

DOCKETED

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Project Title:	Appliance Efficiency Standards Rulemaking for Computers and Light-Emitting Diode Lamps
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NOTICE OF PROPOSED ACTION

Computers and Light-Emitting Diode Lamps Appliance Efficiency Rulemaking

California Energy Commission
Docket No. 17-AAER-15
September 22, 2017

The California Energy Commission (Commission) proposes to modify existing appliance efficiency regulations for computers to create a new allowance for a discrete GPU that is packaged on the same substrate as the CPU, which is a new and innovative feature or functionality that was not considered at the time of the original rulemaking and that requires additional consideration in the efficiency levels for computers; to make minor modifications to adjust the definitions to better represent computers in the market that were intended to be covered as mobile gaming systems or mobile workstations in the original rulemaking; and to allow manufacturers to report estimated lamp lifetime pending completion of lifetime testing for state-regulated light-emitting diode (LED) lamps and the LED versions of state-regulated small diameter directional lamps (SDDL), in alignment with the Code of Federal Regulations.

NOTICE THAT A PUBLIC HEARING IS SCHEDULED:

The date set for the adoption of regulations at a public hearing is as follows:

Commission Business Meeting
November 8, 2017
Beginning 10:00 a.m. (Pacific Time)
California Energy Commission
1516 9th Street
Sacramento, CA 95814
Rosenfeld Hearing Room
(Wheelchair accessible)

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

If you have a disability and require assistance to participate in these hearings, please contact Poneh Jones at (916) 654-4425 at least 5 days in advance.

ORAL AND WRITTEN STATEMENTS

Interested persons may present oral and written statements, arguments, or contentions regarding the proposed regulations at the hearing, or, prior to the hearing, may submit

written comments to the Commission for consideration no later than 5:00 pm on November 6, 2017. The Commission appreciates receiving written comments at the earliest possible date.

Please submit comments to the Commission using the Commission's e-commenting feature by going to the Commission's appliance efficiency rulemaking webpage at <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=17-AAER-15> and click on 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 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 unit. If you are unable to submit electronically, a paper copy of your comments may be sent to:

Docket Unit
California Energy Commission
Docket No. 17-AAER-15
1516 9th Street, MS-4
Sacramento, CA 95814
Telephone: (916) 654-5076
Or e-mail them to: Docket@energy.ca.gov

PUBLIC ADVISER

The Commission's Public Adviser's Office 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.

STATUTORY AUTHORITY AND REFERENCE – Government Code Section 11346.5(a)(2) and 1 California Code of Regulations 14

Authority: Sections 25213, 25218(e), and 25402(c), Public Resources Code.

Reference: Sections 25216.5(d) and 25402(c), Public Resources Code.

INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW – Government Code Section 11346.5(a)(3)

Existing laws and regulations related directly to the proposed action and effect of the proposed rulemaking – Government Code section 11346.5(a)(3)(A).

Existing law requires the Commission to reduce the inefficient consumption of energy and water by prescribing efficiency standards and other cost-effective measures for appliances that require a significant amount of energy and water to operate on a statewide basis. Such standards must be technologically feasible and attainable and must not result in any added total cost to the consumer over the designed life of the appliance.

The Appliance Efficiency Regulations (Title 20, Sections 1601-1609 of the California Code of Regulations) contain definitions, test procedures, labeling requirements, and efficiency standards for state- and federally regulated appliances. Appliance manufacturers are required to certify to the Commission that their products meet all applicable state and federal regulations pertaining to efficiency before their products can be included in the Commission's database of approved appliances to be sold or offered for sale within California.

The regulatory text approved by the Office of Administrative Law on August 22, 2017, is the existing law as referenced in this document. The proposed regulations for computers are shown in underline and strikeout with respect to the regulatory text approved by the Office of Administrative Law on August 22, 2017.

COMPUTERS

Existing law regulates the idle-mode energy consumption of most types of computers, including desktops, notebooks, workstations, and small-scale servers. The base level of energy consumption for desktops is determined based on an "expandability score" that identifies the requisite power needs of the desktop based on the included features and functionalities. The base level for notebooks is set at a flat rate. The regulations then provide for "adders" that allow manufacturers to consume energy above the base level if they contain certain additional features and functionalities in their products. Workstations and small-scale servers do not have base levels and adders, but are instead required to include certain energy efficient features to ensure that energy consumption remains low.

