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Document Title:	Economic and Fiscal Impact Statement Attachment for Portable Electric Spas and Battery Charger Systems
Description:	The attachment contains the information, assumptions, and calculations used to develop the economic impact statement (standard form 399) for portable electric spas and battery charger systems appliance efficiency rulemaking
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ECONOMIC AND FISCAL IMPACT STATEMENT
Standard Form 399
Attachment A

The information, assumptions, and calculations used to develop the economic and fiscal impact statement to satisfy the State Administrative Manual (SAM) section 6614 are included in the attachment documents.

INTRODUCTION

The proposed regulations relate to appliance efficiency standards, test procedures, certification (reporting of information) and marking for portable electric spas and battery chargers that are sold or offered for sale in California.

Attachment A describes the methodology and sources regarding the impacts summarized in Form 399 for the potential adoption of amendments to the California Energy Commission's Appliance Efficiency Regulations (Section 1601 through 1609 of Title 20 of the California Code of Regulations). Efficiency standards for portable electric spas will reduce the electricity consumption in California and result in lower energy costs.

The Energy Commission's enabling legislation mandates that the Energy Commission prescribe, by regulation, standards for minimum levels of operating efficiency of appliances (Public Resources Code Section 25402, subdivision (c)(1)), and requires that the standards be based on feasible and attainable efficiencies and do not result in added net costs for consumers over the designed life of the appliance. When determining cost-effectiveness, the Commission shall consider the value of the energy saved, the impact on product efficacy for the consumer, and the life cycle cost to the consumer of complying with the standards. This cost-effectiveness criterion ensures that the proposed standards will result in a net financial benefit for end-use energy consumers.

The proposed regulations for portable electric spas update existing standards for portable electric spas, and continue to cover standard spas, exercise spas, combination spas, and inflatable spas. The proposed regulations establish a more stringent standby mode standard for standard spas, exercise spas, and combination spas manufactured on or after June 1, 2019, and provide a new standby standard for inflatable spas that will require cost-effective improvements to these products to reduce their current energy consumption. The proposed regulations also update the test procedures and certification requirements to improve accuracy and verification of compliance. Finally, the proposed regulations add a new labeling requirement to help consumers to compare the energy consumption of spas and make more informed decisions.

The proposed regulations for battery chargers amend the marking requirements to require marking only for state-regulated battery chargers.

ECONOMIC IMPACT STATEMENT

Part A. Estimated Private Sector Cost Impacts

Section 1

The estimated private sector cost impacts from the regulations are expected to occur only as a result of the proposed regulations for portable electric spas. The portable electric spa regulations set new efficiency standards that will require manufacturers of these products to make improvements to noncompliant spas, such as increasing insulation or improving the spa cover, to meet the new standards. The incremental costs to improve the spas, which the Energy Commission assumes will be passed on in their entirety to the consumer, are exceeded by the energy savings that the consumer will receive through the efficiency improvements over the lifetime of the spa, resulting in overall monetary savings and economic benefits in California.

For battery chargers, the proposed regulations modify the requirement to mark with a "BC" inside a circle only state-regulated battery chargers. Federal law provides for efficiency standards that will apply to federally regulated consumer battery chargers manufactured on or after June 13, 2018. The new federal regulations do not require these battery chargers to be marked with a "BC" inside a circle. Therefore, this update is harmonizing the state regulations with the federal regulations by eliminating the requirement to mark federally regulated battery chargers intended for sale in California. In 2012 when the Energy Commission adopted the mark for battery chargers, the costs and benefits associated with the standards, included analysis of including the mark. The staff analysis did not include any incremental costs associated with marking the battery chargers, and none were provided by stakeholders.[1] As a result, staff assumed that there were no or negligible costs associated with marking the battery chargers; similarly here, removing the mark would have no or negligible cost savings to manufacturers.

