

Joint Petition To Adopt Joint Stakeholder Agreement As It Relates To The Rulemaking On Energy Conservation Standards For Refrigerators, Refrigerator-Freezers, And Freezers

Docket No. EERE-2008-BT-STD-0012

August 12, 2010

*Association of Home Appliance Manufacturers
American Council for an Energy-Efficient Economy
Natural Resources Defense Council
Alliance to Save Energy
Alliance for Water Efficiency
Appliance Standards Awareness Project
Northwest Power and Conservation Council
Northeast Energy Efficiency Partnerships
Consumer Federation of America
National Consumer Law Center*

I. Introduction And Overview

The Joint Commenters are pleased to present to the U. S. Department of Energy (DOE) the results of successful negotiations which resulted in a major agreement (“the Joint Proposal” or “Joint Proposed Standard”) on federal minimum energy conservation standards for five products, and related test procedure, ENERGY STAR, and financial incentive provisions. The description of this package and an initial estimate of its impact can be found in Attachment 2. This agreement was aided materially by DOE’s encouragement and the assistance DOE contractor analysts provided.

Central to this agreement are proposals with respect to standards (and related test procedures) for residential refrigerators, refrigerator-freezers, and freezers (“refrigerator/freezers”). The Joint Stakeholders urge DOE to adopt in a final rule the Joint Proposal, incorporating the refrigerator/freezer standards and effective dates contained in the Joint Proposal as soon as possible, but not later than December 31, 2010. The Joint Stakeholders are representative of a wide range of expert and relevant points of view—including those of manufacturers of various sizes and representing over 99% of the market; consumer, environmental, and advocacy groups; and a major public power planning agency—concerning federal minimum efficiency standards for the subject products. And, as discussed more fully below, the recommended standards are designed to achieve the maximum improvement in energy efficiency that is technologically feasible and economically justified in accordance with the provisions of 42 U.S.C. § 6295(o). The proposed standards also have been developed and are constructed to fit in an integrated fashion into the overall multiple product, standards, and incentives-based agreement.

The agreement in its entirety, *see* Attachment 1, includes residential refrigerator/freezers, clothes washers, clothes dryers, room air-conditioners, and dishwashers. There are three main pillars of this agreement:

1. *Energy efficiency standards*: the agreement recommends new federal minimum efficiency standards that will save significant amounts of energy. Specifically, the Joint Proposed Standard for refrigerator/freezers would save approximately 4.48 quads of primary energy over 30 years according to an analysis by Lawrence Berkeley National Laboratory (LBL). In terms of annual energy savings, it is projected by ACEEE that the consensus efficiency standard for refrigerator/freezers will result in annual energy savings of 10.7 TWh (113.9 TBtu) by 2020 and 27.2 TWh (282.1 TBtu) by 2030. In addition, it is estimated by ACEEE that CO₂ emissions reductions for refrigerator/freezers would be 6.4 million metric tons by 2020 and 16.3 million metric tons by 2030.
2. *Smart appliances*: the agreement hastens the production of smart appliances. As part of the agreement, the parties will jointly petition the Environmental Protection Agency (EPA) and DOE to provide a 5% credit to the energy performance level required to meet ENERGY STAR eligibility criteria for products that meet an EPA-set definition of “smart appliance.” Further recognizing the contributions of smart appliances to energy efficiency and the smart grid, the parties will work together to develop a proposal for incentives for appliances with “smart” capabilities. It is expected that the incentives for smart appliances will produce additional CO₂ emission reductions.
3. *Tax credit*: the agreement consists of recommendations for updates and extensions of the manufacturer tax credit for the production of super-efficient refrigerators and freezers. These incentives encourage manufacturers to develop, commercialize, and sell very high efficiency products, helping to transform markets faster than with standards alone. The lower tiers of the current federal incentives are phased-out under the new agreement and new, higher tiers are added. LBL has estimated the tax credits for refrigerator/freezers would save an additional 0.33 quads of primary energy over 30 years, for a total energy savings of 4.81 quads.

Attachment 1 to the agreement identifies proposed changes in the standard levels for refrigerator/freezers and is based on the current test procedures. It is important to note that our recommendations, by necessity, are based on the current test procedures, but, for each product, the next standard equation should be stated in a final rule according to the revised test procedure. Thus, DOE will need to adjust our recommendations to apply the new test procedure under EPCA section 323 while maintaining the agreed-to increase in the standards’ stringency.

We recognize that, within the context of its rulemaking authority, DOE can act only with respect to the minimum efficiency standards. Action on the tax credit and smart grid elements of the agreement will require consideration by Congress and the ENERGY STAR program, respectively.

The Joint Proposed Standard is fully consistent with the requirements of the Energy Policy and Conservation Act (EPCA). The Joint Stakeholders believe the standards in this proposal represent the maximum standards which are technologically feasible and economically justified.

II. The Joint Stakeholders To And Supporters Of The Agreement

The American Council for an Energy Efficient Economy (ACEEE) is a nonprofit, non-partisan, organization dedicated to advancing energy efficiency as a means of promoting economic prosperity, energy security, and environmental protection. ACEEE fulfills its mission by conducting in-depth technical and policy assessments; advising policymakers and program managers; working collaboratively with businesses, public interest groups, and other organizations; publishing books, conference proceedings, and reports; organizing conferences and workshops; and educating consumers and businesses. ACEEE has been involved in refrigerator/freezer standards since their inception.

The Association of Home Appliance Manufacturers (AHAM) represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. In the U.S., AHAM members employ tens of thousands of people and produce more than 95% of the household appliances shipped for sale. The factory shipment value of these products is more than \$30 billion annually. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes significantly to U.S. jobs and economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs. AHAM represents the manufacturers of virtually all affected refrigerator/freezers manufactured and/or sold in the United States. AHAM has been involved from the beginning of the national appliance standards program in the development of regulations, including test procedures.

The Alliance to Save Energy (ASE) is a coalition of prominent business, government, environmental, and consumer leaders who promote the efficient and clean use of energy worldwide to benefit consumers, the environment, economy, and national security. Established as an NGO in 1977, to carry out its mission, the Alliance undertakes research, educational programs, and policy advocacy, designs and implements energy-efficiency projects, promotes technology development and deployment, and builds public-private partnerships, in the U.S. and other countries.

The Alliance for Water Efficiency is a stakeholder-based 501(c)(3) non-profit organization dedicated to the efficient and sustainable use of water, with 317 member organizations from water utilities, government agencies, businesses, industry, plumbing, appliance and irrigation manufacturers, retailers, environmental and energy efficiency advocates, and other stakeholders. Located in Chicago, the Alliance serves as a North American advocate for water efficient products and programs, and provides information and assistance on water conservation efforts.

The Appliance Standards Awareness Project (ASAP) is a coalition group dedicated to advancing cost-effective energy efficiency standards for appliances and equipment. ASAP works at both the state and federal levels and is led by a Steering Committee with representatives from consumer groups, utilities, state government, environmental groups, and energy-efficiency groups.

The Consumer Federation of America is an association of nearly 300 nonprofit consumer groups that was established in 1968 to advance the consumer interest through research, advocacy, and education.

The National Consumer Law Center®, a nonprofit corporation founded in 1969, assists consumers, advocates, and public policy makers nationwide on consumer law issues. NCLC works toward the goal of consumer justice and fair treatment, particularly for those whose poverty renders them powerless to demand accountability from the economic marketplace. NCLC has provided model language and testimony on numerous consumer law issues before federal and state policy makers. NCLC publishes an 18-volume series of treatises on consumer law, and a number of publications for consumers.

The Natural Resources Defense Council (NRDC) is a national environmental advocacy organization with over 1.3 million members and online activists. NRDC has spent decades working to build and improve DOE's federal appliance standards programs because of the important energy, environmental, consumer, and reliability benefits of appliance efficiency standards. NRDC participated in the enactment of the first federal legislation establishing efficiency standards, and has been active in all significant rulemakings since then.

Northeast Energy Efficiency Partnerships (NEEP) is a non-profit organization that facilitates regional partnerships to advance the efficient use of energy in homes, buildings and industry in the Northeast U.S. NEEP works to leverage knowledge, capability, learning and funding through regionally coordinated policies, programs and practices. As a regional organization that collaborates with policy makers, energy efficient program administrators, and business, NEEP is a leader in the movement to build a cleaner environment and a more reliable and affordable energy system.

The Northwest Power and Conservation Council is an interstate compact between the states of Idaho, Montana, Oregon and Washington authorized by the Northwest Power Act of 1980 (PL96-501). The Council is charged with ensuring that the Northwest's electric power system will provide adequate and reliable energy at the lowest economic and environmental cost to its citizens.

Other supporters include the California Energy Commission, Demand Response and Smart Grid Coalition, and Earthjustice.

