[6450-01-P]

DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE–2017–BT–STD–0014]

Energy Efficiency Program: Energy Conservation Standards for Residential Clothes Washers

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

ACTION: Request for information.

SUMMARY: The U.S. Department of Energy ("DOE") is initiating an effort to determine whether to amend the current energy conservation standards for residential clothes washers ("RCWs"). This request for information ("RFI") solicits information from the public to help DOE determine whether amended standards for RCWs would result in significant amount of additional energy savings and whether such standards would be technologically feasible and economically justified. As part of this RFI, DOE seeks comment on whether there have been sufficient technological or market changes since the most recent standards update that may justify a new rulemaking to consider more stringent standards. Specifically, DOE seeks data and information that could enable the agency to determine whether DOE should propose a "no new standard" determination because a more stringent standard: would not result in a significant savings of energy; is not technologically feasible; is not economically justified; or any combination of foregoing. DOE welcomes written comments from the public on any subject within the scope of this document (including topics not raised in this RFI).

DATES: Written comments and information will be accepted on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *http://www.regulations.gov*. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE-2017-BT-STD-0014, by any of the following methods:

1. *Federal eRulemaking Portal*: *http://www.regulations.gov*. Follow the instructions for submitting comments.
2. *E-mail*: *ConsumerClothesWasher2017STD0014@ee.doe.gov*. Include the docket number EERE-2017-BT-STD-0014 in the subject line of the message.
3. *Postal Mail*: Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 287-1445. If possible, please submit all items on a compact disc ("CD"), in which case it is not necessary to include printed copies.
4. *Hand Delivery/Courier:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, 950 L'Enfant Plaza, SW., 6th Floor, Washington, DC, 20024. Telephone: (202) 287-1445. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

No telefacsimilies (faxes) will be accepted. For detailed instructions on submitting comments and additional information on this process, see section III of this document.

Docket: The docket for this activity, which includes *Federal Register* notices, comments, and other supporting documents/materials, is available for review at *http://www.regulations.gov*. All documents in the docket are listed in the *http://www.regulations.gov* index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

The docket webpage can be found at: *http://www.regulations.gov/#!docketDetail;D=EERE-2017-BT-STD-0014*. The docket web page contains instructions on how to access all documents, including public comments, in the docket. See section III of this document for information on how to submit comments through *http://www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT:

Mr. Bryan Berringer, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-0371. E-mail: *ApplianceStandardsQuestions@ee.doe.gov*.

Ms. Elizabeth Kohl, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC, 20585-0121. Telephone: (202) 586-7796. E-mail: *Elizabeth.Kohl@hq.doe.gov*.

For further information on how to submit a comment or review other public comments and the docket contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by e-mail: *ApplianceStandardsQuestions@ee.doe.gov*.

SUPPLEMENTARY INFORMATION:

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I. Introduction

A. Authority and Background

The Energy Policy and Conservation Act of 1975, as amended ("EPCA"),[1] among other things, authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B[2] of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles. These products include RCWs, the subject of this document. (42 U.S.C. 6292(a)(7))

Under EPCA, DOE's energy conservation program consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA specifically include definitions (42 U.S.C. 6291), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), energy conservation standards (42 U.S.C. 6295), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

Federal energy efficiency requirements for covered products established under EPCA generally supersede State laws and regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6297(a)–(c)) DOE may, however, grant waivers of Federal

[1] All references to EPCA in this document refer to the statute as amended through America's Water Infrastructure Act of 2018, Public Law 115-270 (Oct. 23, 2018).
[2] For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.

preemption in limited instances for particular State laws or regulations, in accordance with the procedures and other provisions set forth under 42 U.S.C. 6297(d).

EPCA required that all rinse cycles of clothes washers manufactured after January 1, 1988 include an unheated water option, but stated that such clothes washers may have a heated water rinse option. (42 U.S.C. 6295(g)(2) EPCA directed DOE to conduct two cycles of rulemakings to determine whether to amend these standards. (42 U.S.C. 6295(g)(4)(A) and (B)) DOE completed the first rulemaking cycle for RCWs in 1991 by establishing performance-based energy conservation standards for top-loading compact and top-loading standard-size RCWs manufactured on or after May 14, 1994. 56 FR 22249 (May 14, 1991). DOE completed a second rulemaking cycle by publishing a final rule on January 12, 2001 ("January 2001 Final Rule"), which amended the standards for top-loading compact and standard-size RCWs and established performance-based standards for front-loading RCWs. 66 FR 3314. These amended standards were based on a joint proposal submitted to DOE by clothes washer manufacturers and energy conservation advocates. *Id*.

EPCA further amended the energy conservation standards for top-loading and front-loading standard-size RCWs manufactured on or after January 1, 2011.[3] (42 U.S.C. 6295(g)(9)(A)) EPCA further directed DOE to conduct a rulemaking to determine whether to

[3] EPCA required that a top-loading or front-loading standard-size RCW manufactured on or after January 1, 2011, must have a Modified Energy Factor of at least 1.26, and a water factor of not more than 9.5.

amend the standards in effect for RCWs manufactured on or after January 1, 2015. (42 U.S.C. 6295(g)(9)(B)(i))

Most recently, DOE completed a third rulemaking cycle to amend the standards for RCWs by publishing a direct final rule on May 31, 2012 ("May 2012 Direct Final Rule"). 77 FR 32307. These amended standards were based on a joint proposal submitted to DOE by interested parties representing manufacturers, energy and environmental advocates, and consumer groups.

The current energy conservation standards are located in title 10 of the Code of Federal Regulations ("CFR") part 430, section 32(g). The currently applicable DOE test procedures for RCWs appear at 10 CFR part 430, subpart B, appendix J2 ("Appendix J2").

EPCA also requires that, not later than 6 years after the issuance of any final rule establishing or amending a standard, DOE evaluate the energy conservation standards for each type of covered product and publish either a notice of determination that the standards do not need to be amended or a notice of proposed rulemaking ("NOPR") that includes new proposed energy conservation standards (proceeding to a final rule, as appropriate). (42 U.S.C. 6295(m))

DOE is publishing this RFI to collect data and information to inform its decision consistent with its obligations under EPCA.

