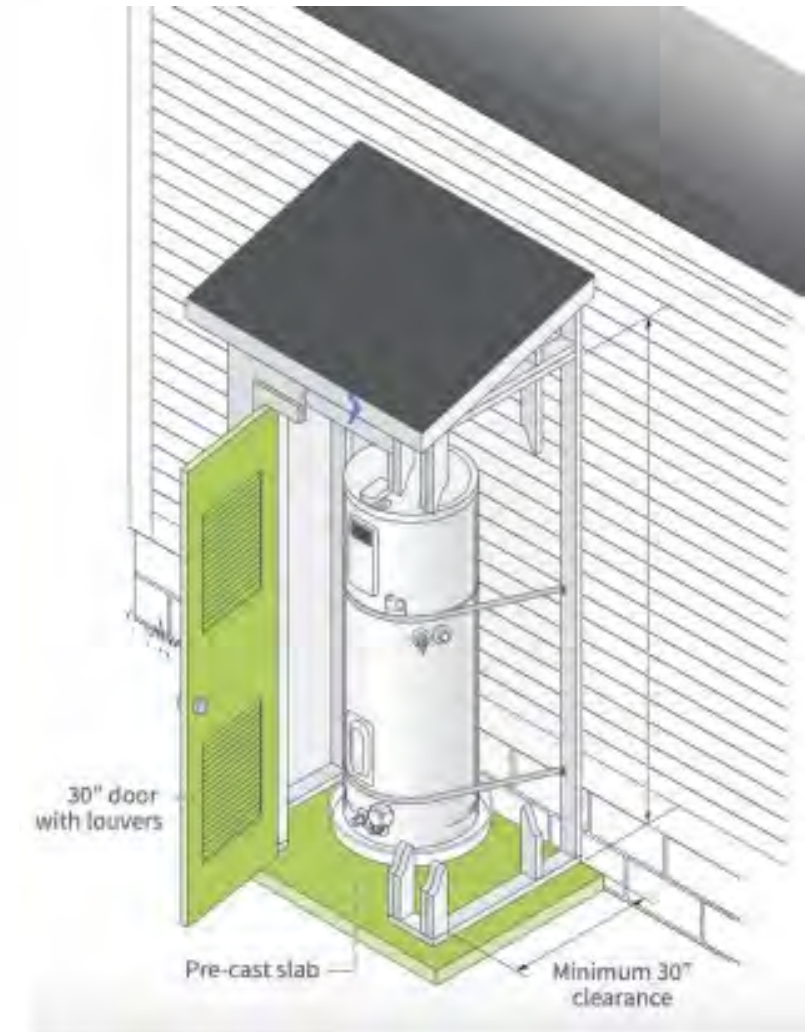
- <100 amp for single-family; <60 amps per multi-family home
- No open breaker space
- Knob and tube wiring
- >50 feet of 240v conduit required

### Space Constraint

- <700 cubic feet of space available
- Cannot be fitted with a louvered door, transfer grille or air duct
- Does not meet minimum height required
- Space constraint issues would result in relocation, adding an external closet (shown in figure)



Source: Granger.com



# Low-Income Qualified Property Owner

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## 6: Defined as:

- Property owners that are either low-income program participants OR  $\leq 80\%$  Area Median Income (AMI)
- Housing cost burdened (annual mortgage and property taxes  $\geq 28\%$  of gross income)

