DEPARTMENT OF ENERGY

10 CFR Part 430

[Docket No. EERE–2009–BT–DET–0005]

RIN 1904–AB80

Energy Conservation Program for Consumer Products: Determination Concerning the Potential for Energy Conservation Standards for Non-Class A External Power Supplies

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Final Rule.

SUMMARY: The U.S. Department of Energy (DOE or the Department) has determined, based on the best information currently available, that energy conservation standards for non-Class A external power supplies are technologically feasible and economically justified, and would result in significant energy savings. This determination initiates the process of establishing, by notice and comment rulemaking, energy conservation standards for these products.

DATES: This rule is effective June 14, 2010.

ADDRESSES: This rulemaking can be identified by docket number EERE–2009–BT–DET–0005 and/or Regulatory Identification Number (RIN) 1904–AB80.

Docket: For access to the docket to read background documents, the technical support document, or comments received go to the U.S. Department of Energy, Resource Room of the Building Technologies Program, Sixth Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024, (202) 586–2945, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays. Please call Ms. Brenda Edwards at the above telephone number for additional information about visiting the Resource Room. You may also obtain copies of certain documents in this proceeding from the Office of Energy Efficiency and Renewable Energy's Web site at *http://www.eere.energy.gov/buildings/appliance_standards/residential/battery_external.html.*

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SUPPLEMENTARY INFORMATION:

I. Summary of the Determination

EPCA requires DOE to issue a final rule determining whether to issue energy efficiency standards for non-Class A external power supplies (EPSs). Consistent with this requirement, DOE has analyzed multiple candidate standard levels for non-Class A EPSs. These analyses indicate that it is technologically feasible to manufacture EPSs at some of these levels in large part because EPSs that meet these levels are already commercially available. DOE further determined that standards for all non-Class A EPSs that DOE analyzed could be set that would reduce the life-cycle cost (LCC) of ownership for the typical consumer. That is, any increase in equipment cost resulting from a standard would be more than offset by energy cost savings.

DOE's analyses also indicate that energy conservation standards would also likely be cost-effective from a national perspective. The national net present value (NPV) of energy conservation standards for non-Class A EPSs could be as much as $512 million in 2008$, assuming an annual discount rate of 3 percent. As a result, these analyses indicate that both individual consumers and the Nation as a whole would likely benefit economically from the imposition of energy conservation standards for non-Class A EPSs. Accordingly, DOE has positively determined that such standards are technologically feasible and economically justified, and would result in significant energy savings.

DOE notes that its forecast of projected savings and national NPV considers only the direct financial costs and benefits to consumers of standards, specifically, the increased equipment costs of EPSs purchased from 2013 to 2032 and the associated energy cost savings over the lifetimes of those products. In its determination analysis, DOE did not monetize or otherwise characterize any other potential costs and benefits of standards such as manufacturer impacts or power plant emission reductions. Such impacts will be examined in a future analysis of the economic feasibility of particular standard levels in the context of a standards rulemaking.

DOE's analysis also indicates that standards would result in significant energy savings—as much as 0.14 quads of energy over 30 years (2013 to 2042). This is equivalent to the annual electricity needs of 1.1 million U.S. homes.

Further documentation supporting the analyses described in today's final rule is contained in the notice of proposed determination, published in the **Federal Register** on November 3, 2009, (74 FR 56928) and the accompanying technical support document (TSD), available from the Office of Energy Efficiency and Renewable Energy's Web site at

www.eere.energy.gov/buildings/appliance_standards/residential/battery_external.html.

The nature of this document results from the specific statutory requirements that DOE issue this notice as a rule. In accordance with this requirement, DOE issued its November 2009 notice prior to today's final rule notice. In addition, DOE combined as appropriate the analysis required by the Energy Independence and Security Act of 2007 (EISA 2007), Public Law 110–140 (Dec. 19, 2007), with the analysis that DOE had already performed as a result of requirements added previously by the Energy Policy Act of 2005 (EPACT 2005), Public Law 109–58 (Aug. 8, 2005). EPACT 2005 required DOE to issue a determination analysis to address battery chargers and external power supplies; EISA 2007 subsequently amended this provision by focusing the analysis solely on external power supplies.

A. Background and Legal Authority

Title III of EPCA sets forth a variety of provisions designed to improve energy efficiency. Part A of Title III (42 U.S.C. 6291–6309) provides for the "Energy Conservation Program for Consumer Products Other Than Automobiles." EPACT 2005 amended EPCA to require DOE to issue a final rule determining whether to issue efficiency standards for battery chargers (BCs) and EPSs. DOE initiated this determination analysis rulemaking in 2006, which included a scoping workshop on January 24, 2007, at DOE headquarters in Washington, DC. The determination was underway and on schedule for issuance by August 8, 2008, as originally required by EPACT 2005.

However, EISA 2007 also amended EPCA by setting efficiency standards for certain types of EPSs (Class A) and modifying the statutory provision that directed DOE to perform the determination analysis (42 U.S.C. 6295(u)(1)(E)(i)(I), as amended). EISA 2007 removed BCs from the determination, leaving only EPSs, and changed the allotted time to complete the determination.

In addition to the existing general definition of EPS, EISA 2007 amended EPCA to define a "Class A external power supply" (42 U.S.C. 6291(36)(C)) and set efficiency standards for those products (42 U.S.C. 6295(u)(3)). As amended by EISA 2007, the statute further directs DOE to publish a final rule by July 1, 2011 to evaluate whether the standards set for Class A EPSs should be amended and, if so, to include any amended standards as part of that final rule. (42 U.S.C. 6295(u)(3)(D)(i)) The statute further directs DOE to publish a second final rule by July 1, 2015, to again determine whether the standards in effect should be amended and to include any amended standards as part of that final rule. (42 U.S.C. 6295(u)(3)(D)(ii))

Because Congress has already set standards for Class A EPSs and separately required DOE through a separate statutory provision to perform two rounds of rulemakings to consider amending efficiency standards for Class A EPSs, *see* 42 U.S.C. 6295(u)(3), the determination analysis under 42 U.S.C. 6295(u)(1)(E)(i)(I) excluded these products from this analysis. Accordingly, the present determination concerns only EPSs falling outside of the Class A definition, *i.e.,* "non-Class A EPSs."

EISA 2007 amendments to EPCA also require DOE to issue a final rule prescribing energy conservation standards for BCs, if technologically feasible and economically justified, by July 1, 2011 (42 U.S.C. 6295(u)(1)(E)(i)(II)). The BC rulemaking has been bundled with the rulemaking for Class A EPSs, given the related nature of such products and the fact that these provisions share the same statutory deadline. DOE initiated the energy conservation standards rulemaking for BCs and Class A EPSs by publishing a framework document on June 4, 2009, and holding a public meeting at DOE headquarters on July 16, 2009. DOE is now developing its preliminary analysis of standards for BCs and Class A EPSs. With today's positive determination that standards are warranted for non-Class A EPSs, standards for these products also will be considered within the ongoing standards rulemaking.

The Department began the analysis for this determination by conducting testing and teardowns on commercially available non-Class A EPSs and by collecting information from manufacturers of non-Class A EPSs and original equipment manufacturers that use non-Class A EPSs. The Department shared its preliminary findings regarding efficiency improvements in its November 2009 notice of proposed determination (NOPD). 74 FR 56928. This notice was accompanied by a technical support document (TSD), which was published on the EERE Web site. Subsequently, the Department received written comments on the notice and TSD from the Power Tool Institute, Inc. (PTI); the Association of Home Appliance Manufacturers (AHAM); Pacific Gas and Electric Company (PG&E); a joint comment from the California Energy Commission (CEC), PG&E, San Diego Gas and Electric Company, Appliance Standards Awareness Project, American Council for an Energy-Efficient Economy, Natural Resources Defense Council, Northeast Energy Efficiency Partnerships, and Northwest Power and Conservation Council (hereafter referred to as the CEC comment); and the Consumer Electronics Association (CEA). (PTI, No. 5; AHAM, No. 6; PG&E, No. 7; CEC *et al.,* No. 8; and CEA, No. 9).

