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Whirlpool Corporation Comments - Docket No. 17-AAER-01 for Commercial Tumble Dryers

Additional submitted attachment is included below.

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February 23, 2018

Via Email

Ryan Nelson
California Energy Commission
Efficiency Division
Appliances & Outreach & Education
docket@energy.ca.gov and Ryan.Nelson@energy.ca.gov

Re: 2017 Appliance Efficiency Pre-Rulemaking - Docket No. 17-AAER-01 for Commercial Tumble Dryers and Air Filters

Dear Mr. Nelson:

Thank you for the opportunity to comment on the proposed commercial clothes dryers testing, certification, and marking requirements, posted under Docket No. 17-AAER-01 for Commercial Tumble Dryers. We appreciate the collaboration that continues to be encouraged by the California Energy Commission (CEC) and shared between its stakeholders.

Whirlpool Corporation is the number one major appliance manufacturer in the world, with approximately $21 billion in annual sales, 93,000 employees, and 70 manufacturing and technology research centers around the world. We sell major and small appliances under brand names such as Whirlpool, Maytag, KitchenAid, Amana, and Jenn-Air. We are also one of the largest manufacturers of commercial laundry products, with commercial washers and dryers sold across coin-operated laundromat, multi-family, and on-premise laundry segments. We sell commercial washers and dryers under the Whirlpool, Maytag, and American Dryer Corporation (ADC) brand names, with manufacturing of our commercial dryers in both Marion, OH, and Fall River, MA; where we employ nearly 2,800 people.

We appreciate the initiative taken by CEC and Pacific Gas & Electric (PG&E) to better engage manufacturers like Whirlpool, following the August 2017 webinar and publication of the draft staff report. As we mentioned in our last comments and in the public webinar, we felt that manufacturers were not adequately informed and engaged in the pre-rulemaking phase. We hope that this recent engagement has helped CEC and PG&E in their continued evaluation of testing, certification, and marking requirements for commercial clothes dryers.

We want to reiterate our support of the CEC's mission to identify energy-saving opportunities for California consumers and businesses. Of course, these opportunities need to be balanced against the impacts on those businesses and consumers that energy savings are intended to serve, and the impacts to manufacturers. With that balance in mind, the below comments address unaddressed concerns that we have in this rulemaking. We ask that you carefully evaluate our concerns, and please do not hesitate to engage us for further discussion.

Please also note that, as a very active member of the Association of Home Appliance Manufacturers (AHAM), the Coin Laundry Association (CLA), and the Textile Care Allied Trades

Association (TCATA), Whirlpool Corporation has worked closely with them in the development of the joint comments they submitted (under separate cover) on the proposed requirements. We support and echo the positions taken by these associations; particularly the cost, energy savings, and increased cycle times of potential technology options; concerns with repeatability, reproducibility, and burden of the proposed test procedure; and other positions related to standby power measurement and automatic termination. Our comments supplement those positions and address concerns we have where AHAM, CLA, or TCATA cannot take an industry position.

Test Procedure Burden

CEC and PG&E have demonstrated an interest in improving the draft test procedure developed by the Codes and Standards Enhancement (CASE) team. We appreciate efforts already taken to improve this test procedure and identify avenues to harmonize with existing test procedures used by industry. It appears that this investigation and testing would continue throughout 2018, with additional manufacturer outreach planned.

As we have mentioned in our previous comments to this docket, following the August 2017 public webinar, Whirlpool does not believe that any testing, certification, and marking requirements are needed for commercial clothes dryers. This is partly due to the nature of the multi-load commercial dryer market, which is mostly comprised of custom models in a built-to-order business. We also think that CEC has not adequately justified the usefulness of testing, certification, or marking requirements for California businesses, utilities, and consumers. Finally, we do not think that CEC has established a statistically-significant difference in the energy use of similar attribute models, as the existing testing was conducted on only a handful of models. With that said, we will continue to actively participate and offer comments along the test procedure development process, if CEC decides to move forward despite these above points.

One of the biggest issues with the proposed test procedure is the manufacturer testing burden, which has been grossly underestimated to this point. For Whirlpool, required use of the test procedure would be prohibitively expensive to our business. These costs would ultimately need to be written off as a business loss and/or passed on to the customer as increased product cost.

