

DOCKETED

Docket Number:	19-AAER-02
Project Title:	Replacement Pool Pump Motors
TN #:	232154
Document Title:	Initial Statement of Reasons for Dedicated-Purpose Pool Pumps and Replacement Dedicated-Purpose Pool Pump Motors
Description:	N/A
Filer:	Sean Steffensen
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	2/20/2020 1:06:41 PM
Docketed Date:	2/20/2020

CALIFORNIA ENERGY COMMISSION

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CEC-57 (Revised 1/19)

**INITIAL STATEMENT OF REASONS**

Title 20. Public Utilities and Energy
Division 2. State Energy Resources Conservation and Development Commission
Chapter 4. Energy Conservation
Article 4. Appliance Efficiency Regulations
Section(s) 1601 – 1609

Dedicated-Purpose Pool Pumps and
Replacement Dedicated-Purpose Pool Pump Motors
Docket No. 19-AAER-02
Notice Published on February 21, 2020

INTRODUCTION

The California Energy Commission (CEC) proposes to adopt regulations related to replacement dedicated-purpose pool pump motors (RDPPPM) and dedicated-purpose pool pumps (DPPP) after considering all comments, objections, and recommendations, regarding the proposed action.

PROBLEM STATEMENT

The Warren-Alquist Act establishes the CEC as California's primary energy policy and planning agency. Sections 25213, 25218(e), and 25402(a)-(c)(f) of the Public Resources Code mandate and authorize the CEC to adopt rules and regulations, as necessary, to reduce the inefficient consumption of energy by prescribing efficiency standards, facilitating the deployment of flexible demand technologies, and implementing other cost-effective measures for appliances whose use requires a significant amount of energy statewide.

One of the ways the CEC satisfies this requirement is through the Appliance Efficiency Regulations (California Code of Regulations, Title 20, Sections 1601-1609), which contain definitions, test procedures, efficiency standards, and marking and reporting requirements for state and federally regulated appliances. Further, the regulations require that manufacturers of covered appliances certify to the CEC that their products meet all applicable state and federal appliance efficiency regulations before their

products can be included in the CEC's database of appliances approved to be sold or offered for sale within California.

In 2004, the CEC adopted standards for residential pool pumps and motors, which included a prohibition on inefficient split-phase or capacitor-start induction-run electric motors, and a requirement that all pumps and motors that have a total of one horsepower or greater provide at least two-speed operation and controllers. The 2004 standards prohibited split-phase or capacitor-start induction motors effective in January 2006, and the two-speed requirements for pool pump motors with a total horsepower of one or greater took effect in January 2008.

In 2008, the CEC revised the 2004 standards to include a requirement that motors with a total horsepower of one or greater, manufactured after January 2010, shall be capable of at least two speeds or be of variable-speed design. The scope of the regulation was expanded to include replacement residential pool pump motors.

The U.S. Department of Energy (DOE) released a Direct Final Rule establishing energy efficiency standards for Dedicated Purpose Pool Pumps (DPPP). 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 nationally on July 19, 2021.

The federal standards, however, do not apply to Replacement Dedicated Purpose Pool Pump Motors (RDPPPM) for DPPP. There are no mandatory federal standards or test procedures for RDPPPM.

Therefore, the CEC proposes to incorporate changes to the appliance regulations to align with the DOE's new DPPP standards and test procedures published in the Federal Register and effective nationally July 19, 2021.

In addition, the CEC is proposing standards for replacement pool pump motors sold separately from the pumps as replacements. The standards for these RDPPPM would take effect on July 19, 2021 to coincide with the DOE rule for DPPP standards. The proposed regulations provide definitions, test procedures, reporting requirements, and efficiency standards for RDPPPM five total horsepower or less that are not waterfall pumps motors, rigid spa pump motors, or three-phase motors sold without an inverter.

PURPOSE

The purpose of the regulations is to increase energy efficiency savings in the state by carrying out our statutory mandate to save energy by memorializing the federal standards for DPPP and providing statewide standards for RDPPPM in the appliance efficiency regulations. The proposed regulations seek to incorporate changes to the appliance regulations to align with the DOE standards and test procedures for DPPP. In addition, the CEC is proposing to adopt the test method for RDPPPM provided in CSA 747-2009 (RA2014), *Energy efficiency test method for small motors*. The proposed test method is for all types of small motors and allows for multiple motor speeds. The CEC proposes minimum motor efficiencies for RDPPPM 5.0 total horsepower or less. The CEC proposes an additional prescriptive variable-speed motor requirement for

RDPPPM from 0.5 to 5.0 total horsepower. The RDPPPM below 0.5 total horsepower will not be required to be variable speed.

