AGENDA: 29

Bay Area Air District

Staff Response to Community Advisory Council's Compliance and Enforcement Recommendations

Board of Directors Meeting

December 2, 2026

Dr. Meredith Bauer, Principal Deputy Executive Officer

Latasha Washington, Community Advisory Council Co-Chair

Recommended Action

The Board will discuss this item, but no action is requested at this time.

Presentation Outline

- Recap of the Community Advisory Council's (CAC) Compliance and Enforcement recommendations
- How our Strategic Plan advances each recommendation
  - Showcase current actions on the Air District’s complaint system
- Next Steps

Recap of April 2026 CAC Recommendations

1. Implement a customer-centered complaint process that provides clear communication, feedback, and closure to complainants
2. Adopt and implement rules that can be enforced more consistently and effectively
3. Evaluate opportunities to incorporate modern technology for real-time evidence collection where legally and operationally appropriate
4. Improve public access to permitting and exemption information for facilities under Air District jurisdiction by publishing facility permits and exemptions online through a community-facing dashboard

Recap of April 2026 CAC Recommendations (cont.)

5. Revise permitting regulations to incorporate stronger safeguards for fenceline communities by ensuring that permit and exemption determinations are based on verified equipment capacity data and enforceable operational limits
6. Partner with overburdened communities to co-develop a “Top Community Concerns” list, by county, that combines community feedback with agency data such as complaints, inspections, emissions, health indicators, and facility operations to identify recurring air quality issues and guide proactive enforcement
7. Institutionalize the CAC’s case-study approach as a structured framework for learning, transparency, and ongoing program improvement across Air District programs, applying it to permitting in 2026

Alignment with the Strategic Plan

CAC Recommendation	Main Strategy	Also
1. Complaint Process	**2.5** Air Quality Complaints	2.3, 4.5, 2.10
2. Enforceable Rules	**1.2** Stronger Regulations	4.3, 4.10, 1.3
3. Evidence Collection	**4.8** Air Quality Incidents	2.7, 2.2, 1.3
4. Transparent Permitting	**4.2** Transparent Permit Process	2.3
5. Permit Safeguards	**1.2** Stronger Regulations	4.1, 4.3, 2.11
6. Community Concerns	**4.5** Improve Compliance Investigations	2.6, 1.1, 1.5, 1.6
7. Case-Study Learning	**4.10** Ensure Success	4.1

Every recommendation fits strategies the Board adopted in the *2024–2029 Strategic Plan*.

Community Advisory Council's A Call to Action

The Community Advisory Council's Environmental Justice Priorities:

1. Advance Environmental Justice
2. Provide Meaningful Agency Support to Advance Environmental Justice
3. Integrate Environmental Justice Considerations in Core Functions
4. Implement Environmental Justice Best Practices and Innovation
5. Communicate with Clarity, Transparency, and Integrity
6. Grow Capacity of Air District Staff and Board Members to Integrate Environmental Justice
7. Grow Capacity of Environmental Justice Communities and Organizations
8. Seek Appropriate Legal Remedies and Coordinate with Environmental Justice Communities
9. Provide Technical Assistance to Local Governments

Recommendation 1: Complaint Process

CAC Recommendation

Implement a customer-centered complaint process that provides clear communication, feedback, and closure to complainants

Where it fits in the *2024–2029 Strategic Plan*

- **2.5** Air Quality Complaints
- **2.3** Make Data Accessible
- **4.5** Improve Compliance Investigations
- **2.10** Civil Rights Laws

Recommendation 1: Actions in Progress

2.03.03 Mobile-friendly complaint intake with photo, video and location capture; live by March 2027; developed with input from CAC members

2.03.03 Open Air app shows complaints and their outcomes by neighborhood and facility; release in summer 2027; developed with input from CAC members

2.05.02 Complaint program questionnaire and follow-up reports to complainants; developed with the Environmental Justice team and the CAC

4.05.01 Weekend enforcement patrols in Assembly (AB) 617 communities, scheduled from facility rankings that use complaint history, community referrals, enforcement history and emissions

2.10.02 Improved language accessibility to intake mobile complaints in multiple languages

Use My Location on Complaint Intake

Confirm the Location

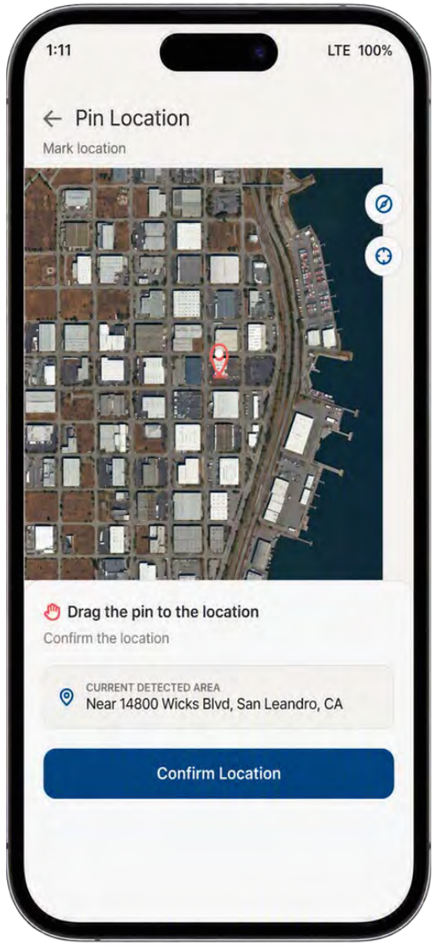
Drag the pin to the concern location, verify the detected address, and select Confirm Location.

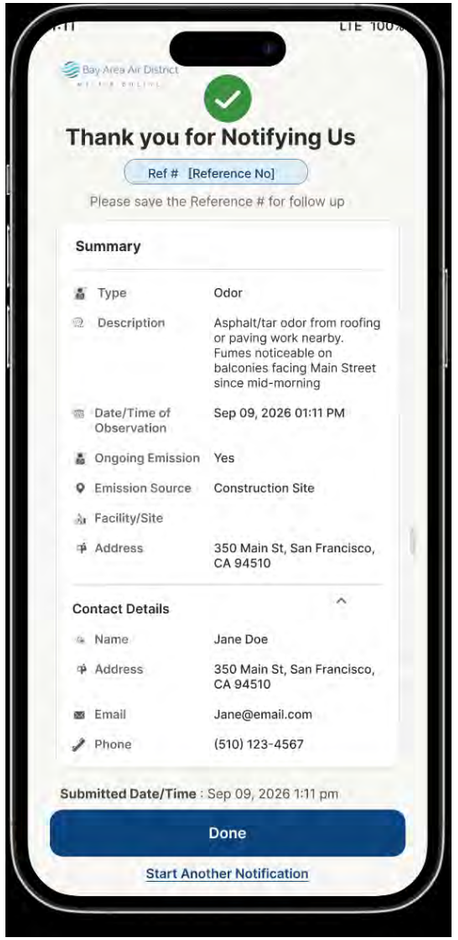
Submit

Review the complaint summary for accuracy and keep the reference number for follow-up.

Follow-Up

An Air Quality Inspector may contact if contact details are provided.





CPM: Part of the unique reference number for Air Quality Complaints

Download Complaint Information

Lasso Tool

Click the Lasso button ( )

Next Step

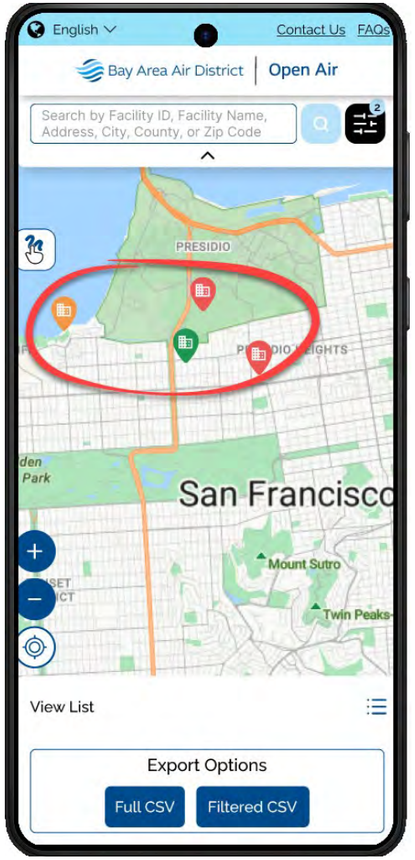
Outline an area on the map

Download

Download a list of facilities, complaints and more



CSV: Comma-separate value files allow to export of a table of data



Strategies 1.2, 4.3, 4.10, 1.3

Recommendation 2: Enforceable Rules

CAC Recommendation

Adopt and implement rules that can be enforced more consistently and effectively

Where it fits in the *2024–2029 Strategic Plan*

- **1.2** Stronger Regulations
- **4.3** Consistent Permits
- **4.10** Ensure Success
- **1.3** Minimize Flaring

Recommendation 2: Actions in Progress

4.03.01 Permitting and enforcement staff formally review each rule while it is being written, so requirements are clear and enforceable; procedure in place by March 2027

4.10.01 Every new or amended rule launches with an implementation plan; Rule 12-17 (refinery fenceline monitoring) is a pilot