III. **Rationale For The Negotiations**

The Joint Stakeholders entered into discussions on refrigerator/freezer standards for two main reasons. First, it was thought that a negotiation might resolve the standards issue and allow DOE to proceed to a final rule more efficiently. Second, these discussions allow stakeholders to develop creative approaches, both regulatory and non-regulatory, which are more difficult to discuss and develop in a normal notice and comment rulemaking. The Joint Stakeholders believe that both of these goals were achieved and will be borne out in the promulgation of the rule and its implementation in the future.

The DOE has previously encouraged stakeholders to consider informal discussions which could result in a consensus agreement. Furthermore, in 2007, Congress amended the EPCA to expedite the rulemaking process by authorizing DOE to issue direct final rules establishing new energy conservation standards upon receipt of joint stakeholders' proposals. We look forward to discussing with DOE the appropriate procedure for this situation.

The Joint Stakeholders entered into such discussions based on 42 U.S.C. § 6295(p) and section 8 of the July 1996 Process Improvement Rule, 10 C.F.R. Part 30, Subpart C, Appendix A. The Process Improvement Rule states that DOE supports efforts by groups of interested parties to develop and present consensus recommendations on proposals for new or revised standards as an effective mechanism for balancing the economic, energy, and environmental interests affected by standards. This rule states that, notwithstanding any other policy on selection of proposed standards, consensus recommendations on an updated efficiency level determined and submitted by a group that represents all interested parties would be proposed by DOE if it is determined to meet the appropriate statutory criteria. (We recognize that practically, it needs to be determined whether this or another regulatory approach, such as the conventional proposed and final rule and/or the use of Notices of Data Availability, are best).

The Joint Stakeholders' proposal satisfies the criteria of the law and the Process Improvement Rule. It represents a consensus on standards which are currently the maximum level which is technologically feasible and economically justified which, of course, ultimately requires the exercise of judgment and discretion. As discussed in Section VI, below, DOE should adopt the Joint Proposal for refrigerator/freezers.

IV. **The Negotiations Process**

The parties' discussions commenced in the spring of 2010 and an agreement was finalized on July 30, 2010. Discussions were held, and empirically- and technically-based and justified proposals were made relying on data and analysis provided by DOE's consultants. The Joint Stakeholders' proposal is supported by the DOE's analysis and is economically justified, applying the relevant criteria in EPCA, *see* Section VI of these comments. These comments, however, specifically relate only to the refrigerator/freezer rulemaking and are not intended to create substantive "precedent" for other DOE appliance standards actions.

V. **The Joint Stakeholder Proposal**

The specific standards levels the Joint Stakeholders propose are found at Attachment 1 to the agreement and in Table 1 below. Significantly, the proposed changes represent 20-30% lower energy use for major products classes. They also recognize and set tailored standards for built-in products, which notably are to a great extent made in the United States and by smaller companies. The Joint Proposed Standards also include stringent standards for compact refrigerators, some of which are manufactured by smaller companies in the United States. We are also recommending that DOE include ice maker energy use in the new standards, initially using a placeholder value and subsequently moving to measured values. It is important to note that our recommendations are based on current test procedures, but, for each product, the next standard should be denominated according to a revised test procedure. Thus, DOE will need to adjust our recommendations to use the new test procedure while maintaining the agreed-to decrease in energy consumption.

Proposed changes in the test procedure are critical to ensuring that the test procedure reasonably and accurately measures the amount of energy consumption in a manner that can be uniformly tested by manufacturers and relied on by the government, stakeholders, and consumers. Inefficiencies and ambiguities in the current refrigerator/freezer test procedure must be remedied before the new energy standards go into effect in 2014. Thus, test procedure recommendations will be an important part of this proposal. To that end, the Joint Stakeholders have submitted comments in the refrigerator/freezer test procedure rulemaking.

In addition, our agreement includes a provision that the parties would support efforts by DOE to change the slopes and intercepts of the standard equations to better match current products in use, provided that for each product class, the average energy use with the new equations, is the same as under our proposal.

**TABLE 1: AHAM-ACEEE Multi-Product Standards Agreement
Refrigerator/Freezer**

Product Class	Product Description	January 1, 2014		
		Change in Standard	Revised Standard Equation	
			Slope	Intercept
Standard size				
Automatic Defrost Refrigerator-Freezers				
3	Top Freezer w/o TTD ice	25%	7.35	207.0
6	Top Freezer w/ TTD ice	25%	7.65	267.0
4	Side Freezer w/o TTD ice	25%	3.68	380.6
7	Side Freezer w/ TTD ice	25%	7.58	304.5
5	Bottom Freezer w/o TTD ice	20%	3.68	367.2
5a/19	Bottom Freezer w/ TTD ice	20%	4.00	431.2
Manual & Partial Automatic Refrigerator-Freezers				
1	Manual Defrost	20%	7.06	198.7
2	Partial Automatic	20%	7.06	198.7
All Refrigerators				
1a	Manual Defrost	20%	7.06	198.7
3a	Automatic Defrost	25%	7.35	207.0
All Freezers				
8	Upright with manual defrost	25%	5.66	193.7
9	Upright with automatic defrost	30%	8.70	228.3
10	Chest with manual defrost	25%	7.41	107.8
10a/20	Chest with automatic defrost	30%	10.33	148.1
Compact Size				
Automatic Defrost Refrigerator-Freezers				
13/15	Top Freezer and Bottom Freezer	15%	10.80	301.8
14	Side Freezer	20%	6.08	400.8
Manual & Partial Automatic Refrigerator-Freezers				
11	Manual Defrost	25%	8.03	224.3
12	Partial Automatic	25%	5.25	298.5
All Refrigerators				
11a	Manual defrost	25%	8.03	224.3
13a	Automatic defrost	25%	9.53	266.3
All Freezers				
16	Upright with manual defrost	10%	8.80	225.7
17	Upright with automatic defrost	10%	10.26	351.9

18	Chest	10%	9.41	136.8
Built-ins				
Automatic Defrost Refrigerator-Freezers				
3B	Top Freezer w/o TTD ice	20%	7.84	220.8
4B	Side Freezer w/o TTD ice	20%	3.93	406.0
7B	Side Freezer w/ TTD ice	20%	8.08	324.8
5B	Bottom Freezer w/o TTD ice	15%	3.91	390.2
5aB	Bottom Freezer w// TTD ice	15%	4.25	458.2
All Refrigerators				
3aB	Automatic Defrost	20%	7.84	220.8
All Freezers				
9B	Upright with automatic defrost	25%	9.32	244.6

Attachment 1 includes the entire agreement reached by the Joint Stakeholders which includes residential refrigerator/freezers, clothes washers, clothes dryers, room air-conditioners, and dishwashers.

VI. Compliance With The Energy Policy And Conservation Act Requirements

The Joint Proposal comports fully with the standards setting criteria in EPCA and has been set to achieve the maximum improvement in energy efficiency that is technologically feasible and economically justified as required by 42 U.S.C. § 6295(o). The Joint Proposal proposes standards that would decrease maximum energy use of a covered product, and thus complies with EPCA's prohibition against standards that increase maximum allowable energy use of a covered product. 42 U.S.C. § 6295(o)(1).

The Joint Proposal is supported by energy and economic analyses. The Joint Proposal, if promulgated as a standard, results in benefits that exceed the burdens imposed to the greatest extent practicable taking into account the desirability of mitigating manufacturer burdens and promoting marketplace innovation. 42 U.S.C. § 6295(o)(2)(B)(i).

Below, the Joint Stakeholders detail the ways in which the Joint Proposal meets the EPCA test of being the most stringent standard level which is technically feasible and economically justified, taking into account the societal, consumer, and manufacturer interests set forth in 42 U.S.C. § 6295(o).

A. Technical Feasibility

Stakeholders accepted the LBL analysis prepared for these negotiations that the standards levels in the Joint Proposal can be reached through some existing technology such as compressor fans,

heat exchangers, adaptive defrost controls, variable anti-sweat controls, and variable speed compressors. These technologies exist in some products on the market today.

B. Economic Impact On Consumers

The Joint Stakeholders are confident that the Joint Proposal's economic effect on consumers is justified as required by 42 U.S.C. § 6295(o)(2)(B)(i)(I). According to an analysis prepared by LBL for these negotiations, the proposed standards will result in net economic savings to consumers over the 30-year analysis period of \$2.55-18.87 billion dollars (the low end is with a 7% discount rate, the high end with a 3% discount rate). This analysis included, consistent with the process rule, consideration of variations in energy usage and energy prices between consumers and regions. An analysis by ACEEE (Attachment 3) finds discounted net benefits of more than \$10 billion to consumers from products purchased over the 2014-2030 period.¹

C. Economic Impact On Manufacturers

The Joint Stakeholders agree that the Joint Proposal will have acceptable impacts on manufacturers. This conclusion is endorsed by all of the manufacturers signing this agreement, including both large and small manufacturers and “full line” and “niche” companies. Manufacturers will need to invest significant resources to improve efficiency of their models. That manufacturers have until 2014 to prepare for the standards, helps to mitigate the burden on manufacturers.

