

DOCKETED

Docket Number:	17-EBP-01
Project Title:	Improving Energy Compliance of Central Air-Conditioning and Heat Pump Systems
TN #:	224538
Document Title:	AHRI Comments in Response to CEC Request on Improving Energy Compliance of Central Air Conditioning and Heat Pump Systems
Description:	N/A
Filer:	System
Organization:	AHRI
Submitter Role:	Public
Submission Date:	8/20/2018 2:39:28 PM
Docketed Date:	8/20/2018

*Comment Received From: Caroline Davidson-Hood
Submitted On: 8/20/2018
Docket Number: 17-EBP-01*

AHRI Comments in Response to CEC Request on Improving Energy Compliance of Central AC and HP

Additional submitted attachment is included below.



2311 Wilson Boulevard Suite 400 Arlington VA 22201 USA
Phone 703 524 8800 | Fax 703 562 1942
www.ahrinet.org

VIA EMAIL: docket@energy.ca.gov

August 20, 2018

Honorable Andrew McAllister
Commissioner
California Energy Commission
Dockets Unit, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

RE: AHRI's Comments on CEC's Request for Written Comments for Improving Energy Compliance of Central Air Conditioning and Heat Pump Systems, Docket No. 2017-EBP-01

Dear Commissioner McAllister:

On behalf of the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) I am respectfully submitting the following comments with respect to the California Energy Commission's (CEC) request for public comment on Improving Energy Compliance of Central Air Conditioning and Heat Pump Systems, Docket Number 2017-EBP-01. These comments address the impacts on manufacturers of adopting regulations intended to increase compliance with permitting and inspection requirements in California.

AHRI is the trade association representing manufacturers of heating, air conditioning, water heating, and commercial refrigeration equipment. More than 300 members strong, AHRI is an advocate for the industry and develops standards for and certifies the performance of many of the products manufactured by our members. In North America, the annual economic output of the heating, ventilation, air conditioning, and refrigeration (HVACR) and water heating industry amounts to more than \$44 billion. In the United States alone, the HVACR and water heating industry supports 1.3 million jobs and \$256 billion in economic activity.

AHRI and its members participated in the August 3, 2018, CEC Lead Commissioner Workshop in Irwindale, California, during which AHRI and members engaged in discussions surrounding potential solutions to solve California's low permitting compliance percentage. Some stakeholders in attendance proffered as a potential solution a statewide digital tracking system to collect data from manufacturers and distributors to manage permit compliance problems.

Challenges with a Digital Tracking System

A Digital Tracking System is interesting in theory but is fraught with complications and will not increase compliance. Rather, a digital tracking system will saddle the State of California, manufacturers, and distributors with unnecessary costs and burdens without delivering sound results.

During the August 3 workshop, Mr. Charles McCrudden, Daikin U.S. Corporation's Director of Government Affairs, presented a detailed description of how products move from the point of manufacture to the point of installation. It is important to understand that manufacturers cannot predict where equipment will be installed. Products made in Texas or Oklahoma, for example, can easily end up in any of the fifty states, plus Canada. It is, therefore, impossible for manufacturers to predict which units will be installed in California. Similarly, distribution centers operate on efficiency of transportation to ensure speed to market, not on jurisdictional borders.

Furthermore, manufacturers are not present at product installation. By the time a product is installed, it has changed hands at least twice and the manufacturer has no control over the location or manner of installation. Violations are committed by California technicians and homeowners seeking to avoid the high costs, burdens, and wait-times of the California permitting requirements—not by manufacturers or distributors. Digital tracking would impose new obligations and burdens on entities not associated with violations.

Most important, digital tracking will not lead to higher compliance rates nor “find” non-compliant installations. Because manufacturers cannot know which products are installed in California, their only recourse would be to provide all serial numbers to the tracking system. This would inevitably leave massive gaps for all the products that would never arrive in California and would, therefore, not be subject to the tracking requirement. How would state officials distinguish between non-compliant products and those still in inventory? Products that were installed in Nevada? Or Oregon? Products that are old stock and were never subject to the digital tracking requirement in the first place? These are but a few examples.

HVACR manufacturers caution state officials that HVAC registries are not simple to create nor easy to manage. Stakeholders have suggested that similar data collection is already in place and the transition to an enforcement database is a modest next step. AHRI disagrees with these oversimplifications. Submitting data is time-consuming, prone to errors, and does not guarantee permit compliance. The vast majority of HVACR products are not currently subject to mandated data-collection requirements. And importantly, the effort to retain data internal to a manufacturer differs substantially from the laborious endeavor of collecting geographic-specific data, translating that information into a public database, then creating a system for using such information for enforcement purposes.

