

DOCKETED	
Docket Number:	24-OIR-03
Project Title:	Energy Data Collection - Phase 3
TN #:	266025
Document Title:	Phase 3 Data Rulemaking RFI for HVAC and Water Heating Equipment
Description:	N/A
Filer:	Matthew Vespa
Organization:	Earthjustice
Submitter Role:	Intervenor
Submission Date:	9/16/2025 10:49:10 AM
Docketed Date:	9/16/2025



via electronic submission

September 16, 2025

California Energy Commission
Docket Unit
Docket No. 24-OIR-03
715 P Street
Sacramento, CA 95814

RE: Earthjustice Comments on the Phase 3 Data Rulemaking RFI for HVAC and Water Heating Equipment, Docket 24-OIR-03

Earthjustice appreciates that the California Energy Commission (“CEC”) has opened this docket to address the data gaps related to heating, ventilation, and air conditioning (“HVAC”) and water heating equipment in California. We strongly support the CEC requiring reporting of both HVAC and water heating shipping, point of sale and installation data. Having accurate shipping and point of sale data is critical to informing the Integrated Energy Policy Report (“IEPR”) and track progress on state decarbonization and heat pump deployment goals. Collecting sales, shipping, and installation data on HVAC and water heating equipment will provide needed visibility into permitting compliance and can inform the development of more targeted heat pump education, outreach and incentive programs. In implementing these requirements, we recommend the CEC begin with the most feasible – collecting manufacturer shipping data. Manufacturers should already have this information and the number of entities shipping HVACs and water heaters to California is relatively small. From there, the CEC can proceed to point of sale reporting for distributors and wholesalers and then to equipment installations.

California Must Have Accurate Industry Data to Inform State Energy and Climate Policy.

Earthjustice agrees with the CEC that establishing a reporting requirement for HVAC and water heating equipment will improve the accuracy of the IEPR, reducing the difference between model assumptions and actual equipment installation and use.¹ California decisionmakers rely on the IEPR to understand the changing energy landscape and make critical decisions about electricity grid management and infrastructure planning. Energy planners should not have to guess the extent to which fuel-switching technologies like heat pump space and water heating are being deployed as they make decisions on the need to procure additional resources to meet grid needs or investments in upgrades to the electric distribution system. Sales data is critical information that serves an important public purpose and should be required from equipment manufacturers.

Reporting on HVAC and heat pump sales is also necessary for tracking progress on California’s building electrification and climate goals. In a July 2022 letter to the California Air

¹ CEC, *Request for Information (RFI) Energy Data Collection Phase 3 – Space Conditioning And Water Heating Equipment Data Tracking*, Docket No. 24-OIR-03, at 1 (“RFI Energy Data Collection Phase 3”) (July 2, 2025), <https://efiling.energy.ca.gov/GetDocument.aspx?tn=264545&DocumentContentId=101418>.

Resources Board (“CARB”), Governor Newsom named new statewide building electrification goals, including 3 million climate-ready and climate-friendly homes and the deployment of 6 million heat pumps by 2030.² These targets were reiterated in the CARB 2022 Scoping Plan for Achieving Carbon Neutrality.³ Reporting requirements for HVAC and water heating equipment create a pathway for tracking these state climate and energy goals and can provide more detailed information to stakeholders and policymakers about what areas need additional attention.

Creating an effective reporting system can also have multiple co-benefits including improving permitting compliance. Stakeholders in this docket have named permitting compliance as a prevalent issue in the industry and supported reporting requirements on contractor license numbers.⁴ Noncompliant HVAC units consume up to 30 percent more energy and improperly installed equipment can pose safety hazards.⁵ Permitting compliance will improve grid resilience, increase energy efficiency and lower peak energy demand, in line with California’s energy and climate goals.⁶

Data Reporting Requirements

1. Which steps of the supply chain are most/least appropriate for reporting of accurate equipment data, and why?

Earthjustice recommends that the CEC collects sales, shipping, and installation data, starting first with shipping data from manufacturers. Ideally, the CEC would have access to information at all steps of the supply chain, but we recognize the complexities and scale of the HVAC and water heater market. So, Earthjustice proposes prioritizing data needs and establishing a reporting requirement for manufacturers and then phasing in the requirement for distributors and contractors over time.

