Testimony of

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regarding

S. 3059
National Energy Efficiency Enhancement Act of 2010

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Thank you Chairman Bingaman, Ranking Member Murkowski and members of the committee. I appreciate your giving me the opportunity to provide the appliance industry's views to the committee today. My name is Joe McGuire and I am president of the Association of Home Appliance Manufacturers (AHAM). I would like to convey the appliance industry's support for the energy efficiency provisions in the National Energy Efficiency Enhancement Act of 2010. The provision related to the Smart Grid provides an important building block for the next generation of energy efficiency, conservation and environmental protection attributable to home appliances.

AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. Our more than 150 members employ tens of thousands of people in the U.S. and produce more than 95% of the household appliances shipped for sale within the U.S. 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.

Mr. Chairman, I commend you and Senator Murkowski for listening to all stakeholders as you developed the National Energy Efficiency Enhancement Act of 2010.

Overview of Federal Energy Standards

As this committee well knows, AHAM and its members are committed to providing energy efficient home appliances that have a direct positive impact on the lives of consumers. In the last 8 years, manufacturers have reduced energy consumption of home appliances by nearly 8 billion kWh.

AHAM was a strong supporter of the National Appliance Energy Conservation Act and have participated in several negotiated agreements with energy efficiency advocates, states and other stakeholders on appliance efficiency standards. Uniform standards throughout the U.S and even throughout North America and beyond are preferable to a patchwork of disconnected state-by-state standards. These national standards have resulted in significant energy savings and as we know from the past several years have become the foundation for additional energy efficiency awareness and incentive policies that have generated additional energy savings.

As consideration is given to how much more energy savings can be achieved from home appliances, we need to be mindful of the huge gains that have been made and will continue. Refrigerators/freezers, dishwashers and clothes washers account for a 43% combined decrease in energy consumption since 2000. From a global climate change perspective, the energy savings realized in 2008 shipments of refrigerators, dishwashers and clothes washers versus 2000 models would offset the CO_2 emissions of more than 698 million gallons of gasoline consumed.

Clothes washer energy consumption has decreased by 63% since 2000 while tub capacity has grown by 8%. Dishwasher energy consumption has dropped nearly 30% and water consumption

has declined 29% since 2000. Refrigerator energy consumption has also decreased 30% since 2000 and efficiency, measured by a unit's energy factor has increased 39%. The average refrigerator sold today consumes less energy than a 60-watt light bulb left on 24 hours a day.

The chart below shows the history and schedule of several home appliance standards.

Effective Dates of Standards

	Effective Year of Standard													
Appliance	1988	1990	1993	1994	2000	2001	2004	2007	2010	2011	2012	2014	2015	2018
Refrigerators/Freezers		Original	1st Update			2nd Update						3rd Update		
Room Air Conditioners		Original			1st Update							2nd Update		
Clothes Dryers	Original			1st Update	Reviewed							2nd Update		
Clothes Washers	Original			1st Update			2nd Update	3rd Update		4th Update			5th Update	
Dishwashers	Original			1st Update					2nd Update					3rd Update
Kitchen Ranges and Ovens		Original									Reviewed			
Dehumidifiers								Original			1st Update			
Microwave Ovens											Original			

Current law provides a framework to ensure federal standards balance a number of factors so that the final efficiency standard provides real energy savings. It makes no sense to establish a standard so stringent that it penalizes consumers and manufacturers and slows the rapid deployment of new much more efficient products. The Energy Policy and Conservation Act establishes a process for federal energy conservation standards and makes clear that no standard can be set which may result in loss of product availability in popular styles and prices, and product functions consumers want.

Smart Appliances in the Future

The Smart Grid is an exciting development that will modernize the current grid. The objective of the Smart Grid is to provide technology and systems (integrated into appliances and consumer devices used in everyday activities) that will allow consumers to automatically control their energy use and costs. AHAM provides a unique perspective to the Smart Grid Vision because many of the products AHAM members manufacture must be part of our nation's future Smart Grid.

In establishing policy on the development of a Smart Grid, the Energy Independence and Security Act of 2007 requires integration of Smart Appliances and consumer devices that can interact with the Smart Grid. This law also requires that consumers be provided with timely information and options for controlling energy use. The U.S. government's Smart Grid Vision is that these goals can and should be met without causing significant disruption or lifestyle changes for the consumer. AHAM fully supports this Vision. Consumers should receive valuable and understandable information about their energy use and costs, thus enabling them to make intelligent and informed choices about how and when to use energy. Armed with this knowledge, consumers will be empowered to use energy more efficiently and to save money on electricity.

As mentioned above, over the years the appliance industry has made great gains in improving pure energy efficiencies. However, although there is still room to improve in this area, today the gains are much more significant in the area of demand response and grid load management. The Federal Energy Regulatory Commission found that residential homes offer as much demand response potential as small, medium, and large businesses combined. Today, the average

refrigerator uses about the same energy as a 60 Watt light bulb. A 10 percentage increase in pure energy efficiency would yield 6 Watts. However, deferring a defrost cycle can yield hundreds of Watts.

