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Pentair Comments on Flexible Demand Standards (amended)

Additional submitted attachment is included below.



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November 1, 2021

To:

Commissioner J. Andrew McAllister, Ph.D.
California Energy Commission
Dockets Office, MS-4
1516 9th Street
Sacramento, CA 95814

Submitted via: Docket Log 20-FDAS-01

Re: Comments on Flexible Demand Standards, Docket # 20-FDAS-01

Dear Commissioner McAllister:

Pentair is an industry leading manufacturer of pool pump controls and other pool equipment. We support the California Energy Commission (CEC) and their goals to develop Flexible Demand Appliance Standards (FDAS) and appreciate the opportunity to provide feedback on the pre-rulemaking draft. We submit the below comments in response to the Request for Information (RFI)

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin Harms", written over a light blue horizontal line.

Kevin Harms
Product Manager – Pool Pumps
Pentair

General comments

Pentair asks the CEC to consider pool controls as a system, to include all devices, rather than specific to pool pumps. Focusing only on pool pump controls overlooks pool safety, sanitization, multiple bodies of water, and auxiliary devices on a pool that are flow dependent. Further, the overly prescriptive nature of the regulation (see specific comment for Section 1690 (d)(2)(B)(1)(a) below) limits the ability of pool control manufacturers to innovate their products. Additionally, the CEC must consider the impact on commercial pools and should consider excluding these applications from FDAS. Commercial pools have strict flow rate and turnover requirements to maintain safety and sanitization and would not benefit from a flexible demand program. Many of the pool pump controls covered in the draft are multi-purpose and utilized in commercial applications.

Feedback to Specific Questions

Question 33.

The definition stated in the Pre-Rulemaking Draft of the Proposed Language is adequate to cover pool pump controls integral to a pool pump. Other industry terms include “drive,” “variable frequency drive (VFD),” “variable speed drive (UL 1004-10 section 2.16.b.1 & 10 CFR 431.262).”

Question 34.

The definition stated in the Pre-Rulemaking Draft of the Proposed Language is adequate to cover pool pump controls that is a separate device from a pool pump. Other definitions may include “pool automation systems.”

Question 35.

The percentage of pool pump controls, as defined in the pre-rulemaking draft, including a scheduling function for automating pool pump operation is estimated to be >95%. The main goal of a pool pump control separate from the pool pump is to allow the homeowner the ability to control and schedule multiple pool devices from a single device. Pool pump controls integral to the pool pump provide scheduling capabilities for automating pool pump operation and to drive the motor at a variable speed.

Question 36.

Pool pump controls integral to the pump have little to no ability to connect to the internet. Most pool pump controls not integral to the pump have the ability to connect to the internet, although many are limited in their capabilities once connected. Many of the pool pump controls, separate from the integral controls, while connected to the internet, do not have the ability to work with the flexible demand program as described in the draft.



Feedback to Specific Sections

Section 1687 (d) (2)

Aboveground pool pumps should be excluded from this program. The aboveground pool market is more price-sensitive than the in-ground pool market. Enacting such a rule to include aboveground pool equipment will negatively impact the homeowners by increasing the price significantly. Most aboveground pools do not utilize a variable speed pump as the pool filter pump. Many of these pools use a single or two-speed pump with or without a timeclock controller. These time clock controllers are simple designs and do not possess the ability to add-on capabilities for flexible demand given the incremental costs proposed in Table 3.

Section 1690 (d)(2)(B)(1)(a)

The ability to retain a system clock for three months will add significant costs to pool pump controls. Further, it restricts innovation in design as the pool pump control manufacture will need to allocate significant space and design to meet this requirement. A power outage for three months does not seem to be a plausible condition for pool pump controls to be in. Even though the winter months in snow belt regions, many pool pump controls are left powered in a non-running state. For other pools that are not closed and winterized, leaving a pool without power for three months will result in unsanitary conditions.

Section 1690 (d)(2)(B)(1)(c)

The restriction on the number and type of schedules will stifle innovation and place an undue burden on pool pump control manufacturers. Many existing pool pump controls do not have this level of scheduling in their design and would require a re-design prior to the phase 1 implementation, two years from now.

Conclusion

Pentair understands and supports the need and desire to implement a FDAS program. Pentair asks the CEC to review the comments above and remove this rulemaking from phase 1 implementation. Pentair appreciates the opportunity to be a part of the FDAS development and looks forward to working with the CEC.