

DOCKETED

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NOTICE OF PROPOSED ACTION

Title 20. Public Utilities and Energy
Division 2. State Energy Resources Conservation and Development Commission
Chapter 4. Energy Conservation
Article 4. Appliance Efficiency Regulations

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.

PUBLIC HEARING

Energy Commission staff will hold a public hearing for the proposed regulations on the following date and time. Interested persons, or his or her authorized representative, may present oral and written statements, arguments, or contentions relevant to the proposed regulations at the hearing. The record for this hearing will be kept open until 12:00 p.m. (Pacific Time) or until every person present who indicates a desire to speak has had an opportunity to do so.

Tuesday, June 18, 2019
10:00 a.m. – 12:00 p.m. (Pacific Time)
California Energy Commission
1516 9th Street
Sacramento, CA 95814
First Floor, Imbrecht Hearing Room
(Wheelchair accessible)

Audio for the hearing will be broadcast over the internet. Details regarding the Energy Commission's webcast can be found at www.energy.ca.gov/webcast.

If you have a disability and require assistance to participate in the hearing, please contact Yolanda Rushin at Yolanda.Rushin@energy.ca.gov, or (916) 654-4310, at least five days in advance.

WRITTEN COMMENT PERIOD

You may submit written comments to the Commission for consideration on or prior to June 10, 2019. The Energy Commission appreciates receiving written comments at the earliest possible date.

Please submit comments using the Energy Commission's e-commenting feature by going to the Energy Commission's spray sprinkler bodies webpage at <https://www.energy.ca.gov/appliances/2019-AAER-01/>, Docket Number 19-AAER-01 then select the "Submit e-comment" link. A full name, e-mail address, comment title, and either a comment or an attached document (.doc, .docx, or .pdf format) is mandatory. After a challenge-response test used by the system to ensure that responses are generated by a human user and not a computer, click on the "Agree & Submit Your Comment" button to submit the comment to the California Energy Commission's Docket Unit.

Please note that written comments, attachments, and associated contact information included within the written comments and attachments (e.g., your address, phone, email, etc.) become part of the viewable public record.

You are encouraged to use the electronic filing system, described above, to submit comments. All written comments submitted prior to the hearing must be submitted to the docket. If you are unable to submit electronically, a paper copy of your comments may be sent to:

Docket Unit
California Energy Commission
Docket No. 19-AAER-01
1516 9th Street, MS-4
Sacramento, CA 95814
Telephone: (916) 654-5076

Or by email to DOCKET@energy.ca.gov.
Or fax them to Dockets at (916) 654-4354.

PUBLIC ADVISER

The Energy Commission's Public Adviser, Alana Mathews, is available to assist any person who wishes to participate in this proceeding. For assistance from the Public Adviser's Office, please call (916) 654-4489 or toll-free in California at (800) 822-6228 or contact publicadviser@energy.ca.gov.

NEWS MEDIA INQUIRIES

News media inquiries should be directed to the Media and Public Communications Office at (916) 654-4989, or by e-mail at mediaoffice@energy.ca.gov.

STATUTORY AUTHORITY AND REFERENCE

Public Resources Code Sections 25213, 25218(e), 25401.9(b) and 25402(c) authorize the Energy Commission to adopt rules or regulations, as necessary, to implement, interpret, and make specific Public Resources Code Sections 25401.9(b), 25402(c) and 25216.5(d).

INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW

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 after October 1, 2020, and sold or offered for sale in California.

Difference from existing comparable federal regulation or statute

The Energy Commission has reviewed the applicable federal statutes and regulations and confirmed that no federal regulations or statutes currently exist for spray sprinkler bodies.

Broad objectives of the regulations and the specific benefits anticipated by the proposed amendments

The broad objective 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 water is lost as it runs off the landscape, evaporates into the air, or drains beneath the reach of the plant roots. 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.

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.

Determination of inconsistency or incompatibility with existing state regulations

The Energy Commission has conducted an evaluation for any other regulations in this topic area and found that the Department of Water Resources (DWR) and the California State Water Resources Control Board (SWRCB) have regulations related to landscape irrigation and water conservation.

Title 24, part 11 requires compliance with the DWR State Model Water Efficient Landscape Ordinance (MWELo) or local landscape ordinance and applies to certain new construction projects, rehabilitated landscape projects, cemeteries and certain existing landscapes. In Title 23, Section 492.7(a)(1)(C), MWELo requires the use of pressure regulating devices to be a part of the design plan if the water pressure exceeds the recommended pressure of the specified irrigation devices. The MWELo requirements are consistent with the proposed regulations.

The California SWRCB issued regulations to permanently prohibit certain wasteful water uses including prohibiting runoff from landscaped areas. The prohibitions apply to a variety of water users including homeowners, homeowners' associations, cities,

and counties. The California SWRCB requirements are consistent with the proposed regulations.

The proposed regulations would not prevent compliance with existing state regulations. Therefore, the Energy Commission has determined that the proposed regulations are neither inconsistent nor incompatible with either of these regulations.