For more information about DOE rulemakings concerning BCs and EPSs, see the Office of Energy Efficiency and Renewable Energy's Web site at *http://www1.eere.energy.gov/buildings/appliance_standards/residential/battery_external.html.*

B. Scope

As explained in the NOPD, the scope of this determination covers all EPSs falling outside of Class A, which DOE identifies in this notice as non-Class A EPSs. EPCA, as amended by EPACT 2005, defines an EPS as "an external power supply circuit that is used to convert household electric current into DC current or lower-voltage AC current to operate a consumer product." (42 U.S.C. 6291(36)(A)) EISA 2007 amended EPCA by, among other things, defining in 42 U.S.C. 6291(36)(C) a subset of external power supplies (*i.e.* a Class A EPS).

The analysis underlying DOE's NOPD focused on four EPS types: (1) *Multiple-voltage EPSs*—EPSs that can provide multiple output voltages simultaneously; (2) *high power EPSs*—EPSs with nameplate output power greater than 250 watts; (3) *medical EPSs*—EPSs that power medical devices and EPSs that are themselves medical devices; and (4) *EPSs for battery chargers (EPSs for BCs)*—EPSs that power the chargers of detachable battery packs or charge the batteries of products that are fully or primarily motor operated. 74 FR 56930.

1. DC–DC Power Supplies

CEA asked DOE to clarify whether DC–DC power supplies are outside the scope of the EPS definition. (CEA, No. 9 at p. 2) The statutory definition of an EPS is "an external power supply circuit that is used to convert household electric current into DC current or lower-voltage AC current to operate a consumer product." (42 U.S.C. 6291(36)(A)) Household electric current is nominally 120 volts AC. Thus, under the statutory definition set by Congress, wall adapters with DC input power are not EPSs.

2. Basic Approaches to Regulating Wall Adapters for BCs

DOE has identified four possible approaches to regulating wall adapters for BCs. These four approaches, referred to as approaches A, B, C, and D, are explained in the framework document referred to in the notice of document availability DOE published in the **Federal Register** on June 4, 2009.[1] 74 FR 26816. Under Approach A, a wall adapter would be considered an EPS only if it lacked charge control (*i.e.,* a method to control the charge flowing to the battery). In addition, the EPS could be subject to both EPS and BC standards if it were also a part of a battery charging system. Under Approach B a wall adapter would not be considered an EPS as long as it powered a battery charger (the presence or absence of charge control being irrelevant). Approach C is similar to Approach A in that a wall adapter would be considered an EPS only if it lacked charge control; however, under Approach C the EPS would only be subject to EPS standards and not BC standards, even if it were also part of a battery charging system. Under Approach D a wall adapter that powers a battery charging system would always be considered an EPS regardless of the presence of charge control.

DOE received comments related to EPSs for BCs in response to the NOPD. Many of these comments revolved around two closely related questions: (1) When is a wall adapter an EPS and (2) When is an EPS considered part of a BC? Comments on this issue were submitted by parties representing a variety of interests, including industry and energy efficiency advocates. The following two paragraphs describe the comments DOE received related to these questions, while the third and fourth paragraphs that follow provide DOE's responses to those comments.

The first set of comments concerned the question of when a wall adapter should be categorized as an EPS. PG&E urged DOE to adopt Approach A as it is described in the framework document, claiming that this approach ensures a technically accurate, common sense approach to defining EPSs and battery chargers. (PG&E, No. 7 at p. 6) PG&E's comment echoed its earlier comment and those of several others, including FRIWO, PTI, Ecos Consulting, and Motorola, who stated their support for Approach A in written comments on the framework document and at the associated public meeting on July 16, 2009. (FRIWO, EERE–2008–BT–STD–0005 No. 21 at p. 1; Pub. Mtg. Tr., EERE–2008–BT–STD–0005 No. 14 at pp. 62, 116; Motorola, EERE–2008–BT–STD–0005 No. 25 at p. 1; PG&E *et al.,* EERE–2008–BT–STD–0005 No. 20 at p. 3) PTI reiterated its preference for Approach B and noted that if Approach B were not available, Approach A would be the next best option. (PTI, No. 5 at p. 2) AHAM urged DOE to accept a slight modification of Approach B and agreed with PTI that of the remaining approaches, Approach A would be the next best option. (AHAM, No. 6 at p. 4) The modification to Approach B that AHAM requested would also exclude from the set of EPSs all high power wall adapters that are used to charge batteries and all wall adapters that are used to charge batteries for medical devices. DOE indicated in its framework document that Approach B would be inconsistent when applied to the Class A EPS statutory definition, because DOE cannot limit the scope of the EPS definition by adding another exclusion to those already created by Congress. AHAM also asked DOE to address more fully its reasons for not selecting Approach B when applying it to non-Class A EPSs. (AHAM, No. 6 at p. 3)

The second set of comments concerned the closely related question of when an EPS should be considered part of a BC. AHAM and PTI expressed their opposition to overlapping standards, *i.e.,* requiring an EPS to comply with an EPS standard and the BC of which it is part to comply with a BC standard. (PTI, No. 5 at p. 1; AHAM, No. 6 at p. 2) Approaches A and D could potentially lead to the overlap that AHAM and PTI oppose. PTI reiterated its contention that "the proper way to deal with the efficiency of BCs is through a comprehensive standard that treats the charger as [a] whole, including the wall adapter (if one is part of the system)." (PTI, No. 5 at p. 1) AHAM agreed, stating that "we do not believe it is appropriate conceptually or technically to separate the testing of any parts of the battery recharging circuit in a test procedure for battery chargers." (AHAM, No. 6 at p. 2) AHAM proposed that DOE create a separate class of BCs called "appliance battery chargers" that would encompass both wall adapter-based and cord-connect-based appliance battery chargers and further noted that testing a wall adapter first as an EPS and then as a part of a battery charger system "would be an extreme burden on all manufacturers, but particularly on the small and medium sized enterprises and provide no benefit to consumers." (AHAM, No. 6 at p. 3)

DOE used Approach A to define the scope of its determination analysis. This is the approach that DOE identified in the framework document as its preferred approach to determining which wall adapters are EPSs. DOE also explained in the framework document that it considers Approach B legally unacceptable for Class A EPSs because it would create additional exclusions of products that would otherwise satisfy the statutory definition of a Class A EPS. Since Congress already established specific exclusions to the Class A EPS definition, DOE has tentatively taken the position that it does not retain the authority to create exclusions beyond that which Congress has established. See the Energy Conservation Standards Rulemaking Framework Document for Battery Chargers and External Power Supplies, at 32.

However, DOE did not rule out applying Approach B for non-Class A EPSs, an approach both AHAM and Wahl Clipper have requested DOE consider. (AHAM, EERE–2008–BT–STD–0005 No. 16 at pp. 2–3; Wahl Clipper, EERE–2008–BT–STD–0005 No. 23 at p. 1) When viewed in light of these and similar comments received earlier during the rulemaking process for these products, AHAM and PTI's objections to overlapping standards appear to focus on non-Class A EPSs, not Class A EPSs. If Approach A were used for Class A EPSs and Approach B were used for non-Class A EPSs, wall adapters that power the chargers of detachable battery packs or charge the batteries of products that are fully or primarily motor operated would not be subject to EPS standards while those wall adapters that power other battery charged applications (Class A EPSs) would be subject to EPS standards. Nevertheless, DOE is concerned that using Approach A for Class A EPSs and Approach B for non-Class A EPSs would create two distinct definitions of an EPS that would prevent one from readily identifying a particular wall adapter as being an EPS until it is known whether it powers the charger of a detachable battery pack or charges the battery of a product that is fully or primarily motor operated. DOE intends to make a decision on this issue as part of the standards rulemaking.