B. Rulemaking Process

DOE must follow specific statutory criteria for prescribing new or amended standards for covered products. EPCA requires that any new or amended energy conservation standard be

designed to achieve the maximum improvement in energy or water efficiency that is technologically feasible and economically justified. (42 U.S.C. 6295(o)(2)(A)) To determine whether a standard is economically justified, EPCA requires that DOE determine whether the benefits of the standard exceed its burdens by considering, to the greatest extent practicable, the following seven factors:

1) The economic impact of the standard on manufacturers and consumers of the affected products;
2) The savings in operating costs throughout the estimated average life of the product compared to any increase in the initial cost or maintenance expenses;
3) The total projected amount of energy and water (if applicable) savings likely to result directly from the standard;
4) Any lessening of the utility or the performance of the products likely to result from the standard;
5) The impact of any lessening of competition, as determined in writing by the Attorney General, that is likely to result from the standard;
6) The need for national energy and water conservation; and
7) Other factors the Secretary of Energy (Secretary) considers relevant.

(42 U.S.C. 6295(o)(2)(B)(i)(I)–(VII))

DOE fulfills these and other applicable requirements by conducting a series of analyses throughout the rulemaking process. Table I-1 shows the individual analyses that are performed to satisfy each of the requirements within EPCA.

Table I-1 EPCA Requirements and Corresponding DOE Analysis

EPCA Requirement	Corresponding DOE Analysis
Significant Energy Savings	• Shipments Analysis • National Impact Analysis • Energy and Water Use Determination
Technological Feasibility	• Market and Technology Assessment • Screening Analysis • Engineering Analysis
Economic Justification:	
1. Economic impact on manufacturers and consumers	• Manufacturer Impact Analysis • Life-Cycle Cost and Payback Period Analysis • Life-Cycle Cost Subgroup Analysis • Shipments Analysis
2. Lifetime operating cost savings compared to increased cost for the product	• Markups for Product Price Determination • Energy and Water Use Determination • Life-Cycle Cost and Payback Period Analysis
3. Total projected energy and water savings	• Shipments Analysis • National Impact Analysis
4. Impact on utility or performance	• Screening Analysis • Engineering Analysis
5. Impact of any lessening of competition	• Manufacturer Impact Analysis
6. Need for national energy and water conservation	• Shipments Analysis • National Impact Analysis
7. Other factors the Secretary considers relevant	• Employment Impact Analysis • Utility Impact Analysis • Emissions Analysis • Monetization of Emissions Reductions Benefits • Regulatory Impact Analysis

As detailed throughout this RFI, DOE is publishing this document seeking input and data from interested parties to aid in the development of the technical analyses on which DOE will ultimately rely to determine whether (and if so, how) to amend the standards for RCWs.

II. Request for Information and Comments

In the following sections, DOE has identified a variety of issues on which it seeks input to aid in the development of the technical and economic analyses regarding whether amended standards for RCWs may be warranted.

As an initial matter, DOE seeks comment on whether there have been sufficient technological or market changes since the most recent standards update that may justify a new rulemaking to consider more stringent standards. Specifically, DOE seeks data and information that could enable the agency to determine whether DOE should propose a "no new standard" determination because a more stringent standard: (1) would not result in a significant savings of energy; (2) is not technologically feasible; (3) is not economically justified; or (4) any combination of foregoing.

Additionally, DOE welcomes comments on other issues relevant to the conduct of this rulemaking that may not specifically be identified in this document. In particular, DOE notes that under Executive Order 13771, "Reducing Regulation and Controlling Regulatory Costs," Executive Branch agencies such as DOE are directed to manage the costs associated with the imposition of expenditures required to comply with Federal regulations. See 82 FR 9339 (Feb. 3, 2017). Consistent with that Executive Order, DOE encourages the public to provide input on

measures DOE could take to lower the cost of its energy conservation standards rulemakings, recordkeeping and reporting requirements, and compliance and certification requirements applicable to RCWs, while remaining consistent with the requirements of EPCA.

A. Products Covered by This Rulemaking

This RFI covers those products that meet the definitions for RCWs, as codified at 10 CFR 430.2:

EPCA does not define the term "clothes washer". DOE has defined a "clothes washer" as a consumer product designed to clean clothes, utilizing a water solution of soap and/or detergent and mechanical agitation or other movement, that must be one of the following classes: automatic clothes washers, semi-automatic clothes washers, and other clothes washers. 10 CFR 430.2

An "automatic clothes washer" is a class of clothes washer that has a control system that is capable of scheduling a preselected combination of operations, such as regulation of water temperature, regulation of the water fill level, and performance of wash, rinse, drain, and spin functions without the need for user intervention subsequent to the initiation of machine operation. Some models may require user intervention to initiate these different segments of the cycle after the machine has begun operation, but they do not require the user to intervene to regulate the water temperature by adjusting the external water faucet valves. *Id.*

A "semi-automatic clothes washer" is a class of clothes washer that is the same as an automatic clothes washer except that user intervention is required to regulate the water temperature by adjusting the external water faucet valves. *Id.*

"Other clothes washer" means a class of clothes washer that is not an automatic or semi-automatic clothes washer. *Id.*

Issue II.A.1. DOE requests comment on whether the definitions for RCWs require any revisions – and if so, how those definitions should be revised.

B. Market and Technology Assessment

The market and technology assessment that DOE routinely conducts when analyzing the impacts of a potential new or amended energy conservation standard provides information about the RCW industry that will be used throughout the rulemaking process. DOE uses qualitative and quantitative information to characterize the structure of the industry and market. DOE identifies manufacturers, estimates market shares and trends, addresses regulatory and non-regulatory initiatives intended to improve energy efficiency or reduce energy consumption, and explores the potential for efficiency improvements in the design and manufacturing of RCWs. DOE also reviews product literature, industry publications, and company websites. Additionally, DOE conducts interviews with manufacturers to improve its assessment of the market and available technologies for RCWs.

