



**Testimony of Steven Nadel  
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**To the Senate Energy and Natural Resources Committee**

**Hearing on Proposed Energy Efficiency Legislation**

**April 30, 2015**



## Summary

The United States has made substantial progress in reducing energy waste and improving energy efficiency in all sectors of our economy. But there is the potential to do much more. Continued efforts to promote energy efficiency will reduce consumer and business energy costs, strengthen the economy, help improve the security and resiliency of our energy systems, and protect the environment. Passage of S. 535 earlier this month was a good start, but there is much more the 114<sup>th</sup> Congress can do to advance energy efficiency in the United States, including enacting many of the bills before us today.

Today's hearing is on 22 energy efficiency bills that have been introduced in the Senate this Congress. We appreciate that the Committee is focusing a hearing on energy efficiency and that Chairman Murkowski has indicated that a forthcoming comprehensive energy bill will include an energy efficiency title. It has been eight years since Congress passed a major piece of energy legislation. History indicates that such legislation can only be enacted with broad bipartisan support. Highly politicized issues are unlikely to receive 60 votes in the Senate, and even if a bill passes the Senate, getting both a more conservative House and a more liberal president to accept the legislation will require sticking to provisions with broad bipartisan support.

The bills before us today can be divided into several categories as follows:

1. Bills with strong bipartisan support that should be the centerpiece of an energy efficiency title
2. Bills with the potential for strong bipartisan support
3. Useful bills that could receive substantial bipartisan support if authorization offsets can be found
4. Bills we (ACEEE) support but that have uncertain prospects for strong bipartisan support
5. Bills we neither support nor oppose
6. Bills that need substantial work before we can support
7. Bills we oppose because they will decrease rather than increase energy efficiency

We support all the bills in the first four categories, are neutral on the one bill in the fifth category, and stand ready to work with sponsors to improve the bills in the fifth through seventh categories. We recommend that this committee report out a bill with broad support that includes provisions that already have bipartisan support, or that show great potential to receive such support. Based on our review of the various bills, such a package might include the following:

- S. 720 Energy Savings and Industrial Competiveness Act (including S. 523 [schools], S. 1039 [data centers] and S. 869 [all of the above])
- S. 600 Energy Efficiency Retrofit Pilot Program
- S. 723 Utility Energy Service Contracts Improvement Act
- S. 858 Energy Savings Through Public-Private Partnerships
- S. 886 Smart Energy and Water Efficiency Act
- S. 1038 Energy Star Program Integrity Act
- S. 1044 Access to Consumer Energy Information
- S. 1046 Smart Building Acceleration Act
- S. 1052 Benchmarking

- S. 1053 Alternative Fueled Vehicle Fleets
- S. 703 WAP and SEP Reauthorization
- S. 1054 Smart Manufacturing
- S. 1055 Deep Energy Retrofits to Federal Buildings

Several other bills could also meet this criterion based on refinements to current language and/or identification of authorization offsets.

Congress has given bipartisan support to energy efficiency for many decades. We hope the 114<sup>th</sup> Congress can continue in this tradition and develop a bill with broad support that can pass the House and Senate and gain the president's signature.

## Introduction

My name is Steven Nadel and I am the executive director of the American Council for an Energy-Efficient Economy (ACEEE), a nonprofit organization that acts as a catalyst to advance energy efficiency policies, programs, technologies, investments, and behavior. We were formed in 1980 by energy researchers and are celebrating our 35<sup>th</sup> anniversary this year. Personally I have been involved in energy efficiency issues since the late 1970s and have testified multiple times before this committee and its subcommittees as well as before the House Energy and Commerce Committee.