DOE acknowledges that if it applied Approach B to non-Class A EPSs, the total energy savings potential from non-Class A EPS standards would be less than under Approach A, as EPSs for BCs would not be covered. However, the reduction in savings would be small, as

[1] These approaches are explained in section 3.2.3.3 of DOE's framework document for the BC and EPS energy conservation standards rulemaking (available at *http://www.eere.energy.gov/buildings/appliance_standards/residential/battery_external_std_2008.html*). The approaches also address the related question of whether the wall adapter should be considered part of the BC.

EPSs for BCs account for less than 2 percent of the savings estimated in the present analysis. Furthermore, DOE believes that these savings would be captured by BC standards that would cover the devices of which the wall adapters were a part.

3. Specific Criteria for Identifying the Presence of Charge Control

PG&E and AHAM commented on the criteria for determining whether charge control is present in a wall adapter. PG&E strongly urged DOE to remain consistent with the criteria identified in the framework document that focus on electrical equivalency and battery charger functions. (PG&E, No. 7 at p. 3) PG&E cautioned against using a vague and undefined "constant voltage" criterion for identifying EPSs, citing research conducted by Ecos Consulting that examined the electrical characteristics of wall adapters that power the chargers of detachable battery packs or charge the batteries of products that are fully or primarily motor operated. This research found at least one wall adapter that was electrically equivalent to Class A EPSs that did not produce constant voltage output and at least one wall adapter that was not electrically equivalent to Class A EPSs that produced constant voltage output. (PG&E, No. 7 at pp. 4–5) As a result, PG&E recommended that DOE "rely on physical indications of charge control circuitry or functionality, such as a battery-charge indicator or chemistry-type selector switch" rather than "constant voltage" for determining whether charge control is present in a wall adapter. (PG&E, No. 7 at p. 7) AHAM asked that DOE state clearly the criteria that will be used to determine whether charge control is present in a wall adapter. (AHAM, No. 6 at p. 4) AHAM further urged DOE to accept the criteria for charge control that were discussed at the framework document public meeting on July 16, 2009, as doing so would lead to "the vast majority of AHAM battery chargers using wall adapters being treated as complete battery chargers." (AHAM, No. 6 at p. 6)

DOE has not yet established final criteria for determining which wall adapters are EPSs. In the framework document, DOE sought stakeholder comment on four possible criteria for identifying charge control in a wall adapter—short-circuit operation, voltage regulation, no-load voltage, and no-battery operation, but did not indicate which criteria it would use going forward. In the NOPD and today's notice, DOE used constant voltage output as a preliminary criterion for establishing the absence of charge control and thereby identifying EPSs. Comments submitted in response to the NOPD questioned whether constant voltage output would be an appropriate test when determining whether a particular product lacks charge control, and DOE is reconsidering this approach. The protocol for determining which wall adapters are EPSs will be finalized within the standards rulemaking.

4. Size of the EPS for BC Market

DOE received several comments on the size of the market for EPSs for BCs. Interested parties disagreed on the size of the market due to a difference of opinion as to what proportion of wall adapters for the BCs under consideration were EPSs. AHAM agreed with DOE's estimate that no more than 5 percent of wall adapters for cordless rechargeable floor care appliances provide constant voltage, adding that if this estimate is used as the basis for the determination, the same criteria used to arrive at this estimate must be used in the standards NOPR and Final Rule as well. (AHAM, No. 6 at p. 5) AHAM also agreed with DOE that wall adapters for rechargeable personal care appliances use charge control and, therefore, are not EPSs. (AHAM, No. 6 at p. 4) PTI agreed with DOE's estimate that approximately 5 percent of all wall adapters for powers tool BCs are true EPSs, adding that if the charge control criteria were significantly altered in the future, the validity of the determination could be eroded. (PTI, No. 5 at p. 2)

PG&E, however, commented that DOE greatly underestimated the number of EPSs for BCs. (PG&E, No. 7 at p. 7) CEC concurred and urged DOE to reconsider its methodology for calculating energy savings potential from EPSs for BCs, citing PG&E research that suggests the potential savings from this group of products is 20 times higher than DOE suggested. (CEC et al., No. 8 at p. 1)

Until the protocol for determining which wall adapters are EPSs is finalized, the number of EPSs for BCs cannot be accurately estimated. In light of the absence of this protocol, DOE conservatively estimated the size of the market for EPSs for BCs in the determination analysis. A larger market would only serve to increase the potential energy savings from standards for these products, which would serve as additional support for the positive determination that DOE has already reached using its more conservative approach.

II. Methodology

A. Purpose and Content

The Department analyzed the feasibility of achieving significant energy savings from energy conservation standards for non-Class A EPSs. The NOPD presented the results of this analysis. As part of the subsequent standards rulemaking, DOE will perform more robust analyses. These analyses will involve more precise and detailed information that the Department will develop and receive during the standards rulemaking process, and will detail the potential effects of proposed energy conservation standards for non-Class A EPSs.

To address EPCA requirements that DOE determine whether energy conservation standards for non-Class A EPSs would be technologically feasible and economically justified and result in significant energy savings, the Department's analysis consisted of six separate analyses: (1) A market assessment to better understand where and how non-Class A EPSs are used, (2) a technology assessment to better understand the technology options that can increase efficiency, (3) an engineering analysis to estimate how different design options affect efficiency and cost, (4) an energy use and end-use load characterization that describes how much energy non-Class A EPSs consume and for how long they operate, (5) an LCC analysis to estimate the costs and benefits to users from increased efficiency of non-Class A EPSs, and (6) a national impact analysis to estimate the potential energy savings and the economic costs and benefits on a national scale that would result from improving the energy efficiency of non-Class A EPSs. These separate analyses are briefly addressed later below.

B. Test Procedures

The test procedure for measuring the energy consumption of single-voltage EPSs, which applies to high power EPSs, medical EPSs, and EPSs for BCs, is codified in 10 CFR part 430, subpart B, appendix Z, "Uniform Test Method for Measuring the Energy Consumption of External Power Supplies." DOE modified this test procedure, pursuant to EISA 2007, to include standby and off modes.

DOE first proposed a test procedure for measuring the energy consumption of multiple-voltage EPSs in a NOPR published in the **Federal Register** on August 15, 2008. 73 FR 48054. PG&E suggested that DOE use an internal power supply test procedure, such as

the PG&E test procedure for computers,[2] to test multiple-voltage EPSs. (PG&E, No. 7 at p. 2) DOE recently proposed another test procedure for multiple-voltage EPSs on April 2, 2010. 75 FR 16958. The proposed test procedure, like its predecessor, is based, in part, on test procedures for internal power supplies.

C. Market Assessment

To understand the present and future market for non-Class A EPSs, DOE gathered data on these EPSs and their associated applications. DOE also examined the industry composition, distribution channels, and regulatory and voluntary programs for non-Class A EPSs. The market assessment provides important inputs to the LCC analysis and national impact analysis. DOE published the details of its market assessment in the NOPD and accompanying TSD.

PG&E and CEC both commented that the number of high power EPSs (those with nameplate output power greater than 250 watts) is likely to increase in the future as applications such as game consoles, fast chargers, and other home electronics demand increasing amounts of power. (PG&E, No. 7 at p. 2; CEC et al., No. 8 at p. 1) In its determination analysis, DOE assumed the high power EPS market would not change in size. While DOE recognizes that the market for high power EPSs may grow in the future, a no-growth assumption is sufficient to form a basis for the determination since growth in high power EPSs would only lend further support in favor of a positive determination. Nevertheless, DOE will continue to monitor the market and take such trends into account in the standards rulemaking.