1. Product Classes

When evaluating and establishing energy conservation standards, DOE may divide covered products into product classes by the type of energy used, or by capacity or other performance-related features that justify a different standard. (42 U.S.C. 6295(q)) In making a determination whether capacity or another performance-related feature justifies a different standard, DOE must consider such factors as the utility of the feature to the consumer and other factors DOE deems appropriate. *Id.*

For RCWs, the current energy conservation standards specified in 10 CFR 403.32(g) are based on four product classes, differentiated by capacity and method of loading clothes (*i.e.*, axis of loading):

- Top-loading, compact (less than 1.6 cubic feet (cu.ft.) capacity);
- Top-loading, standard (1.6 cu.ft. or greater capacity);
- Front-loading, compact (less than 1.6 cu.ft. capacity); and
- Front-loading, standard (1.6 cu.ft. or greater capacity).

10 CFR 430.32(g)(3).

In a previous rulemaking to amend standards applicable to commercial clothes washers, DOE determined specifically that the "axis of loading" constituted a feature that justified separate product classes for top loading and front loading clothes washers, and that "the longer average cycle time of front-loading machines warrants consideration of separate [product] classes." 79 FR 74492, 74498 (Sept. 15, 2014). DOE stated that a split in preference between top loaders and front loaders would not indicate consumer indifference to the axis of loading, but

rather that a certain percentage of the market expresses a preference for (*i.e.*, derives utility from) the top-loading configuration. DOE further noted that separation of clothes washer equipment classes by location of access is similar in nature to the equipment classes for residential refrigerator-freezers, which include separate product classes based on the access of location of the freezer compartment (*e.g.*, top-mounted, side-mounted, and bottom-mounted). The location of the freezer compartment on these products provides no additional performance-related utility other than consumer preference. In other words, the location of access itself provides distinct consumer utility. *Id.* 79 FR 74499. DOE also reasoned that top-loading residential clothes washers are available with the same efficiency levels, control panel features, and price points as front-loading residential clothes washers, and that given these equivalencies, purchase of top loaders indicates a preference among certain consumers for the top-loading configuration, *i.e.*, the top-loading configuration provides utility to those customers preferring one configuration over another, with all other product attributes being equal. *Id*.

Issue II.B.1. DOE requests feedback on the current RCW product classes and whether changes to these individual product classes and their descriptions should be made.

DOE is also aware that new configurations and features are available for RCWs that may not have been available at the time of the last energy conservation standards analysis. For example, DOE is aware of auxiliary or supplementary clothes washers designed to accompany a standard-size RCW from the same manufacturer, which may be integrated as a single product; RCWs that contain a built-in basin that can be used to pre-treat and soak clothing before the start of a wash cycle; and RCWs that provide drying functionality as an optional feature that can be added to the end of a wash cycle.

Issue II.B.2. DOE seeks to ensure that it does not inhibit the development of features, or eliminate from the market existing features, that provide utility to the consumer. DOE therefore requests information regarding such new configurations and features, including how prevalent they are in the market, the consumer utility of such features, and data detailing the corresponding impacts on energy use.

DOE recently granted a petition for rulemaking to propose a new product class for dishwashers with a normal cycle of 60 minutes or fewer.[4] DOE determined that under the product-class provision in EPCA (42 U.S.C. 6295(q)), cycle time is a performance-related feature for dishwashers that justifies a separate product class subject to a higher or lower standard than that currently applicable to dishwashers. In the context of dishwashers, DOE found that there is consumer utility in shorter cycle times to clean a normally-soiled load of dishes.

Issue II.B.3. DOE requests comment on the extent to which shorter cycles for RCWs could likewise affect consumer utility and whether creation of a separate product class would enable the availability of such products.

Additionally, as noted, EPCA identifies product capacity as a performance-related feature that may justify the establishment of a higher or lower standard than that which applies (or would apply) for such type or class for any group of covered products. 42 U.S.C. 6295(q)(1)(B). For

[4] A pre-publication version of the notice granting the petition is available at: *https://www.energy.gov/sites/prod/files/2019/07/f64/dishwasher-petition-nopr.pdf*.

clothes washers, products with a larger capacity are inherently able to achieve higher efficiency levels; conversely, products with smaller capacity are inherently unable to achieve as high efficiency levels, for two main reasons. First, a larger tub capacity can contribute to improved efficiency because a larger amount of clothing can be washed using an incremental increase in the quantity of water that is less than the incremental increase in capacity, therefore reducing the amount of water and energy per pound of clothing. Second, a larger drum diameter can exert a higher g-force on the clothing during the final-spin portion of the cycle, thus removing more water and reducing the drying energy component of the integrated modified energy factor ("IMEF") metric (resulting in a better IMEF rating).

DOE notes that the front-loading clothes washer market is segmented based on product width (which inherently affects clothes washer capacity). A significant majority of front-loading RCWs currently on the market in the United States have a nominal cabinet width of 27 inches or greater. However, the front-loading market also includes narrower products with a nominal cabinet width of 24 inches. These products are designed to be installed in confined spaces such as small closets and under-counter installations. At the time of the rulemaking culminating in the May 2012 Direct Final Rule, the efficiency levels of both 27-inch and 24-inch RCWs overlapped sufficiently such that both types of products were available at the efficiency levels considered for the rulemaking analysis and at the amended standard level. However, in the current market, almost no overlap in efficiency exists between 24-inch and 27-inch RCWs (specifically, the 24-inch products have lower efficiency ratings than the 27-inch products, which may be due to the limitation on drum diameter and volume, as described above).

Similarly, while a significant majority of top-loading RCWs currently on the market have a nominal cabinet width of 27 inches or greater, the standard-size product class also includes smaller products that typically have clothes container capacities less than 3 cu.ft. and are designed to be portable. Due to size and installation limitations, such products may be less able to incorporate certain efficiency-related technologies such as larger drum volume or higher spin speeds compared to 27-inch stationary products.

Issue II.B.4. DOE requests information and data on the installation environments and consumer use of smaller-size front-loading and top-loading RCWs such as those designed for confined spaces and/or portable use.