In order to advance the Smart Grid, incentives need to be established for manufacturers to make Smart Appliances while the transmission and distribution system is modernized. The potential gains in this area are great, including increased use of renewable energy, fewer peaker plants and resultant emissions and less line losses in the transmission of electricity.

Two very important incentives that Congress should embrace are the Best-in-Class Appliance Deployment program and credits for meeting new appliance efficiency standards for smart grid capable appliances. Still under discussion, the Best-in-Class Appliance Deployment program is a focused and effective incentive program that provides financial incentives to manufacturers willing to invest in the development of Smart Appliances and recognizes that an inherent part of Smart Appliances is energy efficiency. The Best-in-Class Appliance Deployment program will be an extremely effective incentive program to build the Smart Grid in an effective manner.

S. 3059, the National Energy Efficiency Enhancement Act of 2010, authorizes the Secretary of Energy to provide credits to manufacturers on meeting new appliance efficiency standards for products that are smart grid capable. In other words, the Secretary can encourage manufacturers to produce smart appliances by adjusting the stringency of a new appliance standard. The trade off in added appliance efficiency would be equaled or outweighed by the load shifting and grid efficiencies that would result from consumer use of such appliances.

These incentives would provide the necessary financial and regulatory incentives to encourage deployment of smart and efficient appliances nationwide and provide a great impetus to the development of the Smart Grid. AHAM strongly believes that the provisions in S. 3059 regarding smart grid credits cannot be fully realized without enactment of the Best-in-Class Appliance Deployment program providing incentives for deployment of smart grid enabled appliances.

Section 7, National Energy Efficiency Enhancement Act of 2010
As the committee considers the National Energy Efficiency Enhancement Act of 2010, I would like to provide the appliance manufacturing industry's views on the energy efficiency provisions.

Adopting Consensus Test Procedures Provision
The comprehensive standard setting process starts with updating the test procedure taking into consideration –

1. Consistency across products
2. New technologies
3. Testing of new procedures for repeatability, uniformity, burden, simplicity, and representativeness

Current law on test procedures wisely requires a balance between measuring actual field energy use (which is highly variable) with the cost, uniformity and repeatability parameters required for

test procedures for products mass-produced globally. But, developing test procedures is difficult and requires resources at the Department of Energy. We support authorizing consensus test procedures to be adopted more quickly when the industry and others agree. It makes sense to allow noncontroversial test procedures to be "fast tracked," i.e., they can be promulgated in a direct final rule if they meet certain criteria subject to subsequent sufficient negative comment such that a regular rulemaking is required.

The National Energy Efficiency Enhancement Act of 2010 would allow out dated test procedures to be updated more quickly and using less scarce resources at DOE by creating an expedited procedure for approve test procedures that have consensus support. Similar authority exists in law for the standards. It makes sense to extend this to test procedures, which are the foundation of any energy standard work. The current refrigerator test procedure that DOE uses is from 1979, while AHAM's latest version is from 2008 and we are working on making revisions to that one.

Criteria for Prescribing New or Amended Standards Provision

Once a test procedure is established, work on an energy standard can progress, which includes an analysis to determine what standard provides benefits exceeding the burdens. The factors in law that must be considered are as follows:

1. Economic impact on manufacturers and consumers, retailers, distributors and society.
2. Savings in operating costs through the life of the product compared to price increase and maintenance costs.
3. Total energy or water savings.
4. Lessening of the performance.
5. Lessening of competition (Department of Justice opines).
6. Need for national energy and water conservation.
7. Other factors the Secretary of Energy considers relevant.

The National Energy Efficiency Enhancement Act of 2010 expands this statutory list of considerations to include the estimated impact on average energy prices and the net energy, environmental, and economic impacts due to smart grid technologies or capabilities. The latter is an important and helpful provision to the development of the Smart Grid.

Smart Appliances and the Smart Grid

AHAM's member companies are interested and involved in the development of the Smart Grid and the policies surrounding a Smart Grid in the United States. A Smart Appliance has many advantages to bring to the Smart Grid. One of which is that a Smart Appliance provides a faster resource to a destabilized electrical grid. A Smart Appliance, or load, can be managed instantly, whereas generation, or a reserve power plant, needs to ramp up creating a lag in a needed response, which can further aggravate the instability problems. This faster response over a short duration can be a quite compelling complement to the increased use of intermittent renewable energy.

A Smart Appliance may have some of the following key features:

- Dynamic electricity pricing information is delivered to the user, providing the ability to adjust demand of electrical energy use.

- It can respond to utility signals, contributing to efforts to improve the peak management capability of the Smart Grid and save energy by --
    1. providing reminders to the consumer to move usage to a time of the day when electricity prices are lower, or
    2. automatically "shed" or reduce usage based on the consumer's previously established guidelines or manual overrides.

- Integrity of its operation is maintained while automatically adjusting its operation to respond to emergency power situations and help prevent brown or blackouts.

- The consumer can override all previously programmed selections or instructions from the Smart Grid, while insuring the appliance's safety functions remain active.

- When connected through a Home Area Network and/or controlled via a Home Energy Management system, Smart Appliances allow for a "total home energy usage" approach. This enables the consumer to develop their own Energy Usage Profile and use the data according to how it best benefits them.