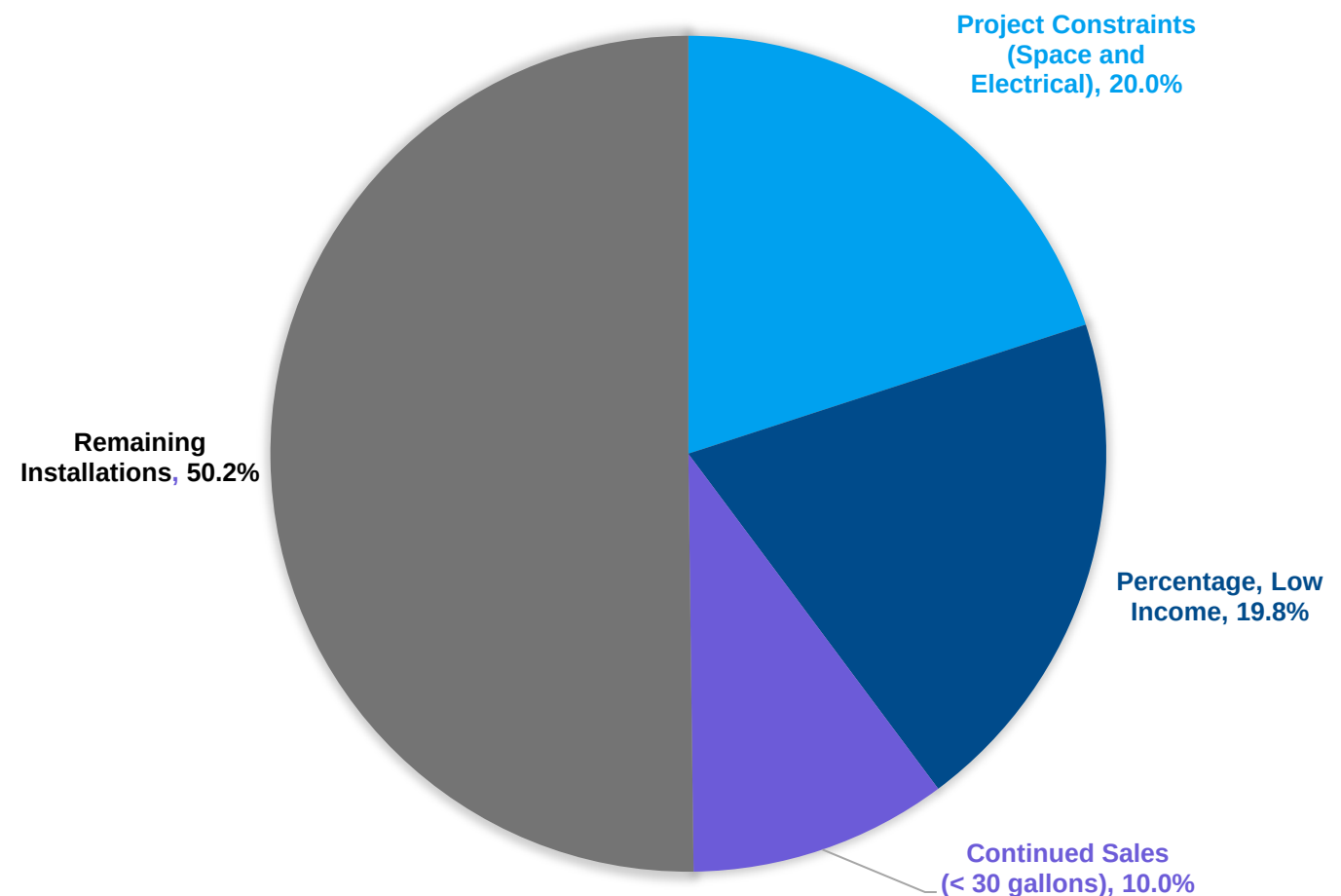
## Projected Percentage of Bay Area Households:

- 19.8%

# Total Estimated Exemptions

- Approximately 120,000 small water heaters turnover annually
- Staff estimate up to half of water heater installations would qualify for exemptions

