## MAJOR REGULATIONS STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

DF-131 (NEW 11/13)

## STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

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1. Statement of the need for the proposed major regulation.

The regulation is necessary to implement PRC Section 25402(c)(1), which requires the Energy Commission to "prescribe, by regulation, standards for minimum levels of operating efficiency to promote the use of energy efficient appliances whose use, as determined by the commission requires a significant amount of energy on a statewide basis." The proposed computers, computer monitors, and signage displays energy efficiency standards meet this statutory mandate.

2. The categories of individuals and business enterprises who will be impacted by the proposed major regulation and the amount of the economic impact on each such category.

Manufacturers are expected to pass on all incremental costs (see direct costs and benefits). Residential consumers will pay about \$18 more for a computer upon purchase. However, these consumers will save \$73.53 over 5 years life of the computer in electricity spending. The bulk of savings come from reduced electricity consumption in desktop computers. A small portion of savings come from reduced electricity consumption in computer monitors. California businesses will pay \$58-\$62 million per year in incremental costs for more efficient computers, computer monitors, and signage displays. However, these businesses will have reduced costs of \$280-\$290 million per year for electricity once the stock has turned over. Net direct savings to individuals and businesses in the state are expected to be approximately \$3.5 billion cumulatively from 2018 to 2030, or \$350 million per year once the product stock has fully turned over. Electric utilities will have lower sales of \$4.9 billion over the analysis period of 2018-2030.

3. Description of all costs and all benefits due to the proposed regulatory change (calculated on an annual basis from estimated date of filing with the Secretary of State through 12 months after the estimated date the proposed major regulation will be fully implemented as estimated by the agency).

In 2018 to 2030 residential consumers and businesses will pay \$1.3 billion in incremental costs for more efficient computers, computer monitors, and signage displays (40% is incurred by residential consumers and 60% by businesses). Residential consumers will see electricity bill savings of \$2.2 billion over the analysis period. California businesses will see electricity bill savings of \$2.7 billion between 2018 and 2030.

Greenhouse gas emissions decline in the electric power sector due to the decreased demand for electricity from computers, computer monitors, and signage displays. Using a low range estimate of \$13/mtCO2e and a high range of \$47/mtCO2e, the proposed standard would result in avoided damages of \$11.4-\$41.1 million from 2018-2030. The reduction in electricity demand due to the proposed standard is also expected to reduce the amount of other air pollutants. This estimated to provide a cumulative health benefit from 2018-2030 of between \$4.7 million and \$10.6 million.

4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed \$50 million.

All years of the regulations, once implemented on January 1, 2018, for computers, computer monitors, and signage displays, are estimated to have an economic impact that exceeds \$50 million. The economic impact of the standards are evaluated for the period from 2018 to 2030.

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5. Description of the agency's baseline:

Researchers at the University of California, Berkeley utilized the Berkeley Energy and Resources (BEAR) model and calibrated it to 2013 economic activity data of the California economy. The model includes highly disaggregated representation of firm, household, employment, government, and trade behavior. The baseline for computers, computer monitors, and signage displays energy efficiency, costs, and savings was based upon market data and expert information about the efficiency of computers, computer monitors, and signage displays today. This baseline was developed and described in the Energy Commission staff report and included stakeholder input through written comments and staff-led workshops.

- 6. For each alternative that the agency considered (including those provided by the public or another governmental agency), please describe:
  - a. All costs and all benefits of the alternative
  - b. The reason for rejecting alternative
- 1) More stringent standards
- a) Incremental costs are \$343 million higher than baseline and yield \$273 million more in net savings from 2018-2030.
- b) The higher stringency alternative delivered only modest additional direct gross savings but at a significantly higher compliance cost, yielding a significantly lower benefit to the consumer.
- 2) Less stringent standards
- a) Incremental cost are \$431 million less and yield net savings \$3 billion less from 2018 to 2030.
- b) The lower stringency option did not deliver energy savings that were consistent with the Energy Commission's objectives to set cost-effective and technically feasible standards that maximize reduction of the wasteful consumption of energy from appliances that consume a significant amount of energy statewide.
- 7. A description of the methods by which the agency sought public input. (Please include documentation of that public outreach).

The Energy Commission gathered public input from stakeholders and held five public workshops over the past four years, in addition to numerous stakeholder meetings. Energy Commission staff explicitly sought data, alternative proposals, and reactions to draft proposals.

The process can be found here:

http://www.energy.ca.gov/appliances/2014-AAER-2/prerulemaking/ https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=14-AAER-02

8. A description of the economic impact method and approach (including the underlying assumptions the agency used and the rationale and basis for those assumptions).

The Energy Commission is required under the Warren-Alquist Act to develop cost-effective and technologically feasible standards for appliance energy efficiency; it estimates statewide costs and savings based upon current and projected sales and stock information about appliances as part of its standard rulemaking process. The sources of data and calculations of energy savings are documented in the Energy Commission's revised staff report and will be updated in an upcoming staff report based on stakeholder input. This data was used to generate inputs for the BEAR Model. The BEAR model was used to generate estimates of impacts to Gross State Product (GSP), employment, business impacts, statewide investment, household income, and environmental impacts.

Agency Signature  Ould B Weighted	Date (6/38/1)	
Agency Head (Printed)	/	
Robert B. Weisenmiller, Chair		