CEC estimates that the industry test burden of an estimated 350 models on the market today is $790,000 - $1,300,000. We are not sure how CEC estimated that number of models on the market. Among the manufacturer costs are the costs of purchasing and maintaining new equipment, the costs of modifications to existing lab facilities or building new lab facilities, the time and cost for technicians to perform the testing and certify models, and most significantly, the cost to manufacture dryers solely for the purposes of this energy testing.

As a leading manufacturer in a custom and built-to-order multi-load commercial dryer business, the potential combinations of models that our customers can order from us are nearly endless.

Importantly, many of these variations and combinations could impact energy use, and would necessitate testing nearly each one as a unique basic dryer model (basic model). With over 150 models across all of our lines, almost all of them have 7-10 possible variations that a customer could order. This includes variations for fuel type, reversing and non-reversing drums, BTU input power, and a number of other product characteristics with a possible impact on measured energy.

So instead of the testing of only 150 or so basic models for our built-to-order multi-load business, which CEC may have initially estimated from Whirlpool, the number of potential basic models climbs to over 3,000. As we mentioned to CEC in our last set of comments, our options would be to either reduce the level of customization offered to CA customers and only offer a limited number of certified basic models, or to test and certify potentially thousands of basic models. Neither of those options appeal to us, nor should they appeal to CEC and PG&E. With the first option, anything that limits the amount of choice in the CA dryer market or reduces features and functionalities of commercial dryers, will ultimately harm CA businesses and consumers. For the second option, the investment required to complete this testing would be astronomical, as detailed below.

Further, while not every variation of a model will be sold in a given year, we would have to decide whether to just test every possible basic model for initial compliance, or wait until we have an order for that basic model and potentially slow down manufacture and shipment of the model while we wait for testing to be completed.

As you can imagine, it would be a logistical nightmare for any company's lab or an external lab to handle that volume of testing if all possible basic models were tested for initial compliance. Using a very conservative estimate of 3,000 basic models and 20 hours per model for testing, this becomes 60,000 hours of testing, which equals 1,500 full 40-hour workweeks or nearly 29 years, if only one basic model is able to be tested at a time. Even if a lab could test four basic models at a time, this is still 375 workweeks or over 7 years of testing.

This doesn't even include the thousands of hours to complete the certification template and submit to CEC. In our experience with DOE certifications, this alone can take 1-2 hours per model to locate test data, input into a certification template, and report through a certification submission portal. Given this extreme burden to complete certifications, manufacturers would likely be forced to hire or reassign several employees to simply work on the certification submissions, in addition to the lab technicians who would be needed to conduct the testing.

However, the cost of setting up lab facilities, purchasing and maintaining equipment, and technician labor costs pale in comparison to the cost of manufacturing units for this energy testing. For testing of just a single unit of over 3,000 basic models, the internal manufacturing cost of these units alone will be tens of millions of dollars. These are not residential dryers that typically carry a manufacturer's suggested retail price of $1,000 or below. They are large, custom-built machines with a much higher cost to manufacture. As the joint associations

reference in their comments, these units can cost upwards of $3,000 to $60,000. Similar to internal product testing for U.S. Department of Energy (DOE) purposes, these units are not able to be sold once they are used for energy testing, and are typically scrapped.

DOE also requires a minimum of two units tested for certification purposes. This is because two data points are stronger than one from a statistical perspective for certifying efficiency ratings. Many manufacturers, including Whirlpool, go even further than this minimum requirement, and test more than two units of a basic model, to improve statistical accuracy of the certified rating. Increasing our test plan to two units under the proposed CEC test procedure, to improve statistical accuracy, would push costs and testing burden to even more outrageous levels. Also, given the potential CEC enforcement actions against manufacturers for inaccurate certified efficiency ratings, manufacturers may ultimately need to test two or more units.

None of these previous test cost estimates include the cost of shipping units to an external lab if we cannot handle this volume of testing in our own lab(s). The costs for shipping and using a third-party lab will raise the total test cost by millions of dollars. To reiterate, these costs would either have to written off as a loss, or more likely, passed on to the customer.

Benefits of an Alternative Test Procedure

If CEC decides to move forward with this rulemaking, despite the strong objections stated above, we recommend that CEC seriously consider wholesale adoption of an alternative test procedure. We believe that the CSA 7.2 2016 test for commercial gas clothes dryers is an appropriate balance of manufacturer burden, repeatability, reproducbility, industry familiarity, and usefulness.