Therefore, the economic impact statement focuses on the economic impact associated with the portable electric spa regulations, as there are no new or additional economic impacts expected from the battery charger regulations.

Section 2

The Energy Commission estimates the economic impact of this regulation, including any fiscal impact, to be between $10 and $25 million in the first year after the standards are fully implemented. For spas, the first year after the regulations are fully implemented is June 1, 2019 to May 31, 2020. The total first year costs associated with improving the efficiency of and labeling portable electric spas is $10.73 million. The first year energy saving benefits from the improved efficiency of these spas is $4.86 million. Over the life of the appliance, the energy saving benefits exceed the upfront costs of the efficiency improvements. In addition, because the proposed regulations would allow for the sale of

[1] Singh, Harinder; Rider, Ken. 2011. Staff Report Staff Analysis of Battery Chargers and Lighting Controls. CEC-400-2011-001-SF. Available at http://www.energy.ca.gov/2011publications/CEC-400-2011-001/CEC-400-2011-001-SF.pdf.

inflatable spas, which are unable to comply with the current standard, the additional sales of inflatable spas in California would be approximately $3 million. The total costs and savings in California from the portable electric spa regulations, without offsetting, is $18.6 million.[2]

The Energy Commission does not anticipate any economic impact from the proposed regulations for battery chargers, for the reasons stated in section 1 above.

Section 3

The Energy Commission estimates that 1,000 retailers, installers, manufacturers, and wholesalers that manufacture, install, or sell portable electric spas will be impacted by the proposed regulations. The Commission assumes that any business that purchases a portable electric spa is affected in the same manner as an individual purchasing a portable electric spa.

There are approximately 50 manufacturers and private brand packagers of portable electric spas selling within California, and the remaining share of businesses are retailers or wholesalers of portable electric spas. This estimate is based on the Energy Commission's database, which yields the number of manufacturers, and its estimate of the number of businesses in California that sell portable electric spas to consumers.

The Energy Commission estimates that of the businesses impacted, approximately 10 percent are small businesses. Small businesses in the portable electric spa industry include retailers, and some small manufacturers or private brand packagers. The Energy Commission estimates that small businesses make up a relatively small part of the market share (roughly 9 percent) compared to large manufacturers (e.g., Jacuzzi) and big box retailers (e.g., Costco).

For the reasons stated in Section 1, the Energy Commission does not expect any businesses, including small businesses, to be impacted by the battery charger regulations.

Section 4

The Energy Commission estimates that no businesses will be created or eliminated as a result of the regulations. The incremental cost to improve spas, at approximately $100 for standard spas or $230 for combination and exercise spas, is small compared to the total cost of a spa ($5,000-$10,000 for a standard spa; $10,000-$30,000 for an exercise or combination spa) and therefore would not result in a decrease in the number of sales of spas. Although, the incremental cost to improve inflatable spas, at approximately $100, is not small compared to the total cost ($300-600), the improvements may extend

[2] Jessica Lopez. 2018. *Analysis of Efficiency Standards and Marking for Spas.* California Energy Commission. CEC-400-2018-002. See Appendix A for information about the annual shipments, incremental costs of efficiency improvements and labeling, and retail sale price of inflatable spas, which were used to generate this information about first year costs and savings.

the life of the product, increase protection from wear and tear, and reduce time to heat. In addition, the incremental costs to improve spas would be passed on to the consumer, who would receive the energy savings in the form of a lower utility bill.

The proposed regulations for portable electric spas may increase the total shipment or sales of portable electric spas by including inflatable spas for sale in California. The total expected increase in shipments is about 6,000 inflatable spas a year, or roughly six spas per retailer or wholesaler. Inflatable spa manufacturers and retailers currently sell other inflatable products and pool products, based on sales in other states, and it is expected that shipments of inflatable spas would be included with other manufactured products in existing stores, resulting in no new businesses being created or existing businesses being eliminated in California.

