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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

California Energy Commission
Spray Sprinkler Bodies
Docket No. 19-AAER-01
Notice Published on April 26, 2019

INTRODUCTION

The California Energy Commission proposes to adopt regulations for spray sprinkler bodies after considering all comments, objections, and recommendations regarding the proposed action.

PROBLEM STATEMENT

The Warren-Alquist Act establishes the Energy Commission as California's primary energy policy and planning agency. Sections 25213, 25218(e), 25401.9(b), and 25402(c) of the Public Resources Code mandate and/or authorize that the Energy Commission adopt rules and regulations, as necessary, to reduce the inefficient consumption of energy and water by prescribing efficiency standards and other cost-effective measures for appliances whose use requires a significant amount of energy or water statewide.

One of the ways the Energy Commission 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 certification requirements for state and federally regulated appliances. Further, the regulations require that appliance manufacturers certify to the Energy Commission that their products meet all applicable state and federal appliance efficiency regulations before their products can be included in the Energy Commission's database of appliances approved to be sold or offered for sale within California.

Specifically, Public Resources Code Section 25401.9(b) requires the Energy Commission to adopt performance standards and labeling requirements for landscape irrigation equipment. Landscape irrigation is the single largest use of potable water in the urban sector and accounts for approximately half of total urban water usage in California. The water is lost as it runs off the landscape, evaporates into the air, or drains beneath the reach of the plant roots. It is therefore necessary to regulate the water efficiency of spray sprinkler bodies to reduce water waste in California.

Therefore, in compliance with statute, the Energy Commission has prepared the proposed regulations to provide definitions, test procedures, reporting requirements,

and efficiency standards for spray sprinkler bodies manufactured on or after October 1, 2020.

PURPOSE

The purpose of the regulations is to carry out the Energy Commission's statutory mandate to save water by providing statewide performance standards for spray sprinkler bodies in the appliance efficiency regulations. Improving the efficiency of landscape irrigation represents an opportunity to save water in California. Landscape irrigation in urban areas in California consumes more than 1.1 trillion gallons of water per year. The Energy Commission identified over irrigation, excessive water pressure, and leakage during nonoperation as contributing to the inefficient irrigation of landscapes. The proposed regulations establish definitions, test procedures, labeling and reporting requirements, and efficiency performance standards.

The Energy Commission is proposing to adopt the test method for spray sprinkler bodies provided in Appendix B of the U.S. Environmental Protection Agency (EPA) WaterSense® Specification for Spray Sprinkler Bodies, Version 1.0, dated September 21, 2017. WaterSense is a voluntary partnership program that promotes water-efficient products and services and efficient water use throughout the United States. The WaterSense test method tests the spray sprinkler body's ability to provide pressure regulation and maintain consistent flow over a range of inlet water pressures. This pressure regulation controls the output pressure to the spray nozzle to maintain the manufacturer-recommended operating pressure as the input pressure varies. Pressure-regulated spray sprinkler bodies prevent excessive water flow rates, misting, wind drift, evaporation, and poor uniformity. Therefore, the Energy Commission is also proposing efficiency standards for spray sprinkler bodies that requires pressure regulation to achieve these benefits.

BENEFITS

The specific benefits of the proposed regulations would be utility bill cost savings to the consumer and lower statewide water and energy use. The proposed regulations will save approximately 15 billion gallons of water the first year the standard is in effect and more than 152 billion gallons per year at full stock turnover in 10 years. In addition, electricity is conserved indirectly as less water is pumped to provide landscape irrigation. The proposed efficiency standards yield total annual electricity savings estimated at 54 gigawatt-hours (GWh) in 2020 and 543 GWh electricity savings by 2029. The proposed standards will protect public health and the environment by avoiding greenhouse gas emissions and criteria air pollutants associated with electricity generation.

STATEMENT OF SPECIFIC PURPOSE AND NECESSITY

SECTION 1601. SCOPE SPECIFIC PURPOSE

The specific purpose is to add landscape irrigation equipment, specifically spray sprinkler bodies under the scope of the Energy Commission's appliance efficiency regulations.