2. Technology Assessment

In analyzing the feasibility of potential new or amended energy conservation standards, DOE uses information about existing technology options and prototype designs to help identify technologies that manufacturers could use to meet and/or exceed a given set of energy conservation standards under consideration. In consultation with interested parties, DOE intends to develop a list of technologies to consider in its analysis. That analysis will likely include a number of the technology options DOE considered during its most recent rulemaking for RCWs. A complete list of those options appears in Table II-1.

Table II-1 Technology Options for Residential Clothes Washers Considered in Development of the May 2012 Direct Final Rule

Adaptive control systems
Added insulation
Advanced agitation concepts for vertical-axis machines
Automatic fill control
Bubble action
Capacity increase
Direct-drive motor
Electrolytic disassociation of water
Horizontal-axis design
Horizontal-axis design with recirculation
Hot water circulation loop
Improved fill control
Improved horizontal-axis-washer drum design
Improved water extraction to lower remaining moisture content
Increased motor efficiency
Low standby-power design
Ozonated laundering
Plastic particle cleaning
Reduced thermal mass
Silver ion injection
Spray rinse or similar water-reducing rinse technology
Thermostatically-controlled mixing valves
Tighter tub tolerance
Ultrasonic washing

Issue II.B.5. DOE seeks information on the technologies listed in Table II-1 regarding their applicability to the current market and how these technologies may impact the efficiency of RCWs as measured according to the DOE test procedure. DOE also seeks information on how these technologies may have changed since they were considered in the May 2012 Direct Final Rule analysis. Specifically, DOE seeks information on the range of efficiencies or performance characteristics currently available for each technology option.

Issue II.B.6. DOE seeks comment on other technology options that it should consider for inclusion in its analysis and if these technologies may impact product features or consumer utility.

C. Screening Analysis

The purpose of the screening analysis is to evaluate the technologies that improve equipment efficiency to determine which technologies will be eliminated from further consideration and which will be passed to the engineering analysis for further consideration.

DOE determines whether to eliminate certain technology options from further consideration based on the following criteria:

1) *Technological feasibility*. Technologies that are not incorporated in commercial products or in working prototypes will not be considered further.

2) *Practicability to manufacture, install, and service*. If it is determined that mass production of a technology in commercial products and reliable installation and servicing of the technology could not be achieved on the scale necessary to serve the relevant market at the time of the effective date of the standard, then that technology will not be considered further.

3) *Impacts on product utility or product availability.* If a technology is determined to have significant adverse impact on the utility of the product to significant subgroups of consumers, or result in the unavailability of any covered product

type with performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as products generally available in the United States at the time, it will not be considered further.[5]

4) *Adverse impacts on health or safety*. If it is determined that a technology will have significant adverse impacts on health or safety, it will not be considered further.

10 CFR part 430, subpart C, appendix A, 4(a)(4) and 5(b).

Technology options identified in the technology assessment are evaluated against these criteria using DOE analyses and inputs from interested parties (*e.g.*, manufacturers, trade organizations, and energy efficiency advocates). Technologies that pass through the screening analysis are referred to as "design options" in the engineering analysis. Technology options that fail to meet one or more of the four criteria are eliminated from consideration.

Table II-2 summarizes the screened-out technology options, and the applicable screening criteria, from the May 2012 Direct Final Rule.

[5] For example, in the May 2012 Direct Final Rule, ultrasonic washing technology was screened out on the basis of adverse impacts on product utility. As described in Chapter 4 of the Technical Support Document accompanying the May 2012 Direct Final Rule, DOE concluded that ultrasonic washing technology would not adequately remove soil from clothing and would therefore reduce consumer utility. In addition, bubble cavitations caused by standing ultrasonic waves could potentially damage some fragile clothing or clothing fasteners, further reducing consumer utility.

Table II-2 Previously Screened Out Technology Options from the May 2012 Direct Final Rule

	EPCA Criteria (X = Basis for Screening Out)			
Screened Technology Option	**Technological Feasibility**	**Practicability to Manufacture, Install, and Service**	**Adverse Impact on Product Utility**	**Adverse Impacts on Health and Safety**
Added insulation	X			
Bubble action		X		
Electrolytic disassociation of water	X	X		
Ozonated laundering		X		
Plastic particle cleaning		X		
Ultrasonic washing			X	

Issue II.C.1. DOE requests feedback on what impact, if any, the four screening criteria described in this section would have on each of the technology options listed in Table II-1 with respect to RCWs. Similarly, DOE seeks information regarding how these same criteria would affect any other technology options not already identified in this document with respect to their potential use in RCWs.

Issue II.C.2. With respect to the screened out technology options listed in Table II-2, DOE seeks information on whether these options would, based on current and projected assessments regarding each of them, remain screened out under the four screening criteria described in this section. With respect to each of these technology options, DOE requests

comment on what steps, if any, could be (or have already been) taken to facilitate the introduction of each option as a means to improve the energy performance of RCWs and the potential to impact consumer utility of RCWs. DOE also requests comment on whether any of the remaining technology options (*i.e.*, those not screened out) should be screened out under the four screening criteria.

D. Engineering Analysis

The engineering analysis estimates the cost-efficiency relationship of products at different levels of increased energy efficiency ("efficiency levels"). This relationship serves as the basis for the cost-benefit calculations for consumers, manufacturers, and the Nation. In determining the cost-efficiency relationship, DOE estimates the increase in manufacturer production cost ("MPC") associated with increasing the efficiency of products above the baseline, up to the maximum technologically feasible ("max-tech") efficiency level for each product class.

DOE has historically used the following three methodologies to generate incremental manufacturing costs and establish efficiency levels ("ELs") for analysis: (1) the design-option approach, which provides the incremental costs of adding to a baseline model design options that will improve its efficiency; (2) the efficiency-level approach, which provides the relative costs of achieving increases in energy efficiency levels, without regard to the particular design options used to achieve such increases; and (3) the cost-assessment (or reverse-engineering) approach, which provides "bottom-up" manufacturing cost assessments for achieving various levels of increased efficiency, based on detailed data as to costs for parts and material, labor, shipping/packaging, and investment for models that operate at particular efficiency levels.

