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Chairman Bingaman, Ranking Member Murkowski, Members of the Committee, thank you for the opportunity to discuss the Implementation of National Consensus Appliance Agreements Act of 2011 (S.398) and the Better Use of Light Bulbs Act (S.395).

In June 2009, President Obama said, “One of the fastest, easiest, and cheapest ways to make our economy stronger and cleaner is to make our economy more energy efficient.”¹ Energy-conserving appliance standards are one of the significant steps the Administration has taken to save energy in homes and businesses nationwide, and pave the way toward a clean energy future for our country.² Since January 2009, the Department of Energy has finalized new efficiency standards for more than twenty household and commercial products, which are projected to cumulatively save consumers between \$250 billion and \$300 billion over the next 20 years.³ These standards can provide an immediate and economically responsible way to increase the nation’s energy security while protecting the environment. Improvements in energy efficiency can be made today to yield significant near-term and long-term economic and environmental benefits for the nation.⁴

The U.S. Department of Energy (DOE) is pleased to work with you and your fellow Committee Members to make our homes, offices, factories, vehicles, and appliances more energy efficient. The Department’s energy efficiency efforts include promoting and implementing energy efficiency policies and practices; strengthening consumer education and outreach on energy efficiency as a cost-saving resource; and accelerating market adoption of energy efficient technologies that save families and businesses money.

My comments focus on two pieces of pending legislation related to energy efficiency standards. First, I will discuss the Implementation of National Consensus Appliance Agreements Act of 2011 before turning to the Better Use of Light Bulbs Act.

Implementation of National Consensus Appliance Agreements Act of 2011 (S.398)

S.398 codifies agreements that were negotiated, signed, and promoted by a cross-section of stakeholders representing consumer advocacy groups, manufacturers, manufacturer trade associations, and energy efficiency advocacy organizations, all of whom support this bill. The negotiated consensus agreements would establish energy conservation standards for 14 products, several of which are in the midst of DOE’s ongoing standards and test procedure rulemakings.

In 2007, Congress recognized the importance of negotiated consensus standards, amending the Energy Policy and Conservation Act (EPCA) to allow for an expedited rulemaking process in the event a representative group of stakeholders could reach agreement. Because several DOE rules currently under development and review overlap

¹ http://www.whitehouse.gov/the_press_office/Remarks-by-the-President-on-Energy/

² <http://www.whitehouse.gov/issues/energy-and-environment>

³ <http://www.energy.gov/news/9582.htm>

⁴ See, for example: McKinsey and Company (2007). Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost? (<http://www.epa.gov/cleanenergy/documents/suca/cost-effectiveness.pdf>) and Lazard Associates. Feb. 2009. Levelized Cost of Energy Analysis Version 3.0.

with the proposed consensus standards, the agency cannot at this time present a position that would presuppose the level of the final standards outcome; however, the analyses accompanying the proposed rules for these standards suggested potential net benefits of tens of billions of dollars in fuel savings and lower greenhouse gas emissions.

Manufacturers and manufacturer trade associations representing the vast majority of the manufacturers in each appliance market recognize they would also benefit from consensus agreements. S.398 could provide regulatory certainty for industry and could reduce litigation risk by setting the time table and accompanying requirements for industry to meet, all of which could help manufacturers in planning their investments when manufacturing compliant products.

S.398 could also allow DOE to respond to industry and efficiency advocates' requests for greater technical flexibility in DOE test procedures and energy conservation standards by giving the department the authority to regulate based on multiple efficiency descriptors. These additional tools could ensure that the metrics DOE uses in its standards remain flexible and meaningful as industry continues to create newer and more innovative products.

S.398 appears to prescribe some duplicative procedural requirements that could put an unnecessary resource burden on DOE. For example, the bill's requirement that DOE respond in a published rulemaking to any petition requesting amended standards is unnecessary given that DOE already must review each standard every six years—and the evaluation period begins years before that. Similarly, the bill adds provisions giving stakeholders the right to petition for a test procedure review, a right they already hold under the current law.

In summary, S.398 contains provisions that represent industry, advocate, and consumer consensus and that could streamline DOE's standard-making process. Because several DOE rules currently under OMB review overlap with the proposed consensus standards, the agency cannot at this time present a position that would presuppose the final outcome of the rulemaking deliberative process.

Better Use of Light Bulbs Act (S.395)

This legislation would repeal portions of the bi-partisan Energy Independence and Security Act of 2007 (EISA), which includes higher efficiency standards for general service incandescent lamps that will phase in over the coming years. The first iteration of the standards is scheduled to take effect on January 1, 2012, and will require 100 Watt bulbs to be roughly 25 percent more efficient.