BENEFITS

The specific benefits of the proposed regulations are cost savings to the consumer, lower statewide energy use, and lower criteria pollutant emissions and greenhouse gas emissions due to lower energy use. The proposed regulations would save approximately 62 gigawatt-hours the first year the standard is in effect. By the year that stock turns over in 2029, the proposed standards would have an annual savings of about 451 gigawatt-hours, which equates to roughly \$82 million in annual savings to California businesses and individuals.

STATEMENT OF SPECIFIC PURPOSE AND NECESSITY

SECTION 1601. SCOPE SPECIFIC PURPOSE

The specific purpose is to add DPPP and RDPPPM under the scope of the appliance efficiency regulations. There are non-substantive ordering, and grammatical changes to the heading for Subsection (g) necessary to effectively communicate the requirements and standards in a precise and clear manner.

NECESSITY

It is necessary to add DPPP to the scope of the appliance efficiency regulations to align with the DOE's new DPPP standards and test procedures published in the Federal Register and effective nationally July 19, 2021. This will ensure the appliance efficiency regulations will reflect current federal law.

It is necessary to add RDPPPM to the scope of the appliance efficiency regulations as the new federal standards do not apply to RDPPPM for DPPP. Pool owners must use a pool pump to maintain the cleanliness and sanitation of their pools. When a pool pump motor breaks, a common repair option is to replace the motor with a RDPPPM. By adding the RDPPPM to the scope of the regulations, the CEC ensures replacement motors are efficient, maintaining or exceeding the efficiency of the DPPP, while creating a simple framework to implement and enforce a standard for this product.

SECTION 1602. DEFINITIONS SPECIFIC PURPOSE

The specific purpose is to provide definitions related to DPPP and RDPPPM under Subsection (g). There are also non-substantive numbering, ordering, and grammatical changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

NECESSITY

It is necessary to amend Subsection (g) to add definitions related to DPPP and RDPPPM and make non-substantive grammatical and ordering changes for consistency and clarity.

It is necessary to add the proposed language under Subsection (g)(3) as these definitions will only apply until the DOE regulations become effective on July 19, 2021. After this date, the definitions will no longer be relevant.

The “replacement residential pool pump motor” definition has been updated to delete the ambiguous word “intended” and to add “marketed by a manufacturer” to provide clarity when referring to an existing residential pool pump.

It is necessary to amend Subsection (g)(4) to add definitions related to DPPP and RDPPPM. It is necessary to add the new definitions to ensure that the terms used within the regulations will have clear and unambiguous meaning to readers, including the public, and particularly to the persons and organizations affected by these regulations. The definitions support the certification requirements and represent the consensus position of the industry, with extensive input from manufacturers and energy efficiency advocates.

It is necessary to incorporate by reference NSF/ANSI 50-2015, *Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities* and UL 1081-2016. (October 21, 2016), *Standard for Swimming Pool Pumps, Filters, and Chlorinators* because they are required by DOE definitions for DPPP. This is necessary to ensure the DPPP definitions properly and accurately reflect current federal law providing clarity and regulatory certainty to regulated parties and consumers.

SECTION 1604. TEST METHODS SPECIFIC PURPOSE

The specific purpose is to delete the old test method for residential pool pumps, and clarify and make specific the new test methods for DPPP and RDPPPM. There are also non-substantive numbering, ordering and grammatical changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

NECESSITY

It is necessary to amend Subsection (g) to add DPPP and RDPPPM to the section and make non-substantive grammatical and ordering changes for consistency and clarity.

It is necessary to strike out current subsection (g)(3) because this test method has been made obsolete by the new DOE test method which became effective February 5, 2018 for those residential pool pump and motor combinations that are Federally regulated DPPP self-priming pool filter pumps, non-self-priming pool filter pumps. Additionally the CEC deems the testing and data collection of replacement residential pool pump motors as unnecessary, as the purpose was to use the information to support a future rulemaking. Since this rulemaking will use a new motor test method, collection of data to the existing CEC test method is no longer necessary.