1.03.01 Flaring rule amendments (Rules 12-11 and 12-12) developed with stakeholders; draft amendments by mid-2027

1.02.01 Rule 11-18 amendments adopted; fugitive dust amendments underway with simpler monitoring methods for operators, inspectors and community observers

1.02.03 A regulatory review program to set rulemaking priorities, with a process for working with the CAC

Recommendation 3: Evidence Collection

CAC Recommendation

Evaluate opportunities to incorporate modern technology for real-time evidence collection where legally and operationally appropriate

Where it fits in the *2024–2029 Strategic Plan*

- **4.8** Air Quality Incidents
- **2.7** Understand Local Air Pollution
- **2.2** Collect Community Data
- **1.3** Minimize Flaring

Recommendation 3: Actions in Progress

4.08.03 Particle fallout sampling near refineries, with trained community volunteers collecting incident samples for lab analysis

2.07.02 Using fenceline, community, mobile and other available air monitoring data to guide compliance investigations

2.07.04 Air monitoring van studies in overburdened communities, at locations chosen jointly by community members and staff

1.03.04 Monitoring data built into refinery flaring investigations, with findings shared with the public; installed and commissioned Flare.IQ automated flare control at one refinery, and real-time emissions monitors at multiple facilities

Recommendation 4: Transparent Permitting

CAC Recommendation

Improve public access to permitting and exemption information for facilities under Air District jurisdiction by publishing facility permits and exemptions online through a community-facing dashboard

Where it fits in the *2024–2029 Strategic Plan*

4.2 Transparent Permit Process

2.3 Make Data Accessible

Recommendation 4: Actions in Progress

2.03.03 and 4.02.02 Open Air app shows facility permits by neighborhood and facility; release in summer 2027; developed with input from CAC members

- Open Air permit layer: look up a facility's permits, permit application status and refinery fenceline data, and see when to comment
- Permits to Operate in Open Air include their conditions, including exemptions for individual sources at permitted facilities

4.02.03 Permitting notices, templates and web content rewritten in plain language

Recommendation 5: Permit Safeguards

CAC Recommendation

Revise permitting regulations to incorporate stronger safeguards for fenceline communities by ensuring that permit and exemption determinations are based on verified equipment capacity data and enforceable operational limits

Where it fits in the *2024–2029 Strategic Plan*

- **1.2** Stronger Regulations
- **4.1** Timely Permits
- **4.3** Consistent Permits
- **2.11** Cumulative Health Impacts

Recommendation 5: Actions in Progress

4.01.01 and 4.03.02 Permit rule amendments (Regulations 2-1, 2-2 and 2-5) are underway to reduce ambiguity and inconsistency

1.02.01 Changes that need source-specific emissions studies will move through rule development

4.03.02 Updates to the Permit Handbook and Best Available Control Technology (BACT) Workbook help create consistent, enforceable permit conditions for similar operations, including enforceable limits for exempted equipment

2.11.02 Incorporation of cumulative impacts in permitting, building on recommendations developed with the CAC

Strategies 4.5, 2.6, 1.1, 1.5, 1.6

Recommendation 6: Community Concerns

CAC Recommendation

Partner with overburdened communities to co-develop a “Top Community Concerns” list, by county, that combines community feedback with agency data such as complaints, inspections, emissions, health indicators, and facility operations to identify recurring air quality issues and guide proactive enforcement

Where it fits in the *2024–2029 Strategic Plan*

- **4.5** Improve Compliance Investigations
- **2.6** Talk with Communities
- **1.1** Change Approach to Air Quality
- **1.5** Enhance Violation Investigations
- **1.6** New Enforcement Policy

Strategies 4.5, 2.6, 1.1, 1.5, 1.6

Recommendation 6: Actions in Progress

4.05.01 Inspections in AB 617 communities scheduled from facility rankings that use complaint history, community referrals, enforcement history and emissions

2.06.01 Community Meetings designed to share enforcement information and hear concerns, including outside AB 617 areas, building toward county-level priorities

1.01.02 Community concerns inform the new Clean Air Plan, sharing input and data so outreach is not duplicated

1.06.01 The draft enforcement policy brings a harm reduction approach to enforcement

Our approach Start with AB 617 steering committees and community emission reduction plans, then expand to other communities as capacity grows

Recommendation 7: Case-Study Learning

CAC Recommendation

Institutionalize the CAC's case-study approach as a structured framework for learning, transparency, and ongoing program improvement across Air District programs, applying it to permitting in 2026

Where it fits in the *2024–2029 Strategic Plan*

4.10 Ensure Success

4.1 Timely Permits

Recommendation 7: Actions in Progress

What we did: A cross-Agency deep dive with Air District staff and CAC members on a specific enforcement challenge

What we learned: Specific ways to strengthen our Dust Rules (Regulations 6.1 and 6.6), our complaint program, and our permit exemption process

Why it worked: Focusing on a specific enforcement challenge produced concrete actions and a common understanding of where effective improvements could be made

4.10.01 and 4.10.03 Apply best operating practices to Agency efforts; conduct an organizational assessment for Engineering and Compliance

4.01.02 The permitting taskforce, which includes a CAC member, identify specific permitting issues and act on what they find

Our approach Work with the CAC to apply best principles for collective learning that can create broad Agency improvement

Next Steps

- Continue expeditious implementation of the Strategic Plan
- Work with the CAC to define an effective case-study approach
- Report progress to the Board and CAC in the annual strategic plan report

Recommended Action

The Board will discuss this item, but no action is requested at this time.

Questions & Discussion

For more information:

Dr. Meredith Bauer | Principal Deputy Executive Officer | mbauer@baaqmd.gov

AGENDA: 30

Bay Area Air District

New Legal Enforcement Policy

Board of Directors Meeting

December 2, 2026

Alexander “Sandy” Crockett
General Counsel

Abbreviations

AB 617: Assembly Bill 617

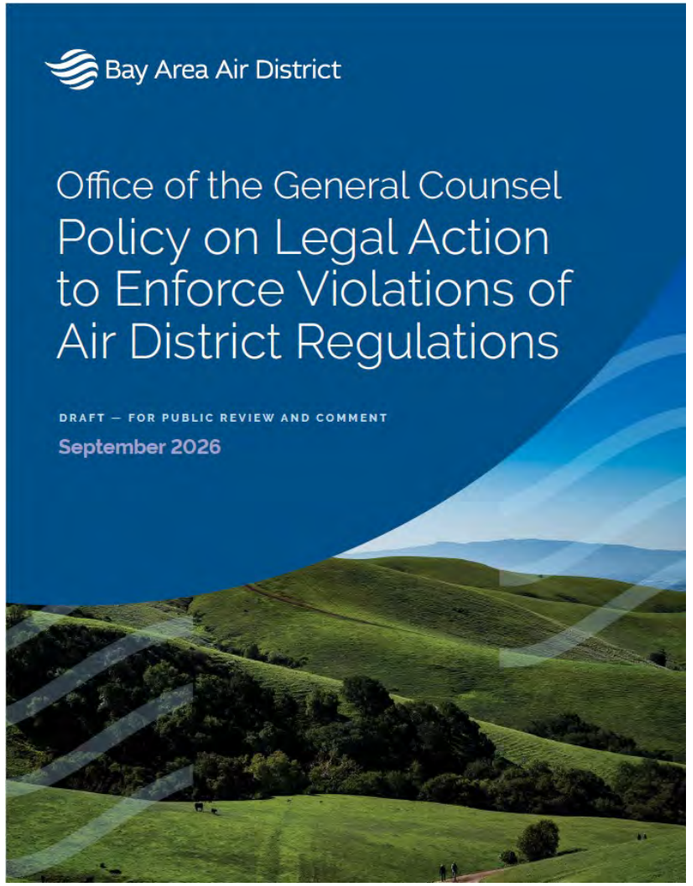
NOV: Notice of Violation

Recommended Action

Discussion item; no Board action required

Presentation Outline

- Background
- Legal Enforcement Policy Principles
- Policy Topics
  - Penalties
  - Addressing Ongoing Non-Compliance
  - Other Topics
- Legal Enforcement Accountability
- Next Steps