The Administration strongly supports these standards, and joins industry and energy efficiency organizations in opposing S.395. The EISA lighting standards are projected to save families and businesses money, empower consumers with lighting choices, and help protect the environment. DOE projects that if S.395 were enacted, U.S. primary energy

consumption would increase by 21 quads and greenhouse gas emissions could increase by more than 330 million metric tons⁵ over the next 30 years.

The EISA standards may generate significant savings for consumers. Lighting represents about 10 percent of a typical family's electric bill.⁶ Using EISA-compliant light bulbs could save consumers nearly \$6 billion in 2015 alone.⁷ A household that upgrades 15 inefficient incandescent light bulbs could save about \$50 per year.⁸

DOE projects that these standards will help Americans further recognize the savings potential they are already beginning to realize. According to a recent USA TODAY/Gallup poll, nearly three out of four Americans say they have replaced inefficient bulbs with compact fluorescent lights (CFLs) or light-emitting diodes (LEDs) over the last few years, and 84 percent of those Americans are very satisfied or satisfied with their newer bulbs.⁹

Further, since the standards are performance-based, consumers will be able to choose from an array of efficient bulbs, including incandescent halogens, CFLs, and LEDs. They establish technology-neutral, minimum requirements around the amount of light delivered per unit of energy consumed, which is helpful for consumers.

S.395 could jeopardize the required application of an important label on lighting products, removing a key tool for consumers to make informed choices. For decades, Americans chose light bulbs based on how much energy they consume (watts) instead of on how much light they emit (lumens). Selecting a light bulb based on lumens will help consumers choose how much light they want while saving money by making smarter, energy-saving choices. To help consumers better understand lumens, the Federal Trade

Lighting Facts Per Bulb	
Brightness	820 lumens
Estimated Yearly Energy Cost	\$7.23
Based on 3 hrs/day, 11¢/kWh Cost depends on rates and use	
Life	1.4 years
Based on 3 hrs/day	
Light Appearance	
Warm ▲▼ Cool	
2700 K	
Energy Used	60 watts

Commission will release a new label (shown at the right) for light bulbs this summer, similar to the nutrition labels on food products with which Americans are familiar.¹⁰ The label will not only contain lumen output, it will also provide the estimated operating cost of a bulb for a year, and the color quality of the light, which can range from the warm light to cooler bluish light. Energy-saving options from efficient incandescent bulbs to CFLs to LEDs can all be found on the warm side of the spectrum, providing the same light as less-efficient bulbs.

⁵ http://www1.eere.energy.gov/buildings/appliance_standards/pdfs/en_masse_tsd_march_2009.pdf

⁶ http://www.energysavers.gov/your_home/lighting_daylighting/index.cfm/mytopic=11975

⁷ U.S. Department of Energy analysis (2011), assuming the light bulb is on for two hours per day, an electricity rate of \$0.11 per kilowatt-hour, and comparing a 100 Watt incandescent to a 26 Watt CFL. No rebound effect is assumed.

⁸ U.S. Department of Energy analysis (2011)

⁹ USA Today. February 17, 2011 <http://content.usatoday.com/communities/greenhouse/post/2011/02/poll-americans-ok-newer-light-bulbs/1>

¹⁰ <http://www.ftc.gov/opa/2010/06/lightbulbs.shtm>

At DOE, we will work with partners to provide accurate and consumer-friendly information through our website, public service announcements, and other media. California began the transition to energy-saving lighting in January 2011, so DOE will analyze the State's experience and will adopt best practices to help consumers become comfortable with the national lighting transition. DOE also plans to work with retailers and consumer groups to help them understand the new standards and emphasis on lumens.

There is broad consensus support for the EISA standards within the lighting industry, which continues to prepare to implement them. New factories producing more efficient lighting choices have opened. Old factories have been retrofitted to produce more efficient bulbs. Further, should these standards be repealed by S.395, many states could implement their own lighting standards. This could generate confusion among consumers in the market and would force the lighting industry to face a complex patchwork of different lighting standards in different areas, leading to higher regulatory compliance costs. A uniform national standard ensures a national market for efficient bulbs.

The EISA lighting standards may also provide incentives for innovation and economic competitiveness. Over the past ten years, portions of the lighting market have dramatically evolved, in part due to lighting efficiency requirements. For example, linear fluorescent lamp standards enacted by the Energy Policy Act of 2005, may have contributed to the development of a larger market for higher-efficiency alternatives. Since the enactment of EISA just three years ago, many new halogen, CFL, and LED lamp products have appeared on the market, providing consumers with even more choices in lighting. Over the past 20 years, CFL prices have decreased about 10 fold (approximately \$20 in 1990 to \$2.50 today).¹¹ So companies are continuing to innovate and raise the bar for energy efficient lighting while lowering costs, and DOE believes the EISA standards play a part in that trend.

Conclusion

In summary, S.398 contains provisions that represent industry, advocate, and consumer consensus, that could streamline DOE's standard-making process. S.395, on the other hand, could cost consumers and manufacturers money and detrimentally affect the nation's economy, energy security, and environmental imperatives.