2. Should data be reported from more than one step of the supply chain? Why or why not?

Yes, the CEC should ultimately seek sales, shipping, and installation data. Manufacturers, distributors and contractors are unlikely to have complete information about the supply of HVAC and water heater equipment and so reporting at multiple stages of the supply chain is important for understanding the whole market. For example, manufacturers are unlikely to know where

² Office of the Governor, *Letter to CARB*, at 2 (July 2022), <https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf?emrc=1054d6>.

³ CARB, *2022 Scoping Plan for Achieving Carbon Neutrality*, at 75 (Dec. 2022), <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>.

⁴ CAL SMACNA, *Response to RFI on HVAC Equipment Data Tracking*, Docket No. 24-OIR-03, at 1 (Aug. 19, 2025), <https://efiling.energy.ca.gov/GetDocument.aspx?tn=265715&DocumentContentId=102566>; CSPTC, WSC, JCEEP, *Request for Information (RFI) re Energy Data Collection Phase 3 – Space Conditioning And Water Heating Equipment Data Tracking*, Docket No. 24-OIR-03 (Aug. 18, 2025), <https://efiling.energy.ca.gov/GetDocument.aspx?tn=265664&DocumentContentId=102513>.

⁵ CEC, *RFI Energy Data Collection Phase 3*, Docket No. 24-OIR-03, at 4 (July 2, 2025), <https://efiling.energy.ca.gov/GetDocument.aspx?tn=264545&DocumentContentId=101418>.

⁶ CARB, *2022 Scoping Plan for Achieving Carbon Neutrality*, at 1 (Dec. 2022), <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>.

exactly their equipment is being installed. Sales and shipping data are helpful for understanding the market size and market trends of HVAC and water heater equipment in California, particularly the shift toward heat pumps. Gathering information at the point of installation will be helpful for the CEC in understanding the quantity and location of technology deployments, local energy demands, and permitting compliance when compared to shipping and sales data.

3. How often should data be reported? Should reported data be more granular than the frequency of reporting (e.g., a quarterly report that includes monthly sales figures)?

Earthjustice recommends that the data be reported on a quarterly or semiannual basis with information on unit-level sales.

4. What types of information are infeasible to report on?

Earthjustice encourages the CEC to be as comprehensive and granular as possible in the reporting requirements while being mindful of compliance costs and feasibility concerns. With these considerations, the CEC should prioritize data needs and create eligibility phase-ins, starting with manufacturers and expanding to distributors and contractors. The CEC could also propose flexible compliance deadlines.

5. How geographically accurate will the reported location of delivery be to its final installed location? Is there a category of geographic information, such as zip code or county, that would best or most accurately inform forecasting, policy and program efforts?

For granularity, the state should require both census tract and ZIP code information in the reporting requirements. Earthjustice underscores the importance of getting geographically accurate data for equipment installation. With geographical information, the state can observe spatial patterns in technology deployments and forecast more localized energy demand. More accurate data with geographical tagging can improve grid resilience as California decisionmakers better understand demand peaks and the rate of fuel switching. Geographical information at the census tract level is necessary for understanding demographic disparities where technology is deployed. In the July 2022 Letter to CARB, Governor Newsom directs fifty percent of the funding for the building electrification goals to go to disadvantaged communities.⁷ The CEC should collect census tract information to understand if disadvantaged communities are being left behind in the transition toward zero-emission technologies.

6. What cost impacts are incurred by reporting sales and distribution of information consistent with a potential reporting requirement? What are the different electronic reporting capabilities of stakeholders at different points of the supply chain?