NECESSITY

No mandatory federal or state standards currently exist for the sale of spray sprinkler bodies.

The Energy Commission finds it necessary to add regulations for spray sprinkler bodies in compliance with Public Resources Code Section 25401.9(b) requiring the Energy Commission to adopt performance standards and labeling requirements for landscape irrigation equipment.

Landscape irrigation is the single largest use of potable water in the urban sector and accounts for approximately half of total urban water usage in California; however, California and the federal government have not established any direct regulations for spray sprinkler bodies. This regulation will require spray sprinkler bodies, a component of a spray sprinkler, to provide specified pressure regulation and maintain consistent water flow, thereby reducing over irrigation and excessive sprinkler flow rates due to high water pressure.

Subsection (x) has been added as a placeholder. While subsection (x) is the next sequential section, the Energy Commission believes it necessary to skip and reserve Section (x) throughout Article 4. Appliance Efficiency Regulations (Article) to avoid confusion with Table X found in the Article.

Subsection (y) has been added to include a section for landscape irrigation equipment under the scope of the Energy Commission's appliance efficiency regulations in compliance with Public Resource Code Section 25401.9(b).

Subsection (y)(1) has been added to include spray sprinkler bodies under the scope of the Energy Commission's appliance efficiency regulations in compliance with Public Resource Code Section 25401.9(b).

The change to add Public Resources Code Section 25401.9 (b) to the authority and reference sections is necessary to provide a relevant public resource code section related to spray sprinkler bodies that was not referenced.

SECTION 1602. DEFINITIONS

SPECIFIC PURPOSE

The specific purpose is to provide definitions for landscape irrigation equipment related to spray sprinkler bodies.

NECESSITY

Subsection (x) has been added as a placeholder. While subsection (x) is the next sequential section, the Energy Commission believes it necessary to skip and reserve Section (x) throughout the Article to avoid confusion with Table X found in the Article.

Subsection (y) has been added to include definitions for the proposed regulations. These definitions are necessary 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 water efficiency advocates.

The change to add Public Resources Code Section 25401.9 (b) to the authority and reference sections is necessary to provide a relevant public resource code section related to spray sprinkler bodies that was not referenced.

SECTION 1604. TEST METHODS SPECIFIC PURPOSE

The specific purpose is to clarify and make specific that the Energy Commission will be adopting Appendix B of the EPA WaterSense® Specification for Spray Sprinkler Bodies Version 1.0, dated September 21, 2017 as the test method and sampling requirement for spray sprinkler bodies.

NECESSITY

Subsection (x) has been added as a placeholder. While Subsection (x) is the next sequential section, the Energy Commission believes it necessary to skip and reserve Section (x) throughout the Article to avoid confusion with Table X in the Article.

Subsection (y)(1)(A) provides the test method and sampling requirements for spray sprinkler bodies. The Energy Commission is proposing to adopt the test method and sampling requirements from Appendix B of the EPA's WaterSense® Specification for Spray Sprinkler Bodies, Version 1.0, dated September 21, 2017.

WaterSense is a voluntary partnership program that promotes water-efficient products and services and efficient water use throughout the United States for water using products. The WaterSense label is intended to easily identify products and services that use less water, save energy, and perform as well as or better than standard models on the market.

The WaterSense test method tests the spray sprinkler body's ability to provide pressure regulation and maintain consistent flow, thereby increasing the water efficiency of the spray sprinkler. Sprinklers with pressure regulation control the output pressure to the spray nozzle to maintain the manufacturer-recommended operating pressure as the input pressure varies. Pressure-regulated sprinklers prevent excessive water flow rates, misting, wind drift, evaporation, and poor uniformity. Adopting Appendix B of the EPA's WaterSense® Specification for Spray Sprinkler Bodies will serve to avoid redundancy and the potential for inadvertently conflicting requirements, and will ease the compliance costs and burden on manufacturers as manufacturers will not be required to adhere to a test for Energy Commission compliance and a separate test for the EPA's WaterSense® Specification for Spray Sprinkler Bodies. This will also provide utility efficiency programs and consumers with clear and consistent product efficiency and performance information that will be easily comparable across states, regions, and the country.