DOE is continually working to seize the opportunities energy efficiency offers, saving families and businesses money by saving energy. There are many opportunities to further improve energy efficiency in appliances and products that consumers and businesses use every day. Therefore, the Department continues to strive to establish cost-effective commercial and residential appliance standards. DOE is constantly attempting to modernize, improve, and tailor the appliance standards to respond to improvements in

¹¹ http://www.energystar.gov/ia/products/downloads/CFL_Market_Profile.pdf

energy efficient technology, while being responsive to legislative and regulatory requirements.

Thank you again for the opportunity to offer the Department's views on these proposed pieces of legislation. I am happy to answer any questions Committee Members may have.

Background: A Section by Section Description as Each Relates to the Appliance Standards Program Activities

S.398 - Implementation of National Consensus Appliance Agreements Act of 2011

Sec 2. Energy Conservation Standards

(a) Multiple efficiency descriptors: This section amends the definition of energy conservation standard to allow DOE to consider multiple efficiency descriptors for the same product. Currently, DOE does not have authority to regulate based on multiple efficiency descriptors for many of its covered products. The lack of such authority has prevented DOE from responding positively to stakeholder requests for the use of multiple efficiency descriptors. This provision would allow DOE greater flexibility in the technical formulation of test procedures and energy conservation standards.

(c) Regional standards for central air conditioners and heat pumps: This section specifies regional standards through the adoption of the consensus efficiency requirements for central air conditioners and central air conditioning heat pumps.

(c) Standards for niche types of central air conditioners and heat pumps (i.e., through-the-wall and small duct high velocity systems): This section implements the standard provided by DOE's Office of Hearing and Appeals through exception relief for through-the-wall and small duct high velocity systems. In the absence of legislation permanently adopting the efficiency levels provided in the exception relief for these products or other legislative change addressing anti-backsliding in this context, DOE would not be able to consider amended energy conservation standards for these product types because the current Federal standards exceed the energy efficiency potential of these products due to size constraint limitations. This section provides a permanent solution to the current exception relief and provides DOE with the potential possibility of conducting a rulemaking in the future for these products.

(e) Regional standards for furnaces: This section specifies regional standards through the adoption of the consensus efficiency requirements for oil-fired and weatherized residential furnaces.

(f) Allowance for State building codes to exceed Federal standards: This section provides a pathway for State buildings codes to exceed Federal standards for certain types of products and new construction applications. This section implements a portion of the consensus agreement for residential furnaces and central air conditioners and heat pumps, which sets these more stringent levels as targets for building codes. Currently, DOE cannot consider different standards for new and existing construction either through

building codes or Federal standards. DOE analyses of energy efficiency standards in many cases demonstrate that high efficiency products may be more economically justified in new buildings compared with replacement product applications. This is because some efficiency technologies require not only changes in the equipment itself but also in how the equipment is installed in a building. Since whole-building standards can address both equipment features and the building system within which they operate, such codes can sometimes address the efficiency improvements more economically than equipment standards alone. Currently due to Federal preemption, building codes cannot take advantage of such economically viable energy efficiency opportunities because they cannot specify equipment standards that are more stringent than Federal standards. Instead, building codes can only specify more stringent requirements for energy-efficient appliances as one pathway to meeting the code's requirements, and an option to install appliances which meet the national energy conservation standard levels must remain available.

Sec. 3. Energy Conservation Standards for Heat Pump Pool Heaters.

This section provides DOE with the authority to regulate and sets the initial test procedure and standard for heat pump pool heaters. DOE's current regulatory program only includes gas heaters for pools and spas. This section would expand DOE's authority to include a comparable type of equipment for households in warmer climates and with electricity-only energy supplies. It is unclear if this section would apply to electric pool and spa heaters that do not utilize heat pump technologies.

Sec. 4. GU-24 Base Lamps.

This section prohibits incandescent lamp designs for use with GU-24 sockets and prohibits the use of socket adaptors to convert a GU-24 socket to any other socket type. The GU-24 socket is a pin-based design that is an alternative to the standard Edison socket that is commonly used for incandescent bulbs. The GU-24 socket is commonly used with certain designs of compact fluorescent lamps.

Sec. 5. Bottle-Type Water Dispensers, Commercial Food Holding Cabinets and Portable Electric Spas.

This section adds bottle-type water dispensers, commercial food holding cabinets and portable electric spas to the Appliance Standards Program and establishes energy conservation standards for each product, based on the existing standards adopted by the California Energy Commission (CEC).

Sec. 6. Test Procedure Petition Process.

This section establishes a petition process where parties can petition for a rulemaking to amend the existing test procedures. Parties already have the right to petition for a rulemaking to amend the existing test procedures, so this provision appears duplicative.