While harmonizing aspects of the CSA test procedure helps to reduce manufacturer burden, full adoption makes more sense. First, the CSA test procedure has the least test burden of all considered test procedures. Second, the efficiency data and efficiency metric from the CSA test procedure are familiar to our customers and those in industry. Third, we already have the test equipment needed to conduct CSA testing in at least one of our labs. Fourth, we already have test data on many basic model combinations using the CSA test procedure and would not need to do as much, if any, new testing (depending on the definition of a basic model). Fifth, it allows for general comparisons of models on the market, even if the testing requirements such as load material and settings do not exactly resemble “real world” testing conditions.

We welcome further discussion with CEC, PG&E, and their consultants to discuss our experiences using the CSA test procedure.

Definition of Basic Models

The initial proposal from CEC for a basic model was to have a separate basic model for the following ten characteristics, which are believed to have an impact on energy consumption:

1) Fuel type
2) Drum capacity
3) Burner BTU output rating
4) Fan volumetric setting
5) Adaptive control system
6) Operator control package
7) Reversing drum capability
8) Automatic termination
9) Exhaust or air inlet configuration/placement
10) Physical design characteristics, e.g., fan, heat exchanger, motor

Using this criteria, we developed our above initial estimate of over 3,000 basic models that would require testing for initial compliance to the proposed test procedure. While this criteria may be suitable for residential dryers or even residential-style commercial dryers, where variance in feature sets and customization is limited, it is not suitable for our mostly custom-built multi-load commercial dryers with thousands of possible basic model combinations developed using those above characteristics.

We appreciate CEC's willingness to consider changes to the definition of a basic model to better balance accuracy with testing burden. An idea presented in the January 24, 2018, webinar slides was about how to report the energy of a "dryer shell" and then report the energy of customizable features, such as the above ten characteristics, by their expected change to the efficiency metric ratings.

While this attempt to reduce burden is commendable, we have reservations. Primary among those concerns are that some of these features may have an interaction effect on each other. For example, reversing drum capability may have a 4% impact on energy consumption when no other features are present, but a 10% impact when the exhaust placement is different, and a 5% impact when a larger fan is used. Isolating the impact of a single characteristic without considering the countless possible interaction effects they can have on each other may not provide accurate or even useful information.

Providing a list of these items and their isolated impact on energy use on a "dryer shell" may even lead some customers to make a wrong purchase decision. For example, a customer might simply add up the possible energy savings of all these items and believe that the dryer they purchase delivers the cumulative energy savings offered by them when they are tested in isolation. In reality, those cumulative savings for individual items may be more or less than the real energy savings when the features interact with each other.

To manage manufacturer testing burden to a reasonable level, we would instead propose to keep the definition of a basic model consistent with what we already understand and use for CSA testing. We could then, for purposes of certification, provide details on which features are

available with that basic model. We are interested in discussing this further with CEC, PG&E, and their consultants, to come to a solution that works for all parties.

Compromise Proposals

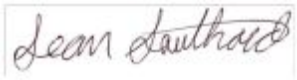
As previously mentioned, we acknowledge and appreciate the improved manufacturer outreach since the August 2017 webinar, and the possible options considered now to further reduce manufacturer burden. We still believe that there are no testing, certification, or marking requirements needed for commercial dryers in the state of CA. However, we offer the below recommendations in the event that CEC and PG&E decide to move forward with this rulemaking.

Along that line, we ask that CEC consider our above recommendations to fully adopt the CSA 7.2-2016 test procedure in lieu of the initially-proposed test procedure or one that harmonizes to just certain elements of CSA 7.2-2016. We also recommend that CSA work with us to refine the definition of a basic model to prevent testing of thousands of basic model numbers, while still giving CA businesses and customers useful information.

Further, we recommend that the scope be changed to only include gas dryer basic models, since they make up the bulk of the shipment volume in the state of CA, and the testing burden for electric variations of our basic models outweigh any potential benefits. Finally, we recommend that the scope even be further limited to single-load dryers, which make up the majority of the shipment volume in the state of CA and harmonizes with the coverage of DOE standards on residential-style single-load washers. These dryers are generally not customizable and the number of possible basic models for testing are a fraction of what we have for multi-load dryers.

Thank you again for your consideration and we look forward to continued collaboration. As always, please do not hesitate to ask us for any clarifications on these comments.

Sincerely,



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