AHAM requested more information on how the markups from efficiency-related materials cost to end-user product prices were calculated (AHAM, No. 6 at p. 5) Section 1.2 of the TSD indicates that the sources for the markups were interviews with EPS manufacturers, gross margin data for OEMs and retailers/distributors, and sales tax data. For each representative unit, DOE provides a figure that shows how the products get to market and a table listing the corresponding markups. DOE will explain its markup calculations in greater detail in the standards rulemaking.

In the NOPD, DOE stated that it was not aware of any non-motor operated applications with an EPS that powers the charger of a detachable battery pack and invited interested parties to provide information about any such applications. 74 FR 56933. CEA, however, identified what it believed were three such applications: bar code scanners, mobile computers, and wireless headphones. (CEA, No. 9 at p. 2) A bar code scanner is not a consumer product as defined by EPCA. (42 U.S.C. 6291(1)) The mobile computers that CEA is referring to may be consumer products, while wireless headphones very likely are consumer products. DOE will research these two potential EPS applications in the standards rulemaking.

D. Technology Assessment

The technology assessment examines the technology behind the design of non-Class A EPSs and focuses on the components and subsystems that have the biggest impact on energy efficiency. The technology assessment's key output is a list of technology options for consideration in the engineering analysis. DOE published the details of its technology assessment in the NOPD and accompanying TSD.

PG&E believed that cost-effective efficiency improvements already broadly implemented in the Class-A EPS marketplace can be easily incorporated into all non-Class A EPSs, particularly high-efficiency switched-mode power supply topologies and circuit designs that enable low power consumption in no-load mode. (PG&E, No. 7 at p. 1) Specifically, PG&E can find no technical justification for treating non-Class A EPSs sold with BCs differently than Class A EPSs sold with non-BC products. (PG&E, No. 7 at p. 4) In the NOPD, DOE described technology options applicable to Class A EPSs that were also applicable to non-Class A EPSs. DOE continues to believe that those technology options are applicable to non-Class A EPSs.

PG&E commented that U.S. Food and Drug Administration safety requirements are compatible with efficient EPS technology. (PG&E, No. 7 at p. 2) As indicated in the NOPD, DOE continues to believe that medical EPSs have the same potential for efficiency improvements as do Class A EPSs.

E. Engineering Analysis

The purpose of the engineering analysis is to determine the relationship between a non-Class A EPS's efficiency and its efficiency-related materials cost (ERMC). (The ERMC includes all of the efficiency-related raw materials listed in the bill of materials but not the direct labor and overhead needed to create the final product. The materials cost forms the basis for the price consumers eventually pay.) This relationship serves as the basis for the underlying costs and benefits to individual consumers and the Nation (life-cycle cost analysis and national impacts analysis). The output of the engineering analysis provides the ERMC at selected, discrete levels of efficiency for six non-Class A EPS "representative units". The engineering analysis methodology section in the NOPD details the development of the analysis and includes descriptions of the analysis structure, inputs, and outputs. Related supporting materials are also found in the TSD.

To develop this analysis, DOE gathered data by interviewing manufacturers, conducting independent testing and research, and commissioning EPS teardowns. Through interviews, manufacturers provided information on the relative popularity of EPS models and the cost of increasing their efficiency. To validate the information provided by manufacturers, DOE performed its own market research and testing. To independently establish the cost of some of the tested units, DOE contracted iSuppli Corporation (iSuppli), an industry leader in the field of electronics cost estimation.

DOE began the engineering analysis by identifying the representative product classes and selecting one representative unit for analysis from each of the representative product classes. Representative units are theoretical models of popular or typical devices described in terms of all characteristics, such as output power and output voltage, except for efficiency and cost. DOE evaluates each representative unit at different efficiency levels to determine the associated costs. Although the efficiency of power converters in the market ranges over an almost continuous spectrum, DOE focused its analysis at select candidate standard levels (CSLs). In the engineering analysis, DOE examined the cost of production at each CSL for each representative unit. The resulting relationship was termed an "engineering curve" or "cost-efficiency curve." The outputs of this analysis, presented in section III. A, are the cost-efficiency points that define those curves.

DOE received comments from AHAM and PTI regarding the cost-efficiency relationship described by the results of the engineering analysis. PTI asserted that it is unreasonable that cost appears to be independent of efficiency, and AHAM questioned the validity of a cost-efficiency curve that shows flat cost

[2] "Proposed Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc Power Supplies," Revision 6.2, California Energy Commission Public Interest Energy Research Program, November 2007.

with varying efficiency. (PTI, No. 5 at p. 2; AHAM, No. 6 at p. 6)

In the NOPD, DOE developed cost-efficiency curves for the six representative units. Four of the six cost-efficiency curves have a positive slope, indicating that an increase in efficiency is associated with an increase in cost. (For the 345 W high-power EPS representative unit, there is an increase in cost from CSL 1 to CSL 3, although the baseline CSL is the most expensive.) Because DOE's analyses identify a general link between increased efficiency and increased cost, DOE believes that PTI and AHAM were collectively referring to the two EPS-for-BC representative units included in the analysis. The cost-efficiency curves for these units projected an increase in cost from the baseline to CSL 1 but with no increase in cost from CSL 1 to CSL 3. As explained in the NOPD, the cost-efficiency relationship for these representative units is based on purchasing 12 EPS units, testing their efficiency, and estimating their costs through teardowns, of which three were performed by iSuppli and the remainder by DOE. There was no clear relationship among the 12 units, other than that unit #17, the lowest-efficiency linear EPS unit used to characterize the baseline cost, was cheaper than the average cost of the switched-mode EPS units used to characterize the higher CSLs.

Among the switched-mode EPSs, DOE attempted to hold all factors constant except for cost and efficiency. For instance, the nameplate output power ratings of the EPS test units ranged from 1.75 W to 5.2 W and the nameplate output voltage ratings ranged from 5 V to 5.2 V. DOE scaled the efficiencies of the units to the representative unit values for nameplate output power and nameplate output voltage. However, there may have been other differences between the EPSs that affected cost and efficiency that DOE was not able to normalize, which might affect the underlying relationship between cost and efficiency. The available data did not permit DOE to draw any conclusions regarding how these differences would affect the analysis. DOE believes that examining units already available in the market is a valid method for characterizing the cost-efficiency relationship, that the results for the units are accurate, and that the analysis is sufficient to support a positive determination. In the standards rulemaking, DOE will consider the comments from PTI and AHAM as it develops a more robust engineering analysis.

AHAM commented on DOE's ERMC analysis and raised issues related to the scope of coverage of EPSs for BCs and the criteria used to define charge control. (AHAM, No. 6 at p. 5) First, AHAM noted that the ERMC analysis of cost is not applicable to most AHAM product wall adapters for BCs because the analysis does not include components used in charged control, making the CSLs not applicable to AHAM products. Second, AHAM does not believe the cost-efficiency curve for vacuum cleaners would be the same if applied to the 95 percent of wall adapters with charge control. Third, AHAM asked that DOE demonstrate how costs can be scaled using a base volume of 1,000,000 per year. Fourth, AHAM questioned whether the high-volume EPS ERMCs are applicable to custom designed, small quantity BCs.

DOE agrees with AHAM's first two comments that DOE's cost-efficiency curves do not apply to wall adapters that include charge control. Regarding AHAM's third comment, because DOE's analysis focused on EPSs that are interchangeable and do not have charge control, DOE evaluated their cost at high volumes that are typical of EPSs. Finally, as to AHAM's fourth comment, low volume EPS costs are inconsistent with the scope of EPSs for BCs as currently defined in this determination and, consequently, were not evaluated.

F. Energy Use and End-Use Load Characterization

The purpose of the energy-use and end-use load characterization is to identify how consumers use products and equipment, and thereby determine the change in EPS energy consumption related to different energy efficiency improvements. For EPSs, DOE's analysis focused on the consumer products they power and on how end-users operate these consumer products.