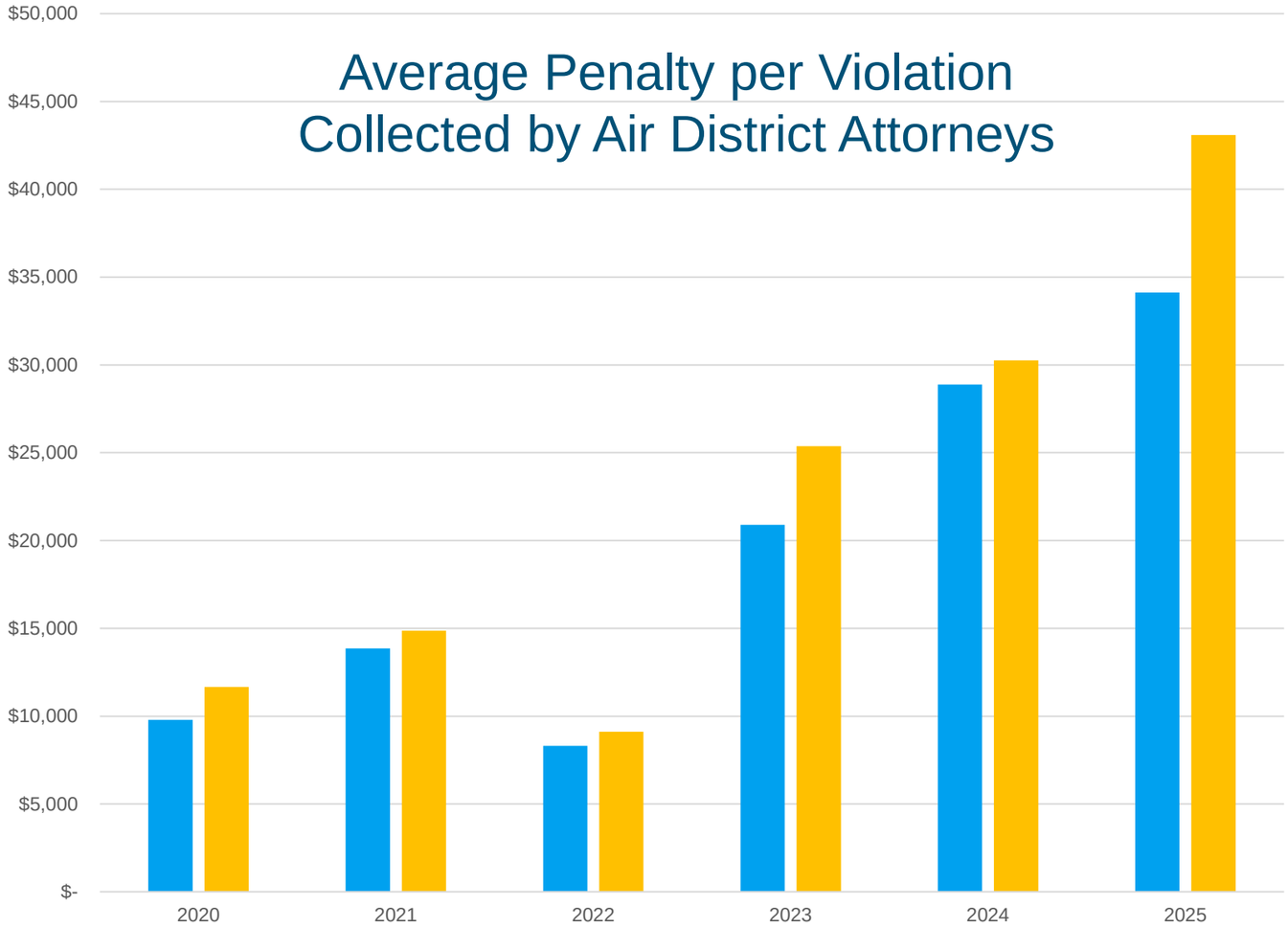


Background

- Historical Concerns About Legal Enforcement
  - Ineffective enforcement outcomes
  - Low penalties
  - Community criticism
- Current Management Implementing Changes
  - Increased penalties
  - Partnering with other enforcement agencies
  - Addressing backlog of older cases
- Recent Commitments re Legal Enforcement
  - Strategic Plan Strategy 1.6 (New Enforcement Policy)
  - Path to Clean Air Plan Actions FR 3.6 & 3.8



Recent Progress – Average Penalties



All attorney cases

"Major" Facilities (~75 largest-emitting facilities)

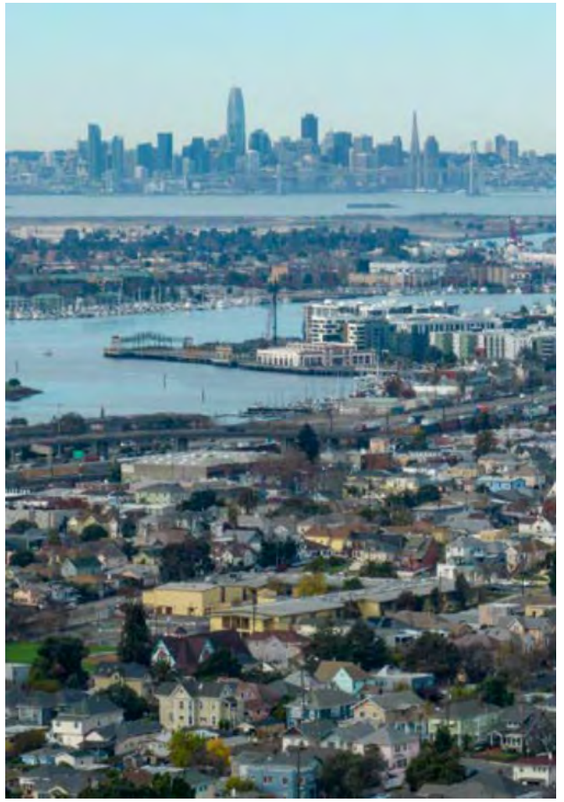
2024 average excludes $82 million Valero penalty

With Valero, 2024 average is $105,000 per violation

Enforcement Policy Development Process

- Small Working Group Developed Initial Draft
  - Air District Legal and Enforcement Staff
  - Representatives from the Community Advisory Council and AB 617 Steering Committees
- Public Comment Process for Draft Policy

Date	Milestone
October 13, 2026	Draft Legal Enforcement Policy published
November 16, 2026	Public Workshop
November 19, 2026	CAC Presentation & Discussion
November 30, 2026	Public Comment Deadline
Today → December 3, 2026	Board of Directors Presentation
December 2026	Finalize Policy based on comments received



Policy Principles

- Provide **transparency** into the legal enforcement process, without undermining the confidentiality of ongoing cases
- Use legal authorities effectively to **hold violators accountable** and **protect public health**, especially in the most vulnerable communities
- Pursue effective and tailored enforcement outcomes to **deter future violations** and to **reduce and reverse the harms** resulting from a legacy of inequitable public and private development decisions
- Use litigation tools and resources strategically where they can have the greatest **impact on changing behavior** in overburdened communities saddled with widespread non-compliance

Penalties for Air Quality Violations

- Penalties are Key to Effective Deterrence
- Penalty Assessment Governed by Statute
  - Judges Required to Apply Statutory Process in Court
  - Air District Required to do so in Settlements
- Two-Step Process to Determine Penalty
  - Step 1: Determine **Maximum Penalty**
  - Step 2: Apply **Penalty Adjustment Factors**



Penalty Step 1: Determine Maximum

Statutes provide penalty maximum (per violation, per day) based on:

- Whether violation was administrative or involved emissions
- Whether violation was negligent/intentional

Maximum Penalty Levels Authorized by Statute (2026)

	Violator Proves No Intent/Negligence	No Evidence of Negligence/ Intentional	Negligence	Known Emissions, Failed to Correct	Willful & Intentional
No Emissions	$6,470	$12,940	$12,940	-	$12,940
Emissions – Minor Facility	$6,470	$12,940	$32,350	$51,760	$97,050
Emissions – Major Facility	$38,820	$38,820	$97,050	$155,280	$291,150

Penalty Step 2: Apply Adjustment Factors

Assess appropriate penalty within the statutory range based on:

- The **extent of harm** caused by the violation
- The **nature** and **persistence** of the violation
- The **length of time** over which the violation occurs
- The **frequency of past violations**
- The **record of maintenance**
- The **unproven** or **innovative** nature of the **control equipment**
- Any **action** taken **to mitigate** the violation
- The **financial burden** to the defendant
- Any other relevant circumstances

Important Penalty Assessment Principles

- Apply a “Top-Down” Approach to Penalty Valuations
  - Presumption that the Statutory Maximum Penalty is Appropriate
- Center Community Harm and Cumulative Impacts
- Remove Any Economic Benefit From Non-Compliance



Addressing Ongoing Non-Compliance

- All Violations Must Be Brought Back Into Compliance
- Air District Will Take Legal Action If Violator Does Not Proactively Take Steps to Come Into Compliance
- Prioritize Cases Based On:
  - Extent of Harm to the Public
  - Impacts in Overburdened Communities
  - Violator’s Willingness to Comply
  - Anticipated Length of Time Out of Compliance
  - Likelihood of Success in Obtaining Injunctive Order

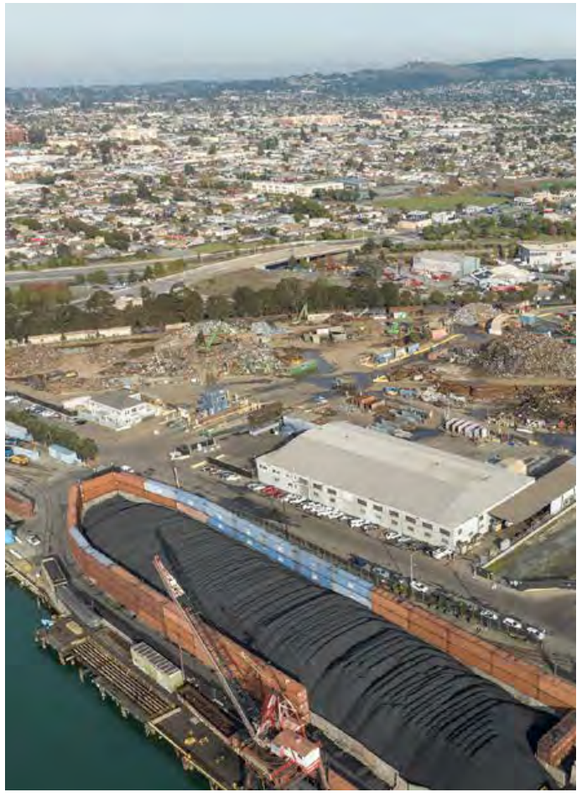
Other Notable Policy Topics

- Creative Use of Settlement Agreements as Alternative to Litigation
- Reinvesting Penalty Funds Back Into Affected Communities
- Partnering with Other Enforcement Agencies
- Small Claims Court Enforcement for More Minor Violations