Although the impacts on manufacturers are “acceptable” at the proposed standard levels, at higher efficiency levels, significant adverse economic impacts on manufacturers could occur. Investments will likely be higher for higher levels of efficiency—investments that may be difficult for manufacturers to recoup. It could also be more difficult for manufacturers to produce value-added, fully-featured products that exceed the federal standard. DOE has, in previous rulemakings, found that many manufacturers count on sales of value-added units for an important share of their profits. Without these value-added units, many manufacturers could suffer significant adverse consequences.

In addition, in conjunction with the proposed incentive and tax proposals, these standards levels have been designed with great sensitivity and regard to domestic production maintenance. AHAM represents manufacturers that manufacture products both in the United States and in other countries. But AHAM is keenly aware of and, along with the other stakeholders, responsive to federal policy to maintain, and even enhance, the U.S. manufacturing base and its related jobs.

¹ This analysis uses a 5% discount rate.

The Joint Stakeholders include virtually all manufacturers of products covered by this standard. The Joint Stakeholders, therefore, believe that the collective statement of manufacturers that the economic impacts of the Joint Proposal are acceptable should be heavily weighted in addressing the Economic Impact on Manufacturers criteria, and that DOE need not conduct a more detailed manufacturer impact assessment. We believe that a more detailed analysis would be an unnecessary use of DOE and manufacturer resources and time. While we strongly urge that DOE not conduct its detailed manufacturer impact assessment, if DOE decides it needs to conduct such an assessment, the Joint Stakeholders are prepared to fully cooperate.

D. Life Cycle Costs

Operating cost savings over the average estimated life of the covered product exceed the burdens of increase in price to the greatest extent practicable. According to the latest LBL analysis provided to the Joint Stakeholders', under the most aggressive scenario,² the efficiency levels in the joint proposal for the major classes of refrigerators (top-mount, bottom-mount, and side-by-side) are the highest levels for which the number of consumers that receive net benefits is greater than the number of consumers that have net costs. For these product classes, if DOE were to select the next highest level, the percentage of consumers with net costs would be 60-72% of all consumers. In the case of freezers, our proposal maximizes average consumer savings for automatic defrost upright freezers and is slightly less stringent for manual defrost chest freezers. Freezers are small-volume products and it is difficult to justify the large retooling expenses for higher efficiency levels. If the standards were higher, we are concerned that some manufacturers would stop producing freezers. In the case of manual defrost chest freezers, these use less energy than upright models, so we propose a less aggressive standard in order to keep prices a little lower and encourage more consumers to purchase these products.

E. Energy Savings

The Joint Stakeholders Proposal would result in total projected energy savings with benefits exceeding burdens to the greatest extent practicable. The LBL analysis estimates savings of approximately 4.48 quads of primary energy over 30 years. In terms of annual energy savings, ACEEE estimates that the consensus efficiency standard for refrigerator/freezers will result in annual energy savings of 10.7 TWh (113.9 TBtu) by 2020 and 27.2 TWh (282.1 TBtu) by 2030. In addition, ACEEE estimates that carbon dioxide emissions reductions for refrigerator/freezers would be 6.4 million metric tons by 2020 and 16.3 million metric tons by 2030. The energy savings provided by the Joint Proposal are significant.

² Scenario B3, which assumes HFC blowing agents will continue to be available and includes a carbon price in the energy price.

F. Lessening Of Utility Or Performance Or Availability Of Products

The Joint Stakeholders Proposal will provide no significant lessening of utility or performance or availability of the covered products as prohibited by EPACT under the so-called “safe harbor” exception. 42 U.S.C. § 6295(o)(2)(B)(IV). The Joint Proposal was specifically designed to maintain product design diversity and utility in the marketplace for residential refrigerator/freezers, and, therefore, deals with utility, performance, and availability-related concerns that could have resulted if the standard were set at a different level and/or with different boundaries between classes. For example, we propose a new set of classes for built-in units, in order to allow these shallow-depth models to continue to be sold.

G. Impact Of Lessening Of Competition

The Joint Stakeholders believe the Proposal would not support a Department of Justice determination that the standard would lead to the likelihood of reduced competition. 42 U.S.C. § 6295(o)(2)(B)(V). The Joint Proposal was developed in consultation with manufacturers of residential refrigerator/freezers, including large, medium, and small manufacturers, and has been designed to mitigate any negative competitive impacts. The Joint Proposal is not expected to eliminate any competitors. Further mitigation of any lessening of competition would occur if the tax credit proposed in the Joint Proposal is adopted.

H. Need Of The Nation To Conserve Energy

As President Obama and Secretary Chu have stated several times, there are substantial opportunities to cost-effectively reduce energy use in this country, thereby reducing energy bills and emissions of greenhouse gases, and helping to create jobs. Enhanced energy efficiency improves the nation’s energy security, strengthens the economy and reduces the environmental impact of energy production. As noted above, the energy savings from the Joint Proposal will save approximately 4.48 quads of primary energy over 30 years. These savings will in turn result in reduced emissions of carbon dioxide. The Joint Stakeholders estimate that the Joint Proposal will reduce annual carbon dioxide emissions 6.4 million metric tons by 2020 and 16.3 million metric tons by 2030.

I. Other Factors

The Joint Stakeholder Proposal will result in significant reductions in peak electrical demand, helping to address power reliability problems linked to peak demand. Peak demand savings have been a significant factor in prior DOE rulemaking decisions.

The Joint Stakeholders’ Proposal is consistent with the Department’s process improvement rule. The Proposal comports particularly with section 8 of the Rule, which encourages efforts by groups of interested parties to develop and present consensus recommendations on proposals for newly revised standards.

VII. **Conclusion**

The Joint Stakeholders recommend that the DOE adopt the Joint Proposal, incorporating the refrigerator/freezer standards and effective dates contained in the Joint Proposal. We believe that the broad consensus in support of the proposed standards will allow DOE to move more quickly to a final rule, avoiding lost energy savings and allowing DOE to speed up other rulemakings. We urge the agency to expedite the normal rulemaking process on as accelerated a schedule as possible. We recommend that the Department implement the parts of this agreement that are within its authority as soon as possible, but no later than December 31, 2010.

(signatures on next page)

Joint Stakeholders

Manufacturers



Joseph McGuire
President

Association of Home Appliance
Manufacturers

Advocates



Steven Nadel
Executive Director

American Council for an Energy
Efficient Economy

On Behalf of –

Members of Major Appliance Division:

*Whirlpool
General Electric
Electrolux
LG Electronics
BSH
Alliance Laundry
Viking Range
Sub-Zero Wolf
Friedrich A/C
U-Line
Samsung
Sharp Electronics
Miele
Heat Controller
AGA Marvel
Brown Stove
Haier
Fagor America
Airwell Group
Arcelik
Fisher & Paykel
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Indesit
Kuppersbusch
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DeLonghi*

*Appliance Standards Awareness Project
Natural Resources Defense Council
Alliance to Save Energy
Alliance for Water Efficiency
Northwest Power and Conservation Council
Northeast Energy Efficiency Partnerships
Consumer Federation of America
National Consumer Law Center*

ATTACHMENT 1

**Agreement on Minimum Federal Efficiency Standards,
Smart Appliances, Federal Incentives and
Related Matters for Specified Appliances**

July 30, 2010

THIS AGREEMENT memorializes the commitments made by the undersigned representatives of the organizations (the “Joint Stakeholders”) regarding joint recommendations for new energy and water conservation standards, test procedures, tax incentives and Energy Star criteria for specified major home appliances. The Joint Stakeholders will jointly submit to the United States Congress and the Administration (including, but not limited to the Department of Energy (DOE) and the Environmental Protection Agency (EPA)) this Agreement and the specific recommendations herein in such form as will facilitate their adoption. The Joint Stakeholders agree to pursue a multi-pronged approach designed to achieve Congressional and regulatory implementation of all the elements contained in the agreement. Any changes to this agreement must be mutually agreed to by the joint Stakeholders.