The cost impacts of reporting requirements are dependent on two factors: 1) the scope of information that the CEC requires and the ease of reporting this information to the state and 2)

⁷ Office of the Governor, *Letter to CARB*, at 2 (July 2022), <https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf?emrc=1054d6>.

the equipment information that stakeholders currently track. Some stakeholders, like manufacturers or large distributors, may already record the information required and so the reporting requirement would be a low administrative cost. Other stakeholders may need time to create or update internal systems to become compliant and would benefit from flexible timelines. With an easy-to-use reporting system, clear reporting requirements, and a flexible timeline for compliance, the administrative cost burden should be low especially in the long term.

7. Should businesses below a certain size threshold be excluded from data reporting requirements? If so, what should the size threshold be and why is it appropriate?

As stated above, the CEC could consider eligibility phase-ins and flexible timelines as it introduces new reporting requirements to give stakeholders sufficient time to create new internal tracking systems and to familiarize themselves with new reporting systems.

8. Who else collects this data? In particular, are there other governmental entities (i.e., federal, state or local agencies) that require reporting of sales and distribution data?

The U.S. Department of Energy's Regional Technical Standards Program requires that manufacturers, distributors, and contractors retain sales records on HVAC units for five years after the sale. The required information includes: the manufacturer name, model number, serial number, date of purchase, purchasing party, and delivery address.⁸ Manufacturers, distributors, and contractors are also likely to collect and retain this information for warranty and refrigerant regulatory compliance purposes.

9. How detailed should reported information be about the type or model of equipment? Should equipment counts be grouped or aggregated by model family, size or capacity, or by some other factor? Why or why not?

Earthjustice recommends that the reporting requirements be at the unit level and include the following information on a quarterly or semiannual basis:

For shipping and sales data:

- Model Number and Model Family
- Type: Ducted, Ductless, Minisplit
- Fuel Type
- Capacity/Size
- Manufacturing Date
- Refrigerants
- Contractor License Number If Applicable

For installation data, additional reporting on:

⁸ DOE, *Regional Standards Enforcement*, <https://www.energy.gov/gc/regional-standards-enforcement> (last visited Sep. 3, 2025).

- Month and Year of Installation
- Installation ZIP Code and Census Tract
- Contractor License Number

10. How detailed should reported information be about the destination and purchaser / receiver of any equipment? Should sales to contractors record their contractor license number?

Data at the point of installation should include equipment characteristics (HVAC serial number, model number, type, etc., as recommended in the question above), the month and year of installation, location data and the contractor who installed it including their license number. Sales data should also include contractor license number whether it be between a manufacturer and contractor or distributor and contractor.

11. How detailed should reported information be about when equipment was delivered?

Earthjustice recommends that the reported information should include month and year of equipment installation.

12. Should refrigerants used by reported units be specified? Why or why not?

Yes, unit reporting should include refrigerant information, because it is often already listed alongside HVAC serial numbers for maintenance, safety, and regulatory compliance.⁹ The CEC should use existing systems for this reporting like the ASHRAE Standard 34 Refrigerant Numbering System.¹⁰

Thank you for your consideration and Earthjustice looks forward to continued engagement with the CEC on this issue.

Sincerely,

Matt Vespa
Senior Attorney
Earthjustice
mvespa@earthjustice.org

Cassidy Childs
Senior Research and Policy Analyst
Earthjustice
cchilds@earthjustice.org

⁹ EPA, *Background on HFCs and the AIM Act*, <https://www.epa.gov/climate-hfcs-reduction/background-hfcs-and-aim-act> (last visited Sep. 3, 2025); CARB, *Refrigerant Management Program*, <https://ww2.arb.ca.gov/our-work/programs/refrigerant-management-program> (last visited Sep. 3, 2025).

¹⁰ ASHRAE, *Refrigerant Designations*, <https://www.ashrae.org/technical-resources/standards-and-guidelines/ashrae-refrigerant-designations> (last visited Sep. 3, 2025).