1. Baseline Efficiency Levels

For each established product class, DOE selects a baseline model as a reference point against which any changes resulting from energy conservation standards can be measured. The baseline model in each product class represents the characteristics of common or typical products in that class. Typically, a baseline model is one that meets the current minimum energy conservation standards and provides basic consumer utility. If DOE determines that a rulemaking is necessary, consistent with this analytical approach, for each product class, DOE tentatively plans to consider the current standard levels as the baseline efficiency levels.

The current standards for all four product classes are based on two metrics:

1) IMEF, expressed as cu.ft. per kilowatt-hour per cycle (cu.ft/kWh/cycle), and calculated as the clothes container capacity in cu.ft. divided by the sum, expressed in kWh, of: (1) the total weighted per-cycle hot water energy consumption; (2) the total weighted per-cycle machine electrical energy consumption; (3) the per-cycle energy consumption for removing moisture from a test load; and (4) the per-cycle standby and off mode energy consumption; and

2) Integrated Water Factor ("IWF"), expressed in gallons per cycle per cu.ft. (gal/cycle/cu.ft.), and calculated as the total weighted per-cycle water consumption for all wash cycles, expressed in gallons per cycle, divided by the clothes container capacity in cu.ft.

The current standards for RCWs are found in 10 CFR 430.32(g)(4).

Issue II.D.1. DOE requests feedback on whether using the potential baseline efficiency levels identified above for each product class would be appropriate for DOE to apply to each product class in evaluating whether to amend the current energy conservation standards for these products. DOE requests data and information to determine baseline efficiency levels to better evaluate amending energy conservation standards for these products.

2. Maximum Available and Maximum Technology Levels

As part of DOE's analysis, the maximum available efficiency level is the highest efficiency unit currently available on the market. Table II-3 in the next section shows the current maximum available IMEF efficiency levels for each existing RCW product class, based on information in DOE's Compliance Certification Database.[6]

DOE defines a max-tech efficiency level to represent the maximum possible efficiency for a given product. In the May 2012 Direct Final Rule, DOE determined that the maximum available efficiency levels for RCWs corresponded to the max-tech efficiency levels.

Issue II.D.2. DOE seeks input on whether the maximum available efficiency levels are appropriate and technologically feasible for consideration as possible energy conservation standards for the products at issue.

[6] DOE's Compliance Certification Database is available at *https://www.regulations.doe.gov/compliance-certification-database*. Last accessed April 2, 2019.

Issue II.D.3. DOE seeks input on whether the maximum available efficiency levels correspond to the max-tech efficiency levels, given the current state of technology, or whether DOE should consider max-tech efficiency levels different than the current maximum available efficiency levels.

Issue II.D.4 DOE seeks feedback on what design options would be incorporated at a max-tech efficiency level, and the efficiencies associated with those levels. As part of this request, DOE also seeks information as to whether there are limitations on the use of certain combinations of design options.

3. Intermediate Efficiency Levels

DOE may also define intermediate efficiency levels in between the baseline and max-tech efficiency levels. Typically, DOE identifies intermediate efficiency levels, where appropriate, based on a variety of sources including, but not limited to: 1) clusters of models currently on the market at intermediate efficiency levels; 2) efficiency levels defined by programs such as ENERGY STAR or the Consortium for Energy Efficiency's ("CEE") Super-Efficient Home Appliances Initiative; or 3) "gap-fill" levels to bridge large divides between existing clusters in the market.

Table II-3 indicates potential intermediate efficiency levels, along with baseline and maximum available levels, that DOE could consider for each existing RCW product class, based on a preliminary review of the current market according to models listed in DOE's Compliance Certification Database.

Table II-3 Efficiency Levels for Existing Product Classes

Product Class	Efficiency Level	Efficiency Level Description	IMEF (cu.ft./kWh/ cycle)	IWF (gal/cycle/ cu.ft.)
Top-Loading, Compact	Baseline	2018 DOE standard	1.15	12.0
	Max Available	Maximum currently certified to DOE	1.24	11.3
Top-Loading, Standard	Baseline	2018 DOE standard	1.57	6.5
	Intermediate	2018 ENERGY STAR	2.06	4.3
	Intermediate	2015 CEE Tier 1	2.38	3.7
	Max Available	2018 CEE Tier 1 (> 2.5 cu.ft.), maximum currently certified to DOE	2.76	3.2
Front-Loading, Compact	Baseline	2018 DOE standard	1.13	8.3
	Max Available	Maximum currently certified to DOE	1.17	6.8
Front-Loading, Standard	Baseline	2018 DOE standard	1.84	4.7
	Intermediate	2015 ENERGY STAR (> 2.5 cu.ft.)	2.38	3.7
	Intermediate	2018 ENERGY STAR (> 2.5 cu.ft.)	2.76	3.2
	Intermediate	2018 ENERGY STAR Most Efficient (> 2.5 cu.ft.)	2.92	3.2
	Max Available	Maximum currently certified to DOE	3.10	2.7

Issue II.D.5. DOE seeks input on whether the potential efficiency level definitions shown in Table II-3 are appropriate for each product class. DOE also seeks input on whether DOE should consider any additional "gap fill" efficiency levels between any of the potential efficiency levels shown in the table.

4. Other Efficiency Level Considerations

As an alternative to the current RCW standards based on IMEF and IWF, DOE could consider defining an IMEF and/or IWF standard as an equation based on capacity. Such an

approach would be consistent with the approach used by DOE for consumer refrigerator-freezer standards, for example. If DOE were to adopt such an approach, the efficiency levels considered in the analysis would represent variations from a baseline equation that DOE would establish. For example, if such an approach used a linear equation to define the standard, the higher efficiency levels considered in the analysis could represent equations with the same slope as the baseline equation but with a different y-intercept, or *vice-versa*, or some combination of both.

Issue II.D.6. DOE requests feedback on whether it should consider an IMEF and/or IWF standard as an equation based on capacity.