1. The Joint Stakeholders will jointly submit to Congress and, in good faith, proactively seek enactment of the energy and water conservation standards contained in Attachment I. The Joint Stakeholders will submit to Congress recommended amendments to the Energy Policy and Conservation Act enacting these standards (Attachment II). These amendments include revised standards for refrigerator/freezers, clothes washers, clothes dryers, room air conditioners and dishwashers.
2. Not later than August 1, 2010, the Joint Stakeholders shall submit this agreement to DOE. The Joint Stakeholders shall jointly propose that DOE issue final rules adopting each of the energy conservation standards contained in Attachment I and the amendments presented to Congress and will proactively advocate for DOE adoption of these standards. The Joint Stakeholders agree that the recommended standards address all of the statutory criteria that the Department is required to take into account in promulgating new energy and water conservation standards for the affected products with respect to the specified efficiency criteria.
3. For refrigerators/freezers, clothes washers, room air conditioners and clothes dryers, the Joint Stakeholders shall submit comments to each product’s DOE docket supporting the recommendations. For refrigerator/freezers, such comment shall be filed not later than August 10, 2010; for clothes dryers and room air conditioners, not later than September 10, 2010 and for clothes washers not later than October 31, 2010. In the case of dishwashers (for which no rulemaking is currently underway) not later than September 15, 2010, the Joint Stakeholders shall petition DOE to initiate a rulemaking and to publish a final rule by September 2011.
4. The Joint Stakeholders have made no agreement concerning the appropriate levels for standby or off mode energy consumption and agree that stakeholders will comment to

DOE as they view appropriate during DOE's rulemaking process for each of the affected products, as applicable.

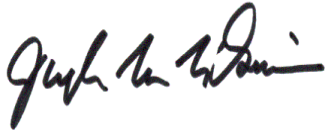
5. The Joint Stakeholders agree that pending amendments to test procedures for the affected products should be completed by DOE, subject to input from all stakeholders and agree to recommend that DOE translate the standards contained in this agreement to equivalent levels specified under revised test procedures.
6. The Joint Stakeholders agree to jointly petition DOE to initiate a rulemaking by January 1, 2012 to be completed by December 31, 2012 to revise the test procedure for refrigerators/freezers to incorporate measured ice maker energy use. The Joint Stakeholders will make good faith efforts to work collaboratively through AHAM's HRF-1 task force to arrive at a joint test procedure recommendation. AHAM will invite the non-manufacturer signers to this agreement to designate a participant for the task force only for the development of this initial test procedure for refrigerators/freezers to incorporate measured ice maker energy use. As part of the petition to be filed, the Joint Stakeholders further agree to petition DOE for rulemaking to incorporate measured ice maker energy use into an amended refrigerator standard to be completed within six months of a revised test procedure incorporating measured ice maker energy use based on the procedure recommended by AHAM's HRF-1 task force and to recommend that this amended standard take effect three years after a final rule is published. This commitment to petition for rulemaking and standards revisions applies whether a specific consensus test procedure is developed by AHAM's HRF-1 task force or not.
7. The Joint Stakeholders agree to submit the letters and attachments recommending certain modifications to the test procedures for refrigerator/freezers, clothes washers and clothes dryers contained in Attachment III, IV and V not later than August 1, 2010. The Joint Stakeholders agree that each party may advocate for any other modifications to the test procedures, provided such modification is not in direct contradiction to the attached recommendations.
8. The Joint Stakeholders will jointly submit to Congress recommendations for extending the existing federal manufacturer tax credits for specified appliances as described in Attachment VI.
9. The Joint Stakeholders will in good faith jointly develop and proactively support the adoption of federal tax credits or other incentives for widespread deployment and effective integration of smart-grid enabled versions of appliances subject to this agreement across the United States.
10. The Joint Stakeholders will jointly petition EPA and DOE no later than September 30, 2010 to provide a 5% credit to the energy performance level required to meet ENERGY STAR eligibility criteria for smart-grid enabled appliances that are subject to this agreement.

11. Any filings, proposals or responses to DOE notices shall be consistent with this Agreement and the parties shall file rulemaking petitions, file comments or take other actions with respect to DOE or other regulatory agencies consistent with this Agreement.
12. The Joint Stakeholders agree to cooperate with each other in the preparation of press releases and public statements in support of this Agreement.
13. The Joint Stakeholders agree to support and cooperate with each other to obtain passage of the legislation described in the Agreement, including advocacy in Congress and to the Administration. The Joint Stakeholders agree to develop and jointly recommend legislative history concerning the recommended amendments.
14. The Joint Stakeholders agree to consult with and obtain consent from all parties before supporting, advocating or agreeing to changes in the legislation. Such consent will not unreasonably be withheld.
15. The Joint Stakeholders agree not to attempt to overturn or revise, or to file or support any legal or legislative challenge to, the recommendations once adopted, whether by Act of Congress or by rule. The Stakeholders agree to support DOE in a manner as each one deems to be reasonable and appropriate in defending any legal, legislative, or administrative challenge to a final rule that adopts the proposed standards. This provision will still apply if DOE, on its own volition, adopts a rule that includes minor deviations from Attachment I. The Joint Stakeholders agree to consult with respect to their responses to any deviation from the recommendations and to make good faith efforts to respond jointly.
16. The Joint Stakeholders agree to implement the commitments made in this Agreement individually or in groups. Each Joint Stakeholder will respond in good faith to reasonable requests by other Joint Stakeholders for joint implementation of any of these commitments.
17. Any additional mutually agreed to changes to this agreement will be provided to Congress and the Administration as necessitated.
18. Nothing in this Agreement is intended to inhibit in any way efforts by individual stakeholders to research, develop, or market products to standards that differ from those contemplated by this Agreement, provided such products are in compliance with applicable laws and regulations.
19. Nothing in this Agreement is intended to direct any technical or product design approach to achieving efficiency standards and the parties shall not take any act to establish any such common approach.
20. This Agreement is hereby agreed to, in counterparts, by the undersigned Joint Stakeholders. This Agreement binds the undersigned Joint Stakeholders, their

employees, their agents, and any successors and will take effect when all signatures are affixed. This agreement applies until December 31, 2012, except clause 15 which applies until December 31, 2013.

Joint Stakeholders

Manufacturers



Joseph McGuire
President
Association of Home Appliance
Manufacturers

Advocates



Steven Nadel
Executive Director
American Council for an Energy
Efficient Economy

On Behalf of –

Members of Major Appliance Division:

*Whirlpool
General Electric
Electrolux
LG Electronics
BSH
Alliance Laundry
Viking Range
Sub-Zero Wolf
Friedrich A/C
U-Line
Samsung
Sharp Electronics
Miele
Heat Controller
AGA Marvel
Brown Stove
Haier
Fagor America
Airwell Group
Arcelik
Fisher & Paykel
Scotsman Ice
Indesit
Kuppersbusch
Kelon
DeLonghi*

*Appliance Standards Awareness Project
Natural Resources Defense Council
Alliance to Save Energy
Alliance for Water Efficiency
Northwest Power and Conservation Council
Northeast Energy Efficiency Partnerships
Consumer Federation of America
National Consumer Law Center*

Attachments

- (I) Recommended energy and water conservation standards
- (II) Recommended legislative amendments
- (III) Recommendations concerning refrigerator test procedures
- (IV) Recommendations concerning clothes washer test procedures
- (V) Recommendations concerning clothes dryer test procedures
- (VI) Recommended legislative amendment for tax incentives

AHAM-ACEEE Multi-Product Standards Agreement

Attachment I

AHAM-ACEEE Multi-Product Standards Agreement
Refrigerator/Freezer

Product Class	Product Description	January 1, 2014		
		Change in Standard	Revised Standard Equation	
			Slope	Intercept
Standard size				
Automatic Defrost Refrigerator-Freezers				
3	Top Freezer w/o TTD ice	25%	7.35	207.0
6	Top Freezer w/ TTD ice	25%	7.65	267.0
4	Side Freezer w/o TTD ice	25%	3.68	380.6
7	Side Freezer w/ TTD ice	25%	7.58	304.5
5	Bottom Freezer w/o TTD ice	20%	3.68	367.2
5a/19	Bottom Freezer w/ TTD ice	20%	4.00	431.2
Manual & Partial Automatic Refrigerator-Freezers				
1	Manual Defrost	20%	7.06	198.7
2	Partial Automatic	20%	7.06	198.7
All Refrigerators				
1a	Manual Defrost	20%	7.06	198.7
3a	Automatic Defrost	25%	7.35	207.0
All Freezers				
8	Upright with manual defrost	25%	5.66	193.7
9	Upright with automatic defrost	30%	8.70	228.3
10	Chest with manual defrost	25%	7.41	107.8
10a/20	Chest with automatic defrost	30%	10.33	148.1
Compact Size				
Automatic Defrost Refrigerator-Freezers				
13/15	Top Freezer and Bottom Freezer	15%	10.80	301.8
14	Side Freezer	20%	6.08	400.8
Manual & Partial Automatic Refrigerator-Freezers				
11	Manual Defrost	25%	8.03	224.3
12	Partial Automatic	25%	5.25	298.5
All Refrigerators				
11a	Manual defrost	25%	8.03	224.3
13a	Automatic defrost	25%	9.53	266.3
All Freezers				
16	Upright with manual defrost	10%	8.80	225.7
17	Upright with automatic defrost	10%	10.26	351.9
18	Chest	10%	9.41	136.8
Built-ins				
Automatic Defrost Refrigerator-Freezers				
3B	Top Freezer w/o TTD ice	20%	7.84	220.8
4B	Side Freezer w/o TTD ice	20%	3.93	406.0
7B	Side Freezer w/ TTD ice	20%	8.08	324.8
5B	Bottom Freezer w/o TTD ice	15%	3.91	390.2
5aB	Bottom Freezer w// TTD ice	15%	4.25	458.2
All Refrigerators				
3aB	Automatic Defrost	20%	7.84	220.8
All Freezers				
9B	Upright with automatic defrost	25%	9.32	244.6