It is necessary to amend the Subsection numbering from (g)(4) to Subsection (g)(3) and to add DPPP and RDPPPM to the subsection.

It is necessary to amend new Subsection (g)(3)(A) (previously (g)(4)(A)) to clarify a reference in a federal test method that DOE corrected. The test method is already incorporated by reference. However, the DOE has amended the reference and therefore we are correcting the reference here for consistency. We are also specifying

necessary to ensure the test method for pumps is clear and unambiguous to readers, particularly to the persons and organizations affected by these regulations.

It is necessary to add Subsection (g)(3)(B) as the required federal test method for DPPP to align the appliance efficiency regulations with the DOE rule published in the Federal Register in February 2018. The energy consumption of DPPP must be based upon results generated under this test procedure. Therefore, the federal test methods are being incorporated by reference. This is necessary to ensure the test method for DPPP properly and accurately reflects current federal law providing clarity and regulatory certainty to regulated parties and consumers.

It is necessary to add Subsection (g)(3)(C) to add the new state test method for RDPPPM to the appliance efficiency regulations. The CEC is proposing to incorporate by reference test method CSA 747-09 (reaffirmed 2014), *Energy efficiency test method for small motors* for RDPPPM. The CSA test method is appropriate as it is intended for all types of small motors and allows multiple motor speeds. It is necessary to add a test method for RDPPPM, because there is no federal test method for RDPPPM. The test method is necessary for the CEC to evaluate the performance efficiency of the motor and ensure compliance with the minimum efficiency standard. By requiring this test method for RDPPPM, the CEC extends the savings of the DOE's rule to RDPPPM while creating a simple framework to implement and enforce a standard for this product.

SECTION 1605.1. FEDERAL AND STATE STANDARDS FOR FEDERALLY REGULATED APPLIANCES SPECIFIC PURPOSE

The specific purpose is to add language to clarify and specify the energy efficiency standards for DPPP as required by DOE. There are also non-substantive numbering, ordering, and grammatical changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

NECESSITY

This section of the Appliance Efficiency Regulations contain mandatory requirements for both federally regulated and state-regulated appliances to provide manufacturers, distributors, retailers, and consumers of appliances with a clear and comprehensive set of requirements in a single location. It is important that the federal requirements contained in the Appliance Efficiency Regulations properly and accurately reflect current federal law and regulations to avoid confusion and to provide regulated parties and consumers more clarity, accessibility, and regulatory certainty with respect to the federal regulatory language in the Appliance Efficiency Regulations.

It is necessary to amend Subsection (g) to add DPPP and RDPPPM to this section and make non-substantive grammatical and ordering changes for consistency and clarity.

It is necessary to amend Subsection (g)(6)(A) to correct cross references.

It is necessary to add Subsection (g)(7)(A)(B)(C)(D) and (E) and Table G-3 to align the energy efficiency standard for the DPPP with the new DOE standards published in the Federal Register that become effective nationally July 19, 2021. This is necessary so the appliance efficiency regulations properly and accurately reflect current federal law

and regulations providing clarity and regulatory certainty to regulated parties and consumers.

It is necessary to amend Subsections (g)(8) to add RDPPPM to the section to identify where energy efficiency standards for RDPPPM can be located within the Article.

**SECTION 1605.2 STATE STANDARDS FOR FEDERALLY REGULATED APPLIANCES
SPECIFIC PURPOSE**

The specific purpose is to add DPPP and RDPPPM to the section and to add reference language for where efficiency standards for DPPP and RDPPPM are within the Article. There are also non-substantive numbering, ordering, and grammatical changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

NECESSITY

This section of the appliance efficiency regulations provide manufacturers, distributors, retailers, and consumers of appliances with a clear and comprehensive set of requirements in a single location.

It is necessary to amend Subsection (g) to add DPPP and RDPPPM to this section and make non-substantive grammatical and ordering changes for consistency and clarity.

It is necessary to amend Subsection (g)(2) to add RDPPPM to the section to identify where the energy efficiency standards for RDPPPM can be located.

It is necessary to add Subsection (g)(4)(A) to identify where energy efficiency standards for federally regulated DPPP can be located.