The energy-use and end-use load characterization estimates unit energy consumption (UEC), which represents the typical annual energy consumption of an EPS in the field. The UEC for EPSs is calculated by combining 1) usage profiles, which describe the time a device spends in each mode in one year; 2) load, which measures the power provided by the EPS to the consumer product in each mode; and 3) efficiency, which measures the power an EPS must draw from mains (*i.e.,* wall outlet) to power a given load. Outputs from this analysis feed into the LCC analysis and NIA.

DOE published the details of its energy use and end-use load characterization in the NOPD and accompanying TSD. In the one comment DOE received on this analysis, PTI agreed with the usage profiles DOE adopted for EPSs for power tool BCs. (PTI, No. 5 at p. 2) These usage profiles can be found in section 4.3.5 of the TSD.

G. Life-Cycle Cost and Payback Period Analyses

DOE performed a life-cycle cost and payback period analysis on each of the representative units to analyze the economic impacts of possible energy efficiency standards on individual consumers, as detailed in the NOPD. The effects of standards on individual consumers include a change in operating expenses (usually decreased) and a change in purchase price (usually increased). DOE used two metrics to determine the effect of potential standards on individual consumers:

- Life-cycle cost is the total consumer expense over the lifetime of an appliance, including the up-front cost (the total price paid by a consumer before the appliance can be operated) and all operating costs (including energy expenditures). DOE discounts future operating costs to the time of purchase.
- Payback period represents the number of years it would take the customer to recover the assumed higher purchase price of more energy efficient equipment through decreased operating expenses. Sometimes more energy-efficient equipment can have a lower purchase price than the less energy-efficient equipment that it replaces. In this case, the consumer realizes an immediate financial benefit and, thus, there is no payback period.

DOE categorized inputs to the LCC and PBP analysis as follows: (1) Inputs for establishing the consumer purchase price of an EPS and (2) inputs for calculating the operating cost. In this analysis, all dollar amounts are in 2008 dollars.

The primary inputs for establishing the consumer purchase price are:

- *ERMC* in 2008 dollars, which is based on the bill of materials cost of the efficiency-related components of the EPS; and
- *Markups* as scaling factors applied to the manufacturer production cost to create the final efficiency-related consumer purchase price. The primary inputs for calculating the operating cost are:
- *Unit energy consumption* in kilowatt-hours per year (kWh/year), which is the annual site energy use of the EPS;
- *Electricity prices* in 2008 dollars, which are the prices paid by consumers for electricity;
- *An electricity price trend,* which is applied to the 2008 electricity price to forecast electricity prices into the future;

• *Start year,* which is the year in which the EPS and its associated product are purchased (for the LCC and PBP analysis, DOE uses 2013 as the start year for all products);

• *Lifetime,* which is the age at which the EPS and its associated product are retired from service (lifetimes vary by product); and

• *Discount rate,* which is the rate at which DOE discounted future expenditures to establish their values in the start year.

Many of the LCC analysis's inputs are developed in previous analyses: market assessment, engineering analysis, markups, and energy use and end-use load characterization. Note that future expenditures are discounted for the LCC calculation and not the PBP calculation, as DOE uses a simple PBP.

DOE published the details of its life-cycle cost and payback period analysis in the NOPD and accompanying TSD. DOE did not receive comment on the life-cycle cost and payback period analysis.

H. National Impact Analysis

In its determination analysis, DOE estimated the potential for national energy savings from energy conservation standards for non-Class A EPSs, as well as the net present value of such standards.

To estimate national energy savings potential, DOE first calculated unit energy savings (UES), which is the difference between the UEC in the standards case and the UEC in the base case. Thus, the UES represents the reduced energy consumption of a single unit due to the higher efficiency generated by a standard. Once calculated, the UES was then multiplied by the national inventory of units to calculate national energy savings.

The national net present value of energy conservation standards is the difference between electricity cost savings and equipment cost increases. DOE calculated electricity cost savings for each year by multiplying energy savings by forecasted electricity prices. DOE assumed that all of the energy cost savings would accrue to consumers paying residential electricity rates. DOE calculated equipment cost increases for each year by taking the incremental price increase per unit between a base-case and a standards-case scenario and multiplying the difference by the national inventory. For each year, DOE took the difference between the savings and cost to calculate the net savings (if positive) or net cost (if negative). After calculating the net savings and costs, DOE discounted these annual values to the present time using discount rates of 3 percent and 7 percent and summed them to obtain the national net present value.

Additional detail on the national impact analysis can be found in the NOPD and accompanying TSD. DOE did not receive comment on the methodology employed in the national impact analysis.

III. Analysis Results

A. Engineering Analysis

Based on the methodology previously discussed, DOE developed cost-efficiency curves for each representative unit by estimating the cost to reach each CSL. The results of the engineering analysis for each representative unit are presented in Table III.1, Table III.2, Table III.3, Table III.4, Table III.5, and Table III.6. Additional detail is contained in the NOPD and accompanying TSD.

TABLE III.1—COST-EFFICIENCY POINTS FOR A 40-WATT MULTIPLE-VOLTAGE EPS FOR A MULTIFUNCTION DEVICE

Level	Reference point for level	Minimum active-mode efficiency %	Maximum no-load power consumption W	Efficiency-related materials cost 2008$	Basis
0	Less Than EISA 2007	81	0.5	2.66	Manufacturer interview data.
1	Current Market	86	0.45	2.98	Manufacturer interview data.
2	High Level	90	0.31	3.54	Manufacturer interview data.
3	Higher Level	91	0.2	3.67	Manufacturer interview data.

TABLE III.2—COST-EFFICIENCY POINTS FOR A 203-WATT MULTIPLE-VOLTAGE EPS FOR A VIDEO GAME CONSOLE

Level	Reference point for level	Minimum active-mode efficiency %	Maximum no-load power consumption W	Efficiency-related materials cost 2008$	Basis
0	Generic Replacement	82	12.33	6.06	Test and teardown data.
1	Manufacturer Provided	86	0.4	8.93	Test and teardown data.
2	EU Qualified Level	86	0.3	9.05	Manufacturer interview data.
3	Higher Level	89	0.3	12.16	Manufacturer interview data.

TABLE III.3—COST-EFFICIENCY POINTS FOR A 345-WATT HIGH-POWER EPS FOR A HAM RADIO

Level	Reference point for level	Minimum active-mode efficiency %	Maximum no-load power consumption W	Efficiency-related materials cost 2008$	Basis
0	Line Frequency	62	15.43	115.32	Test and teardown data.
1	Switched-Mode—Low Level	81	6.01	33.64	Test and teardown data.
2	Switched-Mode—Mid Level	84	1.50	36.64	Manufacturer interview data.
3	Switched-Mode—High Level	85	0.50	42.32	Manufacturer interview data.

TABLE III.4—COST-EFFICIENCY POINTS FOR AN 18-WATT MEDICAL DEVICE EPS FOR A NEBULIZER

Level	Reference point for level	Minimum active-mode efficiency %	Maximum no-load power consumption W	Efficiency-related materials cost 2008$	Basis
0	Less Than the IV Mark *	66.0	0.557	2.95	Scaled ERMC of EPS #130.
1	Meets the IV Mark	76.0	0.5	3.62	Average ERMC of switched-mode EPSs.
2	Meets the V Mark	80.3	0.3	3.62	Average ERMC of switched-mode EPSs.
3	Higher Level	85.0	0.15	5.70	Manufacturer interview data.