ESTIMATED ANNUAL DISTRIBUTION OF EXEMPTION PATHWAYS



# Part III. Exemption Framework and Implementation Process



# Implementation Guiding Principles

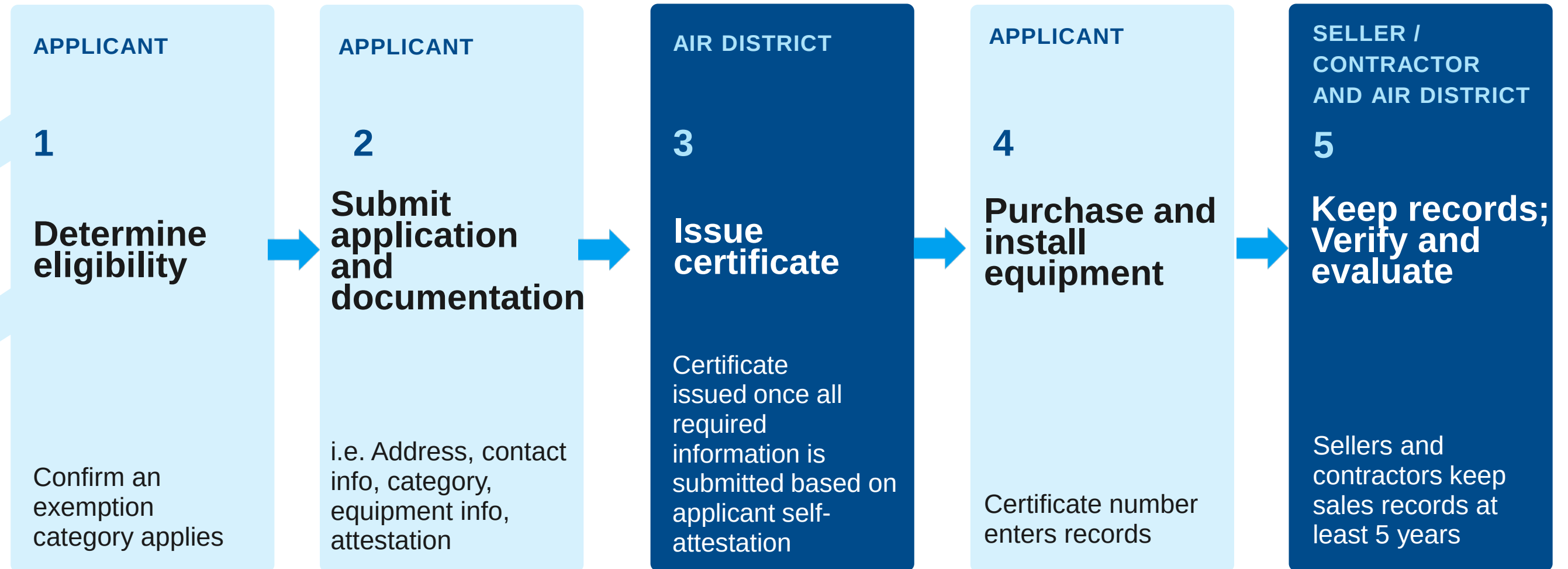
- **Simple:** Automated process with limited supporting documentation
- **Timely:** No delays in restoring hot water
- **Targeted:** For specific, identified barriers impacting installation, infrastructure and affordability



Source: istockphoto.com

**An administrative certification process through an online portal, not traditional permitting**

# Implementation Process



**Iterative:** APCO, with the Board, may adjust requirements in the future through a public process.

# Public Awareness Campaign Timeline

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*Multi-phase communications plan to educate and engage all audiences*

## **Phase I – Summer and Fall 2026**

- Develop clear, audience-specific messaging focused on benefits of switching to zero NOx appliances
- Conduct baseline awareness survey (April–June)
- Launch media, contractor, and social outreach

## **Phase II – Fall through early 2027 (post-Board action)**

- Launch local advertising campaign
- Expand outreach, including door-to-door, with clear timelines and calls to action

## **Phase III – 2027 and beyond**

- Continuation of advertising, public relations, stakeholder, and social media outreach

# Part IV. Environmental and Socioeconomic Impacts



# 2023 Socioeconomic Analysis

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- Full socioeconomic analysis was conducted for the 2023 amendments
  - Considered compliance costs for both water heaters (Rule 9-6) and space heaters (Rule 9-4)
  - Provided details on how affordable the regulations would be for low-income households and renters
  - Calculated impacts on the overall economy due to shifts in spending driven by the zero-NOx requirements

# 2026 Socioeconomic Impacts from Amended Rule

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- Full socioeconomic analysis of proposed amended Rule 9-6
- Updated costs of compliance for water heaters
- Updated regional economic metrics
- Provided updated details on how affordable the regulations would be for low-income households and renters
- Calculated impacts on the overall economy due to shifts in spending driven by costs to comply with the rule
- Assessed benefit of low-income exemptions by race/ethnicity and county

# Socioeconomic Impacts from Amended Rule

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- HPWH on average cost \$3,500 more to install than new gas units based on data from > 4,000 Bay Area installations
  - Average baseline cost (gas-to-gas replacement): \$3,575
  - Average upfront HPWH cost: \$7,071
  - Annual utility savings: \$40–\$50
  - Incremental cost estimate supported by analysis of datasets without potential incentive project selection bias
- Household net cost: \$33 per month for 13 years
- Regional net costs decline as more households receive ongoing utility savings