Since ACEEE is 35 years old this year, we are currently conducting research on energy efficiency progress over the past 35 years. Our preliminary findings are that each major sector of our economy has shown efficiency improvements. Residential-sector energy use per capita is down 11 percent since 1980, commercial-sector use per square foot down 18 percent since its 1999 peak, industrial use per dollar value-added down about one-third relative to 1980, transportation energy use down 12 percent below its peak in 2007, power plant heat rates 8 percent lower than in 1980, and electric system transmission and distribution losses down 27 percent since 1990. We estimate that efficiency improvements saved American consumers and businesses roughly \$800 billion in 2014 and have also contributed to increased employment and economic growth, reduced energy imports, and a cleaner environment. These improvements have been driven by a combination of market forces and national and state policies, with the biggest gains often coming when market forces and policies are pulling together.<sup>1</sup>

Much greater savings are possible. A 2011 ACEEE report estimates that widespread use of energy efficiency technologies and practices can reduce US forecasted energy use by at least 40 percent by 2050.<sup>2</sup> In particular, new technologies and practices continue to be developed, and thus energy efficiency potential continues to grow. We regularly harvest low hanging fruit from this tree, but thus far, new fruit keeps growing back. The new “intelligent efficiency” technologies and practices promoted in S. 1046 and S. 1054 are just one example. We discuss these bills below.

The Senate Energy and Natural Resources (ENR) Committee has a long history of enacting bipartisan legislation that promotes energy efficiency, often as part of more comprehensive energy legislation. For example, comprehensive energy bills enacted in 1992, 2005, and 2007 all had major energy efficiency components. More recently, Congress has passed smaller energy efficiency bills in 2012 (the American Energy Manufacturing Technical Corrections Act) and 2015 (S. 535 passed just last week). S. 535 was an excellent down payment on the part of the 114<sup>th</sup> Congress.

Today’s hearing is on 22 energy efficiency bills that have been introduced in the Senate this Congress. We appreciate that the Committee is focusing a hearing on energy efficiency and that Chairman Murkowski has indicated that a forthcoming comprehensive energy bill will include an energy efficiency title. It has been eight years since Congress passed a major piece of energy legislation.

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<sup>1</sup> ACEEE report to be published this summer.

<sup>2</sup> See <http://aceee.org/research-report/e121>.

History indicates that such legislation can only be enacted with broad bipartisan support. Highly politicized issues are unlikely to receive 60 votes in the Senate, and even if a bill passes the Senate, getting both a more conservative House and a more liberal President to accept the legislation will require sticking to provisions with broad bipartisan support. With this as background I now turn to discussion of the 22 bills before us today.

## **Discussion of Bills**

The bills before us today can be divided into several categories as follows:

1. Bills with strong bipartisan support that should be the centerpiece of an energy efficiency title
2. Bills with the potential for strong bipartisan support
3. Useful bills that could receive substantial bipartisan support if significant authorization offsets can be found
4. Bills we support but that have uncertain prospects for strong bipartisan support
5. Bills we neither support nor oppose
6. Bills that need substantial work before we can support
7. Bills we oppose because they will decrease rather than increase energy efficiency

We support all the bills in the first four categories, are neutral on the one bill in the fifth category, and stand ready to work with sponsors to improve the bills in the fifth through seventh categories.

### **1. BILLS WITH STRONG BIPARTISAN SUPPORT**

Several of the bills before us today have strong bipartisan support and should be the centerpiece of an energy efficiency title to a more comprehensive energy bill.

#### **S. 720 Energy Savings and Industrial Competiveness Act**

This bill was authored by Senators Portman and Shaheen and also has many cosponsors. The bill has been refined and debated for several years. Prior versions of this bill were reported out of this committee with a strong bipartisan majority. This year's bill is very similar to the prior bills and has our strong support.

In 2013 ACEEE estimated the likely energy savings from the then-current version of this bill and a variety of potential amendments, some of which have since been added to the bill.<sup>3</sup> We also prepared a supplemental analysis on the Sensible Accounting to Value Energy (SAVE) Act which is now included in Section 433 in the present bill. Overall, we estimated that these bills would save about 12 quadrillion Btu (quads) of energy on a cumulative basis between 2014 and 2030 (a quadrillion is 10 to the 15<sup>th</sup> power). By way of comparison, the United States uses just under 100 quads per year, and Texas, the largest energy consumer, uses about 12 quads per year. Our analysis found that the majority of the

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<sup>3</sup> See <http://aceee.org/white-paper/shaheen-portman-2013>.

savings would come from Section 101 (encourage and assist with updates to model and state building energy codes), with substantial savings also coming from SAVE (improve mortgage underwriting practices to recognize the operating cost savings of efficient homes) and from the industrial section. We also found that the Portman-Shaheen bill would support 66,000–81,000 jobs in 2020 and 164,000–174,000 jobs in 2030 (rising to about 193,000 jobs when SAVE is added to the analysis).