DOCUMENTS INCORPORATED BY REFERENCE

The Energy Commission proposes to incorporate by reference the following document:

Appendix B of the EPA WaterSense® Specification for Spray Sprinkler Bodies, Version 1.0, dated September 21, 2017.

This document is available for review on our website at <https://www.energy.ca.gov/appliances/2019-AAER-01/> and at the Energy Commission located at 1516 Ninth Street, Sacramento, California 95814.

MANDATED BY FEDERAL LAW OR REGULATIONS

None.

OTHER STATUTORY REQUIREMENTS

None.

FISCAL IMPACTS

The Energy Commission has made the following initial determinations:

- The mandate on local agencies and school districts: None
- The cost to any local agency or school district requiring reimbursement pursuant to 17500 et seq. None.
- Cost or savings to any state agency: State governments are projected to purchase 190,000 spray sprinkler bodies each fiscal year. The estimated increased cost to state agencies in fiscal year (FY) 2020-21 is \$889,000. State agencies will begin saving money on these sprinklers when they are installed. The estimated savings in FY 2020-21 is \$606,000. While the costs are limited to FY 2020-21, the savings will accrue over the lifetime of the sprinkler, exceeding the initial cost of the sprinkler in the second year after installation.
- Non-discretionary cost or savings imposed upon local agencies: Local governments are projected to purchase 665,000 spray sprinkler bodies each fiscal year. The estimated increased cost to local governments in FY 2020-21 is \$3.1 million. Local governments will begin saving money on these sprinklers when they are installed. The estimated savings in FY 2020-21 is \$2.1 million. While the costs are limited to FY 2020-21, the savings will accrue over the

lifetime of the sprinkler, exceeding the initial cost of the sprinkler in the second year after installation.

- Cost or savings in federal funding to the state: None.

SIGNIFICANT EFFECT ON HOUSING COSTS

None.

SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESS, INCLUDING ABILITY OF CALIFORNIA BUSINESSES TO COMPETE WITH BUSINESSES IN OTHER STATES

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. 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.

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. 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. Sales of spray sprinkler bodies are not expected to change significantly as a result of the proposed regulations.

While the efficiency standards for spray sprinkler bodies have an initial increased incremental cost for the improved efficiency the Energy Commission assumes that spray sprinkler body manufacturers will pass the incremental cost to improve the efficiency of the spray sprinkler body onto the distributors and retailers, which will then pass on the cost to consumers. However, the increased efficiency will result in lower water bills through reduced water consumption. The savings from the lower water bills over the lifetime of the more efficient spray sprinkler body 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 Energy Commission and appear in the Commission's Modernized Appliance Efficiency Database System (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 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.

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 Standardized Regulatory Impact Assessment (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.

RESULTS OF THE 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 SRIA. The Energy Commission collaborated with Evergreen Economics to conduct an analysis of the proposed new performance standards for spray sprinkler bodies to evaluate the economic impact. Evergreen Economics used the 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 also estimated the effects on spray sprinkler manufacturers based in California.

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.

Benefit of the Proposed Action: The proposed regulations would provide 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 in 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.

Summary of comments submitted by the (DOF) and the Energy Commission's responses to those comments.

DOF Comment #1:

The SRIA must include the impact of sprinklers used in multi-family residential properties, as sprinklers in those structures would also be required. Sources cited in the SRIA note that the stock of sprinklers on multi-family properties is roughly comparable to the stock used on commercial properties, or 20 percent of the total. Including these sprinklers would raise the costs to around \$140 million a year, and increase savings on water and energy to around 16 billion gallons and 60 GWh, respectively.

Energy Commission's Response:

Commission staff has added an estimate of the impact from sprinklers in multi-family properties. The number of sprinklers is based on estimates of the number of single-family attached and multi-family units in California. Staff assumed 429 square feet of irrigated ground per housing unit and that each sprinkler irrigates 100 square feet. With these assumptions staff determined there are approximately 23 million spray sprinkler bodies installed in California.

Staff calculated the water, energy, and utility bill savings due to the proposed regulation for sprinklers installed around multi-family residences and updated the analysis to reflect these additional savings. The additional savings totaled approximately 11 billion gallons of water and \$72 million per year after all non-compliant stock is replaced. Staff also evaluated the savings due to these sprinklers for the other alternatives considered in this analysis.

DOF Comment #2:

The analysis should account for an increasing baseline of sprinkler usage over time, given that the state is expected to add around 2 million more housing units from 2020 to 2029. While water consumption has been relatively flat since the drought restrictions in 2016, and anecdotally more landscaping is switching to drought-tolerant designs, the sheer scale of additions is likely to overwhelm these factors. Against an increasing baseline, the proposed regulations would be even more important to increasing California water and energy efficiency. Given lower water and energy demands, utilities face less need for additional investments in costly infrastructure.

Energy Commission's Response:

Commission staff agrees that the analysis does not provide an estimate of savings for sprinklers that will be placed around newly constructed housing units.