Accountability to Communities & Board of Directors

- Annual Legal Enforcement Report
  - Penalties Collected
  - Case Resolution Rates
  - Sub-Metrics for AB 617/Overburdened Communities
  - Summaries of Significant Cases
- Outreach to Affected Communities



Reporting Metrics

Annual Reporting Metrics

- # of NOVs Issued
- # of NOVs Resolved with Penalty
- # of NOVs Resolved by Attorneys
- # of NOVs Resolved by Mutual Settlement Program
- # of NOVs Resolved as "No Further Action"
- # of NOVs Canceled
- Average Penalty per Violation Resolved
- Median Penalty per Violation Resolved
- Average Penalty per Violation Resolved by Attorneys
- Average Penalty per Violation Resolved by Attorneys at Major Facilities
- Average Penalty per Violation Resolved by Mutual Settlement Program
- Median Penalty per Violation Resolved by Attorneys
- Median Penalty per Violation Resolved by Attorneys at Major Facilities
- Median Penalty per Violation Resolved by Mutual Settlement Program

Recommended Action

Discussion item; no Board action required

Questions & Discussion

For more information:

Alexander “Sandy” Crockett | General Counsel | acrockett@baaqmd.gov

AGENDA: 31

Bay Area Air District

Readiness Update: Rule 9-4 Zero NOx Furnaces

Board of Directors Meeting

December 2, 2026

Gregory H. Nudd
Deputy Executive Officer
Policy

Abbreviations

AC: air conditioning

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

CARB: California Air Resources Board

CEC: California Energy Commission

EV: electric vehicle

HP: Heat pump

HVAC: Heating, ventilation and air conditioning

IWG: Implementation working group

MF: Multifamily

NOx: Nitrogen Oxides

PG&E: Pacific Gas and Electric

$PM_{2.5}$: Fine particulate matter

SF: Single-family

Recommended Action

None, this item is informational only.

Presentation Outline

I. Background, Purpose and Scope

II. Findings

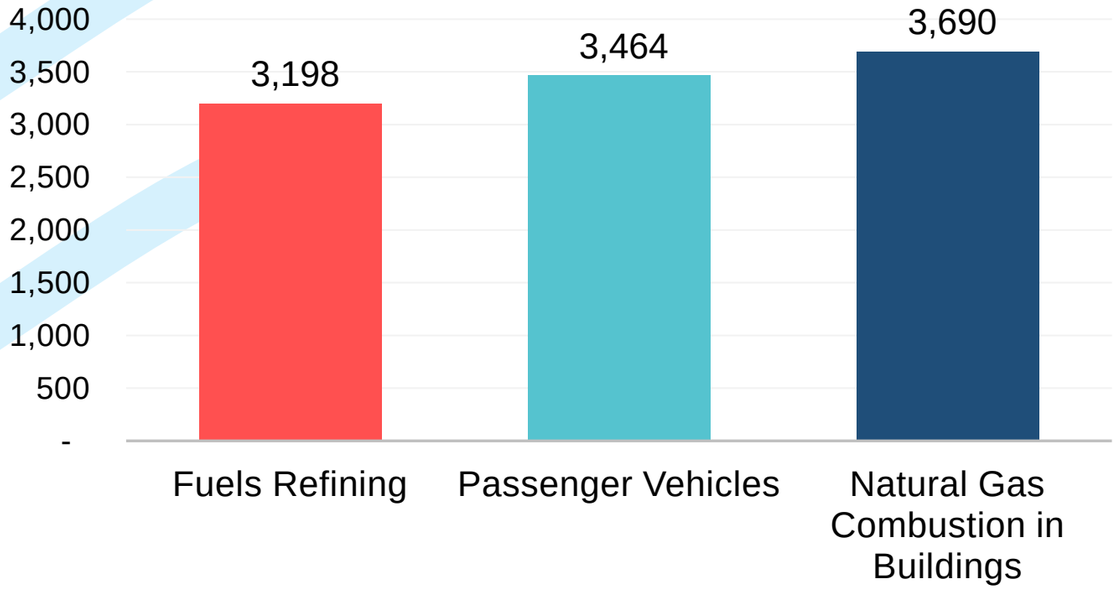
- Market development
- Costs
- Challenges, Tenant Considerations
- Temporary Heating Loss

III. Next Steps

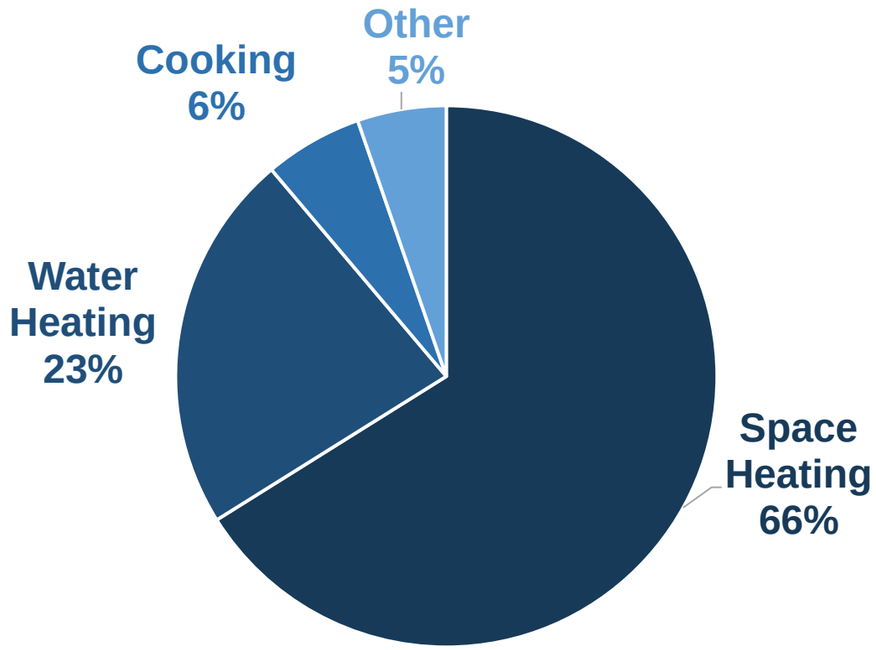
Bay Area Air District

I. Background, Purpose and Scope

Residential Appliance Emissions



2019 Air District NOx Emissions (tons)



2019 Air District Residential Natural Gas Combustion NOx Emissions

Rules 9-4 and 9-6 “Building Appliance Rules”

- **Regulation 9, Rule 4:** Nitrogen Oxides from Fan Type Residential Central Furnaces
- **Regulation 9, Rule 6:** Nitrogen Oxides from Natural Gas-Fired Boilers and Water Heaters
- **Zero NOx amendments** adopted on March 15, 2023, with future implementation dates

1/1/2027	Water heaters less than 75,000 BTU/hr*
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/hr

* This compliance date was changed to January 1, 2028, at the November 4 Board Hearing

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 NOx and $PM_{2.5}$ from venting



Lower pollution means lower exposure to fine particles ($PM_{2.5}$).

Cleaner Bay Area communities

Biggest $PM_{2.5}$ reductions in communities of color and overburdened neighborhoods



Reducing $PM_{2.5}$ and NOx 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



Purpose and Scope of Informational Update

- 2023 amendments to Rule 9-4 requires informational updates two years prior to each compliance date
- This update focuses on the January 2029 zero NOx compliance deadline for furnaces
  - Heating capacity threshold of <175,000 btu/hr
  - Typically found in residential and smaller commercial settings

Implementation Working Group (IWG) Phase 2 Furnaces

38 members

- Environmental Justice and Community-Based Organizations
- Subject Matter Experts on Energy, Buildings, and Technology
- Regional/Local Government and State Agencies
- Installers, Labor and Trade Organizations
- Affordable Housing Providers and MF Building Owners
- Utilities and Community Choice Aggregators