AHAM-ACEEE Multi-Product Standards Agreement
Clothes Washers

Product Description	Product Class	New Standard Jan. 1, 2015 (MEF/WF)	New Standard Jan. 1, 2018 (MEF/WF)
Top-Loading, Compact (less than 1.6 cubic feet capacity)	1	1.26/14.0	1.81/11.6
Top-Loading, Standard	2	1.72/8.0	2.0/6.0
Front-Loading, Standard	4	2.2/4.5	
Front-Loading, Compact (less than 1.6 cubic feet capacity)	6	1.72/8.0	

AHAM-ACEEE Multi-Product Standards Agreement
Dryers

Product Description	Product Class	January 1, 2015	
		Change in Standard	New Standard (EF)
Vented Electric Standard	1	5%	3.17
Vented Electric Compact 120V	2	5%	3.29
Vented Electric Compact 240V	3	5%	3.05
Vented Gas	4	5%	2.81
Vent-less Electric Compact 240V	5	new	2.37
Vent-less Electric Combination Washer/Dryer	6	new	1.95

AHAM-ACEEE Multi-Product Standards Agreement
Room Air Conditioners

Product Class	Product Description	June 1, 2014	
		Change in Standard	New Standard (EER)
	<i>Without Reverse Cycle w/Louvers</i>		
1	<6,000	15%	11.2
2	6,000 to 7,999	15%	11.2
3	8,000-13,999	12%	11.0
4	14,000 to 19,999	11%	10.8
5	20,000-27,999	11%	9.4
5a	≥28,000	6%	9.0
	<i>Without Reverse Cycle w/o Louvers</i>		
6	< 6,000	13%	10.2
7	6,000 to 7,999	13%	10.2
8	8,000-10,999	14%	9.7
8a	11,000-13,999	13%	9.6
9	14,000-19,999	11%	9.4
10	≥20,000	11%	9.4
	<i>With Reverse Cycle</i>		
11	< 20,000 w/Louvers	10%	9.9
12	≥ 20,000 w/Louvers	11%	9.4
13	< 14,000 w/o Louvers	11%	9.4
14	≥ 14,000 w/o Louvers	10%	8.8
	Casement		
15	Casement Only	10%	9.6
16	Casement-Slider	11%	10.5

AHAM-ACEEE Multi-Product Standards Agreement
Dishwashers

Product Description	New Standard Jan. 1, 2013
Standard (≥ 8 place settings plus 6 serving pieces)	307 kWh/year & 5.0 gallons/cycle
Compact (< 8 place settings plus 6 serving pieces)	222 kWh/year & 3.5 gallons/cycle

AHAM-ACEEE Agreement
Attachment II

AHAM Products Statutory Provisions
Resulting from Negotiation
(to be inserted into Energy bill)

Section _____

Measuring Icemaker Energy

Section 323(b) of the Energy Policy and Conservation Act (42 U.S.C. 6293) is amended by adding after the end of paragraph (23) the following:

“(24) Refrigerator/Freezer Test Procedure.—

(A) By January 1, 2011, the Secretary shall finalize the test procedure proposed on May 27, 2010 with such modifications as the Secretary deems appropriate consistent with this Part.

(B) The Secretary shall initiate a rulemaking no later than January 1, 2012 to amend the test procedure only to incorporate measured automatic icemaker energy use and shall publish a final rule by December 31, 2012.

(25) Additional home appliance test procedures. --

(A) By October 1, 2011, the Secretary shall publish a final rule amending the residential clothes washer test procedure.

(B) By April 1, 2011, the Secretary shall finalize the test procedure for clothes dryers proposed on June 29, 2010 with such modifications as the Secretary deems appropriate consistent with this Part.

(C) By April 1, 2011, the Secretary shall finalize the test procedure for room air conditioners proposed on June 29, 2010 with such modifications as the Secretary deems appropriate consistent with this Part.

Section _____

Refrigerator/Freezer Standards

Section 6295(b) of the Energy Policy and Conservation Action (42 U.S.C. 6295) is amended by striking subsection (b)(4) and inserting the following:

“(4) Refrigerators, refrigerator-freezers and freezers manufactured on or after January 1, 2014.

(A)(i) In General – Based on the test procedure in effect on July 9, 2010, the following is the maximum energy use allowed in kilowatt hours per year for the following products (other than refrigerators and refrigerator-freezers with total refrigerated volume exceeding 39 cubic feet

and freezers with total refrigerated volume exceeding 30 cubic feet) manufactured on or after January 1, 2014:

Refrigerator/Freezer Standards Equation	
Product Description	
Automatic Defrost Refrigerator-Freezers	Revised Standard Effective January 1, 2014
Top Freezer w/o TTD ice	7.35 AV+ 207.0
Top Freezer w/ TTD ice	7.65 AV+ 267.0
Side Freezer w/o TTD ice	3.68 AV+ 380.6
Side Freezer w/ TTD ice	7.58 AV+304.5
Bottom Freezer w/o TTD ice	3.68 AV+ 367.2
Bottom Freezer w/ TTD ice	4.0 AV+ 431.2
Manual & Partial Automatic Refrigerator-Freezers	
Manual Defrost	7.06 AV+ 198.7
Partial Automatic	7.06 AV+198.7
All Refrigerators	
Manual Defrost	7.06AV+198.7
Automatic Defrost	7.35 AV+ 207.0
All Freezers	
Upright with manual defrost	5.66 AV+ 193.7
Upright with automatic defrost	8.70 AV+ 228.3
Chest with manual defrost	7.41 AV+ 107.8
Chest with automatic defrost	10.33 AV+ 148.1
Compact Size	
Automatic Defrost Refrigerator-Freezers	
Top Freezer and Bottom Freezer	10.80 AV+ 301.8
Side Freezer	6.08 AV+ 400.8
Manual & Partial Automatic Refrigerator-Freezers	
Manual Defrost	8.03 AV+ 224.3
Partial Automatic	5.25 AV+ 298.5
All Refrigerators	
Manual defrost	8.03 AV+ 224.3
Automatic defrost	9.53 AV+ 266.3
All Freezers	
Upright with manual defrost	8.80 AV+ 225.7
Upright with automatic defrost	10.26 AV+ 351.9
Chest	9.41AV+ 136.8
Built-ins	
Automatic Defrost Refrigerator-Freezers	
Top Freezer w/o TTD ice	7.84 AV+ 220.8
Side Freezer w/o TTD ice	3.93 AV+ 406.0
Side Freezer w/ TTD ice	8.08 AV+ 324.8
Bottom Freezer w/o TTD ice	3.91 AV+ 390.2
Bottom Freezer w// TTD ice	4.25 AV+ 458.2
All Refrigerators	
Automatic Defrost	7.84 AV+ 220.8
All Freezers	
Upright with automatic defrost	9.32 AV+ 244.6

(ii) After publication of each test procedure change pursuant to Section 323(b)(24), the Secretary shall publish final rules amending the standards contained in clause (i) according to the procedures in section 323(e)(2), except that the standards amendment pursuant to the test procedure change required by 323(b)(24)(B) shall be based on the difference between the average measured automatic ice maker energy use of a representative sample for each product class and the value assumed by DOE for ice maker energy use in the test procedure published pursuant to Section 323(b)(24)(A). Section 323(e)(3) shall not apply.

(iii) The Secretary shall publish any final rule required by clause (ii) within six months of enactment of this paragraph or within six months of publication of a final rule amending the test procedure, whichever is later.

(iv) The Secretary may establish new product classes as part of the final amended standard adopted pursuant to the test procedure change required by 323(b)(24)(B) if needed to distinguish among products with automatic icemakers.

(v) An amendment adopted pursuant to a test procedure change required by 323(b)(24)(A) shall apply to products manufactured on or after January 1, 2014. An amendment adopted pursuant to a test procedure change required by 323(b)(24)(B) shall apply to products manufactured on or after a date three years from publication of the final rule amending the standards.