Moreover, as the current permitting compliance challenge demonstrates, without a robust, consistent enforcement mechanism to identify non-reporters, tracking systems and paperwork requirements add costs for well-established, compliant corporations while creating competitive opportunities for non-compliant scofflaws or for importers who may be ignorant of local regulations. Gaps in serial number lists will not identify the installer and will not increase compliance.

AHRI urges the CEC to evaluate the current problem of permit non-compliance and consider the important policy of energy savings. The CEC must deliberate carefully, based on available information, why permitting compliance is a challenge for California; whether permitting compliance saves energy; and importantly, whether additional requirements will solve any of the above or lead to more of the same.

The California Public Utility Commission (CPUS) study succinctly illustrates the problems with the current system and strengthens the need for a robust cost-benefit assessment.

Final Report:

2014-16 HVAC Permit and Code Compliance Market Assessment (Work Order 6) Volume I – Report, California Public Utilities Commission

Date: September 22, 2017

Findings and Discussion

The study examined residential single family central HVAC replacements in IOU service territories. At a high level, findings from the study suggest that:

- **Permitting rates are low**, with permits pulled for less than one-third of all change-outs that require them.
- **Under current market and enforcement conditions, permitting does not lead to increased energy efficiency** of HVAC changeouts. We found similar levels of efficiency for equipment at permitted and non-permitted sites in a representative statewide sample.
- **There were documentation gaps for permitted installations.** Three-quarters of permitted installations had the required HERS compliance forms. Among the forms submitted, only a subset contained a complete set of the required tests. Additionally, performance tests replicated by DNV GL found some systems out of compliance while HERS documentation indicated that these units were in compliance.

In CEC's effort to develop and draft an action plan that will lead to increased compliance in California, CEC must first put into perspective the purpose of developing this action plan. It must also weigh any expected energy savings against the potential burdens that will continue to drive noncompliance by installers. The issue with the current situation is fairly simple, the compliance process currently in place is broken as the consumer does not see or understand the benefit of compliance. As illustrated by the Realized Energy Solutions presentation on July 20, 2018, a fully permitted installation is significantly (73%) more expensive than a non-compliant one. This cost difference is primarily driven processes required for compliance, not the actual installation or quality of work thereof. CEC should focus on an evaluation of the current process and implement solutions that provide tangible benefits that are apparent to both the consumer and installer. If cost effectiveness is improved, compliance will improve.

Alternate Avenues for Improving HVACR Permitted Installation and Energy Savings

During the August 3, 2018 Workshop, AHRI proffered the following alternative methods of increasing compliance and saving energy. Ultimately, the CEC should focus on the value proposition to the consumer and create incentives and an accessible pathway to compliance.

1. Training for Contractors/Workforce

AHRI recommends that California require training for all contractors, both seasoned and new. A uniform training program could review applicable laws and regulations, the permit compliance process, and contractors' and technicians' duties and responsibilities to the consumer. Uniformity would ensure that all contractors are provided the same information and given proper notice of what is expected of them in the profession, the HVAC industry, and by the state government and regulatory bodies.

2. Incentives for Quality Installations

Quality installations save money and energy. The CEC can improve permitting costs and save energy by offering incentives for homeowners to use licensed contractors that pull required permits.

3. Contractor Continuing Education

Using Georgia as a model, the CEC, in conjunction with the CSLB, should require that licensed contractors complete at least 4 hours of continuing education related to their profession each year. The courses may vary in scope and may be administered by a college, a vocational-technical school, or a trade association.

4. Consumer Education

The CEC can educate consumers on the value of quality installations and importance of requiring permits for all HVAC installations. Social or traditional media campaigns would allow the CEC to communicate directly to the consumer—the ultimate decision maker in any HVAC installation.

5. Online Permitting


Allowing contractors and installers to pull permits online will decrease costs and increase compliance. Principles of good government dictate that the pathway to achieving policy goals must be accessible. The time and costs of pulling permits are unmistakable obstacles to compliance; a user-friendly online permitting system would help alleviate that issue.

6. Additional Resources for Enforcement

Regulatory requirements that are not enforced create a net benefit for those who do not comply. Compliant installers who spend time and resources pulling permits are undercut by illicit competitors. AHRI supports robust enforcement of the regulations that are currently in place before the CEC develops new regulations.

AHRI appreciates the opportunity to provide these comments. If you have any questions regarding this submission, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Marie Carpizo". The signature is fluid and cursive, with the first name "Marie" and last name "Carpizo" clearly distinguishable.

Marie Carpizo
Associate General Counsel