Any appliance within the scope of this Article must be tested to determine whether they are conforming with the requirements in this Article. The Energy Commission requires one sample to be tested unless otherwise stated. However, the test procedure being

adopted by the Energy Commission, specifically Appendix B of the EPA WaterSense® Specification, requires a minimum of five samples to be tested. It is necessary to add the sampling requirement language to ensure the public is aware that testing for spray sprinkler bodies is consistent with Appendix B of the EPA WaterSense® Specification for Spray Sprinkler Bodies Version 1.0, dated September 21, 2017. The sampling requirements are applicable for the purposes of certification, compliance, and enforcement of the requirements in this Article.

Therefore, the Energy Commission finds it necessary to adopt the Appendix B of the EPA WaterSense® Specification for Spray Sprinkler Bodies, Version 1.0, dated September 21, 2017, as the test method and sampling requirement for spray sprinkler bodies.

The change to add Public Resources Code Section 25401.9 (b) to the authority and reference sections is necessary to provide a relevant public resource code section related to spray sprinkler bodies that was not referenced.

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

The specific purpose is to add reference language for where water efficiency standards for landscape irrigation equipment can be found within the Article.

NECESSITY

The Energy Commission's 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.

Subsection (x) has been added as a placeholder. While Subsection (x) is the next sequential section, the Energy Commission believes it necessary to skip and reserve Section (x) throughout the Article to avoid confusion with Table X found in the Article.

It is necessary to add Subsection (y) to identify where energy efficiency standards for landscape irrigation equipment can be located within the Article.

The change to add Public Resources Code Section 25401.9 (b) to the authority and reference sections is necessary to provide a relevant public resource code section related to spray sprinkler bodies that was not referenced.

SECTION 1605.2 STATE STANDARDS FOR FEDERALLY REGULATED APPLIANCES SPECIFIC PURPOSE

The specific purpose is to add reference language for where water efficiency standards for landscape irrigation equipment can be found within the Article.

NECESSITY

The Energy Commission's 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.

Subsection (x) has been added as a placeholder. While Subsection (x) is the next sequential section, the Energy Commission believes it necessary to skip and reserve Section (x) throughout the Article to avoid confusion with Table X found in the Article.

It is necessary to add Subsection (y) to identify where energy efficiency standards for landscape irrigation equipment can be located within the Article.

The change to add Public Resources Code Section 25401.9 (b) to the authority and reference sections is necessary to provide a relevant public resource code section related to spray sprinkler bodies that was not referenced.

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

The specific purpose is to clarify and make specific the water efficiency performance standard for spray sprinkler bodies manufactured on or after October 1, 2020, and sold or offered for sale in California. This is in compliance with Public Resources Code Section 25401.9(b).

NECESSITY

The Energy Commission's 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.

Subsection (x) has been added as a placeholder. While Subsection (x) is the next sequential section, the Energy Commission believes it necessary to skip and reserve Section (x) throughout the Article to avoid confusion with Table X found in the Article.

The addition of Subsection (y)(1)(A)1, 2 and 3 is necessary to provide the state efficiency standard for spray sprinkler bodies. The Energy Commission is proposing to require all spray sprinkler bodies to be certified to the Energy Commission as meeting or exceeding three performance metrics identical to the requirements of the EPA's WaterSense® Specification for Spray Sprinkler Bodies, Version 1.0, dated September 21, 2017. The performance requirements test the spray sprinkler body's ability to provide pressure regulation and maintain consistent flow thereby increasing the water efficiency of the spray sprinkler. Sprinklers with pressure regulation control the output pressure to the spray nozzle to maintain the manufacturer-recommended operating pressure as the input pressure varies. Pressure-regulated sprinklers prevent excessive water flow rates, misting, wind drift, evaporation, and poor uniformity.