5. Manufacturer Production Costs and Manufacturing Selling Price

As described at the beginning of this section, the main outputs of the engineering analysis are cost-efficiency relationships that describe the estimated increases in MPC associated with higher-efficiency products for the analyzed product classes. For the May 2012 Direct Final Rule, DOE developed the cost-efficiency relationships for the top-loading standard and front-loading standard product classes using a combination of the reverse-engineering approach and the efficiency-level approach. DOE used the design-option approach to develop the cost-efficiency relationships for the top-loading compact and front-loading compact product classes, because less data was available for these product classes.

Issue II.D.7. DOE requests feedback on how manufacturers would incorporate any of the technology options listed in Table II-1 to increase energy efficiency in RCWs beyond the baseline within each product class. This includes information on the order in which manufacturers would incorporate the different technologies to incrementally improve the

efficiencies of products. DOE also requests feedback on whether the increased energy efficiency would lead to other design changes that would not occur otherwise. DOE is also interested in information regarding any potential impact of design options on a manufacturer's ability to incorporate additional functions or attributes in response to consumer demand.

Issue II.D.8. DOE also seeks input on the increase in MPC associated with incorporating each particular design option. Specifically, DOE is interested in whether and how the costs estimated for design options in the May 2012 Direct Final Rule have changed since the time of that analysis. DOE also requests information on the investments necessary to incorporate specific design options, including, but not limited to, costs related to new or modified tooling (if any), materials, engineering and development efforts to implement each design option, and manufacturing/production impacts.

Issue II.D.9. DOE requests comment on whether certain design options may not be applicable to (or may be incompatible with) specific product classes.

To account for manufacturers' non-production costs and profit margin, DOE applies a non-production cost multiplier (the manufacturer markup) to the MPC. The resulting manufacturer selling price ("MSP") is the price at which the manufacturer distributes a unit into commerce. For the May 2012 Direct Final Rule, DOE used a baseline manufacturer markup of 1.22 for all product classes to convert MPC to MSP.

Issue II.D.10. DOE requests feedback on whether a baseline manufacturer markup of 1.22 remains appropriate for RCWs.

E. Markups Analysis

To carry out the life-cycle cost ("LCC") and payback period ("PBP") calculations, DOE would need to determine the cost to the residential consumer of baseline products, and the cost of more-efficient units the consumer would purchase under potential amended standards. By applying a multiplier called a "markup" to the MSP, DOE is able to estimate the residential consumer's price. In generating end-user price inputs, DOE must identify distribution channels (*i.e.*, how the products are distributed from the manufacturer to the consumer) and estimate relative sales volumes through each channel. In the May 2012 Direct Final Rule, DOE only accounted for the retail outlets distribution channel because data from the Association of Home Appliance Manufacturers ("AHAM") 2005 *Fact Book* indicated that the overwhelming majority of residential appliances were sold through retail outlets, as described in chapter 6 of the technical support document accompanying the May 2012 Direct Final Rule. The main actors included were manufacturers and retailers.[7] The AHAM *2009 Fact Book* indicated a similar share for the products sold. Thus, DOE analyzed a manufacturer-to-consumer distribution channel consisting of three parties: (1) the manufacturers producing the products, (2) the retailers purchasing the products from manufacturers and selling them to consumers, and (3) the consumers who purchase the products. In the May 2012 Direct Final Rule, DOE did not include a separate distribution channel for RCWs included as part of a new home because DOE did not have enough information to characterize which of these products come pre-installed by builders in the new homes. Should sufficient information become available, DOE may consider

[7] Available at *https://www.regulations.gov/document?D=EERE-2008-BT-STD-0019-0047*.

including a separate distribution channel that includes a contractor in addition to the existing retail outlets distribution channel.

For a potential new analysis, DOE would determine an average manufacturer markup by examining the annual Securities and Exchange Commission ("SEC") 10-K reports filed by publicly traded manufacturers of appliances whose product range includes RCWs. DOE will determine an average retailer markup by analyzing both economic census data from the U.S. Census Bureau and the annual SEC 10-K reports filed by publicly traded retailers.

In addition to developing manufacturer and retailer markups, DOE would develop and include sales taxes to calculate appliance retail prices. DOE would use an Internet source, the Sales Tax Clearinghouse, to calculate applicable sales taxes.

Issue II.E.1. DOE requests information on the existence of any distribution channels other than the retail outlet distribution channel that should be included in a future analysis. DOE also requests data on the fraction of RCW sales that go through both, a wholesaler/retailer and a contractor, as well as the fraction of sales through any other identified channels.

F. Energy and Water Use Analysis

As part of the rulemaking process, DOE conducts an energy and water use analysis to identify how products are used by consumers, and thereby determine the energy and water savings potential of efficiency improvements. The energy and water use analysis seeks to capture the range of operating conditions for RCWs in U.S. homes. The energy and water use analysis is meant to represent typical energy and water consumption in the field.

To determine the field energy and water use of products that would meet possible standard levels, DOE would use data from the Energy Information Administration's ("EIA's") 2015 Residential Energy Consumption Survey ("RECS"), the most recent survey available from EIA.[8] RECS is a national sample survey of housing units that collects statistical information on the consumption of and expenditures for energy in housing units along with data on energy-related characteristics of the housing units and occupants. RECS provides sufficient information to establish the type (product class) of RCW used in each household. As a result, DOE would be able to develop household samples for each of the considered product classes. RECS specifies the use cycles of RCWs, thereby allowing DOE to determine the RCW's annual energy and water consumption.

For each sample household, DOE would estimate the field-based annual energy and water use of front- and top-loading standard-capacity RCWs by multiplying the annual number of RCW cycles for each household by the per-cycle energy and water use values established by the engineering analysis (using the DOE test procedure) for each considered efficiency level. Per-cycle energy use is calculated in the test procedure as the sum of per-cycle machine energy use (including the energy used to heat water and remove moisture from clothing), and standby mode and off-mode energy use.

Issue II.F.1. DOE requests input from interested parties on approaches for specifying the typical values and variability in the annual energy consumption of RCWs.