The proposed regulations would modify existing law by modifying the definition of discrete GPU to allow inclusion of a discrete GPU that is packaged on the same substrate as the CPU. This technology is a new innovation that was not available to be considered at the time of the original appliance efficiency rulemaking. Furthermore, the Commission proposes to address energy consumption limits for this new product through this rulemaking.

The proposed regulations would further modify existing law by clarifying the definitions related to computers to improve clarity about product coverage and scope. These

proposed changes include modifications to the definition for mobile workstations to allow manufacturers to sell computers that support the specified discrete GPUs but are not shipped with one to consumers in California. The proposed regulations also increase the minimum battery size to qualify as a mobile gaming system to ensure that computers that were intended to be covered in the original rulemaking are included in its scope.

Lastly, the proposed regulations would modify the data submittal requirements to collect information that is needed with respect to the proposed changes for the discrete GPU and to add data submittal requirements that were omitted in the original regulations.

LED LAMPS

Existing law necessitates manufacturers complete all required testing before certifying to the Commission that their product meets the appliance efficiency regulations. Existing law regulates the minimum lifetime of state-regulated LED lamps and the LED versions of state-regulated SDDLs and requires reporting of lamp lifetime to the Commission as determined by test procedures specified in the regulations. The test procedures specified in the regulations are aligned with the U.S. Department of Energy's (DOE) test procedures. Under the applicable federal test procedure, this correlates to a five month test for state-regulated LED lamps and a seven month test for SDDLs to determine lifetime, compared to a couple of weeks to test other aspects of the lamp. DOE allows manufacturers to report estimated lifetime pending completion of lifetime testing. Manufacturers are required to document their process for determining the estimated lifetime, to maintain relevant records, and to report final lifetime to DOE upon completion of the test procedure.

The proposed regulations would modify the existing law to allow manufacturers to report estimated lifetime to the Commission pending completion of lifetime testing. This proposal would align the California Code of Regulations with the Code of Federal Regulations with respect to reporting of lifetime. The proposal would require reporting of final lifetime to the Commission upon completion of the test procedure.

Difference from existing comparable federal regulation or statute - Government Code section 11346.5(a)(3)(B).

COMPUTERS

The Commission has determined that there are no existing, comparable federal regulations or statutes that address the energy efficiency standards, testing, certification, or marking requirements in California Code of Regulations, title 20, sections 1601-1609, for computers.

LED LAMPS

The Commission has determined that there are no existing, comparable federal regulations or statutes that address the energy efficiency standards, or marking requirements in California Code of Regulations, title 20, sections 1601-1603, 1605.1-1605.3, and 1607-1609, for LED lamps. The testing requirements in California Code of Regulations, title 20, section 1604 have no differences from the comparable federal regulations. The proposed regulations will align reporting requirements in California Code of Regulations, title 20, section 1606 with the comparable federal regulations.

Policy statement overview regarding broad objectives of the regulations and the specific benefits anticipated by the proposed amendments - Government Code section 11346.5(a)(3)(C).

COMPUTERS

The broad objective of this rulemaking is to make minor modifications to the appliance efficiency regulations for computers that will maintain the expected energy savings from the original rulemaking while addressing new technologies and innovations that were not known at the time of that rulemaking. The proposed changes would ensure that the mandatory regulations do not interfere with new innovations in an industry that is constantly evolving and innovating its products.

The specific benefits of the new adder in the proposed regulations are to ensure that new, innovative products are eligible for sale in California and to ensure that these new, innovative products continue to use only the amount of energy that is necessary, ensuring that consumers continue to reap the savings expected from the original appliance efficiency regulations.

The specific benefits of the modifications to the definitions in the proposed regulations are to ensure that manufacturers have clarity about which of their products are subject to which standards, ensuring that the expected energy savings from the standards materialize as manufacturers are able to comply. No additional non-monetary benefits are applicable.

LED LAMPS

The broad objective of this rulemaking is to align Commission reporting requirements with the DOE's reporting requirements. This alignment will allow manufacturers of state-regulated LED lamps and the LED versions of state-regulated SDDLs to report estimated lifetime pending completion of lifetime testing. Under the applicable federal test procedure, it is a five month test for state-regulated LED lamps and a seven month test for SDDLs to determine lifetime, compared to a couple of weeks to test other aspects of the lamp. The proposed regulations increase the flexibility of businesses to manufacture and sell products that comply with the regulations, but do not eliminate the need for lifetime testing. The proposed regulations do not change the

underlying costs or energy savings expected from the regulations.