**SECTION 1605.3. STATE STANDARDS FOR NON-FEDERALLY REGULATED APPLIANCES
SPECIFIC PURPOSE**

The specific purpose is to add RDPPPM to the section and to add the energy efficiency standard criteria for RDPPPM. There are also non-substantive numbering, ordering, and grammatical changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

NECESSITY

This section of the appliance efficiency regulations contains state standards for non-federally regulated appliances to provide manufacturers, distributors, retailers, and consumers of appliances with a clear and comprehensive set of requirements in a single location.

It is necessary to amend Subsection (g) to add RDPPPM to this section. There are also non-substantive ordering and grammatical changes necessary to effectively communicate the items that fall under this subsection.

It is necessary to add Subsection (6)(A)(B)(C) and (D) and Table G-4 to provide the state energy efficiency standard for RDPPPM. The CEC proposes a prescriptive variable-speed control requirement and a minimum motor efficiency at full speed and full load. All RDPPPM that are five total horsepower or less manufactured on or after July 19, 2021, shall meet the efficiency standards outlined in Table G-4.

The minimum efficiencies are necessary to achieve significant energy savings without imposing a significant burden on industry, as many products are already available in the market that meet the standards. Variable-speed control allows the user to set the pump at the lowest speed that can achieve the cleaning and filtering tasks to achieve energy savings. The RDPPPM below 0.5 total horsepower are not required to be variable-speed. This is because as the motor size decreases, the energy-saving opportunity from the ability to turn down the motor speed decreases.

In addition, RDPPPM with freeze protection will be required to meet prescriptive requirements for air temperature set point to start freeze protection, a maximum duration of pumping before rechecking the air temperature, and a limit on the maximum speed of the motor while performing in freeze protection mode. The freeze protection standard is necessary to provide freeze protection without excessive energy consumption by having default settings. This aligns with DOE's rule on DPPP.

Requiring a default speed setting control will save energy by ensuring that a pump set to full speed will automatically default back to an energy savings setting of half-speed after 24 hours.

It is necessary to add Subsection (g)(8) to identify where standards for DPPP can be located within the Article.

It is necessary to rename Table G-3 to Table G-5 and amend Subsection (7) and (7)(B) to correct numbering and cross references.

SECTION 1606. FILING BY MANUFACTURERS; LISTING OF APPLIANCES IN THE MAEDbS

SPECIFIC PURPOSE

The specific purpose is to clarify and make specific manufacturers' reporting requirements for Residential Pool Pump and Motor Combinations and Replacement Residential Pool Pump Motors manufactured before July 19, 2021. Additionally, the purpose is to clarify and make specific manufacturers' reporting requirements for DPPP and RDPPPM manufactured on or after July 19, 2021.

There are also non-substantive numbering, ordering, and grammatical changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

NECESSITY

State law (Public Resources Code § 25402(c)(1)) requires manufacturers to certify to the CEC that their appliances comply with the applicable energy efficiency standards before they are sold or offered for sale in the state. The appliance efficiency regulations require

manufacturers to report specified information for this purpose to the CEC's Modernized Appliance Efficiency Database System (MAEDbs). MAEDbS is used by manufacturers and maintained by the CEC to list the appliances authorized to be sold or offered for sale in California. This helps the CEC and consumers verify compliance with applicable federal and state efficiency standards.

It is necessary to add EXCEPTION 2 for DPPP without a federal test method because the DOE determined that certain DPPP do not have a test method to determine compliance to the prescriptive DOE standard.

It is necessary to add EXCEPTION 3 for residential pool pump and motor combinations and replacement residential pool pump motors without a state test method because the CEC is repealing the state test method as obsolete.

Subsection G of Table X:

Table X provides the reporting requirements for manufacturers. It is necessary that manufacturers know the reporting requirements required to certify each model to the CEC's appliance efficiency database to comply with the regulations and be able to sell their product in California. The reporting requirements are necessary data points to validate the submitted data to ensure all test results meet the required standard.

Table X is amended to remove the reporting requirements that came from the state test method that is no longer relevant, update reporting for the prescriptive ban of split phase and capacitor start induction run motors, and add DPPP and RDPPPM.

The updated motor construction-reporting requirement is to clarify the prohibition on split-phase and capacitor-start induction-run motors. Motors without a run capacitor, a capacitor that improves the power factor of the motor by balancing inductance of the motor coil, are prohibited from being sold. All other motor types are allowed.