# Socioeconomic Impacts from Amended Rule

- Analysis concludes that the proposed amendments are not expected to result in significant socioeconomic impacts
- Under worst case assumptions, costs from the amended rule reduce employment by less than 0.02% in impacted sectors
- Proposed homeowner exemptions reduce estimated net annualized household compliance costs by \$97.9 million

| Bay Area household costs       | Annualized cost       |
|--------------------------------|-----------------------|
| Current Rule 9-6 requirements  | \$470.7 million       |
| With proposed exemptions       | \$372.8 million       |
| <b>Savings</b> from exemptions | <b>\$97.9 million</b> |

# CEQA Impact Analysis: Rule 9-6 Addendum

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The Addendum evaluates how the proposed amendments alter the analysis of the Rule's environmental impacts contained in the 2023 EIR.

- **Air Quality and GHGs:** *Beneficial impacts from emission reductions are delayed, with some potentially forgone due to exemptions.*
- **Utilities and Noise:** Adverse electrical infrastructure impacts are less than projected in 2023 EIR; noise impacts remain similar.
- **No new significant adverse impacts** or substantial worsening of significant impacts evaluated in 2023 EIR – no subsequent or supplemental EIR is required.

# Ongoing HPWH Incentives

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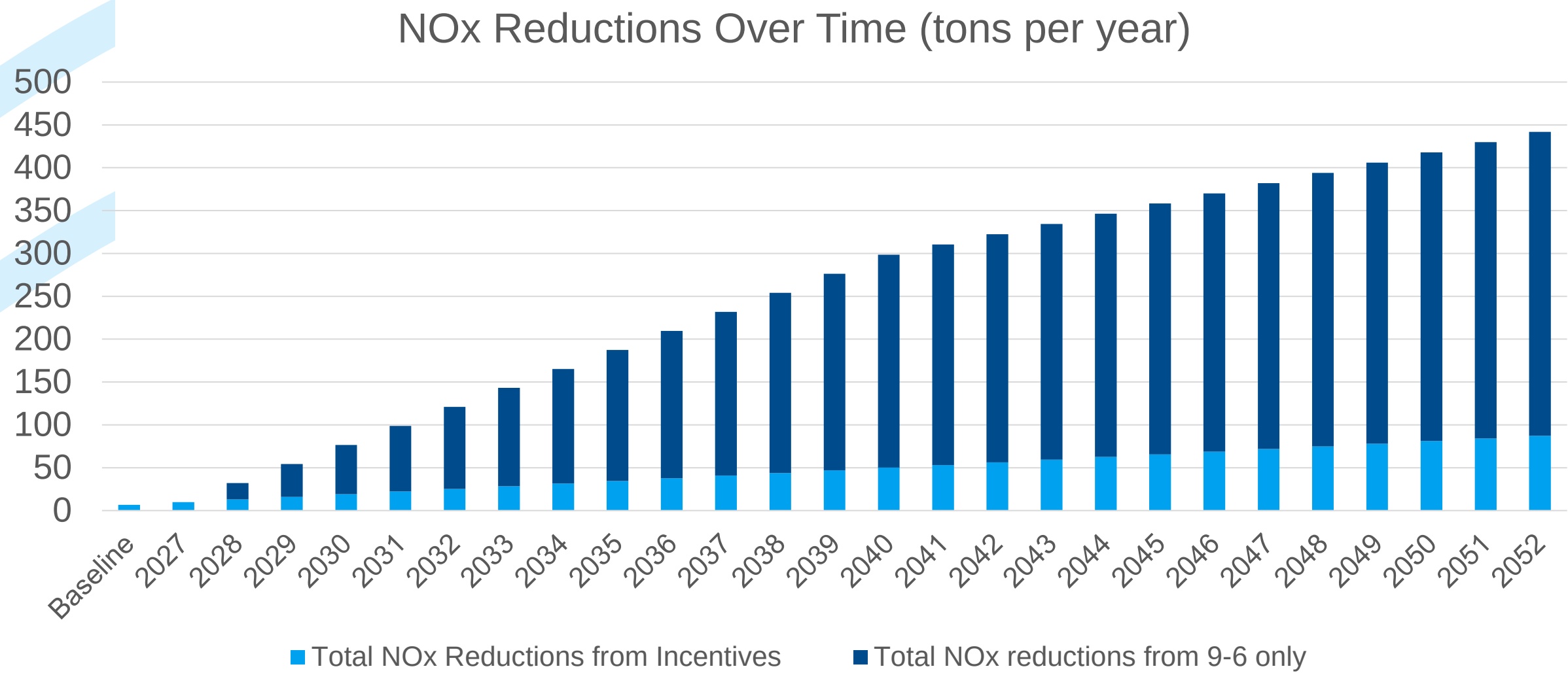
- In September and October 2026, staff requested full budgets for HPWH incentive programs from local administrators estimated for the next several years, if available
- The following organizations responded:
  - BayREN
  - CleanPower SF
  - MCE
  - Palo Alto Utility
  - PG&E
  - San Jose Clean Energy
  - Sonoma Clean Power
  - Silicon Valley Clean Energy (SVCE)
  - WestLight Energy (formerly PCE)