9 Meetings

3 Small residential Subcommittee

3 Large Multifamily and Non-residential Subcommittee

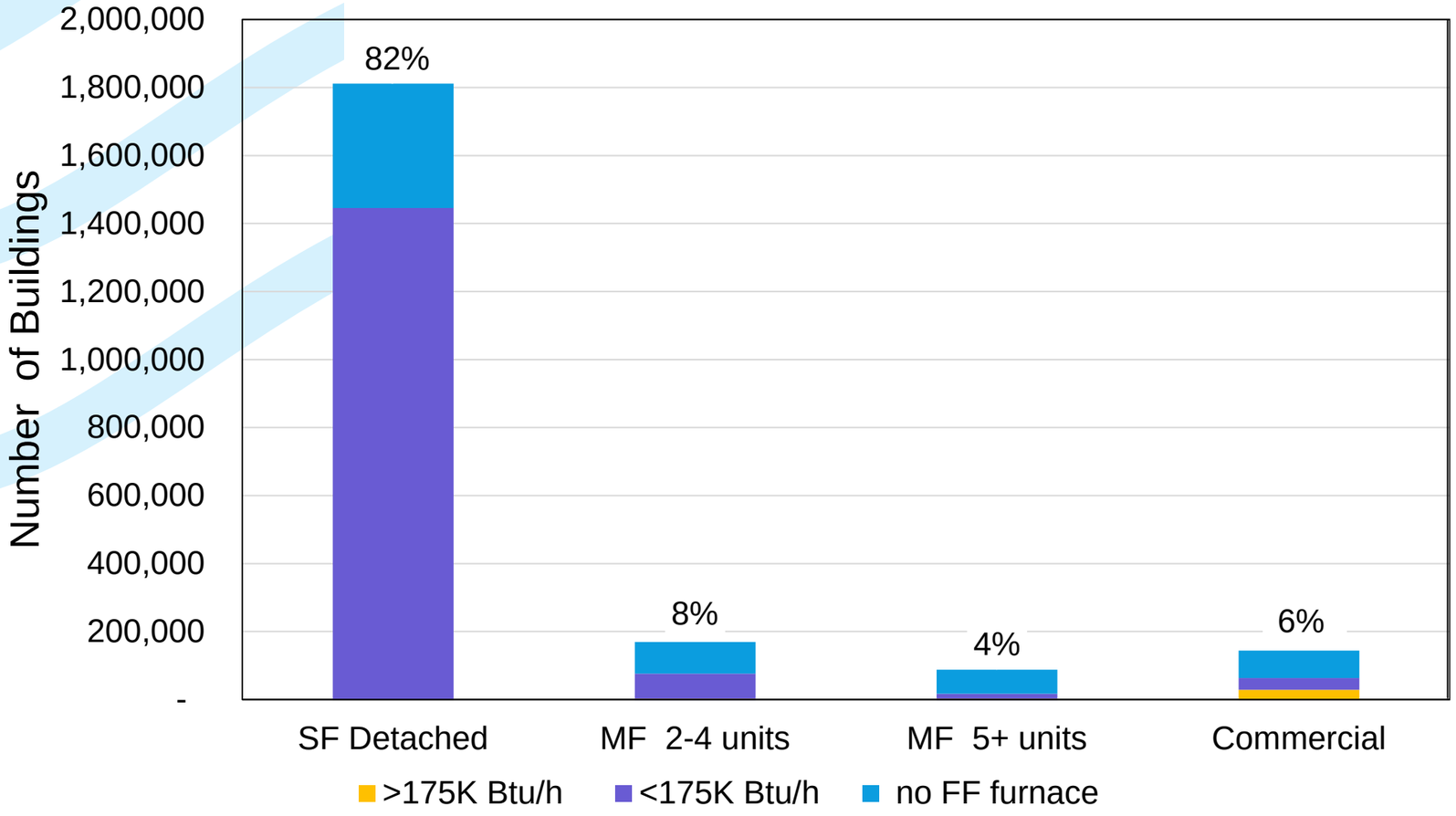
3 General Public IWG

- Research: covered a range of topics of interest to the public

Bay Area Air District

II. Findings:
Market Development

Total Buildings Likely Subject to Rule 9-4



- Total number of buildings:
  2.21 million
- Number with small fossil fuel (FF) furnaces:
  1.57 million

Data compiled by Arup from ResStock and ComStock

What Is Heat Pump Heating Ventilation and Air Conditioning?



Graphic from arcticac.com

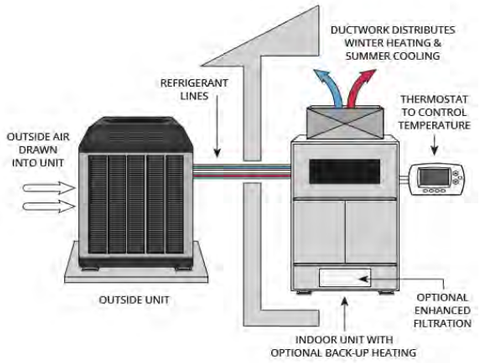
HP HVAC is an **all-electric system** that ***moves* heat** instead of burning fuel to create it

- Pulls heat from outside air to warm the home in winter
- Reverses in summer for cooling
- Similar to refrigerators and air conditioning

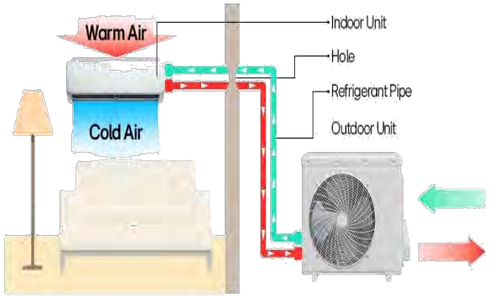
3-4x more efficient than gas furnaces

Types of Residential HP HVAC

- **Ducted** uses ductwork (tubes transporting conditioned air)
  - **Ductless**: does not use ductwork
- **Packaged**: condensing unit and air handler are in *one cabinet*
  - **Split:** *separate* outdoor condensing unit and indoor air handler
- **Mini-split**: room-by-room zoning
- …and more



Ducted Central Split Systems



Ductless Mini-Split Systems



Ducted Packaged Systems



Ducted Mini-Split Systems

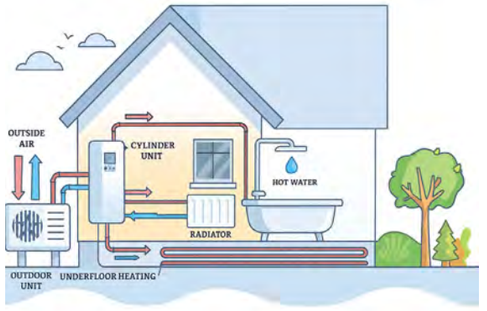
Information collected and presented by Rincon for the IWG

More HP HVACs: Emerging Technologies

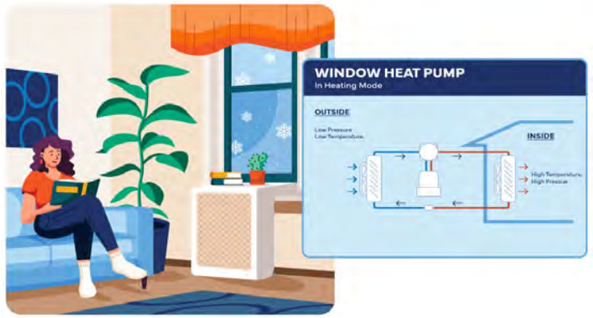
- **Wall mounted**: packaged unit, requires wall penetration
- **Window mounted**: packaged unit placed in existing window
- **Air-to-water**: can provide both space and water heating and replace hydronic system
- **Portable**: can be moved room to room, plugs into wall outlet



Wall-Mounted Systems



Air-to-Water Systems



Window-Mounted Systems



Portable Systems

Information collected and presented by Rincon for the IWG

Policies Moving the HP HVAC Market

Building Code Updates

- California Title 24 now requires space conditioning replacements be HP HVAC for retail, schools, libraries, offices
- 21 Local jurisdictions have various building codes encouraging or requiring HP HVAC (e.g. “AC to Heat Pump” “Electric Readiness”)

CARB Clean Space and Water Heater Standards

- Proposed sales targets that limits sales combined with a credit system with potential start date in 2030