*As explained in section II.C.4 of the NOPD, the marks correspond to the International Efficiency Marking Protocol for External Power Supplies. (Energy Star. "International Efficiency Marking Protocol for External Power Supplies." 2008. *http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/International_Efficiency_Marking_Protocol.pdf).*

TABLE III.5—COST-EFFICIENCY POINTS FOR A 1.8-WATT EPS FOR BC FOR A VACUUM

Level	Reference point for level	Minimum active-mode efficiency %	Maximum no-load power consumption W	Efficiency-related materials cost 2008$	Basis
0	Less than the II Mark	24	1.85	$0.83	Scaled ERMC of EPS #17.
1	Meets the II Mark	45	0.75	0.95	Average of switched-mode test data.
2	Meets the IV Mark	55	0.50	0.95	Average of switched-mode test data.
3	Meets the V Mark	66	0.30	0.95	Average of switched-mode test data.

TABLE III.6—COST-EFFICIENCY POINTS FOR A 4.8-WATT EPS FOR BC FOR A DIY POWER TOOL

Level	Reference point for level	Minimum active-mode efficiency %	Maximum no-load power consumption W	Efficiency-related materials cost 2008$	Basis
0	Less than the II Mark	38	1.85	1.04	Scaled EPS #17 ERMC.
1	Meets the II Mark	56	0.75	1.19	Average of switched-mode test data.
2	Meets the IV Mark	64	0.50	1.19	Average of switched-mode test data.
3	Meets the V Mark	72	0.30	1.19	Average of switched-mode test data.

B. Life-Cycle Cost and Payback Period Analyses

Based on the methodology previously discussed, DOE conducted LCC and PBP analyses for all six of the EPS representative units in the residential sector. The results of these analyses for each representative unit are presented in Table III.7, Table III.8, Table III.9, Table III.10, Table III.11, and Table III.12.

TABLE III.7.—LCC AND PAYBACK PERIOD RESULTS FOR MULTIPLE-VOLTAGE 40-WATT EPS

Situation before standards							Standard at CSL	
Standard at CSL CSL	Conversion efficiency %	No-load power W	Percent of market already at CSL %	Consumer purchase price 2008$	Operating cost 2008$/year	LCC 2008$	Weighted-average life-cycle cost savings 2008$	Weighted-average payback period year
0	81	0.5	25	8.45	1.86	16.44	.....	.....
1	86	0.5	50	9.49	1.32	15.15	1.29	1.9
2	90	0.3	25	11.26	0.91	15.15	0.43	3.8
3	91	0.2	0	11.67	0.78	15.01	0.47	3.5

TABLE III.8—LCC AND PAYBACK PERIOD RESULTS FOR MULTIPLE-VOLTAGE 203-WATT EPS

Situation before standards							Standard at CSL	
Standard at CSL CSL	Conversion efficiency %	No-load power W	Percent of market already at CSL %	Consumer purchase price 2008$	Operating cost 2008$/year	LCC 2008$	Weighted-average life-cycle cost savings 2008$	Weighted-average payback period year
0	82	12.3	5	19.08	14.87	82.78	.....	.....
1	86	0.4	95	28.12	3.82	44.49	38.28	0.8
2	86	0.3	0	28.49	3.76	44.62	1.79	6.1

TABLE III.8—LCC AND PAYBACK PERIOD RESULTS FOR MULTIPLE-VOLTAGE 203-WATT EPS—Continued

Situation before standards							Standard at CSL	
Standard at CSL CSL	Conversion efficiency %	No-load power W	Percent of market already at CSL %	Consumer purchase price 2008$	Operating cost 2008$/year	LCC 2008$	Weighted-average life-cycle cost savings 2008$	Weighted-average payback period year
3	89	0.3	0	38.29	3.14	51.73	-5.32	14.2

TABLE III.9—LCC AND PAYBACK PERIOD RESULTS FOR HIGH POWER 345-WATT EPS

Situation before standards							Standard at CSL	
Standard at CSL CSL	Conversion efficiency %	No-load power W	Percent of market already at CSL %	Consumer purchase price 2008$	Operating cost 2008$/year	LCC 2008$	Weighted-average life-cycle cost savings 2008$	Weighted-average payback period year
0	62	15.4	60	208.10	16.20	331.75	.....	.....
1	81	6.0	40	60.71	6.17	107.81	223.95	N/A
2	84	1.5	0	66.12	5.09	104.93	137.24	N/A
3	85	0.5	0	76.37	4.50	110.68	131.49	N/A

TABLE III.10—LCC AND PAYBACK PERIOD RESULTS FOR MEDICAL 18-WATT EPS

Situation before standards							Standard at CSL	
Standard at CSL CSL	Conversion efficiency %	No-load power W	Percent of market already at CSL %	Consumer purchase price 2008$	Operating cost 2008$/year	LCC 2008$	Weighted-average life-cycle cost savings 2008$	Weighted-average payback period year
0	66	0.6	25	10.62	4.74	40.95	.....	.....
1	76	0.5	25	13.04	2.99	32.13	8.82	1.4
2	80	0.3	50	13.04	2.28	27.60	8.94	0.5
3	85	0.2	0	20.53	1.60	30.79	1.28	7.7

TABLE III.11—LCC AND PAYBACK PERIOD RESULTS FOR 1.8-WATT EPS FOR BCS

Situation before standards							Standard at CSL	
Standard at CSL CSL	Conversion efficiency %	No-load power W	Percent of market already at CSL %	Consumer purchase price 2008$	Operating cost 2008$/year	LCC 2008$	Weighted-average life-cycle cost savings 2008$	Weighted-average payback period year
0	24	1.9	30	3.07	2.15	12.27	.....	.....
1	45	0.8	50	3.52	0.84	7.11	5.17	0.3
2	55	0.5	20	3.52	0.55	5.89	3.15	0.1
3	66	0.3	0	3.52	0.35	5.03	3.38	0.1

TABLE III.12—LCC AND PAYBACK PERIOD RESULTS FOR A 4.8-WATT EPS FOR BCS

Situation before standards							Standard at CSL	
Standard at CSL CSL	Conversion efficiency %	No-load power W	Percent of market already at CSL %	Consumer purchase price 2008$	Operating cost 2008$/year	LCC 2008$	Weighted-average life-cycle cost savings 2008$	Weighted-average payback period year
0	38	1.9	25	4.32	0.81	7.81	.....	.....
1	56	0.8	50	4.94	0.39	6.61	1.19	1.5
2	64	0.5	25	4.94	0.27	6.11	0.90	0.4
3	72	0.3	0	4.94	0.19	5.75	1.03	0.3

C. National Impact Analysis

Based on the methodology previously discussed, DOE conducted national impact analyses of standards for each type of non-Class A EPS. DOE assessed two base cases, one in which the energy efficiency of non-Class A EPSs was assumed to improve over time due to factors other than a Federal standard and another in which energy efficiency was assumed not to improve over time. In the first case, factors expected to drive efficiency improvements are changing consumer preferences and spillover effects from Class A EPS standards. These two base cases provide a lower and upper bound, respectively, on DOE's energy savings and NPV estimates.

If a CSL is selected for each type of EPS to maximize energy savings, subject to the constraint that the NPV be non-negative, total primary energy savings across all types of non-Class A EPSs could be as much as 141 trillion Btu or 0.14 quads over 30 years. CSL 3 yields maximum energy savings and has a positive NPV (both at 3-percent and 7-percent discount rates) for all EPS types except for the multiple-voltage 203 watt EPS. For the latter, CSL 2 has a positive NPV in one base case but a negative NPV in the other. Thus, to estimate the energy savings potential across all types of non-Class A EPS, DOE selected CSL 1 for this one type of EPS. Table III.13 shows the contribution of each EPS type to total savings potential and the NPV of a standard set at the selected CSL. Notably, increasing the efficiency of EPSs for medical devices and multiple-voltage EPSs for multifunction devices yields the greatest amount of projected energy savings.

