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**CA IOUs Title 20 Response to 3rd REVISED Draft Regulations
Replacement Pool Pump Motors 1-4-2018**

Additional submitted attachment is included below.

Replacement Pool Pump Motors

Codes and Standards Enhancement (CASE) Initiative
Title 20 Standards Development

Comments regarding third revised draft regulations:
Replacement Pool Pump Motors

Docket # 15-AAER-02

January 4, 2018

Prepared for:



PACIFIC GAS & ELECTRIC
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1. Purpose

The Codes and Standards Enhancement (CASE) initiative presents recommendations to support California Energy Commission's (Energy Commission) efforts to update California's Appliance Efficiency Regulations (Title 20) to include new requirements or to upgrade existing requirements for various technologies. The three California Investor Owned Utilities (IOUs) – Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric (SDG&E), and Southern California Edison (SCE) – sponsored this effort (Statewide CASE Team). The program goal is to prepare and submit proposals that will result in cost-effective enhancements to improve the energy and water efficiency of various products sold in California.

2. Background

The Statewide CASE Team has been involved with pool energy efficiency for over 15 years, developing and implementing pool-efficiency rebate programs, building codes, and appliance standards. In 2004 the Statewide CASE Team proposed and supported the adoption of the first-in-the-nation appliance standards for pool pump motors in California. These initial requirements included prescriptive design standards banning split-phase and capacitor start-induction run motor construction types, which took effect in 2006. These initial standards also set a requirement that, starting in 2008, all residential pool filtration pump motors greater than one total horsepower (THP) be able to operate at two or more speeds. Also included in these standards was a test-and-list requirement for pool pumps to report "Energy Factor," a metric developed by the Statewide CASE Team and presently used by ENERGY STAR®. In 2008 the Statewide CASE Team was also successful in advocating for building code language that required energy-efficient equipment, plumbing, and design on all newly constructed pools in California through Title 24, Part 6. Years later, some or all of these standards have been adopted in Arizona, Washington, Florida, Oregon, and Connecticut.

In 2012 the Energy Commission initiated a pre-rulemaking to replace the prescriptive motor construction standard with a performance design standard for motors. The Statewide CASE Team has been involved in each step of the process, including the submission of a CASE Report to update the pool pump motor test procedures, standards, and reporting requirements.¹

In September 2015 the United States Department of Energy (U.S. DOE) initiated a formal working group to negotiate standards for dedicated-purpose pool pumps (DPPPs). The Energy Commission and Statewide CASE Team participated as members of the working group, which led to a final term sheet of recommendations to U.S. DOE on July 29, 2016.² U.S. DOE subsequently released a Direct Final Rule on January 18, 2017, which was finalized via publication in the Federal Register on May 26, 2017.³ These new DPPP Standards will apply to self-priming pool pumps, non-self-priming pool pumps, pressure cleaner booster pumps, and integral pool pumps, and will take effect

¹ http://www.energy.ca.gov/appliances/2013rulemaking/documents/proposals/12-AAER-2F_Residential_Pool_Pumps_and_Replacement_Motors/California_IOUs_Response_to_the_Invitation_to_Submit_Proposals_for_Pool_and_Spas_2013-07-29_TN-71756.pdf

² <https://www.regulations.gov/document?D=EERE-2015-BT-STD-0008-0082>

³ <https://www.regulations.gov/document?D=EERE-2015-BT-STD-0008-0135>

nationally on July 19, 2021. These standards, however, do not apply to replacement motors for DPPP's.

Considering the finalized U.S. DOE standards for DPPP's, on July 12, 2017, the Energy Commission released a second revised staff report to cover replacement motors for DPPP's using a newly created motor weighted energy factor (MWEF) metric to align with U.S. DOE equipment classes.⁴ On August 4, 2017, the Statewide CASE Team attended the Energy Commission public staff workshop and presented on several items in the staff report.⁵

On August 10, 2017, U.S. DOE similarly held a public meeting to discuss issues related to the efficiency of DPPP motors. After this meeting the Statewide CASE Team worked extensively with manufacturers, efficiency advocates and other stakeholders throughout 2017 and 2018 in developing a consensus-based agreement to address the replacement pool pump motor loophole, which is reflected in the Joint Stakeholder Proposal submitted to U.S. DOE on August 14, 2018.⁶ The Statewide CAES Team supports this proposal, as it will create a level playing field for pump and motor manufacturers across the country and ensure installation of energy-efficient replacement motors, resulting in highly cost-effective energy savings for pool owners nationwide.

On November 14, 2018, the Energy Commission released its Third Revised Analysis of Efficiency Standards for Replacement Pool Pump Motors Staff Report proposing to update efficiency standards for replacement motors in California to align with the DPPP effective date of July 19, 2021.⁷

3. Summary of CA IOU Support of Third Revised Staff Report

The Statewide CASE Team supports the Energy Commission establishing updated standards for replacement pool pump motors in California should U.S. DOE not act on the Joint Stakeholder Proposal. With roughly 20 percent of the nation's pools,⁸ California is the largest pool pump motor market in the country. If DOE does not act on replacement pool pump motors, it is critical for California to continue improvements on energy efficiency regulations to protect our customers and provide market certainty to the pool industry, to avoid a market distortion between DPPP's and replacement motors.

It should be noted that California currently has a standard for replacement motors, as motors in new pool pumps and replacement motors are treated the same in Title 20. To reiterate, currently, residential pool pump motors cannot be split-phase and capacitor start-induction run motor construction types, and if the motor capacity is greater than one THP, they must be able to operate at two or more speeds. However, as has been discussed extensively throughout this pre-rulemaking and acknowledged by the Energy Commission and manufacturers, the word "residential" in "residential pool pump motor" makes the current Title 20 Regulation application specific and thus confusing for pool service contractors and challenging for manufacturers to ensure compliance. For pool pump and motor combinations (i.e., DPPP's), this issue will be solved when the U.S. DOE standard takes effect in July 2021 as the U.S. DOE standard makes no differentiation between

⁴ <https://efiling.energy.ca.gov/GetDocument.aspx?tn=220120&DocumentContentId=11709>

⁵ <https://efiling.energy.ca.gov/GetDocument.aspx?tn=220521&DocumentContentId=11722>

⁶ <https://www.regulations.gov/document?D=EERE-2017-BT-STD-0048-0014>

⁷ <https://efiling.energy.ca.gov/GetDocument.aspx?tn=225891&DocumentContentId=56568>

⁸ <http://www.apsp.org/Portals/0/2016%20Website%20Changes/2015%20Industry%20Stats/2015%20Industry%20Stats.pdf>

applications. For replacement motors in California, the Joint Stakeholder Proposal recently submitted to the U.S. DOE, and the Energy Commission's proposal in the Staff Report would address this loophole in a similar manner, though the proposals do have some differences.

In summary, the Statewide CASE Team commends the Energy Commission staff for their thorough proposal and leadership in seeking to improve the energy efficiency of replacement motors in California. Should U.S. DOE not act on the Joint Stakeholder Proposal, it is imperative that California address this opportunity to protect consumer savings and provide regulatory certainty for the largest pool market in the country. In California and nationally, the Energy Commission, the Statewide CASE Team, efficiency advocates, and manufacturers have a long and successful history of working together to develop efficiency standards for pool pumps and motors. The Statewide CASE Team looks forward to working with the Energy Commission and other stakeholders to secure energy efficiency standards for replacement pool pump motors in California and nationally.