National HP HVAC Sales Surpass Gas Furnaces

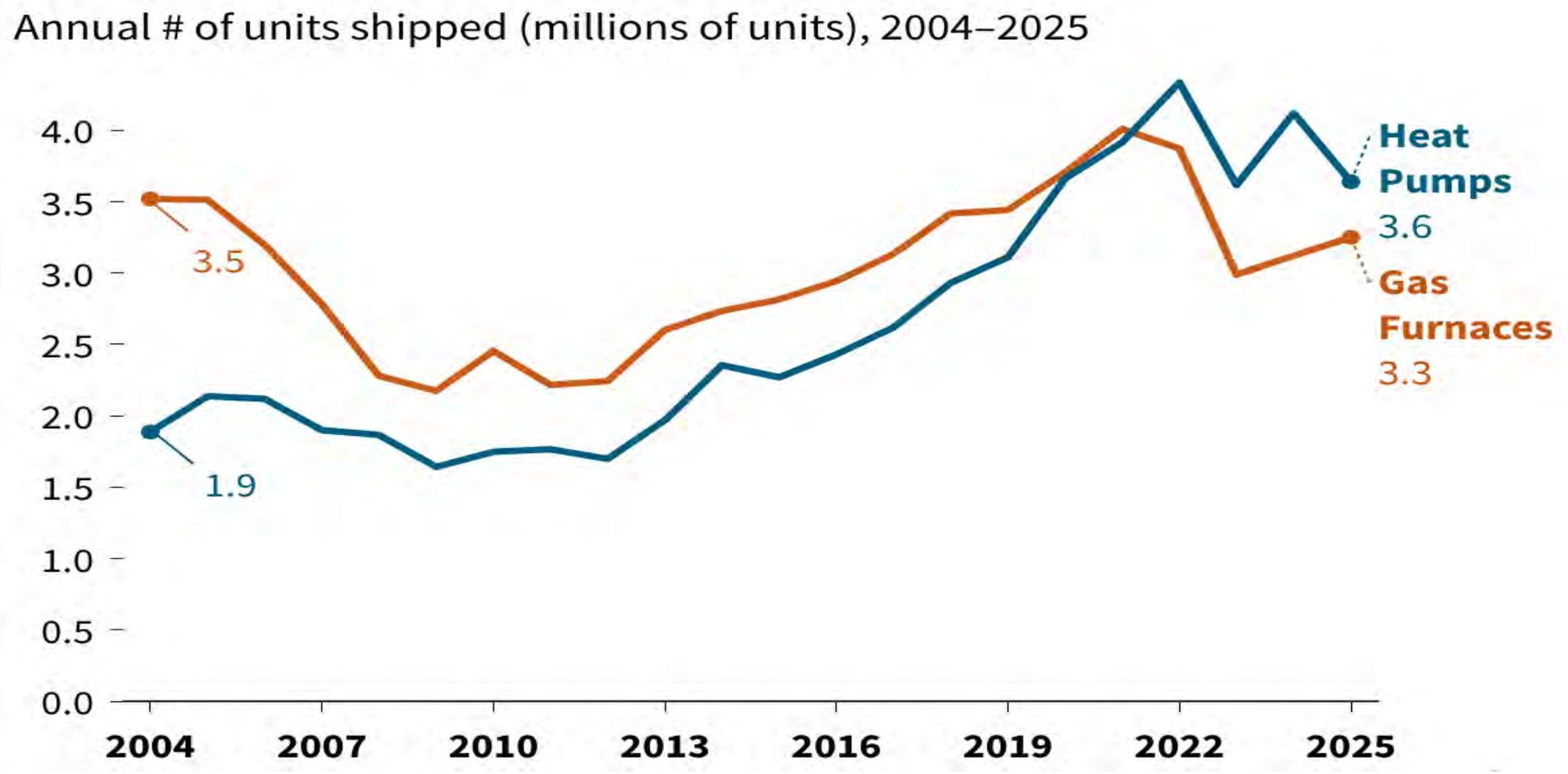


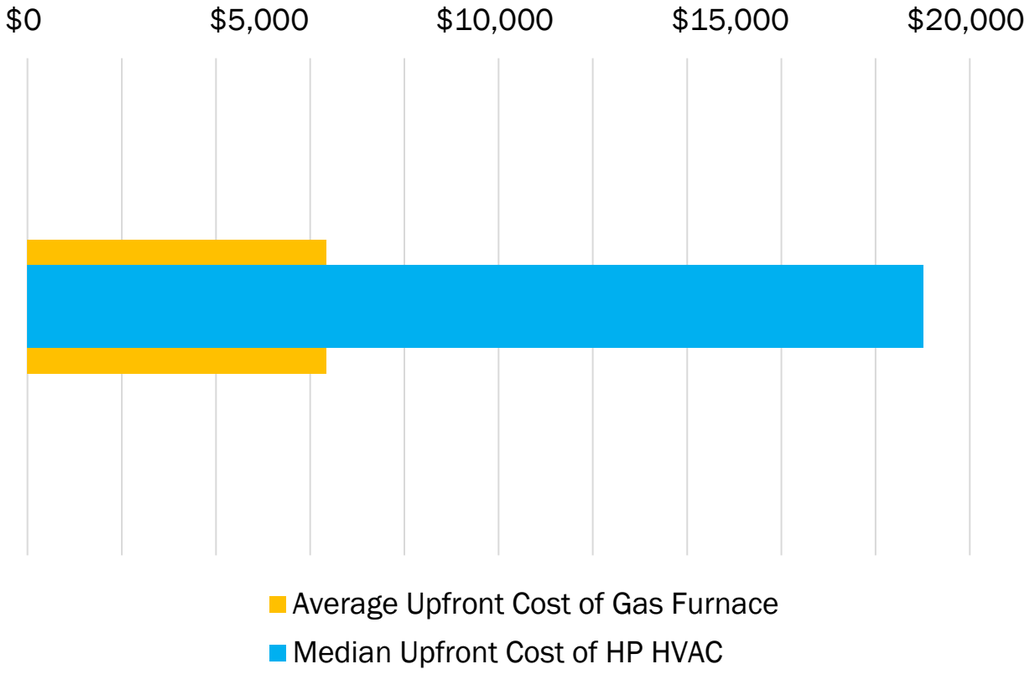
Chart from Rocky Mountain Institute

Bay Area Air District

II. Findings: Typical Costs

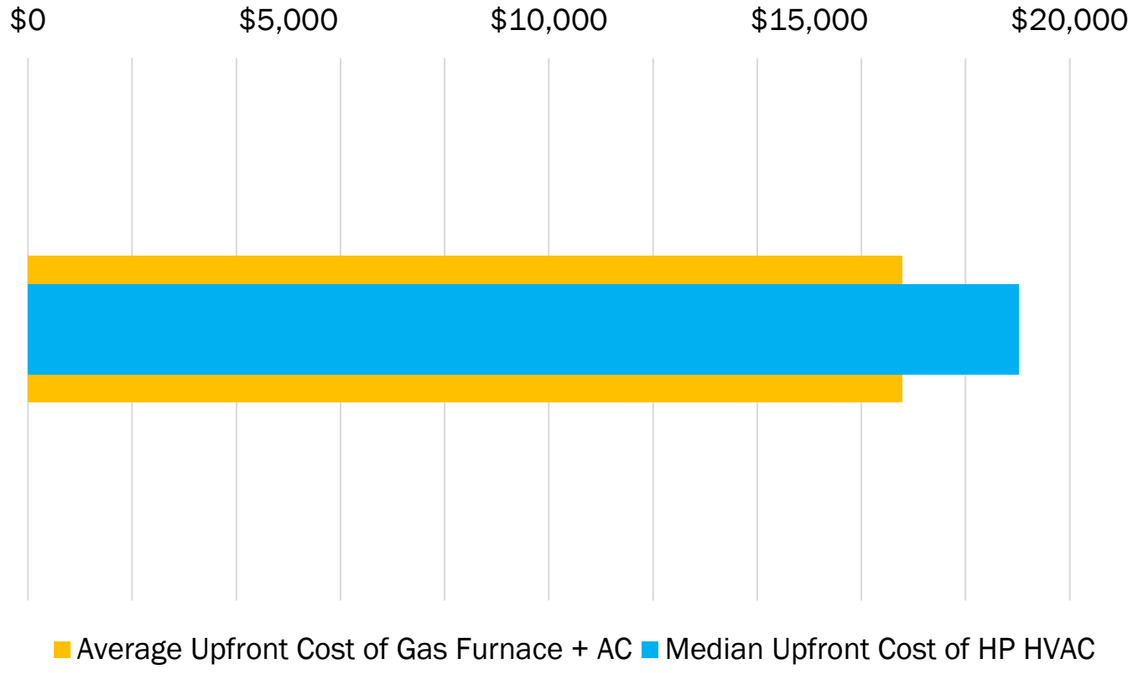
Single-family HP HVAC Incremental Costs

Gas Furnace Only (no new AC)