Because spa shipments and sales are not expected to change significantly as a result of the regulations, no new businesses would be created and no existing businesses would be eliminated as a result of the regulations.

Section 6

The Energy Commission estimates that no jobs will be created or eliminated as a result of the regulations. The incremental cost to improve spas, at approximately $100 for standard and inflatable spas, or $230 for combination and exercise spas, is small compared to the total cost of a spa ($5,000-$10,000 for a standard spa; $10,000-$30,000 for an exercise or combination spa) and therefore would not result in a decrease in the number of sales of spas. Although, the incremental cost to improve inflatable spas, at approximately $100, is not small compared to the total cost of an ($300-600), the improvements may extend the life of the product, increase protection from wear and tear, and reduce time to heat. In addition, the incremental costs to improve spas would be passed on to the consumer, who would also receive the energy savings from the efficiency improvements through their utility bill. The proposed regulations for portable electric spas may increase the total shipment or sales of portable electric spas by including inflatable spas for sale in California. However, inflatable spa manufacturers and retailers currently sell other inflatable products and pool products in other states and in California and it is expected that shipments of inflatable spas would be included with other manufactured products in existing stores. Because spa shipments and sales are not expected to change significantly as a result of the regulations, no new jobs would be created or existing jobs would be eliminated as a result of the regulations.

Part B. Estimated Costs

Section 1

There is no total statewide cost that businesses and individuals may incur to comply with this regulation over its lifetime. For any in-state manufacturers who are required to comply with the regulation, the initial cost of compliance, at about $100 per standard or inflatable spa, or $230 per combination or exercise spa, is assumed to be passed on completely to the consumer, resulting in no initial costs to these entities.

There is no cost to businesses or individuals that would purchase these products because they are not required to comply at all. Portable electric spas are typically sold to homeowners or other individuals, and not to businesses. Therefore, there are no anticipated initial costs to businesses, as they are not expected to purchase a portable electric spa.

While individuals may experience an initial increase in the purchase cost of a portable electric spa, the energy savings from the more efficient unit will outweigh the upfront costs, creating monetary benefits over the lifetime of the spa.

For an individual, the Energy Commission assumes only one portable electric spa would be purchased in a household. The incremental cost that an individual would have to pay for a compliant spa is $100.34 for standard spas, $230.34 for exercise spas, $231.51 for combination spas, and $100.83 for inflatable spas. This cost would be part of the retail price of the spa. Over the lifetime of the energy efficient spa, the individual would have reduced operation costs, resulting in utility bill savings. Thus, there are no ongoing costs associated with the regulations.

Section 3

The portable electric spa regulations impose a new labeling requirement on manufacturers of portable electric spas, which is a type of additional reporting for these businesses. Over a 10 year period, the Energy Commission anticipates the cost to design, develop, and adhere the label to the product will cost manufacturers of standard spas or exercise spas, approximately $681 per year, or $0.34 per unit. For manufacturers of combination spas, the cost over 10 years would be approximately $265 per year, or $1.51 per unit. And for inflatable spa manufacturers the cost over three years will be approximately $845 per year, or $0.83 per unit.

The vast majority of spas sold are standard or exercise spas (99.1% of the market). About 93,632 spas are shipped (sold) in California in one year. If the Energy Commission assumes that a typical manufacturer accounts for one-sixth of this market, then the cost a typical business would incur for the labeling requirement is (96,632 / 6 * $0.34) or $5,476 per year for all units sold in California that year. Again, the Energy Commission expects that this cost will be entirely passed through to consumers, who will be able to make more informed choices about a spa’s efficiency, resulting in a more

efficient choice of spa and energy savings that exceed the cost of the labeling requirement.[3]

Part C. Estimated Benefits

Section 3

This value is the cumulative savings after all current stock of portable electric spas are converted to efficient spas. The lifetime of standard, exercise, and combination spas is 10 years, and for inflatable spas the lifetime is 3 years. The Energy Commission assumes a 10 percent stock turnover for standard, exercise, and combination spas, and a 33 percent stock turnover for inflatable spas. Consumers accrue these savings through energy savings resulting from the portable electric spa regulations. See pages 57-59 in Lopez, Jessica. 2018. *Analysis of Efficiency Standards and Marking for Spas.* California Energy Commission. CEC-400-2018-002 for a detailed discussion of the statewide benefits of this regulation.