The specific benefits of the proposed regulations are to enable manufacturers to introduce new LED lamps into the California market five to seven months earlier than would be permitted under the existing regulations. The proposed regulations will benefit California businesses and residents by allowing them to purchase a manufacturer's newest LED lamps while maintaining the energy savings expected from the original efficiency regulations. No additional non-monetary benefits are applicable.

Inconsistency or incompatibility with existing state regulations - Government Code section 11346.5(a)(3)(D).

The proposed regulations are not inconsistent or incompatible with existing state regulations. There are no other state regulations that address the efficiency standards, testing, marking, or certification requirements in California Code of Regulations, title 20, sections 1601-1609, for computers or LED lamps.

DOCUMENTS INCORPORATED BY REFERENCE – 1 California Code of Regulations Section 20(c)(3)

The Commission proposes to incorporate the document listed below by reference. Pursuant to California Code of Regulations, title 1, section 20, this document is available for review at the Commission at 1516 Ninth Street, Sacramento, California 95814 starting September 22, 2017, weekdays from 9:00 am to 5:00 pm. The document is also available for download from the Commission's docket for this proceeding and is available for free from the U.S. Government Publishing Office. Because the document is available for viewing at the Commission and may be obtained for free, the Commission concludes this document is reasonably available to the affected public in conformance with California Code of Regulations, title 1, section 20(c).

Uniform Test Method for Measuring the Input Power, Lumen Output, Lamp Efficacy, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Power Factor, Time to Failure, and Standby Mode Power of Integrated Light-Emitting Diode (LED) Lamps, 10 C.F.R. section 430.23(ee) (Appendix BB to subpart B of part 430, (Jan. 1, 2017).

LOCAL MANDATE DETERMINATION – Government Code Section 11346.5(a)(5)

The proposed regulations will not impose a mandate on local agencies or school districts.

FISCAL IMPACTS – Government Code Section 11346.5(a)(6)

Cost or Savings to Any State Agencies. No public agency would necessarily incur costs

or savings in reasonable compliance with these regulations. No costs or savings are expected as a result of these minor modifications in the regulations, as they would not change the expected products that would comply with the standards, and would not increase or decrease any expected enforcement of the standards.

Cost to Local Agencies or School Districts Requiring Reimbursement. The proposed regulations will not impose on local agencies or school districts any costs for which Government Code sections 17500-17630 require reimbursement.

Other Nondiscretionary Cost or Savings Imposed Upon Local Agencies. The proposed regulations will not result in any other nondiscretionary cost or savings to local agencies.

Cost or Savings in Federal Funding to the State. The proposed regulations will not result in any cost or savings in federal funding to the state.

HOUSING COSTS – Government Code Section 11346.5(a)(12)

The proposed regulations would not have a significant effect on housing costs.

INITIAL DETERMINATION RE SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESS, INCLUDING ABILITY TO COMPETE – Government Code Sections 11346.3(a), 11346.5(a)(7), and 11346.5(a)(8)

The Commission has determined that the proposed regulations for computers will not have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states, because the proposed regulations only provide additional clarity to the definitions and an adder for a new technology so that it can be included in computers that are sold or offered for sale in the state, ensuring that businesses in the state can purchase the same types of computers available out of state, with less energy consumption.

The Commission has determined that the proposed regulations for state-regulated LED lamps and the LED versions of state-regulated SDDLs will not have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states, because the only change in the proposed regulations allows manufacturers to report estimated lifetime pending completion of lifetime testing, ensuring that California businesses can purchase a manufacturer's newest LED lamps while maintaining the energy savings expected from the original efficiency regulations.

STATEMENT OF THE RESULTS OF THE ECONOMIC IMPACT ASSESSMENT – Government Code Section 11346.5(a)(10)

The Commission concludes the following: No new jobs will be created and no existing jobs will be eliminated by the proposed regulations.

No new businesses will be created and no existing businesses will be eliminated by the proposed regulations.

The proposed regulations will not result in the expansion of any businesses currently doing business in the state.