Incremental Cost: $12,666

Gas Furnace and new AC



Incremental Cost: $2,235

Information collected and presented by Rincon for the IWG

Multifamily HP HVAC Upfront Costs

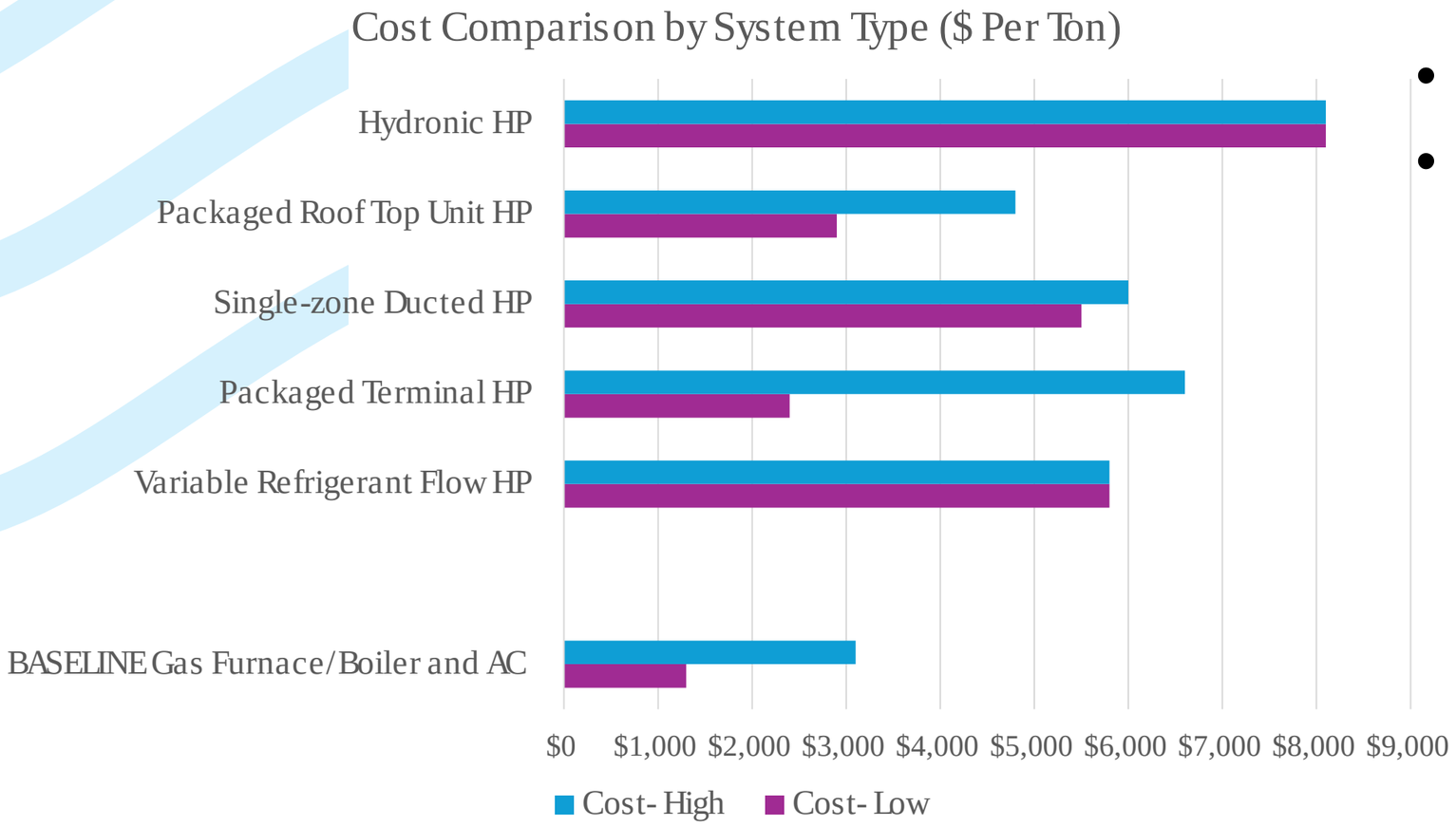
Replacement projects

- Median Ductless: $6,469
- Median Ducted: $11,076
  - Costs are from incentive program projects that are likely multi-unit or whole building projects
  - This type of project offers economy of scale but is unusual for MF building projects not receiving incentives

Emerging alternative: **Electrification readiness**

- Proactive, phased work on multiple units (e.g. pre-wiring) allows a future HP HVAC to be “drop-in” ready
- Pilots show cost savings compared to single appliance replacements
- Further data upcoming from CEC’s $494 million Equitable Building Decarbonization program

Commercial HP HVAC Costs



- Real world data are lacking
- Costs vary depending on the source, estimating tool and HP system type

Information collected and presented by NBI for the IWG

Offsetting Upfront HVAC HP Costs: Funding and Financing

Incentives are offered by local funders

- Mostly in the $1,000 to $3,000 per project range for residential
- State and federal funding has mostly sunset or is highly specialized

Financing is available through publicly-supported loans at below market interest rates:

- GoGreen Home Financing
- GoGreen Business, PG&E On-Bill Financing (for commercial entities)

HP HVAC Operating Costs

Residential savings (Single-family):

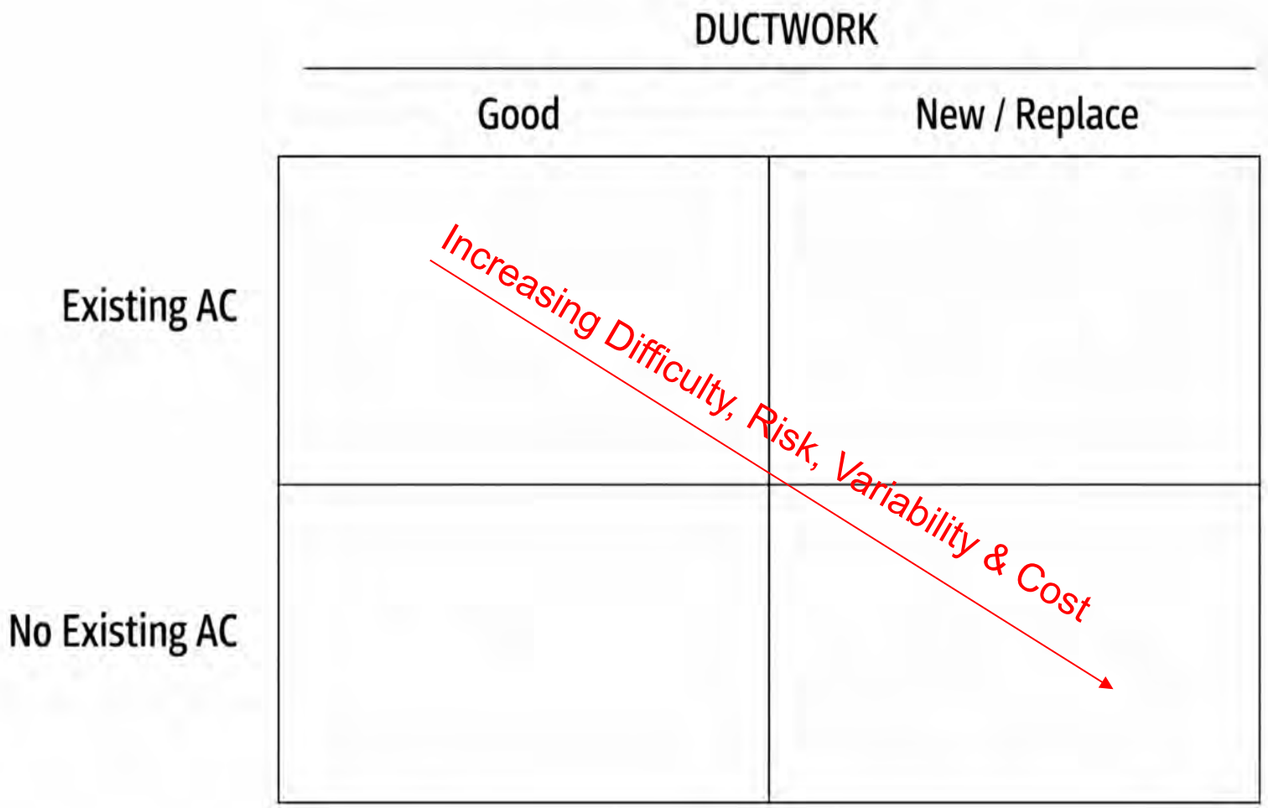
- First-year savings of $167 to $474 for minimum efficiency HP HVAC, and $364 to $733 for more efficient systems
- Highest savings for homes with existing air conditioning and replacing older furnaces

Bay Area Air District

II. Findings:

Challenging Installation Cases, Potential Tenant Impacts

Varying and Higher Costs Depends on Scope



Graphic presented to the IWG by Shreyas Sudhakar, Vayu

Installation Timing Impact

- **1-2 days:** Existing AC replacement
- **2-3 days:** No AC
- **1+ week:** New or replacement ductwork, new electrical for panels at capacity, long refrigerant line-sets, highly customized design, asbestos, carpentry or other work requiring subcontractor