It is necessary to add the new DOE standards for DPPP to add reporting requirements that reflect current federal law and regulations. These will apply to self-priming pool filter pumps, non-self-priming pool filter pumps, pressure cleaner booster pumps, integral-cartridge filter pool pumps, integral-cartridge san-filter pool pumps, and waterfall pumps. The standards will take effect nationally on July 19, 2021.

The addition of RDPPPM to Table X is necessary to provide reporting requirements for relevant manufacturers. It is necessary that manufacturers know the reporting requirements required to certify to the CEC's appliance efficiency database to comply with regulation and be able to sell their product in California.

It is necessary to amend Subsection (a)(4)(A)5.g. to remove the nameplate HP marking requirement because it is obsolete. The federal marking requirement is not nameplate HP but DPPP Motor total Horse Power, making the nameplate HP marking requirement obsolete. The CEC cannot require a different marking requirement from the federal marking requirement.

It is necessary to add Subsection (a)(4)(A)5.i. to provide the state marking requirements for RDPPPM manufactured on or after July 19, 2021. This is necessary as manufacturers are required to certify their product meets the marking requirements of

Section 1607. This clarifies and makes specific for the manufacturer what the marking requirements are they are certifying to for RDPPPM.

SECTION 1607. MARKING APPLIANCES SPECIFIC PURPOSE

The specific purpose is to clarify and make specific the marking requirements for DPPP and RDPPPM. There are also non-substantive numbering, ordering and grammatical changes necessary to effectively communicate the requirements and standards in a precise and clear manner.

NECESSITY

All regulated appliances are required to be marked with the manufacturer name, brand name, or trademark; the model number; and the date of manufacture, permanently, legibly, and conspicuously on an accessible place on each unit.

Table Y:

It is necessary to amend Table Y to add federal labeling requirements for the newly covered DOE DPPP. These will apply to self-priming pool filter pumps, non-self-priming pool filter pumps, pressure cleaner booster pumps, integral-cartridge filter pool pumps, integral-cartridge san-filter pool pumps, and waterfall pumps. The labeling requirements will take effect nationally on July 19, 2021.

It is necessary to amend Subsection (d)(9) to clarify the marking requirements now apply to residential pool pumps and motor combinations and residential replacement pool pump motors.

It is necessary to strike out Subsection (d)(9)(A) because these marking requirements are obsolete. The federal marking requirement is not nameplate HP but DPPP Motor total Horse Power, making the nameplate HP marking requirement obsolete. The CEC cannot require a different marking requirement from the federal marking requirement.

It is necessary to amend new Subsection (9)(B) to add motor combinations to those products that have marking requirements and to delete a date that has already passed and is no longer relevant.

It is necessary to make non-substantive changes to Subsection (d)(14) to correct cross references. The language “of this article” was added for consistency within the regulations.

It is necessary to add Subsection (d)(16) to provide the new state marking requirements for RDPPPM manufactured on or after July 19, 2021. This is necessary to clarify and make specific for the manufacturer what the marking requirements are for RDPPPM.

TECHNICAL, THEORETICAL, OR EMPIRICAL STUDIES, REPORTS, OR SIMILAR DOCUMENTS.

The CEC relied on input from various stakeholders, subject matter experts, and interested parties that provided information, feedback, and subject matter expertise from operational, technical, and manufacturing perspectives.

The groups and organizations that participated include:

Appliance Standards Awareness Project, Pacific Gas and Electric Company, Energy Solutions, Southern California Edison, Sempra Utilities, Zodiac, Hayward, Pool and Hot Tub Alliance, Regal, Waterway Plastics, Pentair, Speck Pumps, WEG, National Electrical Manufacturers Association, Natural Resources Defense Council and Nidec.

The CEC also relied upon the following documents:

- Steffensen, Sean. February 2020. *Final Analysis of Efficiency Standards for Replacement Dedicated-Purpose Pool Pump Motors*. California Energy Commission, CEC-400-2020-001.
- U.S. Department of Energy, *Technical Support Document: Energy Efficiency Program for Consumer Products and Commercial and Industrial Equipment: Dedicated Purpose Pool Pumps*, December 2016, EERE-2015-BT-STD-0008-0105.