TABLE III.13—ENERGY SAVINGS POTENTIAL WHEN CSLS ARE SELECTED TO MAXIMIZE ENERGY SAVINGS

Type of EPS	CSL	Energy savings potential 2013 to 2042 (trillion BTU*)	Net present Value 2013 to 2042 ($million)	
			3% Discount rate	7% Discount rate
Multi-Voltage for Multifunction Devices	3	52.8–56.9	156–174	76–85
Multi-Voltage for Xbox 360	1	1.8–30.8	13–189	9–101
High Output Power (>250 W)	3	0.33–0.41	2.4–2.9	1.2–1.5
For Medical Devices	3	42.6–50.6	81–130	27–50
For Battery Chargers for Cordless Handheld Vacuums	3	1.09–1.41	8.0–10.1	4.5–5.6
For Battery Chargers for Power Tools	3	0.63–0.82	4.1–5.1	2.3–2.8
Total	.....	99–141	264–512	120–245

* 1 Quad = 1,000 trillion BTU.

D. Discussion

1. Significance of Energy Savings

EPCA requires the Department to determine whether to pursue energy conservation standards for non-Class A EPSs by finding the potential for significant energy savings. (42 U.S.C. 6295(u)(1)(E)(i)(I)) While the term "significant" is not defined, the U.S. Court of Appeals for the District of Columbia, indicated that Congress intended this term to refer to savings that were not "genuinely trivial." *Natural Resources Defense Council* v. *Herrington,* 768 F.2d 1355, 1373 (D.C. Cir. 1985) (addressing the meaning of the term "significant" within the context of setting energy conservation standards). Using the Department's analysis, the estimated energy savings is as much as 0.14 quads over a 30-year period for non-Class A EPSs. This is equivalent to the annual electricity needs of 1.1 million U.S. homes. The Department believes that the estimated energy savings for the non-Class A EPSs are not "genuinely trivial," and are, in fact, "significant."

2. Impact on Consumers

Using the methods and data described previously, the Department conducted an LCC analysis to estimate the net benefits to users from more efficient non-Class A EPSs. The Department then aggregated the results from the LCC analysis to the national level to estimate national energy savings and national economic impacts. Given the resultant energy savings and economic benefits, the Department concluded that there is also likely to be reduced emissions from decreased electricity generation, decreased demand for the construction of electricity power plants, and potentially net indirect employment benefits from shifting expenditures from the capital-intensive utility sector to consumer expenditures. While the Department did not quantify these potential benefits, it concluded that the benefits are likely to be positive based on the results of the Department's analyses of energy conservation standards for similar products. The Department will provide detailed estimates of such impacts as part of the standards rulemaking process that will result from this determination.

IV. Conclusion

A. Determination

Based on its analysis of the information now available, the Department has determined that energy conservation standards for non-Class A EPSs appear to be technologically feasible and economically justified, and are likely to result in significant energy savings. Consequently, the Department will initiate the development of energy conservation standards for non-Class A EPSs.

All design options addressed in today's determination document are technologically feasible. The Department's test and teardown data, as well as data provided by manufacturers during interviews, show that the considered technologies are available to all manufacturers. The candidate standard levels of efficiency examined in the Department's analysis show that there is the potential for significant energy savings of as much as 0.14 quads.

All of the scenarios evaluated would result in economic benefits to the Nation as shown by the positive NPV. While it is still uncertain whether further analyses will confirm these findings, the Department believes that standards for non-Class A EPSs appear economically justified based on a balanced consideration of the information and analysis available to the Department at this time.

The Department has not produced detailed estimates of the potential adverse impacts of a national standard on manufacturers or on individual categories of users. The Department is instead relying on the presence of currently available high-efficiency designs as an indicator of the probable economic feasibility for manufacturers

to exclusively produce high-efficiency designs if required by standards. During the course of the standards rulemaking process, the Department will perform a detailed analysis of the possible impacts of standards on manufacturers, as well as a more disaggregated assessment of their possible impacts on user-subgroups.

B. Future Proceedings

The Department will begin a proceeding to consider establishment of energy conservation standards for non-Class A EPSs. During the standards rulemaking, the Department will review and analyze the likely effects of industry-wide voluntary programs, such as ENERGY STAR. The Department will collect additional information about design options, inputs to the engineering and LCC analyses, and potential impacts on the manufacturers and consumers of non-Class A EPSs.

CEC and PG&E both encouraged DOE to implement standards for all four types of non-Class A EPSs. (CEC *et al.,* No. 8 at p. 1; PG&E, No. 7 at p. 1) PG&E expressed its desire for standards for multiple-voltage EPSs in particular to prevent potential backsliding by manufacturers in producing more efficient products. (PG&E, No. 7 at p. 2) PG&E s also noted that if standards are not created for high-power EPSs, manufacturers could opt to rate products higher than 250 W so that they fit into this category and, thereby, circumvent standards. (PG&E, No. 7 at p. 2) DOE will take these comments into account as it considers standards for all four types of non-Class A EPSs in the standards rulemaking.

PG&E commented that medical EPSs represent a considerable energy-saving opportunity, but acknowledged that due to the lengthy and expensive FDA approval process they may require special treatment. PG&E suggested two approaches that would avoid placing undue burden on manufacturers of medical EPSs: (1) DOE could place the effective date of standards for medical EPSs later than 2013 or 2014, or (2) DOE could grant an exemption from standards for EPSs manufactured after the effective date of the standard that are used with a medical device that received FDA approval before the effective date (or were submitted for approval before that date). (PG&E, No. 7 at p. 3)

In the standards rulemaking process, DOE will examine needs particular to medical EPSs and methods for addressing those needs when evaluating the potential for setting standards for these products. The Department will also evaluate any proposed standards for medical EPSs to determine whether they are technologically feasible and economically justified, and are likely to result in significant energy savings in accordance with the requirements of EPCA. (42 U.S.C. 6295(o)) Depending on the outcome of these analyses, as well as other factors DOE is required to consider, the agency will determine, what, if any, standards would be appropriate for these products.

V. Procedural Issues and Regulatory Review

A. Review Under Executive Order 12866

The Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget has determined that today's regulatory action is not a "significant regulatory action" under section 3(f)(1) of Executive Order 12866. Therefore, this action is not subject to OIRA review under the Executive Order.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, "Proper Consideration of Small Entities in Agency Rulemaking," 67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of General Counsel's Web site, *http://www.gc.doe.gov.*

DOE reviewed today's rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003.

Today's rule sets no standards; it only positively determines that future standards may be warranted and should be explored in an energy conservation standards rulemaking. Economic impacts on small entities would be considered in the context of such a rulemaking. On the basis of the foregoing, DOE certifies that the rule has no significant economic impact on a substantial number of small entities. Accordingly, DOE has not prepared a regulatory flexibility analysis for this rulemaking. DOE will transmit this certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act

This rulemaking determines that the development of energy efficiency standards for non-Class A EPS is warranted and will impose no new information or record keeping requirements. Accordingly, OMB clearance is not required under the Paperwork Reduction Act. (44 U.S.C. 3501 *et seq.*)

D. Review Under the National Environmental Policy Act

In this notice, DOE positively determines that future standards may be warranted and should be explored in an energy conservation standards rulemaking. DOE has determined that review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.;* NEPA) is not required at this time. NEPA review can only be initiated "as soon as environmental impacts can be meaningfully evaluated" (10 CFR 1021.213(b)). Because this rule only determines that future standards may be warranted, but does not itself propose to set any standard, DOE has determined that there are no environmental impacts to be evaluated at this time. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Review Under Executive Order 13132

Executive Order 13132, "Federalism," 64 FR 43255 (August 4, 1999) imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. The Executive Order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive Order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE has examined today's rule and has determined that it does not preempt State law or have a substantial direct effect on the States, on the relationship between the national

government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the products that are the subject of today's rule. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297) No further action is required by Executive Order 13132.