[8] For information on RECS, see *http://www.eia.doe.gov/emeu/recs/*.

For the purpose of its analysis, DOE would account for any rebound effect in its determination of annual energy and water consumption. The rebound effect occurs when a piece of equipment, made more efficient and used more intensively, does not yield the expected energy savings from the efficiency improvement. In the case of more efficient RCWs, research to date indicates no conclusive causality between increased efficiency and increased use.

Issue II.F.2. DOE seeks comments on any rebound effect associated with more efficient RCWs. In other words, DOE seeks input on what portion of the energy savings resulting from more efficient models may be offset due to increased usage of RCWs.

G. Life-Cycle Cost and Payback Period Analyses

The effects of more stringent energy conservation standards on a consumer of RCWs include changes in operating expenses (usually decreased) and changes in purchase prices (usually increased). DOE would analyze data input variability and uncertainty by performing the LCC and PBP calculations on a representative sample of households from RECS for the considered product classes using Monte Carlo simulation and probability distributions. The analysis results are a distribution of results showing the range of LCC savings and PBPs for a given efficiency level relative to the baseline level.

DOE would analyze the net effect on consumers by calculating the LCC and PBP using engineering performance data (section II.D of this document), energy and water consumption data (section II.F of this document), and equipment retail prices (section II.E of this document). Inputs to the LCC and PBP calculation include the total installed cost to the consumer (purchase price plus installation cost) and operating cost (energy and water expenses, repair costs, and

maintenance costs). Additional inputs to the LCC calculation include energy price forecasts, the lifetime of the RCW or other defined period of analysis, and discount rates.

To derive the installation costs, DOE would use the 2017 RSMeans Residential Cost Data on labor requirements to estimate installation costs for RCWs.[9] DOE would make adjustments to the costs if needed to account for changes in weight and/or dimensions of higher-efficiency products.

Issue II.G.1. DOE seeks input on whether RCW installation costs scale with equipment weight and/or dimensions.

In the May 2012 Direct Final Rule, DOE did not have any data to support increases in maintenance and repair costs associated with increases in efficiency levels within each of the product classes considered in the analysis. Therefore, DOE did not assume that more efficient RCWs in each product class would have greater repair or maintenance costs. 77 FR 32308, 32342.

Issue II.G.2. DOE requests feedback and data on whether or not maintenance costs differ by technology option for any of the options listed in Table II-1.

[9] Residential Costs with RSMeans Data 2017 available at *http://www.rsmeans.com/products/books.aspx*.

Issue II.G.3. DOE requests information and data on the frequency of repair and repair costs by product class.

DOE measures LCC and PBP impacts of potential standard levels relative to a no-standards case that reflects the market in the absence of amended standards. DOE would develop market-share efficiency data (*i.e.*, the distribution of product shipments by efficiency) for the product classes DOE is considering, for the year in which compliance with any amended standards would be required. By accounting for consumers who already purchase more efficient products, DOE would avoid overstating the potential benefits from potential standards.

Issue II.G.4. DOE seeks input and data on the fraction of RCWs currently sold with efficiencies greater than the minimum energy conservation standards, including the January 1, 2018, standards. DOE also requests information on expected trends in product efficiency over the next 5 years.

H. Shipments Analysis

DOE develops shipments forecasts of RCWs to calculate the national impacts of potential amended energy conservation standards on energy consumption, net present value ("NPV"), and future manufacturer cash flows. Typically, DOE shipments projections utilize available historical data broken out by product class, capacity, and efficiency. In the May 2012 Direct Final Rule, DOE developed a shipments model for RCWs driven by historical shipments data, which were used to build up a product stock and calibrate the shipments model. 77 FR 32308, 32344. The key drivers of the shipments model included the new owner and replacement

markets. Current sales estimates would allow for a more accurate model that captures recent trends in the market.

Issue II.H.1. DOE requests annual sales data (*i.e.*, number of shipments) for top-loading standard, front-loading standard, top-loading compact, and front-loading compact RCW units. For each category, DOE also requests the fraction of sales that are ENERGY STAR qualified.

Table II-4 provides a summary table of the data requested in Issue II.H.1:

Table II-4 Summary Table of Shipments-Related Data Requests

Product Class	**Annual Sales* (number sold)**	**Fraction of ENERGY STAR-Rated Annual Sales (%)**
Top-loading, compact		
Top-loading, standard		
Front-loading, compact		
Front-loading, standard (all) … 24-inch products … 27-inch products		

* Sales for last 5 years, if available

Issue II.H.2. DOE requests data and information on any trends in the RCW market that could be used to forecast expected trends in product class market share.

An initial analysis of market data indicates that consumers are purchasing more top-loading units in recent years, showing an upswing in the market share for this product class.

Issue II.H.3. DOE seeks data and information on whether the trend towards increased sales of top-loading units is expected to continue or level off.

I. National Impact Analysis

The purpose of the national impact analysis ("NIA") is to estimate aggregate impacts of potential efficiency standards at the national level. Impacts reported by DOE include the national energy savings ("NES") from potential standards and the national net present value ("NPV") of the total consumer benefits. The NIA considers lifetime impacts of potential standards on RCWs shipped in a 30-year period that begins with the expected compliance date for new or amended standards.

Analyzing impacts of potential amended energy conservation standards for RCWs requires a comparison of projected U.S. energy consumption with and without the amended standards. The forecasts contain projections of annual appliance shipments (section II.H of this document), the annual energy and water consumption of new RCWs (section II.F of this document), and the purchase price of new RCWs (section II.E of this document).

A key component of DOE's estimates of NES and NPV would be the RCW energy efficiency forecasted over time for the no-standards case and each of the potential standards cases. In the May 2012 Direct Final Rule, DOE based projections of no-standards-case shipment-weighted efficiency ("SWEF") for the RCW product classes on growth rates determined from historical data provided by AHAM. 77 FR 32308, 32342. For a potential future rulemaking, DOE would expect to consider recent trends in efficiency and input from interested parties to update product energy efficiency forecasts.

