

1111 19th Street NW ≻ Suite 402 ≻ Washington, DC 20036 *t* 202.872.5955 *f* 202.872.9354 www.aham.org

September 13, 2013

Via E-mail

Mr. Harinder Singh California Energy Commission Docket Office, MS-4 1516 Ninth Street Sacramento, CA 95814-5512



docket@energy.ca.gov

Re: Docket No. 12-AAER-2D – Commercial Clothes Dryers

Dear Mr. Singh:

The Association of Home Appliance Manufacturers (AHAM) would like to respond to the proposal submitted by the California investor owned utilities (IOUs), entitled *Commercial Clothes Dryers, Codes and Standards Enhancement (CASE) Initiative For PY 2013: Title 20 Standards Development* and submitted to docket 12-AAER-2D.

The Association of Home Appliance Manufacturers (AHAM) represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. In the U.S., AHAM members employ tens of thousands of people and produce more than 95% of the household appliances shipped for sale. The factory shipment value of these products is more than \$30 billion annually. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes significantly to U.S. jobs and economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs.

We are confused by this proposal because its recommendations are not consistent throughout the proposal. For example, what is the recommended minimum standard? In the Executive Summary, it states the following:

CASE study team also proposes minimum energy performance standards for the two most popular product classes for COL and OPL applications in California. The proposed minimum standards, as shown in Table 1.1 are cost effective, because the average cost of high-efficiency dryers is similar to those with lower efficiencies.

 Table 1.1 Commercial Clothes Dryer Proposed Minimum Energy Factors (lb/kWh)

Drum Capacity	Fuel Type	Proposed Minimum Energy Factor
$< 7.5 \text{ ft}^{3}$	Natural Gas	3.65
>= 7.5 ft^3 and < 13 ft^3	Natural Gas	3.00

This states that the minimum standards should only be for COL (coin-operated Laundromats) and OPL (on-premise Laundromats), and not MFL (multi-family Laundromats). It also states that only gas dryers are included and not electric dryers. However, in the Recommendations section, it provides two other proposals. In the beginning it states the following:

The CASE study team recommends the following changes to Title 20 Appliance Standards:

• Establish minimum energy performance standards in terms of energy factors (EF) for MFL and COL gas dryers.

In section 9.2 of the Recommendation section, it states the following:

"Commercial clothes dryer" means a clothes dryer that is used in multi-family, coin operated, or on-premise laundromats and is not covered by 10 CFR 430.32(h)(3).

The energy factor for commercial clothes dryers with weight capacity less than 40 lb, and manufactured on or after January 1, 2015 shall be greater than the applicable values shown in Table Q-2.

Table Q-2

Standards for Commercial Clothes Dryers

Product Class	Minimum Energy Factor (lbs/kWh)
Drum Capacity <7.5 ft ³ , Gas	<u>3.65</u>
Drum Capacity >= 7.5 ft^3 and < 13 ft^3 , Gas	<u>3.00</u>

	Appliance	Required Information	Permissible Answers
Q	Residential Clothes Dryers	Energy Source	Natural Gas, Electric
		Drum Capacity	Cubic feet (ft ³⁾

_		Voltage	120 v, 240 v, other (specify)
		Combination Washer/Dryer	Yes, No
		Automatic Termination Control	Yes, No
		Energy Factor	
		Constant Burning Pilot Light (Gas Model only)	Yes, No
	Commercial Clothes Dryers	Energy Source	Natural Gas, Electric
		Drum Capacity	Cubic feet (ft ³⁾
		<u>Voltage</u>	<u>120 v, 240 v, other (specify)</u>
		Automatic Termination Control	<u>Yes, No</u>
		Total Per-cycle electric dryer energy consumption (Ece)	<u>kWh</u>
		Per-cycle gas dryer electrical energy consumption (Ege)	<u>kWh</u>
		Per-cycle gas dryer gas energy consumption (Egg)	<u>Btu</u>
		<u>Per-cycle standby mode and off</u> mode energy consumption (ETSO)	<u>kWh</u>
		Energy Factor	
		Combined Energy Factor	
		<u>Constant Burning Pilot Light (Gas</u> <u>Model only)</u>	Yes, No

Since each of these conveys a different proposal regarding the types of dryers and the fuel types, we question the analysis.