F. Review Under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, "Civil Justice Reform" (61 FR 4729, February 7, 1996) imposes on Federal agencies the general duty to adhere to the following requirements: (1) Eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; and (3) provide a clear legal standard for affected conduct rather than a general standard and promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation (1) clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in section 3(a) and section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this rule meets the relevant standards of Executive Order 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) (UMRA) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a),(b)) The UMRA also requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed "significant intergovernmental mandate," and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect small governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA (62 FR 12820) (also available at *http://www.gc.doe.gov*).

Today's rule does not result in expenditures of $100 million or more in a given year by the external power supply industries affected by this rulemaking. This is because today's rule sets no standards; it only positively determines that future standards may be warranted and should be explored in an energy conservation standards rulemaking. The rule also does not contain a Federal intergovernmental mandate. Thus, DOE is not required by UMRA to prepare a written statement assessing the costs, benefits, and other effects of the rule on the national economy.

H. Review Under the Treasury and General Government Appropriations Act of 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This rule does not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

DOE has determined, under Executive Order 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights," 53 FR 8859 (March 18, 1988), that this regulation does not result in any takings which might require compensation under the Fifth Amendment to the United States Constitution.

J. Review Under the Treasury and General Government Appropriations Act of 2001

The Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516, note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. The OMB's guidelines were published at 67 FR 8452 (February 22, 2002), and DOE's guidelines were published at 67 FR 62446 (October 7, 2002). DOE has reviewed today's notice under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use," 66 FR 28355 (May 22, 2001) requires Federal agencies to prepare and submit to the OIRA a Statement of Energy Effects for any proposed significant energy action. A "significant energy action" is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that (1) is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy, or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

Today's regulatory action determines that development of energy efficiency standards for non-Class A EPS is warranted and does not have a significant adverse effect on the supply, distribution, or use of energy. The OIRA Administrator has also not designated this rulemaking as a significant energy action. Therefore, DOE has determined that this rule is not a significant energy action. Accordingly, DOE has not prepared a Statement of Energy Effects.

L. Review Under the Information Quality Bulletin for Peer Review

On December 16, 2004, OMB, in consultation with the Office of Science and Technology (OSTP), issued its Final Information Quality Bulletin for Peer Review (the Bulletin). 70 FR 2664. (January 14, 2005) The Bulletin

establishes that certain scientific information shall be peer reviewed by qualified specialists before it is disseminated by the Federal government, including influential scientific information related to agency regulatory actions. The purpose of the bulletin is to enhance the quality and credibility of the Government's scientific information. Under the Bulletin, the energy conservation standards rulemaking analyses are "influential scientific information." The Bulletin defines "influential scientific information" as "scientific information the agency reasonably can determine will have, or does have, a clear and substantial impact on important public policies or private sector decisions." 70 FR 2667 (January 14, 2005).

In response to OMB's Bulletin, DOE conducted formal in-progress peer reviews of the energy conservation standards development process and analyses and has prepared a Peer Review Report pertaining to the energy conservation standards rulemaking analyses. The "Energy Conservation Standards Rulemaking Peer Review Report," dated February 2007, has been disseminated and is available at *http://www.eere.energy.gov/buildings/appliance_standards/peer_review.html.*

VI. Approval of the Office of the Assistant Secretary

The Assistant Secretary for Energy Efficiency and Renewable Energy has approved publication of this final rule.

Issued in Washington, DC, on May 7, 2010.

Cathy Zoi,

Assistant Secretary, Energy Efficiency and Renewable Energy.

[FR Doc. 2010–11592 Filed 5–13–10; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

10 CFR Part 430

[Docket No. EERE–2010–BT–CRT–0017]

RIN 1904–AC10

Energy Conservation Program: Web-Based Compliance and Certification Management System

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Final rule.

SUMMARY: This final rule: provides a new means for manufacturers and third party representatives to prepare and submit compliance and certification reports to the Department of Energy (DOE) through an electronic Web-based tool, the Compliance and Certification Management System (CCMS), which will be the preferred mechanism for submitting compliance and certification reports; allows compliance and certification reports to be submitted via e-mail; and updates the address and contact information used to submit compliance statements and certification reports through certified mail to DOE.

DATES: *Effective Date:* This final rule is effective June 1, 2010.

ADDRESSES: For access to the docket and to read background material, visit the U.S. Department of Energy, Resource Room of the Building Technologies Program, 950 L'Enfant Plaza, SW., 6th Floor, Washington, DC, 20024, (202) 586–2945, between 9 a.m. and 4 p.m. Monday through Friday, except Federal holidays. Please call Ms. Brenda Edwards at the above telephone number for additional information regarding visiting the Resource Room.

FOR FURTHER INFORMATION CONTACT:

Mr. Charles Llenza, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies, EE–2J, 1000 Independence Avenue, SW., Washington, DC 20585–0121, (202) 286–2192. E-mail: *Charles.Llenza@ee.doe.gov*.

Ms. Betsy Kohl, U.S. Department of Energy, Office of General Counsel, GC–71, Forrestal Building, GC–71, 1000 Independence Avenue, SW., Washington, DC 20585–0121, (202) 586–7796. E-mail: *Elizabeth.Kohl@hq.doe.gov*.

SUPPLEMENTARY INFORMATION: DOE establishes that compliance statements and certification reports may be submitted to DOE through any of the following means:

1. Compliance and Certification Management System (CCMS)—via the Web portal: *http://regulations.doe.gov/ccms.* Follow the instructions on the CCMS Web site for submitting compliance statements and certification reports. The CCMS is a tool for certification of compliance with applicable energy conservation standards. Submission of compliance statements and certification reports via the CCMS is preferred and will satisfy compliance and certification reporting requirements for DOE. For CCMS Help/Support Contact: Mr. Charles Llenza, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies, EE–2J, 1000 Independence Avenue, SW., Washington, DC 20585–0121, (202) 586–2192. E-mail: *Charles.Llenza@ee.doe.gov.*

2. E-mail—*send to: certification.report@ee.doe.gov* and indicate in the subject line the manufacturer, the third party representative if applicable, and the specific product or equipment for which the report is being submitted.

3. Certified Mail—*send to:* Charles Llenza, Appliances and Commercial Equipment Standards, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program (EE–2J), Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585–0121. Include in the address the subject line: Compliance and Certification Management System.

Legislative Authority: Part A of Title III of the Energy Policy and Conservation Act of 1975 (EPCA), Public Law 94–163, as amended, 42 U.S.C. 6291–6309, established the "Energy Conservation Program for Consumer Products Other Than Automobiles." Similarly, Part A–1 of Title III of EPCA, as amended, 42 U.S.C. 6311–6317, established an energy efficiency program for "Certain Industrial Equipment," which included certain commercial equipment.[1] EPCA requires each manufacturer of a covered product to submit information or reports to the Secretary with respect to energy efficiency, energy use, or, in the case of showerheads, faucets, water closets, and urinals, water use of such covered product and the economic impact of any proposed energy conservation standard, as DOE determines may be necessary to establish and revise test procedures, labeling rules, and energy conservation standards for such product and to ensure compliance with the requirements. In so doing, DOE must consider existing public sources, including nationally recognized certification programs of trade associations. *See* 42 U.S.C. 6296(d). Further, the Energy Policy Act of 2005 (EPACT 2005), Public Law 109–58, amended EPCA with respect to particular consumer products and commercial and industrial equipment by providing definitions, test procedures, labeling provisions, energy conservation standards, and the authority to require information and reports from manufacturers. EPACT 2005 also authorized DOE to require manufacturers of covered commercial and industrial equipment to submit information and reports for a variety of purposes, including ensuring

[1] For editorial reasons, Parts B (consumer products) and C (commercial equipment) of Title III of EPCA were re-designated as parts A and A–1, respectively, in the United States Code.