- It can leverage features to use renewable energy by shifting power usage to an optimal time for renewable energy generation, i.e., when the wind is blowing or sun is shining.

The Best-in-Class Appliance Deployment program would incentivize manufacturers to make Smart Appliances as smart meters and dynamic pricing is being worked on and implemented across the more than 3,000 utilities in the U.S. Incentives are an essential part of the development of the Smart Grid in a timely manner. We need to move past the "chicken or the egg" mentality that no one wants to pay for a smart meter if there are no Smart Appliances in the home, and no one wants to use a Smart Appliance if there is not a smart meter and dynamic pricing program. The Best-in-Class Appliance Deployment program would alleviate this problem by authorizing financial incentives to manufacturers to build Smart Grid capable appliances for the home.

We believe the Best-in-Class Appliance Deployment program needs to be authorized along with the energy efficiency provisions in the National Energy Efficiency Enhancement Act of 2010. It is critical that incentives are provided to manufacturers to innovate and take investment risks in the area of Smart Appliances to ensure that we are not paralyzed by smart meters waiting for Smart Appliances and Smart Appliances waiting on smart meters. The appliance consumer, who is also an electricity ratepayer, can reap benefits from Smart Appliances before dynamic pricing is brought into their home, such as through sensing through the wires of problems on the grid or use of feedback information to show energy usage. However, dynamic pricing will open the door to much more capability and allow the consumer to save even more money on their electricity bill.

We would also request that the committee consider clarifying the bill language through the committee report that Smart Appliances will help increase the use of renewable energy and that the consideration of net benefits attributable to a smart grid capable appliance as it relates to Smart Grid credits to an energy conservation standard should include the impacts to the potential increased use of renewable and low emission energy attributable to the appliance standard. An example of this concept is that if a dishwasher can be set to run when the wind is blowing or when the sun is shining, then a credit should be given for this capability to recognize the energy efficiencies derived outside of the technical test procedure calculations, such as line losses, less peaker plants, increased renewables, and many others.

Obtaining Appliance Information from Manufacturers Provision
Regarding the provision to require the Department of Energy to promulgate regulations to require manufacturers to submit information to the agency, we are pleased that the provision ensures information requirements are based on product type and not a "one size fits all' approach. Each product has different requirements that should be considered. Also, it is good that the provision requires the Department of Energy to minimize burdens on the manufacturers, use existing public sources of information, including nationally recognized certification or verification programs of trade associations; whether some or all of the information is submitted to another Federal agency and to minimize any duplication of requests for information by Federal agencies; and coordinate with State agencies to mitigate reporting burdens.

Waiver of Federal Preemption Provision
The essential principle behind the underlying Energy Policy and Conservation Act (EPCA) is that national uniformity can be maintained with a series of vigorous national standards which save energy, water, carbon and consumer's money while maintaining product utility, moderate prices, a competitive manufacturer base, and minimizing the negative impact on domestic employment.

There is a critical need for coordination and integration of federal regulatory scheme because of the enormous cumulative regulatory burden on the appliance industry of investing in new designs for multiple products over many years while at the same time meeting increasingly challenging and related environmental requirements such as ozone depletion and climate change.

Federal preemption of states developing 50 different energy efficiency standards is a critical part of maintaining a national marketplace and not disrupting interstate commerce. The National Energy Efficiency Enhancement Act of 2010 does not allow the Secretary of Energy to reject a petition from a state to seek a waiver of federal preemption if the State does not have confidential information maintained by any manufacturer or association of manufacturers, but only if the state has requested the information and did not receive it. This is an important point because we would like to be asked for any information the state is after and be able to comment on any possible energy standard they may be considering. Again, related to the notion of having a fair chance to comment and make our views known to a state agency in the area of energy efficiency standards, this provision allows the Secretary of energy to approve a waiver petition submitted by a State that does not have an energy plan but only if it is based on a regulatory process that is subject to a notice and comment rulemaking proceeding.

Permitting States to Seek Injunctive Enforcement Provision
Our views on the provision permitting states to seek injunctive enforcement are grounded in the basis that this is a federal law and therefore it should be in a federal court, that the federal agency should have the opportunity to take over a case a state is considering, and that there should be a federal interpretation of the law and issues so that manufacturers are subject to 50 differing interpretations, which would impede interstate commerce.

Recognition of Alternative Refrigerant Uses Provision
AHAM is very supportive of incentives to move to low Global Warming Potential refrigerants. However, appliances are manufactured for a national market and preferably a North American market. It would be a disincentive to manufacturers and create unnecessary uncertainty if every city and town across the U.S. could prohibit refrigerators from in a building through there building codes. We support the provision requiring notification to EPA when any such restrictions are proposed.

Conclusion
In conclusion, AHAM commends Senators Bingaman and Murkowski for the future focused provisions in S. 3059 regarding smart appliances and the smart grid. We encourage its enactment as well as the Best-in-Class Appliance Deployment program currently under discussions which has received strong support from several stakeholder segments. We look forward to continuing to work with the Committee on these issues. Thank you for the opportunity to testify and I look forward to answering any questions you may have.