WaterSense is a voluntary partnership program that promotes water-efficient products and services and efficient water use throughout the United States for water using products. The WaterSense label is intended to easily identify products and services that use less water, save energy, and perform as well as or better than standard models on the market.

The Energy Commission has determined it is necessary to require spray sprinkler bodies meet or exceed the EPA's WaterSense® Specification for Spray Sprinkler Bodies to benefit from the agency's specialized knowledge and experience with this product. The EPA led a multi-year effort that involved draft specifications, public meetings and comment periods, and outreach to the irrigation industry, water utilities and academic institutions. The EPA completed its efforts and published the EPA WaterSense® Specification for Spray Sprinkler Bodies on September 21, 2017. Since that time five manufacturers have certified 103 spray sprinkler body models to the EPA, further demonstrating the technical feasibility of the proposed standard.

In addition, aligning with the EPA's WaterSense® Specification for Spray Sprinkler Bodies will also serve to avoid redundancy and the potential for inadvertently conflicting requirements, and will ease the compliance costs and burden on manufacturers as manufacturers will not be required to adhere to a test for Energy Commission compliance and a separate test for EPA's WaterSense® Specification for Spray Sprinkler Bodies. This will also provide utility efficiency programs and consumers with clear and consistent product efficiency and performance information that will be easily comparable across states, regions, and the country.

The EPA efforts provided evidence for the Energy Commission to show that the proposed regulation is technically feasible, cost-effective to the consumer and will yield significant statewide water savings as required by Section 25402(c). Therefore, the Energy Commission proposes to require that spray sprinkler bodies meet the EPA WaterSense® Specification Spray Sprinkler Bodies, Version 1.0, dated September 21, 2017.

SECTION 1606. FILING BY MANUFACTURERS; LISTING OF APPLIANCES IN DATABASE SPECIFIC PURPOSE

The specific purpose is to clarify and make specific manufacturers' reporting requirements for spray sprinkler bodies manufactured on or after October 1, 2020, and sold or offered for sale in California.

NECESSITY

State law (Public Resources Code § 25402(c)(1)) requires manufacturers to report to the Energy Commission 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 provide specified information for this purpose to the California Energy Commission's Modernized Appliance Efficiency Database System (MAEDbS). MAEDbS is used by manufacturers and maintained by the Energy Commission to list the appliances authorized to be sold or offered for sale in California.

This helps the Energy Commission and consumers verify compliance with applicable federal and state efficiency standards.

Section X of Table X: Section X has been added as a placeholder. While Section X is the next sequential section in the Table, the Energy Commission believes it necessary to skip and reserve Section X throughout the Article to avoid confusion.

Section Y of Table X: The addition of spray sprinkler bodies to Table X is necessary to provide the reporting requirements for manufacturers of spray sprinkler bodies. It is necessary that manufacturers know the reporting requirements required to certify each model to the Energy Commission's appliance efficiency database. The reporting requirements specified here are necessary to ensure manufacturers are complying with the performance requirements to be able to sell, or offer for sale, their product in California.

The change to add Public Resources Code Section 25401.9 (b) to the authority and reference sections is necessary to provide a relevant public resource code section related to spray sprinkler bodies that was not referenced.

SECTION 1607. MARKING APPLIANCES SPECIFIC PURPOSE

The specific purpose is to clarify and make specific the marking requirements for spray sprinkler bodies.

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.

It is necessary to add Subsection (c)(2) to add spray sprinkler bodies to the regulation as an appliance that has marking requirements with an additional option that the marking may be placed on each unit, on the unit's packaging, or, where the unit is contained in a group of several units in a single package, on the packaging of the group. This is needed because the product information may not be physically fit upon the spray sprinkler body and may need to be placed on the product packaging.

It is necessary to add Subsection (d)(15)(A) to clarify marking requirements. The presence of an integral pressure regulator needs to be marked on the spray sprinkler body itself. The marking requirements are necessary to support an irrigation audit or irrigation survey as required by existing California Code of Regulations, Title 23, Division 2, Department of Water Resources, Chapter 2.7. Model Water Efficient Landscape Ordinance, Section 492.12.