# Ongoing HPWH Incentives, cont.

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- Staff normalized funding amounts per year and for the Bay Area for organizations covering counties outside the Air District
- Most programs fund multiple measures (e.g., HPWH, HP HVAC, induction cooking, etc.)
  - Staff assumed 40% of these program funds are used for HPWHs
- Resulting annual total is \$16.8 M annually for HPWHs in the Bay Area
  - Staff assumed \$2,000 per HPWH = 8,400 replacements annually
  - Annual marginal NOx reductions of these replacements = 3 tons per year

# NOx Reductions from Incentives and 9-6



# Part V. **Public Comment**



# Public Comments Received

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- Note to public: This section of the presentation will be updated prior to the Board of Directors meeting with complete information based on comments received and common responses following the close of the public comment period.

# Rule Language Updates

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- Section 9-6-112: Statement regarding exemption not applying to new construction was the to header section of Section 9-6-112
  - Clarify that this exclusion of the exemption for new construction applies to all subsections of 9-6-112, including 9-6-112.3 for electrical exemptions
- Section 9-6-113.4: clarify that the non-profit mutual housing cooperative time-limited exemption applies to multiple organizational types
  - 501(c)(3) and 501(c)(12) organizations as well as other nonprofit stock cooperatives as defined by the Davis-Stirling Common-Interest Development Act and Civil Code Section 4190
- Section 9-6-115: Section 9-6-407 added to the list of sections from which wholesale sales are exempt
  - Clarify that wholesale sales do not need to meet the noticing requirement laid out in Section 9-6-407 as this section was intended to provide information to consumers in retail settings.

# Part VI. Resolution and Recommended Action



# Statutory Findings

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- Before adopting, amending, or repealing a rule, the Board of Directors must make the following findings based on the Health and Safety Code:
  - Necessity - Section 40727(b)(1)
  - Authority - Section 40727(b)(2)
  - Clarity - Section 40727(b)(3)
  - Consistency - Section 40727(b)(4)
  - Non-Duplication - Section 40727(b)(5)
  - Reference - Section 40727(b)(6)

# Additional Resolution Language

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Continued work with affordable housing providers to evaluate 2033 delay provided in proposed amendments:

- The Board of Directors directs Air District staff to **continue engagement with affordable housing providers and multifamily housing owners and operators**, including meetings with individual stakeholders and groups, as well as with stakeholder representatives regarding implementation of Rule 9-6.
- The Board of Directors directs Air District staff to evaluate and report to the Board of Directors **no later than December 31, 2030**, regarding the readiness of affordable housing and multifamily housing properties to comply with the requirements of Rule 9-6. The evaluation and report shall include **assessment of infrastructure readiness associated with rule compliance, costs of compliance including consideration of available subsidies and financing options, cost recovery information associated with utility allowance schedules; and impacts on the availability of affordable housing.**

# Recommended Action

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Adopt the Resolution, which includes:

- Proposed Amendments to Regulation 9, Rule 6; and
- Findings of necessity, authority, clarity, consistency, non-duplication, and reference