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| Document<br>Title:  | Attachment A to Standard 399 Economic and Fiscal Impact Statement -<br>Appliance Efficiency Rulemaking for Computers and LED Lamps |
| Description:        | Attachment A to standard 399 economic and fiscal impact statement for appliance efficiency rulemaking for computers and LED lamps  |
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# ECONOMIC AND FISCAL IMPACT STATEMENT Standard Form 399 Attachment A

The attachment documents the Energy Commission staff's information, assumptions and calculations used in the development of the economic and fiscal impact statement to satisfy SAM section 6614.

# INTRODUCTION

The proposed regulations relate to appliance efficiency standards and test procedures for computers and light-emitting diode (LED) lamps. The proposed changes will not have any quantifiable economic or fiscal impacts. There are three types of changes being made in the proposed regulations:

- 1. Under the computer efficiency standards, creating a new allowance for discrete graphics cards that are packaged on the same die or substrate as the computer processing unit (CPU). The new allowance is necessary because the technology (a discrete graphics card packaged on the same die or substrate as the CPU) is a new innovation that was not available at the time of the original rulemaking.
- 2. Under the computer efficiency standards, modifying the definitions for mobile gaming systems and mobile workstations to ensure that products intended to be covered under those categories are, in fact, covered.
- Under the state-regulated LED lamp and small-diameter directional lamp efficiency standards, allowing manufacturers to report estimated lifetime pending completion of lifetime testing.

# ECONOMIC IMPACT STATEMENT

## Part A. Estimated Private Sector Cost Impacts

## Section 1(h)

#### Computers

The proposed regulations affect computers manufactured on or after January 1, 2019 and sold or offered for sale in California. They would provide a new energy allowance, or "adder," for a type of new, innovative technology that was not known at the time of the original rulemaking for computer standards. The technology is a discrete graphics card that is packaged on the same die or substrate as the computer processing unit.

Under the current regulations, the new technology would be eligible for sale; however, it would receive a significantly lower energy allowance, which would mean that manufacturers would need to reduce energy consumption in other parts of the computer or forgo using the new technology altogether. Providing the new energy allowance adds

flexibility to computer manufacturers by providing an adequate allowance that allows for proper design of the computer.

Under current regulations, retailers can only sell products that meet the applicable efficiency standards. By providing the energy allowance for this new technology, these regulations would allow retailers to sell a more diverse offering of computers. The total amount of computers sold and the cost of those computers, however, is not expected to change as a result of this rulemaking, as the decision to purchase a computer is not tied to the presence or absence of this new technology. Therefore, there will not be any identifiable increase or decrease in manufacturer or retailer revenue or costs as a result of these regulations.

The Energy Commission does not expect the new adder to change the expected energy savings to individuals and businesses that purchase computers. Providing this adder would not increase or decrease the incremental cost of complying with the regulations. Providing this adder does not increase or decrease expected energy savings, because the energy savings expected from this rulemaking are based on overall improvements to the computer's efficiency, and not on the presence or absence of this particular technology.

The proposed regulations also make specific changes to the definitions for mobile workstations and mobile gaming systems. These changes will allow more notebook computers to qualify as mobile workstations or mobile gaming systems and receive a higher energy allowance than ordinary notebooks. This change will allow manufacturers to offer a more diverse product offering in California. The total amount of mobile workstations and mobile gaming systems sold and the cost of those products, however, are not expected to change as a result of this rulemaking. Therefore, there will not be any identifiable increase or decrease in manufacturer or retailer revenue or costs as a result of these regulations.

The Energy Commission does not expect the changes in the definitions to change the expected energy savings to individuals and businesses that purchase these products. The changes do not increase or decrease the incremental cost of complying with the regulations, and they do not increase or decrease expected energy savings from these products, which are still required to comply with the underlying energy efficiency regulations.

## Lamps

Under the current regulations, manufacturers must complete all required testing before certifying that their product meets the appliance efficiency regulations. For state-regulated LED lamps and small-diameter directional lamps, this would include completing a test on the lifetime of the light bulb. The minimum requirements for lifetime are 10,000 hour for state-regulated LED lamps and 25,000 hours for small-diameter directional lamps. Under the applicable federal test procedure, this correlates to a five month test for state-regulated LED lamps and a seven month test for small-diameter

directional lamps to determine lifetime, compared to a couple of weeks to test other aspects of the light bulb. As a result, if the Commission did not permit estimated lifetimes to be used for certification pending completion of the lifetime tests, it would essentially delay the introduction of new LED light bulbs into the California market for at least five months.

The proposed regulations would allow manufacturers to report an estimated lifetime when certifying their products pending completion of the lifetime test. This will allow manufacturers to sell their products in the California market earlier than would be allowed otherwise. It is also consistent with the approach taken by the U.S. Department of Energy for products sold nationally. Because the purchase of a light bulb is generally nondiscretionary, however, the increase or decrease in product availability is not expected to have any appreciable effect on manufacturer or retailer revenue.

Because the proposed change does not eliminate the need for lifetime testing, it is not expected to reduce or change the costs to comply with the regulation. The proposed change does not affect the efficiency standards themselves, so no additional savings are expected as a result of this change.

#### FISCAL IMPACT STATEMENT

In the original rulemakings for computers and for lamps, the Energy Commission found small incremental costs and significant utility-bill savings to local and state agencies that purchased regulated products. Under the proposed regulations, the costs and savings associated with the regulated products do not change – only the diversity of products available would change. Therefore, there are no additional costs or savings to local and state agencies as a result of the proposed regulations, and no fiscal impact.