Regarding local weights and measure regulations, we agree with the IOU's proposal that these regulations treat drying time as a commodity and cause a conflict with automatic termination. However, the proposal suggests that automatic termination technology should be an "option." The proposal begins the justification for this flawed proposal by incorrectly assuming that an

automatic termination option would stop before a timed dry option. The proposal states the following:

Implementing ATC in coin-operated dryers allows users to know when the clothes are dried and to allow them to retrieve the dried clothes earlier. Users can have the option of applying the un-used time to the next load of clothes.

This proposal is flawed in a number of areas. First, if an automatic termination option were available to a consumer and even if we were to assume the dryer would stop sooner than the timed option and that the remaining time could be used to dry clothes, how is that any different than timed dry and pulling the clothes out early? The California Energy Commission (CEC) should not implement this option because even if an automatic termination were to shut down the dryer early and then require the customer to hit restart to use the rest of the time that has been paid for, then the customer would have to be standing in front of the dryer making sure they do not miss the dryer stopping. We would impress on the CEC to consider the people in California who use Laundromats. Their time is valuable and they should be free to do other things while their clothes dry in a Laundromat, such as read, study for class, interact with their children, and not be required to stand in front of the dryer wasting time. These are the same freedoms that people who have their own dryers enjoy in their homes.

The proposal also provides a section on "Innovative Technologies." However, generally the proposal admits that these technologies are not prevalent due to cost barriers or the need for further improvement. The proposal states the following, which essentially confirms that these are not realistic options at this time for commercial dryers and should not be considered as technologies that would increase efficiencies in a cost effective manner:

- Even though gas modulation is a relatively mature technology, gas modulationbased clothes dryers are not currently available in the market. This might be due to the cost of this technology.
- Test results based on commercial dryers show that simple air recirculation strategies exhibited a low moisture evaporation rate, low energy efficiency, and even longer dry times (Williamson, 2004). Further improvement of this technology is needed.
- Obviously, closed loop design is not applicable to gas clothes dryers, because combustion exhaust needs to be discharged out of the facility for safety consideration. [the report also states that "The majority of commercial dryers installed in California are natural gas models"]
- While heat pump dryers currently account for only 4% of residential market share in most European countries (Nipkow, 2009), the market presence of this technology remains insignificant in the United States as well. The low adoption rate in the United States is probably due to the higher cost of this technology as compared to resistance heating-based dryers.
- Microwave clothes dryers have the same working principle of a microwave oven. Laboratory prototype testing conducted by the Electric Power Research Institute (EPRI) confirmed that high energy efficiency, shorter drying times, and lower fabric temperatures could be achieved (Kesselring, 1996). However, due to the

danger of arcing and overheating caused by voltage differences induced by an electromagnetic field, much research and development work is still needed before the commercialization of microwave dryers (Gerling, 2003).

Lastly, the proposal discusses the balance between longer drying cycles and energy efficiency. The proposal states that "[i]t is not clear how the market considers the two factors." This proposal's analysis in this area is far from complete and should not be used as a basis for a possible regulation. If the proposers believes that a Laundromat owner would prefer saving some money on their utility bill through energy efficiency but have longer drying times, then data needs to be provided from a survey of Laundromat owners showing that they would prefer longer drying times even if it reduces the number of cycles available for use per day by their customers, which would likely drive away customers who would prefer to spend as little time as possible washing clothes. Further aggravating this situation would be that dryer cycles would likely not match the clothes washer cycle times.

Overall, the proposal from the IOUs is inconsistent and flawed in its attempt to provide a justification for a standard and, therefore, further supports our proposal that the CEC should not consider mandatory efficiency standards for commercial dryers. The time and resources needed to develop a test procedure, and analyze possible levels and the related cost/benefit analysis for manufacturers and consumers, would not be justified. Based on AHAM's analysis, only approximately 5,500 electric dryers were shipped into California in 2012 so the total energy impact of the 2012 California shipments of residential commercial dryers is not high. Further the negative impact to thousands of small business and the many California residents that use these dryers does not justify a mandatory standard that would most assuredly increase the costs and time needed for people who use these dryers, many of whom are in economically stressful situations already and do not have dryers of their own.

AHAM appreciates the opportunity to continue to provide its views to the CEC as they consider the development of appliance energy efficiency measures and would be glad to further discuss these matters with the Commission.

Sincerely,

Kevin Messner Vice President, State Government Affairs