The change to add Public Resources Code Section 25401.9 (b) to the authority and reference sections is necessary to provide a relevant public resource code section related to spray sprinkler bodies that was not referenced.

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

The Energy Commission 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:

Aqualine, American Standards Awareness Project (ASAP), Pacific Gas and Electric, Southern California Edison, San Diego Gas and Electric, SoCalGas, California Department of Water Resources, Irrigation Association, K-Rain, Toro, RainBird, Hunter, Contra Costa Water District, Center for Irrigation Technology, Ewing Irrigation, Champion-Arrowhead, East Bay Municipal Water District, National Resources Defense Council (NRDC), California Water Boards representative, and California Retailers Association.

The Energy Commission also relied upon the following documents:

Steffensen, Sean. 2019. *Final Staff Analysis of Water Efficiency Standards for Spray Sprinkler Bodies*. California Energy Commission, CEC-400-2018-005-SF

Helvoigt, Ted, Ph.D. 2019. *Economic Impact Analysis of the Water Efficiency Standards for Spray Sprinkler Bodies*.

U.S. Environmental Protection Agency, *Appendix B of the WaterSense® Specification for Spray Sprinkler Bodies, Version 1.0, September 21, 2017*.

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 Energy Commission reviewed the readiness of various types of landscape sprinklers for water saving regulations. The scope of available test procedures, availability of products with pressure regulation, and whether the products meeting the standard would provide significant water savings were all reviewed.

The Energy Commission proposes a performance standard for all spray sprinkler bodies using Appendix B of the U.S. EPA WaterSense® Specification for Spray Sprinkler Bodies, V.1.0 as the test procedure for spray sprinkler bodies. To the Energy Commission's knowledge, the only way to meet this standard is through the use of pressure regulation. Pressure regulation provides significant water savings, and when combined with the previous work performed by WaterSense, there is sufficient information to analyze cost-effectiveness, technical feasibility, and statewide water savings.

The Energy Commission estimates that the new standards will result in a reduction of nearly 15 billion gallons of water used for irrigation by residences, businesses and

government facilities in the first year of implementation and 152 billion gallons per year once all spray sprinkler bodies are replaced in 10 years. In addition, the proposed regulations will save approximately 54 GWh of electricity the first year and 543 GWh of electricity at full stock turnover in 10 years.

In addition to the adjustments to the proposed regulations based on stakeholder feedback mentioned above, the Energy Commission evaluated two distinct alternatives. Under alternative 1, the Energy Commission considered adding a drain check valve to a baseline spray sprinkler body (no pressure regulations). A drain check valve closes the irrigation system to prevent the flow of water when the system is not operating. Check valves can be added to most irrigation spray heads in the field as an add-on or sold as integral parts of the sprinkler head assembly. At this time, there is no available performance data to demonstrate cost-effectiveness of the drain check valve. The Energy Commission has determined not to include the drain check valve as a water-saving measure but would consider this feature in the future when information becomes available regarding drain check valve performance.

Under alternative 2, the Energy Commission considered proposing requiring both pressure regulation and drain check valves on all spray sprinkler bodies since this is another common product offering. However, at this time, there is no available performance data to demonstrate cost-effectiveness of this combined product.

SPECIFIC TECHNOLOGIES OR EQUIPMENT

The proposed regulations do not mandate proprietary technology or equipment. The proposed regulations require the use of non-proprietary pressure regulation to maintain rated spray sprinkler body performance over a range of water supply pressures. The Energy Commission believes the use of pressure regulation is necessary to achieve the goal of the Energy Commission's statutory mandate to save water by providing statewide performance standards for spray sprinkler bodies in the appliance efficiency regulations.