The two most notable provisions in S. 720 are:

- *Section 101 regarding building codes.* The Department of Energy (DOE) is directed to set energy savings targets, based on analysis and public comments, and provide technical assistance to the code-setting and standard-development organizations. After model building codes are updated, states are to certify whether or not they have updated their own codes to meet or exceed the energy savings targets, and then whether they have achieved full compliance. The legislation reserves adoption and enforcement of model building codes to the state and local governments with encouragement and assistance from DOE.
- *Section 422 (SAVE).* Requires HUD to develop and issue updated underwriting and appraisal guidelines for borrowers who voluntarily submit a qualified home energy report, such as a Home Energy Rating System (HERS) score. The provision would cover any loan from HUD and other federal agencies. The updated guidelines would adjust underwriting criteria and home valuation to account for expected energy cost savings in considering the borrower’s ability to repay the loan and in considering the assessed value of the home. If no qualified energy report is provided, no adjustment would be made. Lenders would be required to inform loan applicants of the costs and benefits of improving the energy efficiency of a home.

Other notable provisions include the following:

- Establishing a DOE program for university-based building training and assessment centers modeled after the existing Industrial Assessment Centers (IACs).
- Directing DOE to work on several initiatives to improve the efficiency of schools.
- Requiring the administrator of the General Services Administration (GSA) to pursue several initiatives to reduce energy use in federally leased buildings.
- Streamlining efforts by directing IACs to coordinate with the Manufacturing Extension Partnership Centers and DOE’s Building Technologies Program, and increasing partnerships with the national laboratories and energy service and technology providers to leverage private-sector expertise.
- Establishing a “Supply Star” program at DOE, modeled on and in coordination with ENERGY STAR<sup>®</sup>, to identify examples of and opportunities for promoting highly efficient supply chains.

- Requiring DOE, in consultation with other federal agencies, to issue recommendations for using information and communications technologies to improve energy efficiency.
- Requiring federal agencies to undertake several initiatives to facilitate data center optimization and consolidation.
- Authorizing a demonstration program to allow the secretary of Housing and Urban Development (HUD) to use budget-neutral performance-based contracts to conduct energy and water efficiency upgrades to HUD-assisted multifamily housing units.
- Requiring DOE to conduct an ongoing review into private-sector green building certification systems and to work with other agencies to determine which certification systems would encourage the most comprehensive and environmentally sound approach to certifying federal buildings.
- Extending existing federal building energy efficiency improvement targets, and requiring federal energy managers to explain why agencies did not implement any energy- or water-saving measures that were deemed life-cycle cost effective in required evaluations.
- Strengthening energy efficiency standards for new federal buildings and applying them to alterations of existing federal buildings.
- Requiring DOE to recognize voluntary, independent verification programs for air conditioning, furnace, boiler, heat pump, and water heater products.

While we strongly support S. 720, a few refinements are in order. First, with enactment of S. 535, the provisions in S. 535 can be dropped from S. 720. Second, a few updates to the industrial section would be useful. Specifically, we no longer see the need for the Advanced Manufacturing Office steering committee, nor do we see a need for Congress to establish a Sustainable Manufacturing Initiative, as DOE is now doing many of these activities using existing authority.

Third, DOE has some concerns with Section 441 as written. Discussions are now underway to resolve those concerns, and some tweaks to Section 441 will be needed when these discussions are completed.

I also note that several of the bills before us today appear to overlap with S. 720, and therefore I do not discuss them separately. These are S. 523 (schools), S. 1039 (data centers), and S. 869 (all of the above).