Section 4

The proposed regulations may result in a slight expansion of business for inflatable spa manufacturers currently doing business in the state. The proposed regulations for portable electric spas would allow the sale of inflatable spas in California. Inflatable spa sales are expected to be approximately 6,000 units annually statewide, or about six spas per retailer and manufacturer. These inflatable spas would likely be shipped with other products from several spa manufacturers currently doing business in California. These changes may result in a slight expansion of existing businesses. In addition, the regulations would redirect utility bill costs to disposable income for consumers who purchase a portable electric spa. This increased disposable income will generally lead to expansion of the overall California economy.

Part D. Alternatives to the Regulation

Section 2 and Section 3

The benefits are presented as the total cumulative savings over the lifetime of portable electric spas, and do not include the incremental cost to improve the spa. The cumulative incremental cost to improve the spa is in the costs column. The total cumulative statewide benefit for this regulation is $227 million and the cumulative statewide cost is $113 million over the lifetime of portable electric spas. The lifetime of standard, exercise, and combination spas is 10 years, and for inflatable spas the lifetime is 3 years. The Energy Commission assumes a 10 percent stock turnover for standard, exercise, and combination spas, and a 33 percent stock turnover for inflatable spas. The total statewide costs and savings from the proposed regulation are

[3] Jessica Lopez. 2018. *Analysis of Efficiency Standards and Marking for Spas*. California Energy Commission. CEC-400-2018-002. See Appendix A for underlying assumptions to support these estimates.

presented and explained in pages 57-59 in Lopez, Jessica. 2018. *Analysis of Efficiency Standards and Marking for Spas*. California Energy Commission. CEC-400-2018-002.

Alternative 1 would require that all spas be 25 percent more efficient than today. This standard is more stringent than the proposed regulations. The total cumulative statewide benefits of such a standard would be $607 million over the lifetime of portable electric spas. The total statewide costs (incremental costs) to improve the efficiency of the spas to meet this standard are estimated at $724 million over the lifetime of portable electric spas. The incremental costs assumed for this alternative analysis are the differential retail price between a compliant and a noncompliant spa. However, this approach to the incremental costs may not accurately reflect the costs, as more efficient spas often have additional non-efficiency features that increase their price over a less efficient spa. In addition, this alternative would eliminate inflatable spas from the market and limit product availability of portable electric spas. See pages 34-35 in Lopez, Jessica. 2018. *Analysis of Efficiency Standards and Marking for Spas*. California Energy Commission. CEC-400-2018-002 for a detailed discussion of this alternative.

Alternative 2 would maintain the status quo. There are no benefits to maintaining the status quo, but the costs are the lost energy savings (as well as unquantifiable changes in greenhouse gas reductions that will not be avoided through the regulation).

FISCAL IMPACT STATEMENT

The proposed regulations would increase the initial purchase cost of a portable electric spa and save money over the 10-year use of that spa. These costs and benefits are borne by the purchaser of a portable electric spa, as manufacturers typically pass the incremental cost to improve the efficiency of the spa to the consumer through the purchase price. The Energy Commission is not aware of any state or local governmental purchases of portable electric spas. State and local governments are not required to take any action to comply with the regulations. Therefore, the Energy Commission does not expect any additional costs or savings to state or local agencies or programs as a result of the regulations.

The proposed regulations will not increase state expenditures on enforcement, as each of the regulations amends an existing state standard that the state has already allocated funds to enforce. Therefore, there is no fiscal impact expected as a result of a change in the enforcement of the regulations.