(vi) For refrigerators, freezers and refrigerator-freezers, the Secretary may adjust in a rulemaking the slope and intercept of the equation in clause (i), based on the energy use of typical products of various sizes in a product class, provided that the average energy use for each of these classes is the same under the new equations as under the equations in clause (i). Any final rule with such revisions shall be published no later than July 1, 2011.

(vii) A final rule published under clause (ii) pursuant to the test procedure change required by 323(b)(24)(B) or pursuant to clause (iv) shall not be considered an amendment to the standard for purposes of Section 325(m).

(B) Definition of 'Built-in' product class – refrigerators, freezers and refrigerators with freezer units that are 7.75 cubic feet or greater in total volume and 24 inches or less cabinet depth not including doors, handles and custom front panels; are designed to be totally encased by cabinetry or panels attached during installation; are designed to accept a custom front panel or equipped with an integral factory-finished face; are designed to be securely fastened to adjacent cabinetry, walls or floor; and have sides which are not fully finished and are not intended to be visible after installation.

Section _____

Standards for Clothes Washers

Section 325(g) of the Energy Policy and Conservation Act, (42 U.S.C. 6295(g)) is amended by striking subsection (g)(9)(B) and inserting the following:

(B)(i) Amendment of Standards.

Based on the test procedure in effect on July 9, 2010, clothes washers manufactured on or after January 1, 2015 shall comply with the following minimum modified energy factors (MEF) and maximum water factors (WF):

	For Products Manufactured on and after January 1, 2015	
	MEF	WF
Top Loading-Standard	1.72	8.0
Top Loading – Compact	1.26	14.0
Front Loading-Standard	2.2	4.5
Front Loading-Compact (less than 1.6 cu. ft. capacity)	1.72	8.0

(ii) Based on the test procedure in effect on July 9, 2010, clothes washers manufactured on or after January 1, 2018 shall comply with the following minimum modified energy factors (MEF) and maximum water factors (WF):

	For Products Manufactured on and after January 1, 2018	
	MEF	WF
Top Loading -- Standard	2.0	6.0
Top Loading – Compact	1.81	11.6

(iii) The final rule amending the clothes washer test procedure adopted pursuant to Section 323(b)(25)(A) shall also amend the standards contained in clauses (i) and (ii) according to the procedures in section 323(e)(2). Section 323(e)(3) shall not apply to these amended standards. Amended standards based on clause (i) shall apply to products manufactured on or after January 1, 2015 and amended standards based on clause (ii) shall apply to products manufactured on or after January 1, 2018.

(iv) The Secretary shall integrate standby and off mode energy consumption into the amended MEF standards required pursuant to clause (iii). These amended MEF standards shall reflect levels of standby and off mode energy consumption that meet the criteria under section 325(o).

Section _____ Clothes Dryers

Section 325(g) of the Energy Policy and Conservation Act, (42 U.S.C. 6295(g)) is amended by adding a subsection (g)(4)(D) as follows:

“(D)(i) Based on the test procedure in effect on July 9, 2010 as applicable, clothes dryers manufactured on and after January 1, 2015 shall meet the following minimum energy factors (EF):

Product Description	New Standard (EF)
Vented Electric Standard	3.17
Vented Electric Compact 120V	3.29
Vented Electric Compact 240V	3.05
Vented Gas	2.81
Vent-Less Electric Compact 240V	2.37
Vent-Less Electric Combination Washer/Dryer	1.95

(ii) The final rule amending the clothes dryer test procedure adopted pursuant to Section 323(b)(25)(B) shall also amend the standards contained in clause (i) according to the procedures in section 323(e)(2), except that for the purposes of establishing a representative sample of products, DOE shall choose a sample of minimally compliant dryers which automatically terminate the drying cycle at no less than 4% remaining moisture content. Section 323(e)(3) shall not apply to these amended standards. The amended standards shall apply to products manufactured on or after January 1, 2015.

(iii) The Secretary shall integrate standby and off mode energy consumption into the amended EF standards required pursuant to clause (ii). These amended EF standards shall reflect levels of standby and off mode energy consumption that meet the criteria under section 325(o).

Section _____

Room Air Conditioner Standards - Section 325(c) of the Energy Policy and Conservation Act, (42 U.S.C. 6295(c)) is amended by adding subsection (c)(3) as follows:

“(3) (A)(i) Based on the test procedure in effect on July 9, 2010 as applicable, the minimum energy efficiency ratio of room air conditioners manufactured on and after June 1, 2014 shall be as follows:

Product Description	PROPOSAL (June 1, 2014) New Standard EER
Without Reverse Cycle w/Louvers	
<6,000	11.2
6,000 to 7,999	11.2
8,000-13,999	11.0
14,000 to 19,999	10.8
20,000-27,999	9.4
≥28,000	9.0
Without Reverse Cycle w/o Louvers	
<6,000	10.2
6,000 to 7,999	10.2
8,000-10,999	9.7
11,000-13,999	9.6
14,000 to 19,999	9.4
≥20,000	9.4
With Reverse Cycle	
<20,000 w/Louvers	9.9
≥ 20,000 w/Louvers	9.4
<14,000 w/o Louvers	9.4
≥ 14,000 w/o Louvers	8.8

Casement	
Casement Only	9.6
Casement-Slider	10.5

(ii) The final rule amending the room air conditioner test procedure adopted pursuant to Section 323(b)(25)(C) shall also amend the standards contained in clause (i) according to the procedures in section 323(e)(2). Section 323(e)(3) shall not apply to these amended standards. The amended standards shall apply to products manufactured on or after June 1, 2014.

(iii) The Secretary shall integrate standby and off mode energy consumption into the amended EER standards required pursuant to clause (ii). These amended EER standards shall reflect levels of standby and off mode energy consumption that meet the criteria under section 325(o).

Section_ Dishwashers

Section 325(g)(10) of The Energy Policy and Conservation Act (42 U.S.C. 6295(g)(10)) is amended by striking subparagraph (A), by redesignating subparagraph (B) as subparagraph (D), and by inserting the following before redesignated subparagraph (D):

(A) A dishwasher manufactured on or after January 1, 2010 shall—
 (i) for a standard size dishwasher not exceed 355 kWh/year and 6.5 gallons per cycle; and
 (ii) for a compact size dishwasher not exceed 260 kWh/year and 4.5 gallons per cycle.

(B) a dishwasher manufactured on or after January 1, 2013 shall—
 (i) for a standard size dishwasher not exceed 307 kwh/year and 5.0 gallons per cycle; and
 (ii) for a compact size dishwasher not exceed 222 kwh/year and 3.5 gallons per cycle.

(C) Any final rule amending the dishwasher test procedure after July 9, 2010, and before January 1, 2013 shall also amend the standards contained in subparagraph (B) according to the procedures in section 323(e)(2). Section 323(e)(3) shall not apply to these amended standards. The amended standards shall apply to products manufactured on and after January 1, 2013.

Section___. Energy Star

Section 324a of the Energy Policy and Conservation Act (42 USC 6294a) is amended by adding a new subsection _ as follows:

“ () Credit for Smart Appliances

Not later than 180 days after enactment, the Administrator and the Secretary shall determine whether to update the Energy Star criteria for residential refrigerators/freezers, dishwashers, clothes washers, clothes dryers, and room air conditioners in order to incorporate smart grid and demand response features, after soliciting comments under paragraph (c)(5)." [of EPCA 324A]



1111 19th Street NW > Suite 402 > Washington, DC 20036
t 202.872.5955 f 202.872.9354 www.aham.org

July 20, 2010

The Honorable Catherine R. Zoi
Assistant Secretary
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Assistant Secretary Zoi:

The Association of Home Appliance Manufacturers (AHAM) and efficiency organizations, which are being coordinated by the American Council for an Energy-Efficient Economy (ACEEE), have agreed to a set of recommendations that should be addressed as the Department of Energy modifies the test procedure for refrigerator/freezers.

Please find these recommendations attached, and we look forward to working with your office as the test procedure rulemaking progresses.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin Messner".

Kevin Messner
Vice President, Government Relations
AHAM

A handwritten signature in blue ink, appearing to read "Steven M. Nadel".

