

**DOCKETED**

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February 3, 2021

J. Andrew McAllister, Ph.D.

Commissioner

California Energy Commission

Docket Unit, MS-4

Docket No. 20-FDAS-01

1516 Ninth Street

Sacramento, California 95814-5512

**Re: Whirlpool Comments - CEC Flexible Demand Appliance Standards**

Dear Commissioner McAllister:

Thank you for the opportunity to comment on the California Energy Commission's (CEC) staff paper on the Introduction to Flexible Demand Appliance Standards, published on December 9, 2020 (Docket No. 20-FDAS-01). We appreciate the collaboration that continues to be encouraged by the California Energy Commission (CEC) and shared between its stakeholders.

Whirlpool Corporation (NYSE: WHR) is the world's leading kitchen and laundry appliance company, with approximately \$19 billion in annual sales, 78,000 employees and 57 manufacturing and technology research centers in 2020. The company markets Whirlpool, KitchenAid, Maytag, Consul, Brastemp, Amana, Bauknecht, JennAir, Indesit and other major

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brand names in nearly every country throughout the world. Additional information about the company can be found at [whirlpoolcorp.com](http://whirlpoolcorp.com).

Whirlpool proudly launched its first connected appliances in 2013. We have since launched new generations of connected appliances, including smart ranges, smart microwaves, smart dishwashers, and smart washers and dryers. We continue to be a leader and innovator of connected technology; finding new ways to let our consumers streamline their daily chores so they can spend more time with those they love.

As a very active member of the Association of Home Appliance Manufacturers (AHAM), Whirlpool Corporation has worked closely with them in the development of the industry comments they submitted (under separate cover) on this staff paper. **Please be advised that we support and echo the AHAM positions, particularly that minimum cybersecurity standards are key to the broader deployment and customer adoption of connected appliances. We also strongly agree that a cloud-based utility interconnection is the safest and most practical solution for our home appliances.** Our positions supplement these AHAM positions.

The security of connected appliances is a top priority for us and is foundational to connected appliance product development. We use industry-leading software and services to protect our consumers and their data, including banking-grade encryption, Federal Information Security Management Act-compliant cloud providers, and a renowned security company to perform third-party security assessments. We believe in and practice the product development principle of security by design. We perform regular internal and external pressure testing to minimize the possibility of hacking, and we have created an extensive incident response plan. This is all to say that we take the security of our connected appliances very seriously, as we should. We must remember that any security breach or hack affects everyone selling or otherwise promoting connected devices; not only

us and our customers. Trust in the security of all connected devices is paramount to their success in the market. We cannot lose the trust of our customers.

We believe that our solution of a Wi-Fi-enabled, cloud-based interconnection with an internal communications module is a very secure pathway to connect individual home appliances to the utility. Of course, anything that is wireless will have inherent security concerns to manage, but adding any on-premise, external utility connection may open an additional vector for attacks on our appliances. Further, Wi-Fi connected devices are increasingly becoming accepted by customers as secure, as evidenced by the dozens of Wi-Fi connected devices now found in nearly every home. Customers know how to set them up and properly manage the security of those devices.

A direct, on-premise external communications module enabled through CTA-2045 is duplicative and unnecessary for our products. We are concerned about the cost and practicality of using this on our products. Any mandatory requirement for a communications port across all our appliances would require significant investment and product changes to give our products the ability to respond to the utility signals, all of which would be redundant to existing work that we've done to enable demand response on appliances. For an opening price point appliance possibly required to be demand response-capable with a communications port, this additional cost burden could be severe, particularly for low-income consumers. Any mandatory requirement in California for the use of a communications port on all appliances will also carry huge implications for customers in other regions of the country without any sort of incentives for the broader deployment of connected appliances, as we do not sell California-specific SKUs.

This is not to say that communications ports like CTA-2045 with external utility communications modules wouldn't work well for other products and manufacturers. Clearly, there is a documented, positive history with using these ports and external communications modules in water heaters and other products within certain regions of the

country. However, there are key differences to acknowledge when comparing our appliances.

First, some products clearly have issues with Wi-Fi signal reach. Water heaters and HVAC equipment are often installed in basements or attics, and pool pumps are installed in yards; far away from the central living area where Wi-Fi signals are intended to reach. Our appliances fortunately, do not face these issues, as most are installed in the central living areas of the home or parts otherwise accessible to a Wi-Fi signal. We have extensive history with Wi-Fi signals reaching our major appliances, including laundry appliances installed in basement laundry rooms. And for any locations in the home where the Wi-Fi signal may not reach the appliance, a Wi-Fi repeater is a cheap and effective solution to this problem.

Second, there are practical concerns about where a communications port with an external communications module could be placed. Our appliances are designed to be aesthetically pleasing and fit into the living areas of consumer homes. Many appliances are also built into cabinetry. Attaching a communications module to an appliance could be aesthetically displeasing or impractical for some products (e.g., built-in dishwasher or refrigerator). It is not as easy as sticking a port and communications module on a water heater or HVAC equipment (not to say that those appliances aren't designed to be aesthetically pleasing, but instead that they may have more feasible consumer access points to use a port and communications module).

We ultimately support and welcome the collaboration with CEC and its stakeholders to help achieve a broad deployment of connected appliances with demand response capabilities, provided that these products are able to be securely connected between the consumer, the manufacturer, and the utility. Instead of mandatory requirements for our products, like a CTA-2045 communications port, CEC should focus on how to encourage the growth of this market through various voluntary means and incentives, which ultimately encourage further innovation. To date, we have brought connected products to the market, but we

have yet to see a perceptible shift in utilities to support them with incentives. We hope that CEC can help address this problem and better enable California utilities to strongly support the growth of this still-nascent market.

Thank you again for your consideration and we look forward to continued discussion on this rulemaking.

Best regards,

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