Issue II.I.1. DOE seeks historical SWEF (IMEF and IWF) data for RCWs by product class. DOE also seeks historical market share data showing the percentage of product shipments by efficiency level for as many product classes as possible.

J. Manufacturer Impact Analysis

The purpose of the manufacturer impact analysis ("MIA") is to estimate the financial impact of any amended energy conservation standards on manufacturers of RCWs, and to evaluate the potential impact of such standards on direct employment and manufacturing capacity. The MIA includes both quantitative and qualitative aspects. The quantitative part of the MIA primarily relies on the Government Regulatory Impact Model ("GRIM"), an industry cash-flow model adapted for covered RCW product classes, with the key output of industry net present value ("INPV"). The qualitative part of the MIA addresses the potential impacts of energy conservation standards on manufacturing capacity and industry competition, as well as factors such as product characteristics, impacts on particular subgroups of firms, and important market and product trends.

As part of the MIA, DOE intends to analyze the impacts of potential amended energy conservation standards on subgroups of manufacturers of RCWs, including small business manufacturers. DOE uses the Small Business Administration's ("SBA") small business size standards to determine whether manufacturers qualify as small businesses, which are listed by the North American Industry Classification System ("NAICS").[10] Manufacturing of RCWs is

[10] Available online at: *https://www.sba.gov/document/support--table-size-standards*.

classified under NAICS 335220, "Major Household Appliance Manufacturing," and the SBA sets a threshold of 1,500 employees of less for a domestic entity to be considered as a small business. This employee threshold includes all employees in the parent company and any other subsidiaries.

One aspect of assessing manufacturer burden involves looking at the cumulative impact of multiple DOE standards and the product-specific regulatory actions of other Federal agencies that affect the manufacturers of a covered product or equipment. While any one regulation may not impose a significant burden on manufacturers, the combined effects of several existing or impending regulations may have serious consequences for some manufacturers, groups of manufacturers, or an entire industry. Assessing the impact of a single regulation may overlook this cumulative regulatory burden. In addition to energy conservation standards, including previous standards affecting the same product, other regulations can significantly affect manufacturers' financial operations. Multiple regulations affecting the same manufacturer can strain profits and lead companies to abandon product lines or markets with lower expected future returns than competing products. For these reasons, DOE conducts an analysis of cumulative regulatory burden as part of its rulemakings pertaining to appliance efficiency.

Issue II.J.1. To the extent feasible, DOE seeks the names and contact information of any domestic or foreign-based manufacturers that distribute RCWs in the United States.

Issue II.J.2. DOE has identified small businesses as a subgroup of manufacturers that could be disproportionally impacted by future amended energy conservation standards. DOE requests the names and contact information of small business manufacturers, as defined by the

SBA's size threshold for RCW manufacturers, that distribute products in the United States. In addition, DOE requests comment on any other manufacturer subgroups that potentially could be disproportionally impacted by amended energy conservation standards. DOE requests feedback on any potential approaches that could be considered to address impacts on manufacturers, including small businesses.

Issue II.J.3. DOE requests information regarding the impact of cumulative regulatory burden on manufacturers of RCWs associated with (1) other DOE standards applying to different products that these manufacturers may also make and import and (2) product-specific regulatory actions of other Federal agencies. DOE also requests comment on its methodology for computing cumulative regulatory burden and how DOE could reduce this burden while complying with the requirements of EPCA.

K. Other Energy Conservation Standards Topics

In the field of economics, a market failure is a situation in which the market outcome does not maximize societal welfare. Such an outcome would result in unrealized potential welfare. DOE welcomes comment on any aspect of market failures, especially those in the context of amended energy conservation standards for RCWs.

In addition to the issues identified earlier in this document, DOE welcomes comment on any other aspect of energy conservation standards for RCWs not already addressed by the specific areas identified in this document.

III. Submission of Comments

DOE invites all interested parties to submit in writing by [**INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER***], comments and information on matters addressed in this notice and on other matters relevant to DOE's consideration of amended energy conservation standards for RCWs. After the close of the comment period, DOE will review the public comments received and may begin collecting data, conducting the analyses discussed in this RFI.

Submitting comments via http://www.regulations.gov. The *http://www.regulations.gov* web page requires you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies Office staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. Persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to *http://www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information ("CBI")). Comments submitted through *http://www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *http://www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that *http://www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery/courier, or postal mail. Comments and documents submitted via email, hand delivery/courier, or postal mail also will be posted to *http://www.regulations.gov*. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information on a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. If you submit via postal mail or hand delivery/courier, please provide all

items on a CD, if feasible. It is not necessary to submit printed copies. No facsimiles (faxes) will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English and free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email, postal mail, or hand delivery/courier two well-marked copies: one copy of the document marked confidential including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. Submit these documents via email to *ConsumerClothesWasher2017STD0014@ee.doe.gov* or on a CD, if feasible. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

Factors of interest to DOE when evaluating requests to treat submitted information as confidential include (1) a description of the items, (2) whether and why such items are customarily treated as confidential within the industry, (3) whether the information is generally known by or available from other sources, (4) whether the information has previously been made available to others without obligation concerning its confidentiality, (5) an explanation of the competitive injury to the submitting person which would result from public disclosure, (6) when such information might lose its confidential character due to the passage of time, and (7) why disclosure of the information would be contrary to the public interest.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

DOE considers public participation to be a very important part of the process for developing energy conservation standards. DOE actively encourages the participation and interaction of the public during the comment period in each stage of the rulemaking process. Interactions with and between members of the public provide a balanced discussion of the issues and assist DOE in the rulemaking process. Anyone who wishes to be added to the DOE mailing list to receive future notices and information about this process or would like to request a public

meeting should contact Appliance and Equipment Standards Program staff at (202) 287-1445 or via e-mail at *ApplianceStandardsQuestions@ee.doe.gov*.

Signed in Washington, D.C., on July 23, 2019.

Alexander N. Fitzsimmons
Acting Deputy Assistant Secretary for Energy Efficiency
Energy Efficiency and Renewable Energy