Steven Nadel
Executive Director
ACEEE

cc: Kathleen Hogan, Deputy Assistant Secretary for Energy Efficiency
Roland Risser, Program Manager for Building Technologies

Refrigerator/Freezer Test Procedure Changes

Recommendations

1. We are committed to working with DOE to develop a test procedure for icemaker energy use.
2. DOE should include a placeholder value for icemaker energy use as proposed (75 FR 29847) until a test procedure for icemaker energy use is established, but this placeholder should only be an interim step.
3. DOE should initiate a rulemaking no later than January 1, 2012 (and preferably earlier) to amend the test procedures to incorporate measured icemaker energy use. DOE should publish a final rule for amended test procedures by December 31, 2012 (and preferably earlier). By July 1, 2013, DOE should publish a final rule amending energy conservation standards to adjust the standard levels for any difference between the placeholder value as proposed (75 FR 29847) and the average energy use of a representative sample of icemakers by product class as measured under the amended test procedure and in accordance with the new compartment temperatures that will become effective on January 1, 2014. The effective date of the amended standards would be three years after publication of the final rule. (Note: We have also included this recommendation in proposed legislative language.)
4. As part of the icemaker test procedure development, DOE should collect field data on energy use and ice production for different types of icemakers (e.g., automatic and manual), assuring a nationally representative sampling.
5. DOE should join, and fund NIST's participation in, the task force set up by AHAM and other interested parties to incorporate automatic icemaker energy use into the refrigerator/freezer test procedure.



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Assistant Secretary
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Assistant Secretary Zoi:

The Association of Home Appliance Manufacturers (AHAM) and efficiency organizations, which are being coordinated by the American Council for an Energy-Efficient Economy (ACEEE), have agreed to a set of recommendations that should be addressed as the Department of Energy modifies the test procedure for clothes washers.

Please find these recommendations attached, and we look forward to working with your office as the test procedure rulemaking progresses.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin Messner".

Kevin Messner
Vice President, Government Relations
AHAM

A handwritten signature in black ink, appearing to read "Steven M. Nadel".

Steven Nadel
Executive Director
ACEEE

cc: Kathleen Hogan, Deputy Assistant Secretary for Energy Efficiency
Roland Risser, Program Manager for Building Technologies

Clothes Washer Test Procedure Changes

Principles

Before finalizing a revised test procedure for residential clothes washers, the Department should:

- Gather or develop information on contemporary laundry practices in the US, including temperature settings, average cycles per year, special purpose machine cycles*, the size of a minimum laundry load, the size of an average load, and the frequency distribution of various laundry loads (load adjustment factor) for incorporation into the test procedure.
- Ensure that the test procedure does not contain any unwarranted bias in favor of large capacity washers.
- Extend Table 5.1 (Test Load Sizes) to a basket size of 6.0 ft³ (specific edits will be provided).
- Incorporate AHAM test cloth changes to improve the reproducibility (specific edits will be provided).

All of the above mentioned items shall be developed through DOE's current residential clothes washer test procedure rulemaking, to be completed by October 1, 2011, and applicable to the 2015 standard.

*Special purpose machine cycles include so-called "steam" cycles and periodic manufacturer-recommended non-laundry cycles for cleaning or deodorizing the laundry drum.



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July 20, 2010

The Honorable Catherine R. Zoi
Assistant Secretary
Office of Energy Efficiency and Renewable Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Assistant Secretary Zoi:

The Association of Home Appliance Manufacturers (AHAM) and efficiency organizations, which are being coordinated by the American Council for an Energy-Efficient Economy (ACEEE), have agreed to a set of recommendations that should be addressed as the Department of Energy modifies the test procedure for clothes dryers.

Please find these recommendations attached, and we look forward to working with your office as the test procedure rulemaking progresses.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin Messner".

Kevin Messner
Vice President, Government Relations
AHAM

A handwritten signature in black ink, appearing to read "Steven M. Nadel".

Steven Nadel
Executive Director
ACEEE

cc: Kathleen Hogan, Deputy Assistant Secretary for Energy Efficiency
Roland Risser, Program Manager for Building Technologies

Clothes Dryer Test Procedure Changes

Recommendations

1. DOE should update the initial RMC, from the current assumption of 70%, based on the best available data (ideally based on a nationally representative sample).
2. DOE should update the number of dryer cycles/year, from the current assumption of 416 cycles/year, based on the best available data (ideally based on a nationally representative sample).
3. DOE should update the size of the dryer test load, from the current test load of 7 lbs, based on best available data (ideally based on a nationally representative sample).
4. DOE should modify the test procedure to address the effectiveness of automatic termination controls (e.g. moisture sensor and temperature sensor controls).
5. DOE should create a ventless dryer (including ventless combination washer/dryer) test procedure to inform a baseline energy consumption level for this new product category.
6. Revise Section 1.11 of 10 CFR 430 Subpart B, Appendix D to more clearly account for electronic controls. “. . . mark, **visual indicator** or detent which indicates a preferred...”
7. Correct Section 3.1 of 10 CFR 430 Subpart B, Appendix D to “. . . prevent deflection of the ~~dryer~~ **drum surface**. . .”

Schedule: All of the above-mentioned items shall be developed through DOE's current clothes dryers test procedure rulemaking, to be completed by April 1, 2011, and applicable to the 2015 standard.

AHAM-ACEEE Agreement
Attachment VI

H.R. xxxx

A bill to modify and extend the tax credit applicable to energy efficient appliances and other matters

Sec. 1. Modify and extend the energy efficient appliance credit.

(a) Modification and extension of rules applicable to dishwashers.-- Paragraph (b)(1) of section 45M is amended by striking “and” at the end of subparagraph (A); by striking “.” and inserting “,” in subparagraph (B); and adding the following subparagraphs:

“(C) \$25 in the case of a dishwasher which is manufactured in calendar year 2011 and which uses no more than 307 kilowatt hours per year and 5.0 gallons per cycle (5.5 gallons per cycle for dishwashers designed for greater than 12 place settings),

“(D) \$50 in the case of a dishwasher which is manufactured in calendar year 2011, 2012, or 2013 and which uses no more than 295 kilowatt hours per year and 4.25 gallons per cycle (4.75 gallons per cycle for dishwashers designed for greater than 12 place settings), and

“(E) \$75 in the case of a dishwasher which is manufactured in calendar year 2011, 2012, or 2013 and which uses no more than 280 kilowatt hours per year and 4.0 gallons per cycle (4.5 gallons per cycle for dishwashers designed for greater than 12 place settings).”

(b) Modification and extension of rules applicable to clothes washers.--Paragraph (b)(2) of section 45M is amended striking “and” at the end of subparagraph (C); by striking “.” and inserting “,” in subparagraph (D); and by adding the following subparagraphs:

“(E) \$175 in the case of a top-loading clothes washer manufactured in calendar year 2011 and which meets or exceeds a 2.2 modified energy factor and does not exceed a 4.5 water consumption factor,

“(F) \$200 in the case of a top-loading clothes washer manufactured in calendar year 2011, 2012, or 2013 and which meets or exceeds a 2.4 modified energy factor and does not exceed a 4.2 water consumption factor, and

“(G) \$250 in the case of a residential or commercial clothes washer manufactured in calendar year 2011, 2012, or 2013 which meets or exceeds a 2.8 modified energy factor and does not exceed a 3.5 water consumption factor.”

(c) Modification and extension of rules applicable to refrigerators.--Paragraph (b)(3) of section 45M is amended by striking “and” at the end of subparagraph (C); by striking “.” and inserting “,” in subparagraph (D); and by adding the following subparagraphs:

“(E) \$150 in the case of a refrigerator manufactured in calendar year 2011, 2012, or 2013 and which consumes at least 30 percent less energy than the 2001 energy conservation standards, and

“(F) \$200 in the case of a refrigerator manufactured in calendar year 2011, 2012, or 2013 and which consumes at least 35 percent less energy than the 2001 energy conservation standards.”

(d) Modification of rules to include freezers.

(1) In general.--Subsection (b) of section 45M is amended by adding the following paragraph:

“(4) Freezers. The applicable amount is--

“(A)(i) \$150 in the case of an automatic defrost freezer manufactured in calendar year 2011 or 2012 (other than a freezer described in subparagraph (B)) and which consumes at least 30 percent less energy than the 2001 energy conservation standards,

(ii) \$150 in the case of a manual defrost freezer manufactured in calendar year 2011 or 2012 (other than a freezer described in subparagraph (B)) and which consumes at least 25 percent less energy than the 2001 energy conservation standards, and

“(B)(i) \$200 in the case of an automatic defrost freezer manufactured in calendar year 2011, 2012, or 2013 and which consumes at least 40 percent less energy than the 2001 energy conservation standards.

(ii) \$200 in the case of a manual defrost freezer manufactured in calendar year 2011, 2012, or 2013 and which consumes at least 35 percent less energy than the 2001 energy conservation standards”

(2) Definition.-- Subsection (f) of section 45M is amended by adding the following paragraphs:

“(11) Freezer. The term “freezer” means a residential model freezer which has an internal volume of at least 16.5 cubic feet.”

(e) Aggregate credit amount allowed.