Increased Scope: Examples





Refrigerant line sets



Floor furnace retrofit requires carpentry



Crawlspace constraint



Wall furnace retrofit requires drywall

Panel Capacity Challenges are Rare for Single-Family Homes

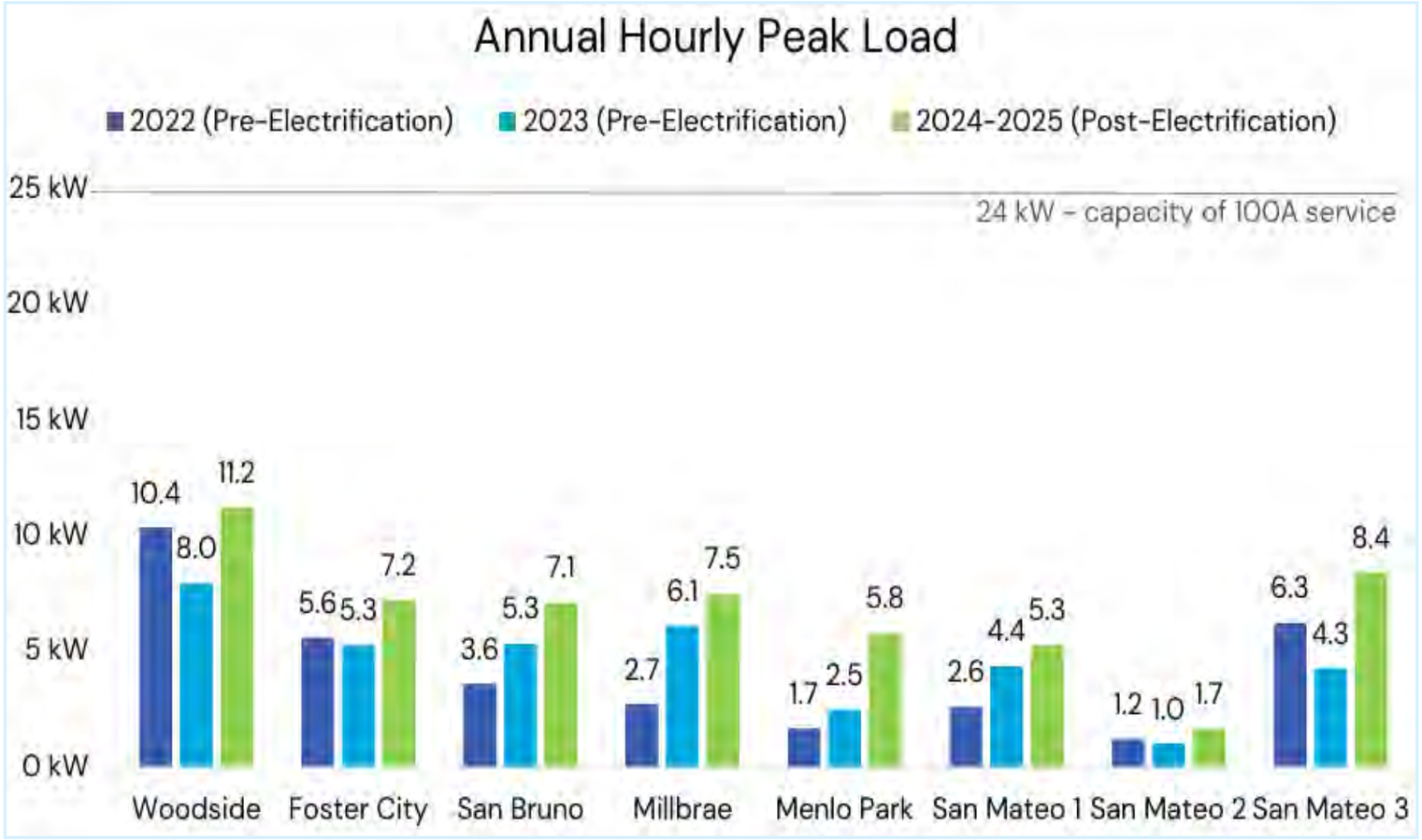
100-amp Electrification Pilots

<u>Challenging cases:</u>

- 2 EV chargers, no load management
- Multiple homes on same panel
- Unsafe panel replacement costs

<u>Post-install monitoring shows:</u>

- Zero peak demand >24 kW
- Managing EV load is key



PCE/ WestLight Energy Whole Home Case Studies FINAL 2025

Special Considerations for Large Multifamily

Building variety and age	Different building and system types require different installation approaches.
Limited outdoor space	Some buildings have little room for outdoor equipment, and taller buildings may require added logistics for rooftop units.
Shared ownership and metering	Condominium and joint-ownership buildings may need broad approval, and master-metering buildings raise questions about who pays.
Limited electrical capacity	Constraints can occur at both the building and utility service levels.
Tenant needs	Projects must keep tenants housed and heated, including when a furnace fails.

Potential Renter Impacts

- Cost pass throughs
- Temporary displacement due to significant building modifications

Why protections are uneven:

- State Law (AB 1482): buildings must be 15+ years old and expires 2030.
- 16 Bay Area cities have varying pass-through limits and additional eviction protections.
- Limited enforcement based largely on complaints.

Bay Area Air District

II. Findings:
Temporary Heating Loss

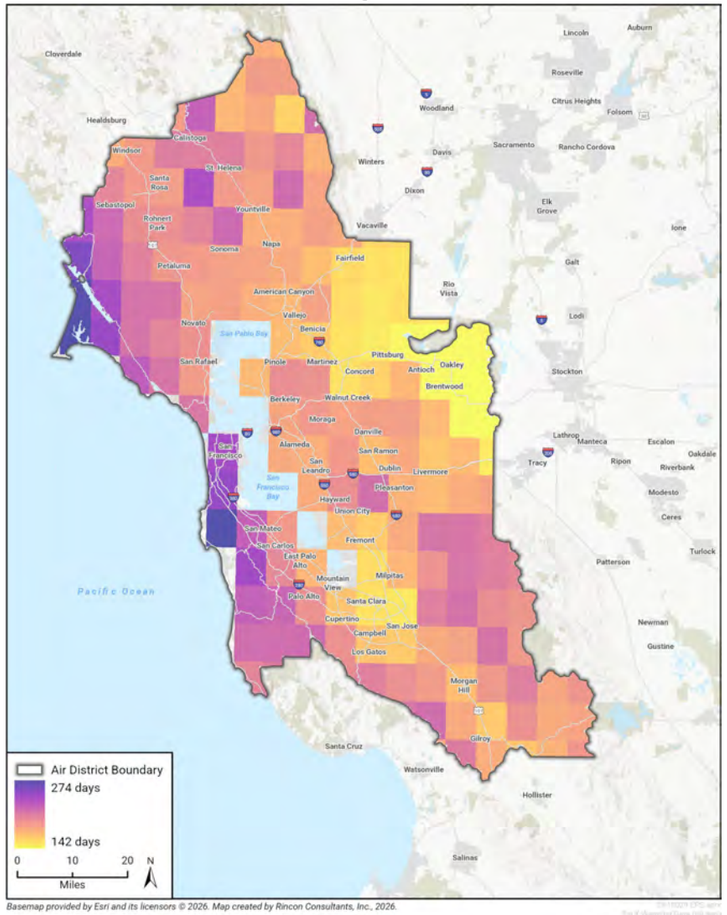
Annual Heating Need in the Bay Area

Number of days below 60°F:
- 142 to 274 days

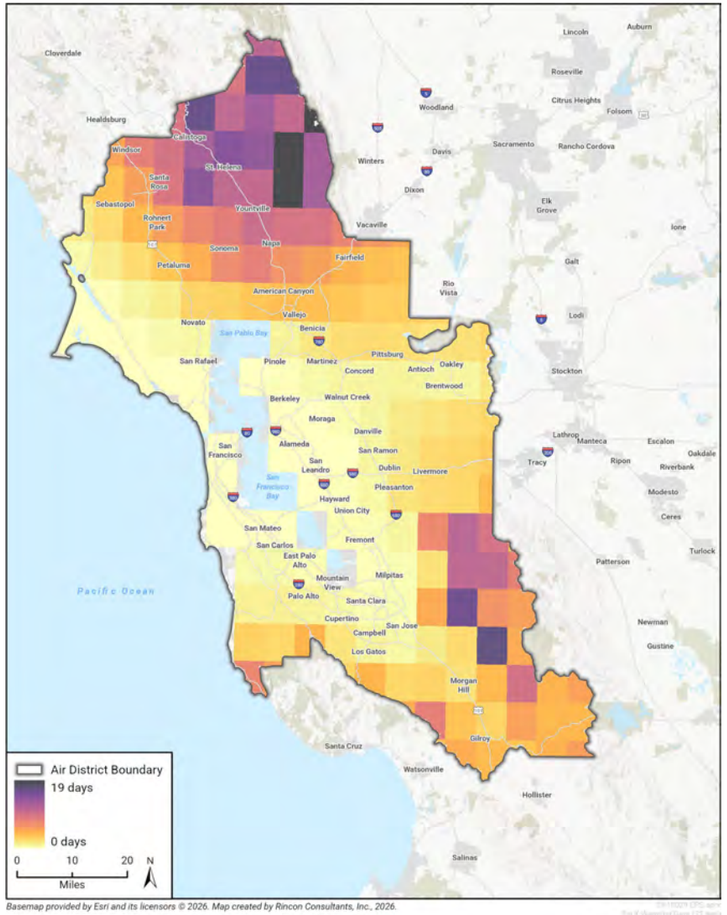
Number of days below 32°F:
- 0 to 19 days

Temporary heating loss reported to be moderate to serious problem for 57% of survey respondents

Number of days below 60°F



Number of days below 32°F



Basemap provided by Esri and its licensors © 2026. Map created by Rincon Consultants, Inc., 2026.

Temporary Loss of Heating

Downtime when switching to HP HVAC:

Small Residential

- ~2 additional days (12% increase) compared to a like-to-like (gas) replacement
- Main driver for HP HVAC installation delays is electrical work, e.g. new circuit installation, panel upsizing and service upsizing

Large Multifamily and Nonresidential

- likely longer (~1 month) due to permitting and equipment delivery

Bay Area Air District

III. Next Steps

Non-Regulatory Actions

- Scale up outreach, media and advertising campaign, to include 9-4 and HP HVAC information
- Support local governments in implementing SB 222 and permit reform
- Engage MF building owners (i.e. small landlords and affordable housing providers) in discussion about HP planning and renter impacts
- Continue to monitor supporting policies, technology developments and cost information

Possible Rule Changes

- Based on overall findings, staff recommends further amendments
- Rulemaking process would start 2027 and include:
  - Stakeholder engagement
  - Updates to the Stationary Source Committee and Board
  - Potential updated analyses: emissions, health, equity, socioeconomic and CEQA

Possible Rule Changes, cont.

- Alignment with rules from CARB and CEC
- Flexibility for commercial buildings that Title 24 does not require switching to HP HVAC, or reconsidering commercial building applicability, given costs and market challenges
- Flexibility for challenging installations, e.g. major ductwork, extra labor or upsizing electric service
- Flexibility for buildings without existing central AC
- Multifamily building flexibility to support whole-building planning

Questions & Discussion

For more information:
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