And, the proposed regulations for computers will benefit California residents by allowing them to purchase computers with new and innovative features while maintaining the energy savings expected from the original computer efficiency standards. The proposed regulations for state-regulated LED lamps and the LED versions of state-regulated SDDLs will benefit California businesses and residents by allowing them to purchase a manufacturer's newest LED lamps while maintaining the energy savings expected from the original efficiency regulations.

Accordingly, the Commission has determined that the proposed regulatory action will not have a significant impact on business.

COST IMPACTS ON REPRESENTATIVE PERSON OR BUSINESS – Government Code Section 11346.5(a)(9)

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

BUSINESS REPORT – Government Code Sections 11346.5(a)(11) and 11346.3(d)

The proposed regulations do not impose any new reporting requirements.

SMALL BUSINESS IMPACTS – 1 California Code of Regulations Section 4(a) and (b)

For purposes of this analysis, the Commission used the consolidated definition of small business contained in Government Code section 11346.3(b)(4)(B). The Commission has determined that the proposed regulations will affect small business. These regulations would affect businesses, including those independently owned and operated and not dominant in their field of operation, involved in manufacturing computers, state-regulated LED lamps, or the LED versions of state-regulated SDDLs, as well as businesses involved in retail and wholesale trade. These small businesses are legally required to comply with the regulations. Small businesses will benefit from the proposed computer regulations in being able to manufacture and sell new computer technologies as a result of the modified definitions and adder being included in the new regulation. This will expand and diversify the computer products available. Small businesses will benefit from the proposed LED lamp regulations in being able to have their newest LED lamps eligible for sale in California pending completion of lengthy lifetime testing. This will allow for earlier availability of LED lamp products and a broader product offering while maintaining the energy savings expected from the original efficiency regulations.

Because the proposed regulations do not add any costs of compliance, there are no additional costs imposed by the regulations. Because the regulations for computers are providing an adder for a technology that was not available at the time of the original rulemaking, there are no expected energy savings from the proposed regulations. Because the regulations for computers are merely clarifying definitions to ensure the original intent of the regulations, there are no energy savings expected from the clarifications. Because the proposed regulations for state-regulated LED lamps and the LED versions of state-regulated SDDLs only modify existing reporting requirements, there are no energy savings expected from the proposed regulations.

ALTERNATIVES STATEMENT – Government Code Section 11346.5(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.

CONTACT PERSON – Government Code Section 11346.5(a)(14)

Inquiries concerning all aspects of the rulemaking process, including the substance of the proposed regulations, should be directed to Soheila Pasha at (916) 657-1002 or by e-mail at Soheila.Pasha@energy.ca.gov. The designated backup contact person is Patrick Saxton, who can be reached at (916) 654-4274, or by e-mail at Patrick.Saxton@energy.ca.gov.

COPIES OF THE INITIAL STATEMENT OF REASONS AND THE TEXT – Government Code Section 11346.5(a)(16)

The Commission has prepared an initial statement of reasons for the proposed regulations, has available all the information upon which this proposal is based, and has available the express terms of the proposed action. To obtain a copy of any of this information, please visit the Commission's website at: <http://www.energy.ca.gov/appliances/2017-AAER-15/rulemaking> or contact Angelica Romo-Ramos at Angelica.Romo@energy.ca.gov or (916) 654-4147.

AVAILABILITY OF SUBSTANTIAL CHANGES TO ORIGINAL PROPOSAL FOR AT LEAST 15 DAYS PRIOR TO AGENCY ADOPTION/REPEAL/AMENDMENT OF RESULTING REGULATIONS – Government Code Section 11346.5(a)(18)

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 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 Commission adopts or amends the resulting regulations.

COPY OF THE FINAL STATEMENT OF REASONS – Government Code Section 11346.5(a)(19)

At the conclusion of the rulemaking, persons may obtain a copy of the final statement of reasons once it has been prepared by visiting the Commission's website at: <http://www.energy.ca.gov/appliances/2017-AAER-15/rulemaking> or contacting Angelica Romo-Ramos at Angelica.Romo@energy.ca.gov or (916) 654-4147.

INTERNET ACCESS – Government Code Sections 11346.4(a)(6) and 11346.5(a)(20)

The 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 Commission for this rulemaking, including this Notice of Proposed Action, the Express Terms, the Initial Statement of Reasons, and the Economic and Fiscal Impact Statements have been posted at: <http://www.energy.ca.gov/appliances/2017-AAER-15/rulemaking>.

NEWS MEDIA INQUIRIES

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