Sec. 7. Refrigerator-Freezer, Clothes Washer, and Clothes Dryer Test Procedures.

This section requires DOE to finalize the amendments to the refrigerator, refrigerator-freezer and freezer test procedures DOE proposed in December 2010 within 90 days of enactment of the legislation. Additionally, this section requires DOE to publish an

amended test procedure for clothes dryers no later than 180 days of enactment of the legislation, which is limited to considering amendments resulting from the testing of dryers with automatic termination controls. Lastly, this section requires DOE to publish an amended test procedure for clothes washers.

Sec. 8. Credit for Energy Smart Appliances.

This section would require the Environmental Protection Agency (EPA) to decide whether to update ENERGY STAR criteria to incorporate smart grid and demand response features. While this provision may seem to only affect EPA, EPA uses DOE's test procedures to administer the ENERGY STAR program for many of DOE's regulatory products. This could have a significant impact on DOE if amendments to these test procedures are needed to support EPA in these efforts.

Sec. 9. Study on Video Game Consoles.

This section would require DOE to conduct a study on energy use and opportunities for energy savings for video game consoles.

Sections. 10, 11, 13, 14 and 15. Refrigerator, Room Air Conditioner, Clothes Dryer, Clothes Washer, and Dishwasher Standards.

These sections would adopt the consensus appliance standards recommendations for certain types of home appliances.

Sec. 12. Water heater efficiency descriptor.

This section includes a provision, which would require the Department of Energy to establish a uniform efficiency descriptor and test method for covered water heaters by issuing a final rule no later than 180 days after enactment. DOE's current regulatory program establishes separate efficiency descriptors, test procedures, and standards for covered residential and commercial water heaters based on characteristics, such as rated storage volume and input ratings. This bill would provide DOE with more flexibility as compared to the current regulatory scheme for regulating different types of covered water heaters (i.e., both residential and commercial) using the same metric and test procedure.

Sec. 16. Petition for Amended Standard.

This section would require DOE to publish a final rule or determination within three years of receipt of a petition for rulemaking to amend an existing energy efficiency standard. This requirement, if enacted, would add a seemingly unnecessary burden on DOE, since it is already required to review standards every six years to determine whether they warrant amendment.

Sec. 17. Prohibited Acts.

Currently, DOE's authority to enforce its energy and water conservation standards is limited to manufacturers, including importers, engaged in specific conduct. This provision would expand DOE authority to include distributors, retailers, or private labelers in addition to manufacturers and importers from offering for sale or to distribute non-compliant products. This would give DOE more flexibility in enforcing its regulatory program.

Sec 18. Outdoor Lighting.

This section would give DOE authority to set minimum efficiency standards for additional types of commercial, industrial, and outdoor lamps. Specifically, the section would establish minimum efficacy standards for certain high-output double-ended quartz halogen lamps and end production of general purpose mercury vapor lamps. Alternative lighting options that meet these standards are commercially available. These provisions are also consistent with the on-going DOE activities to set efficiency standards for particular high intensity discharge lamps and lamp ballasts.

Sec. 19. Standards for Commercial Furnaces.

This section would adopt and expand DOE's authority to include additional prescriptive requirements for commercial furnaces. Currently, commercial furnaces are only subject to energy efficiency requirements because DOE does not have the authority to consider dual-metrics for this type of equipment. Gas-fired and oil-fired furnaces that meet the standards in this section are commercially available.

Sec. 20. Standards for Over the Counter, Self-Contained Medium Temperature Commercial Refrigerators.

Over the counter, self-contained medium temperature commercial refrigerators are those refrigerators that are used in retail establishments to display fresh food products. Given the design of the products, it is very difficult for them to meet the standards that are scheduled to go into effect on January 1, 2012. Under current law, DOE cannot recall these standards, as back-sliding is explicitly prohibited by EPCA. This section of the legislation would adjust the Federal standards for these certain types of commercial refrigeration equipment to lower efficiency levels.

Sec. 21. Motor Assessment.

This section would require DOE to collect information on electric motor manufacture, shipment and sales. The Census Bureau previously collected this data, but it has since discontinued those efforts. This task falls beyond the normal purview of the Energy Efficiency and Renewable Energy Office, but the Energy Information Administration in DOE may be capable of performing such assessment. Based on the Assessment, DOE would be required to establish a national program to increase awareness of motor efficiency.

Sec. 22. Study on Compliance with Standards.

This section would require DOE to conduct a study on manufacturer compliance with energy efficiency standards.

Sec. 23. Study on Direct Current Electricity Supply.

This section would require DOE to conduct a study on the costs and benefits of direct current electricity. This study would be the responsibility of the Office of Electricity Reliability in DOE.

Sec. 24. Technical Corrections.

This section would make numerous technical corrections, many of which DOE has identified as necessary, and none of which DOE identifies as objectionable.