Population growth and the housing shortage in California will require approximately two million additional housing units to be built during the period of analysis, years 2020 through 2029. The new housing units will have irrigated landscapes that contain sprinklers within the scope of the regulations. The sprinklers would also be within the scope of the MWELo. The ordinance contains similar requirements for pressure regulation as the Commission's proposed regulation. Commission staff chose not to estimate savings from sprinklers around new construction to avoid double counting of water and utility bill savings occurring due to MWELo.

COST IMPACTS ON REPRESENTATIVE PERSON OR BUSINESS

The Energy Commission is not aware of any significant cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

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 efficient spray sprinkler bodies exceed the incremental costs of improvement, resulting in overall economic savings.

The businesses involved in the distribution and sales of spray sprinkler bodies may experience increased wholesale purchase prices of spray sprinkler bodies 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 standards to these businesses. Spray sprinkler body shipments and sales are not expected to change significantly as a result of the proposed regulations. Some retailers may choose to incur additional costs if they rebrand a spray sprinkler body 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.

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

BUSINESS REPORT

The regulations impose a new reporting requirement for manufacturers of spray sprinkler bodies.

State law (Public Resources Code Section 25402(c)(1)) requires manufacturers to certify 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 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 is necessary to help the Energy Commission and consumers verify compliance with applicable federal and state efficiency standards. Some retailers may choose to act as a manufacturer when they rebrand a product and assume the certification burden for that spray sprinkler or spray sprinkler body model.

It is necessary for the health, safety, or welfare of the people of the state, that these regulations, which require a report, apply to businesses.

SMALL BUSINESS

The Energy Commission is not aware of any significant cost impacts that a small business, as defined in Government Code Section 11346.3(b)(4)(B), would incur in reasonable compliance with the proposed action. There are small business manufacturers that manufacture spray sprinkler bodies outside of California. However, there are no small businesses engaged in the manufacturing of spray sprinkler bodies within the state.

The small businesses involved in the 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.

CONSIDERATION OF ALTERNATIVES

In accordance with Government Code Section 11346.5, subdivision (a)(13), the Commission must determine that no reasonable alternative considered by the agency, or that has otherwise been identified and brought to the attention of the agency, would be more effective in carrying out the purpose for which the action is proposed, would be as effective and less burdensome to affected private persons than the proposed action, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.

The Energy Commission invites interested persons to present statements or arguments concerning alternatives to the proposed regulations at the scheduled hearing or during the written comment period.

CONTACT PERSON

Please direct inquiries concerning all aspects of the rulemaking process including requests for copies of the proposed text (the “express terms”), the initial statement of reasons (ISOR), any modified version of the regulations, the substance of the proposed regulations, or any other information upon which the rulemaking is based to:

Corrine Fishman
Regulations Manager, Efficiency Division
1516 Ninth Street
Sacramento, CA 95814-5512
(916) 654-4976
Corrine.Fishman@energy.ca.gov

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

COPIES OF THE INITIAL STATEMENT OF REASONS, THE EXPRESS TERMS, AND RULEMAKING FILE

The Energy Commission will have the entire rulemaking file available for inspection and copying throughout the rulemaking process at its office at the above address. As of the date this notice is published in the Notice Register, the rulemaking file consists of this notice, the express terms, the Initial Statement of Reasons (ISOR), documents incorporated by reference, and documents relied upon. Copies may be obtained by contacting Corrine Fishman at the address or phone number listed above or accessed through the Energy Commission's website at <https://www.energy.ca.gov/appliances/2019-AAER-01/>.

AVAILABILITY OF SUBSTANTIAL CHANGES TO ORIGINAL PROPOSAL FOR AT LEAST 15 DAYS PRIOR TO AGENCY ADOPTION/REPEAL/AMENDMENT OF RESULTING REGULATIONS

Participants should be aware that any of the proposed regulations could be substantively changed as a result of public comment, staff recommendation, or recommendations from Commissioners. Moreover, changes to the proposed regulations not indicated in the express terms could be considered if they improve the clarity or effectiveness of the regulations. If the Energy Commission considers changes to the proposed regulations pursuant to Government Code Section 11346.8, a full copy of the text will be available for review at least 15 days prior to the date on which the Energy Commission adopts or amends the resulting regulations.

COPY OF THE FINAL STATEMENT OF REASONS

At the conclusion of the rulemaking, persons may obtain a copy of the Final Statement of Reasons (FSOR), once it has been prepared, by visiting the Commission's website at <https://www.energy.ca.gov/appliances/2019-AAER-01/> or contacting the contact person listed above.

AVAILABILITY OF DOCUMENTS ON THE INTERNET

The Energy Commission maintains a website in order to facilitate public access to documents prepared and considered as part of this rulemaking proceeding. Documents prepared by the Energy Commission for this rulemaking, including this

Notice of Proposed Action, the express terms, and the Initial Statement of Reasons have been posted on our website at <https://www.energy.ca.gov/appliances/2019-AAER-01/>.