STANDARDIZED REGULATORY IMPACT ASSESSMENT

Based on the nature of the proposed regulatory changes and a review of the criteria set forth by the California Department of Finance (DOF), the Energy Commission has determined that the proposed rulemaking is a major regulation requiring a Standardized Regulatory Impact Assessment (SRIA). The Energy Commission collaborated with Evergreen Economics to conduct an analysis of the proposed new performance standards for spray sprinkler bodies to assess the economic impacts. Evergreen Economics used Impact Analysis for Planning (IMPLAN) modeling software to estimate how the proposed standards will affect California's single-family residences, businesses, multi-family residences, and government facilities. Evergreen Economics estimated the effects on spray sprinkler manufacturers based in California.

Please see attachment A for full revised SRIA information.

The Creation or Elimination of Jobs within the State of California

By the end of the analysis period in 2029, the Energy Commission estimates the creation of 5,041 jobs and the elimination of no jobs. This is based on the SRIA completed by the Energy Commission with analysis performed by Evergreen Economics. The economic analysis assumes one third of the spray sprinkler bodies will be manufactured by California manufacturers and the increased incremental cost of spray sprinkler bodies will lead to additional revenue for these companies. An increased investment in labor by manufacturers and suppliers is expected in order to meet the demand for compliant products. Additional jobs may be created as monetary savings due to lower water 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 Energy Commission has determined the proposed regulations may 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 regulation is proposing to adopt the test method for spray sprinkler bodies provided in Appendix B of the EPA WaterSense® Specification for Spray Sprinkler Bodies, Version 1.0, dated September 21, 2017. This test method tests the spray sprinkler body's ability to provide pressure regulation and maintain consistent flow over a range of inlet water pressures. The proposed regulations do not create the need for a new, non-existent good or service. Instead, it requires the improvement of existing goods in the market. No specific business is estimated to be directly created by the regulation, although secondary businesses may be created from expanded jobs and disposable income within the state. Sales of spray sprinkler bodies are not expected to change significantly as a result of the proposed regulations. 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 support the creation or cause the elimination of any business. Therefore, the Energy Commission has determined that it is unlikely that any new or existing businesses in California will be created or eliminated.

Competitive Advantage or Disadvantage for Businesses Currently Doing Business within the State of California

The regulation is proposing to adopt the test method for spray sprinkler bodies provided in Appendix B of the EPA WaterSense® Specification for Spray Sprinkler Bodies, version 1.0, dated September 21, 2017. This test method tests the spray sprinkler body's ability to provide pressure regulation and maintain consistent flow over a range of inlet water pressures. The proposed regulation would apply to all businesses manufacturing the regulated products inside and outside of the state, and offering spray sprinkler bodies for sale to California customers. The proposed regulations will, by design, give an advantage to manufacturers of more efficient products. However, compliant products are already offered by many manufacturers. The businesses involved in distribution and sales of spray sprinkler bodies may experience increased wholesale purchase prices due to the proposed standard; however, the Energy Commission assumes these costs are entirely passed along to the end consumer, so that there are no direct economic impacts of the proposed standard to these

businesses. Therefore, the Energy Commission has determined that it is unlikely that the regulation will create a competitive advantage or disadvantage for businesses currently doing business within the state.

Increase or Decrease of Investment in the State of California

The economic assessment predicts there may be a small increase in investment as a result of the proposed regulation. This result is consistent with the expected increase in economic activity resulting from increased disposable income due to reduced water utility bills due to the large water savings. Therefore, the Energy Commission has determined it is likely the proposed regulations will result in a small increase in investment in the state.

Incentives for Innovation in Products, Materials, or Processes

The proposed efficiency standards are by design meant to promote innovation for the regulated product category. The proposed regulations are likely to incentivize manufacturers of existing products to adjust from status quo designs that would have difficulty meeting the performance standards. These changes lead to increased industry investment in technology and form the core of innovation. The technologies necessary to meet the proposed standards are widely available. The proposed standards will cause the spread of existing, efficient technologies into products that may not currently contain them, thereby increasing the number of products that would comply with the proposed standards. It is possible the Energy Commission's proposed standards would compel manufacturers to incorporate higher efficiency technologies into similar products sold outside of the state. It is also possible that the state's proposal could serve as a template for federal efficiency standards. Therefore, the Energy Commission has determined that it is likely the regulations will provide incentive for innovation in products, materials, or processes.