(1) In general.-- Paragraph (e)(1) of section 45M is amended by striking “\$75,000,000” and inserting “\$100,000,000” and by adding “For the period of all prior taxable years beginning after December 31, 2007 and ending before January

1, 2011, the preceding sentence shall be applied by substituting ‘\$75,000,000’ for ‘\$100,000,000’.”

(2) Exclusion of certain appliances.--Paragraph (e)(2) of section 45M is amended to read as follows:

“(2) Amount allowed for certain refrigerators and clothes washers. Refrigerators described in subsection (b)(3)(D) and clothes washers described in subsection (b)(2)(D) shall not be taken into account with respect to the \$75,000,000 limitation described in paragraph (1). Dishwashers described in subsection (b)(1)(E), clothes washers described in subsection (b)(2)(F) and (b)(2)(G), refrigerators described in subsection (b)(3)(F), and freezers described in subsection (b)(4)(B), shall not be taken into account with respect to the \$100,000,000 limitation described in paragraph (1).”

(3) Gross receipts limitation.—Paragraph (e)(3) of section 45M is amended by adding at the end the following sentence: “For taxable years beginning after December 31, 2010, the preceding sentence shall be applied by substituting ‘4 percent’ for ‘2 percent’.”

Sec. 2. Direct payment of energy efficient appliances tax credit.--In the case of any taxable year which includes the last day of calendar year 2011 or calendar year 2012, a taxpayer who elects to waive the credit which would otherwise be determined with respect to the taxpayer under section 45M of the Internal Revenue Code of 1986 for such taxable year shall be treated as making a payment against the tax imposed under subtitle A of such Code for such taxable year in an amount equal to 85 percent of the amount of the credit which would otherwise be so determined. Such payment shall be treated as made on the later of the due date of the return of such tax or the date on which such return is filed. Elections under this section may be made separately for 2011 and 2012, but once made shall be irrevocable. No amount shall be includible in gross income or alternative minimum taxable income by reason of this section.

Sec. 3. Effective date.--The provisions of this section shall apply to qualified energy efficient appliances produced after December 31, 2010.

ATTACHMENT 2

Energy Efficient and Smart Appliance Agreement of 2010

Supporters

Association of Home Appliance Manufacturers

Members of the Major Appliance Division:

Whirlpool	General Electric	Electrolux
Alliance Laundry	Sub-Zero Wolf	LG Electronics
Viking Range	U-Line	Samsung
Sharp Electronics	Miele	BSH
Friedrich A/C	Airwell Group	Indesit
Heat Controller	Arcelik	Kuppersbusch
AGA Marvel	Brown Stove	Kelon
Haier	Fisher & Paykel	DeLonghi
Fagor America	Scotsman Ice	

American Council for an Energy-Efficient Economy

Appliance Standards Awareness Project

Natural Resources Defense Council

Earthjustice

Alliance to Save Energy

Northwest Power and Conservation Council

Northeast Energy Efficiency Partnerships

California Energy Commission

Demand Response and Smart Grid Coalition

Consumer Federation of America

National Consumer Law Center

Alliance for Water Efficiency

- ✓ **JOBS:** Helps retain 46,000 U.S. manufacturing jobs in the appliance industry
- ✓ **INCREASES ENERGY INDEPENDENCE:** Saves more than 9 quads of energy over 30 years
- ✓ **SAVES WATER:** Nearly 5 trillion less gallons of water used over 30 years
- ✓ **REDUCES GHG EMISSIONS:** Reduces CO2 emissions by ~550 MMT
- ✓ **SAVES CONSUMERS MONEY:** Billions of dollars
- ✓ **SMART GRID AND ENERGY STAR:** Jump-starts the Smart Grid with ENERGY STAR
- ✓ **MANUFACTURER INCENTIVES:** Increase production of super-efficient products
- ✓ **DOE EFFICIENCIES:** Frees up federal resources for other priorities

New Federal Minimum Energy Standards

- Refrigerator/Freezers: 20-30% lower energy use, ice maker energy included, built-ins models recognized. (effective Jan. 1, 2014)
- Clothes Washers: ~40% average energy and water savings, top and front loading differences recognized, top loading standards step up in 2 stages. (effective Jan. 1, 2015)
- Clothes Dryers: 5% increase in efficiency, improve automatic dryer shut off capability to save additional energy. (effective Jan. 1, 2015)
- Room Air-Conditioners: 10-15% increase in efficiency, higher capacity units recognized. (effective Jun. 1, 2014)
- Dishwashers: 14% energy savings, 23% water savings. (effective Jan. 1, 2013)

Smart Appliances/ENERGY STAR

- ENERGY STAR: Parties will jointly petition EPA to provide a 5% credit on energy use for products that meet an EPA-set definition of "smart appliance."
- Incentives: Parties will work together to develop a proposal for tax or consumer incentives for appliances with "smart" capabilities.

Extend Manufacturing Incentives

- Covered Appliances: Refrigerators, freezers, clothes washers, and dishwashers.
- Super-Efficient: Incentivizes manufactures to build and sell super-efficient appliances. Lower tiers of current federal incentives phased-out and new higher tiers added. Some of the old incentive levels become the new minimum standard.

ATTACHMENT 3

Attachment 3
ACEEE Estimate of Savings from AHAM/EE Advocate Appliance Agreement

Standards	Annual Sales (millions)	% savings	% already meeting	Basecase Use	Savings Per unit	Units	Effective Date	Lifetime (years)	2020 Savings TWh	Tbtu	2030 Savings TWh	Tbtu	MMT CO2	Cumulative Quads by 2030	Incremental Cost in \$	One Year Sales Investment (million\$)	One year Sales Savings	Present Value of Investment Thru 2030	Present Value of Savings Thru 2030	NPV Benefits by 2030	B/C	
Energy Savings																						
Refrigerators	13.786	24%	16%	527	107 kWh		2014	17	9.6	102	5.8	24.4	254	14.6	2.22	72	833.8	161	6,718	15,946	9227	2.4
Freezers	1.617	28%	7%	416	106 kWh		2014	22	1.1	12	0.7	2.8	28	1.7	0.23	46	69.0	19	556	1,852	1296	3.3
Subtotal															2.45							
Clothes washers	10.04																					
Front load	5.02	18%	84%					14								21						
Electric				229	7 kWh		2015		0.2	2	0.1	0.5	5	0.3	0.04		16.9	4	124	1,918	1794	15.4
Gas				11.7	0.3 therms		2015		NA	0.9	0.0	NA	2.6	0.1	0.02			2				
Top load tier 1	5.02	26%	10%					18								100						
Electric				358	84 kWh		2015		1.3	13	0.8	1.3	13	0.8	0.18		451.8	46	854	2,452	1599	2.9
Gas				16.9	4.0 therms		2015		NA	6.0	0.3	NA	6.0	0.3	0.08			25				
Top load tier 2	5.02	34%	9%					18								100						
Electric				358	109 kWh		2018		1.4	15	0.8	6.8	71	4.1	0.48		456.8	60	2,501	12,199	9698	4.9
Gas				16.9	5.2 therms		2018		NA	6.5	0.3	NA	32.3	1.7	0.22			32				
Subtotal															1.03							
Clothes dryers																20						
Electric	7.09	9%	25%	644	43 kWh		2015	16	1.7	18	1.0	4.8	50	2.9	0.41		106.4	34	783	3,160	2376	4.0
Gas	1.96	9%	25%	15.9	1.1 therms		2015	16	0.0	1.2	0.0	NA	1.2	0.1	0.03			3				
Subtotal															0.44							
Room AC	8.8	12%	38%	672	50 kWh		2014	10.5	2.9	31	1.7	4.7	48	2.8	0.57	43.5	239.3	48	1,928	3,283	1355	1.7
Dishwashers	8.6	14%	44%													20						
Electric				239	18 kWh		2013	12	1.2	12	0.7	1.9	19	1.1	0.23		96.5	17	848	2,701	1853	3.2
Gas				5.04	0.4 therms		2013	12	NA	2.5	0.1	NA	3.9	0.2	0.05			4				
Subtotal															0.28							
TOTAL									19.3	222.1	12.4	47.1	535.7	30.7	4.8		2,270	453	14,311	43,510	29,199	3.0
Water Savings																						
Clothes washers									Billion gals		Billion gals		Trillion gals									
Front load	5.02	40%	84%	7080	453 gals		2015	14	12.5			35.3		0.29			19					
Top load tier 1	5.02	16%	10%	8970	1275 gals		2015	18	19.2			19.2		0.27			54			1,478	These have been	
Top load tier 2	5.02	37%	9%	8970	3007 gals		2018	18	37.7			188.7		1.28			128			7,117	included in the calculations above	
Dishwashers	8.6	23%	44%	1270	164 gals		2013	12	10.6	111	6.4	17.0	171	10.2	0.20		12		981	*		
TOTAL															2.03		214		10,643			