CONSIDERATION OF REASONABLE ALTERNATIVES INCLUDING THOSE THAT WOULD LESSEN ANY ADVERSE IMPACT ON SMALL BUSINESS

No reasonable alternatives to the proposed regulations have been proposed that would lessen any adverse impact on small business or that would be less burdensome and equally effective in achieving the purposes of the regulation in a manner that achieves the purposes of the statute being implemented.

The CEC is proposing to adopt the test method for RDPPPM provided in CSA 747-2009 (RA2014), *Energy efficiency test method for small motors*. The proposed test method is for all types of small motors and allows for multiple motor speeds. The CEC proposes minimum motor efficiencies for RDPPPM 5.0 total horsepower or less. The CEC proposes an additional prescriptive variable-speed motor requirement for motors from 0.5 to 5.0 total horsepower. The RDPPPM below 0.5 total horsepower will not be required to be variable speed.

The CEC analyzed several alternatives for state standards for RDPPPM. Because the DOE has covered DPPP, the CEC considered only proposals or portions of proposals that affected RDPPPM.

Under proposed alternative one, staff considered no standards. Proposing no standards would be a lost opportunity to achieve energy savings in California and would not help attain California's climate and energy efficiency goals.

Under proposed alternative two, the CEC considered minimum motor efficiency requirements (full- and half-speed) replacement motors for residential and commercial

pools that are less than five total horsepower and a new CSA test method to verify motor efficiency. While this alternative offers significant energy savings, the standard would not provide the additional savings from rightsizing the pump to meet the system need through variable speed control.

Under proposed alternative three, The CEC would have harmonized test procedures and standards for RDPPPM with the DOE test procedure and standard for DPPP. This alternative would ensure that a replacement motor performs as efficiently as the original motor it would replace under the DOE DPPP standard. The test procedure would measure the motor output power on a dynamometer and apply a weighted energy factor (WEF) standard similar to the DOE DPPP standard. While this proposal captures the savings of motor efficiency and variable-speed controls, the CEC believes there are greater saving opportunities without the complexity of the WEF testing and scoring.

Under proposed alternative four, the CEC would have set a prescriptive variable-speed motor control requirement for RDPPPM over 1.15 total horsepower and a prohibition for split-phase and capacitor-start induction-run motors. RDPPPM with freeze protection capability would need to meet the same requirements as those in the U.S. DOE DPPP standard. While this proposal would have captured the savings of motor efficiency and variable-speed controls, the CEC believes there are greater saving opportunities by requiring more motors to have variable speed control and achieve a minimum motor efficiency.

SPECIFIC TECHNOLOGIES OR EQUIPMENT

The proposed regulations mandate specific technology or equipment.

The proposed regulations require minimum motor efficiencies with a prescriptive variable-speed motor requirement for RDPPPM from one-half to five total horsepower. The CEC believes variable speed pool pump motors provide the flexibility to provide the lowest flow necessary for the pool pump task while using the least amount of energy.

ECONOMIC IMPACT ASSESSMENT/ANALYSIS

The Creation or Elimination of Jobs within the State of California

The CEC estimates that the regulations may create jobs in California. Additional jobs may be created as monetary savings due to lower utility bills accrue, increasing the discretionary income of California consumers. This discretionary income is used in ways that increase the gross state product or economic activity in the state. Therefore, the CEC has determined the proposed regulations may indirectly create jobs and are unlikely to eliminate jobs in California.

The Creation of New Businesses or the Elimination of Existing Businesses within the State of California

The businesses involved in distribution and sales of RDPPPM may experience an increase in the wholesale purchase price of these products due to the proposed standard. However, the CEC expects these costs will be entirely passed along to the end consumer, so that there are no direct economic impacts of the proposed standard

to these businesses. The CEC does not expect shipments and sales of RDPPPM to change significantly because of the proposed regulations. Therefore, the CEC has determined that it is unlikely that any new or existing businesses will be created or eliminated in California.

The Expansion of Businesses Currently Doing Business within the State of California

The businesses involved in distribution and sales of RDPPPM may experience an increase in the wholesale purchase price of these products due to the proposed standard. However, the CEC expects these costs will be entirely passed along to the end consumer, such that there are no direct economic impacts of the proposed standard to these businesses. The CEC does not expect shipments and sales of RDPPPM to change significantly because of the proposed regulations. Therefore, the CEC has determined that businesses currently doing business within California will not expand.