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

The benefits of the proposed regulations would be cost savings to the consumer, and lower statewide water and energy use. The proposed regulations will save approximately 15 billion gallons of water the first year the standard is in effect and more than 152 billion gallons per year at full stock turnover in 10 years. In addition, the proposed regulations will save approximately 54 GWh of electricity the first year and 543 GWh of electricity at full stock turnover in 10 years.

The proposed regulations will have a significant positive impact on the environment through water and energy efficiency gains and avoiding GHG emissions and criteria pollutant emissions associated with the generation of electricity.

Results of the Standardized Regulatory Impact Assessment

The SRIA concluded that: (1) the proposal is estimated to create jobs within California, (2) the proposal is not expected to eliminate jobs within California, (3) the proposal will not create new businesses in California, (4) the proposal will not eliminate existing businesses within California, (5) the proposal will not result in a competitive advantage for businesses currently doing business within the state, (6) the proposal will not result

in a competitive disadvantage for businesses currently doing business within the state, (7) it is likely the proposal will increase investment in the state, (8) it is unlikely the proposal will decrease investment in the state and, (9) it is likely the regulations may provide incentive for innovation in products, materials, or processes.

DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS

These proposed regulations do not duplicate or conflict with any federal regulations contained in the Code of Federal Regulations. The Energy Commission has confirmed that there are no definitions, test procedures or efficiency standards for spray sprinkler bodies in federal statute or regulation.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT ADVERSE ECONOMIC IMPACT AFFECTING BUSINESS

The Energy Commission estimates that approximately 1000 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 Energy Commission is proposing to adopt the test method for spray sprinkler bodies provided in Appendix B of the EPA WaterSense® Specification for Spray Sprinkler Bodies, version 1.0, dated September 21, 2017. This test method tests the spray sprinkler body's ability to provide pressure regulation and maintain consistent flow over a range of inlet water pressures.

The proposed standard for spray sprinkler bodies is cost-effective, technically feasible and would save approximately 15 billion gallons of water the first year the standard is in effect and more than 152 billion gallons per year at full stock turnover in 10 years. In addition, electricity is conserved indirectly as less water is pumped to provide landscape irrigation. The proposed efficiency standards yield total annual electricity savings estimated at 54 gigawatt-hours (GWh) in 2020 and 543 GWh electricity savings by 2029. Consumers will save about \$22 per device over its lifetime through reduced water use, resulting in \$5.4 billion savings statewide.

The proposed regulations do not create the need for a new, non-existent good or service. Instead, it requires the improvement of existing goods in the market. Sales of spray sprinkler bodies are not expected to change significantly as a result of the proposed regulations. The economic impact on any retailers or distributors is expected to be small compared to the total sales of these entities, and insufficient to have an adverse economic impact affecting business.

The water efficiency standard for spray sprinkler bodies have an initial increased incremental cost to individuals and businesses for the improved water efficiency, but the increased water efficiency will result in lower utility bills to those individuals and businesses through reduced water consumption. The savings from the lower utility bills over the lifetime of the more efficiency spray sprinkler bodies 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 Energy Commission and appear in the

MAEDbS before they are sold or offered for sale in California. Because spray sprinkler bodies are newly covered products, the Energy Commission assumes that retailers will experience some additional costs associated with checking MAEDbS to ensure that the spray sprinkler bodies they sell are certified to the Energy Commission and 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 that is not certified to MAEDbS and wish to sell it in California. These retailers are required to certify the appliances to California, and therefore will incur costs associated with reporting to the MAEDbS.

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 at Corrine.Fishman@energy.ca.gov or (916) 654-4976. If Corrine Fishman is unavailable you may contact Sean Steffensen at sean.steffensen@energy.ca.gov or (916) 651-2908.