

DOCKETED

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August 18, 2025

California Energy Commission
Docket Unit Re: Docket 24-OIR-03
715 P Street Sacramento, CA 95814

**Re: Response to RFI on HVAC Equipment Data Tracking –
Docket #24-OIR-03**

To Whom it May Concern:

I write on behalf of the members of the California Sheet Metal and Air Conditioning Contractors, National Association (CAL SMACNA) to provide feedback on potential data reporting requirements for space heating, space conditioning, water heating, and heat pump equipment delivered to California homes and businesses.

CAL SMACNA is a non-profit trade association representing over 300 sheet metal and air conditioning contractors in California. Our national organization SMACNA has set industry standards for the past 100 years. As a trade association we advocate for strong code compliance programs and contractor adherence to all local, state and federal laws.

In California, documentation of actual code compliance and enforcement for residential and non-residential construction is essential to meeting our state's energy-efficiency, decarbonization, health and safety policy goals. This is particularly true when it comes to the proper installation of HVAC systems in our buildings. According to reports from the Western Cooling and Efficiency Center (UC Davis), improper installation, such as incorrect indoor airflow, leaky ducts, or faulty controls caused systems to operate below their rated energy-efficiency levels. These deficiencies can increase energy use for heating and cooling by up to 30% over optimal performance.

Regulatory Oversight Ensures Quality BUT Requires Data and Enforcement

Proper design and installation of HVAC equipment is verified through the permitting process. Permitted jobs benefit from mandatory testing (e.g., proper system sizing, duct leakage tests, air balancing) and adherence to ASHRAE standards (e.g., 62.1 for ventilation). These steps ensure systems meet design specifications, improving energy efficiency and performance.

Unfortunately, in California unpermitted HVAC work continues to be of concern particularly in the residential and light commercial markets. Unpermitted HVAC installations bypass plan reviews, inspections, and compliance with Title 24. Without oversight, unpermitted installations are prone to issues like unsealed ducts or incorrect equipment sizing, which can increase energy consumption up to 30% compared to code-compliant systems.

California homeowners and small business property owners will often resort to the underground economy for HVAC equipment installations under the illusion it will save

them both time and money. And, unfortunately, there are plenty of people to help them acquire and install HVAC units while bypassing the permit process. These conditions argue for serial number tracking of HVAC equipment from the point of sale (POS) to contractors or individuals to point of installation (POI) for consumers so that state and local authorities have the necessary data to ensure jobs are properly permitted and code compliant. With this in mind, please see our following thoughts on the questions contained within the RFI.

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

The most important steps for the accurate reporting of equipment data is at POS and POI. In other words:

1. POS -- at the retail and wholesale points of sale when the HVAC equipment is sold to a consumer or a contractor for installation in a California home or business; and
2. POI – a specific address for the point of installation where the local jurisdiction has initiated and closed-out construction permits.

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

SEE ABOVE

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)?

Data by retailers and wholesalers should, at a minimum, be reported on a quarterly basis to help local jurisdiction and enforcement authorities to be able to correlate equipment serial numbers with permit close-out data.

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

Nothing is infeasible but instead an exercise of cost versus benefit. We encourage the CEC to keep in mind the cost of non-compliance when evaluating any claim that data collection is infeasible.

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?

HVAC units can be inventoried and moved around the state between wholesalers and distributors prior to final sale or installation by an individual or contractor. However, for forecasting and predicting purposes, the zip code or county of the POS is an important indicator of final POI.

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

Systems for reporting sales and installations of HVAC equipment (by serial number) already exist. It's just a matter of collecting and centralizing the information by the CEC.

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?

No. Again, the underground economy is where most if not all unpermitted HVAC installations are occurring. These outfits are typically small.

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?

State and local governments are already collecting information through sales taxes of HVAC equipment and refrigerant compliance information. Manufacturers are collecting this information for warranty purposes, internal sales quotas and incentives, etc, as well as, refrigerant regulatory compliance.

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?

HVAC equipment serial numbers already indicate model, family, size and capacity.

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?

If a contractor is making the purchase the valid name and ID of the person along with the contractor's state license number should be collected. If a non-contractor individual is making the purchase, it should be recorded as a "non-contractor" purchase and valid ID and the specific address for the POI should be collected.

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

The primary information needed is the POS (serial number, date of sale and ID of purchaser) and POI (address, serial number, permit number and date of permit close-out) reported on at least a quarterly basis for correlation and reconciliation.

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

No. Not necessary because the serial number will already indicate refrigerant being used.

CAL SMACNA would appreciate it if the CEC required the collection of this information. Our contractors are anxious to see the necessary data be revealed so that permitting authorities can finally have the benefit of correlating HVAC equipment purchases with actual location of installations.

Title 24 code compliance is only a theory until it is actually enforced. For far too long, consistent enforcement of Title 24 codes related to HVAC installations has been left virtually unattended and unaddressed. The collection of HVAC serial numbers and the tracking of those units to the final POI will give enforcement agencies the information and transparency they need to properly focus their efforts.

Please do not hesitate to contact us if you should have questions or need additional comment.

In appreciation,


Chris Walker
Executive Vice President
CAL SMACNA