Benefits of the Regulations to the Health and Welfare of California Residents, Worker Safety, and the State's Environment

The proposed regulation will benefit the health and welfare of California residents and the state's environment through cost savings to the consumer, lower statewide energy use, and lower greenhouse gas emissions due to lower energy use. The proposed regulations would save approximately 62 gigawatt-hours the first year the standard is in effect. By the year that stock turns over in 2029, the proposed standards would have an annual savings of about 451 gigawatt-hours. This amount equates to roughly \$82 million in annual savings to California businesses and individuals.

Results of the Economic Impact Assessment/Analysis

The CEC concludes that: (1) the proposal may create jobs within California, (2) it's unlikely that the proposal will eliminate jobs within California, (3) It's unlikely the proposal is will create new businesses in California, (4) it's unlikely the proposal will eliminate existing businesses within California, (5) It's unlikely the proposal will result in the expansion of businesses currently doing business within the state.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

The DOE released a Direct Final Rule establishing energy efficiency standards for DPPP. These new DPPP standards will take effect nationally on July 19, 2021. The CEC proposes to incorporate changes to the appliance regulations to align with the DOE standards and test procedures for DPPP.

On August 7, 2017, the DOE issued a Final Rule for the test procedure for DPPP effective September 6, 2017. Representations made on or after February 5, 2018, regarding the energy consumption of dedicated purpose pool pumps must be based upon results generated under this test procedure.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT AFFECTING BUSINESS

The CEC estimates that approximately 600 California businesses may be impacted by the regulations. However, these regulations are not likely to result in a significant adverse economic impact on any business.

The CEC proposes to adopt the test method for RDPPPM provided in CSA C747-09 (reaffirmed 2014), *Energy efficiency test method for small motors*. The proposed test method is for all types of small motors and allows for multiple motor speeds. The CEC proposes minimum motor efficiencies for RDPPPM 5.0 total horsepower or less. The CEC proposes an additional prescriptive variable-speed motor requirement for RDPPPM from 0.5 to 5.0 total horsepower. The RDPPPM below 0.5 total horsepower will not be required to be variable speed.

The proposed regulations adopt the federal standard for DPPP and require technically achievable energy efficiency improvement be made to RDPPPM offered for sale in California. The proposed regulations do not create the need for a new, non-existent good or service. Instead, they require the improvement of existing goods in the market. The economic impact on any retailers, distributors, or utilities is expected to be small compared to the total sales of these entities, and insufficient to have an adverse economic impact affecting business. Shipments and sales of RDPPPM are not expected to change significantly because of the proposed regulations.

While the efficiency standards have an initial increased incremental cost for the improved efficiency, the CEC expects that manufacturers will pass the incremental cost to improve the efficiency onto the distributors and retailers, which will then pass on the cost to consumers. However, the increased efficiency will result in lower energy bills through reduced energy consumption. The savings from the lower energy bills over the lifetime of the more efficient pool pump will exceed the incremental costs of improvement, resulting in overall economic savings.

Under the appliance efficiency regulations, retailers are responsible for ensuring that the regulated products they sell are certified to the CEC, and appear in the MAEDbS before they are sold or offered for sale in California. Because some RDPPPM are newly covered products, it is likely that retailers will experience some additional costs associated with checking MAEDbS to ensure that the product they sell are certified to the CEC, appear in the MAEDbS, and are therefore compliant and lawful to sell in the state.

Some retailers may choose to incur additional costs if they rebrand an appliance not certified to MAEDbS and wish to sell it in California. These retailers are required to certify the appliances to California. Therefore, they will incur costs associated with reporting to the MAEDbs.

Sellers of electricity, both retail and wholesale, may experience slightly reduced sales of electricity due to the proposed standard. However, any reduction in sales is small compared to the total electricity sales of these entities and therefore negligible.

FOR FURTHER INFORMATION

Inquiries concerning all aspects of the rulemaking process, including the substance of the proposed regulations or any other information upon which the rulemaking is based, should be directed to [Corrine Fishman](mailto:Corrine.Fishman@energy.ca.gov) at Corrine.Fishman@energy.ca.gov or (916) 654-4976. If Corrine Fishman is unavailable, you may contact [Sean Steffensen](mailto:sean.steffensen@energy.ca.gov) at sean.steffensen@energy.ca.gov or (916) 651-2908.