### **S. 600 Energy Efficiency Retrofit Pilot Program**

S. 600, introduced by Senators Klobuchar, Hoeven, Stabenow, Risch, Blunt, and Schatz, would provide matching grants to help nonprofit organizations save energy; the nonprofit organizations themselves would have to provide a significant contribution. This modest pilot program (\$10 million per year authorized) is worth pursuing.



### **S. 723 Utility Energy Service Contracts Improvement Act**

Utility Energy Service Contracts (UESCs) allow utilities and federal government agencies to enter into long-term agreements to save energy. They are a companion to Energy Saving Performance Contracts (ESPCs) under which federal agencies work with private energy service companies. Under current law, ESPC contracts, which measure, verify, and guarantee energy savings, can be as long as 25 years. S. 723, sponsored by Senators Schatz, Alexander, Coates, and Coons, would establish the same 25-year cap for UESCs that measure, verify, and either guarantee or assure savings.

### **S. 858 Energy Savings Through Public-Private Partnerships**

This bill, introduced by Senators Gardner, Coons, Portman, and Shaheen, would clarify ambiguous provisions in the Energy Savings Performance Contracting statute around use of operations and maintenance savings, and the federal government's ability to take renewable energy credits and utility rebates. It also would provide reporting requirements to Congress.

## ***2. BILLS WITH THE POTENTIAL FOR STRONG BIPARTISAN SUPPORT***

Many of the bills in today's hearing were recently introduced by members from one party or the other, without sufficient time to enlist bipartisan support. Several of these bills have the potential for such support because they provide workable strategies to encourage energy efficiency without substantial financial expenditures or government mandates. We classify six of today's bills in this category and discuss them in this section, starting with bills we have been involved with and going on to other bills in numerical order.

### **S. 1046 Smart Building Acceleration Act**

Smart buildings make use of information and communications technology to identify building operation problems and, depending on the problem, either automatically correct it or notify building operators so they can correct it. Energy savings of 15 percent or more can result. S. 1046, introduced by Senator Cantwell, would encourage expanded use of smart building technologies by directing the Secretary of Energy to (1) survey private-sector smart buildings to assess costs and benefits and identify best practices, (2) work with federal agencies to implement and evaluate smart building technology in several federal buildings, (3) promote smart building concepts through existing federal programs such as the Better Buildings Challenge and R&D programs, and (4) report to Congress on the results of this work with recommendations for accelerating the use of smart building techniques.

### **S. 1052 Benchmarking**

This bill, introduced by Senator Franken, extends provisions in S. 535, which recently passed Congress, and also extends a provision in S. 720. All three bills promote benchmarking of commercial buildings. Benchmarking provides information to building owners so they can identify buildings most in need of improvement. It can also help potential building purchasers and tenants learn about a building's energy

bills and make informed purchasing and leasing decisions. All three bills call for a DOE study on the impact of state and local performance benchmarking and disclosure policies for commercial and multifamily buildings, and for an identification of best practices. S. 1052 and S. 720 go a step farther and would offer competitive awards to utilities, their partners, and utility regulators for setting up systems to provide aggregated tenant consumption data to building owners so they can benchmark their buildings. Without tenant data, not all energy use is included when buildings are benchmarked. Utilities aggregate the data to protect tenants' privacy. S. 1052 would go an additional step farther by providing competitive awards to states and units of local government to help them implement the best practices in the DOE report. The cost of this program is modest: \$10 million per year is authorized.

### **S. 1038 Energy Star Program Integrity Act**

This bill, introduced by Senator Risch, would provide liability protection to participants in the voluntary ENERGY STAR program. Several lawsuits have been filed recently against manufacturers of decertified ENERGY STAR products. EPA has procedures for dealing with such issues, and this bill would have EPA, rather than the courts, decide on whether consumer compensation is needed. Manufacturers would be protected from litigation as long as equipment is properly certified and manufacturers comply with any corrective measures deemed appropriate by EPA. This bill was developed at the request of manufacturers, who warn that litigation costs threaten their participation in ENERGY STAR.

### **S. 886 Smart Energy and Water Efficiency Act**

This bill, introduced by Senator Udall, would make competitive grants available to utilities, municipalities, water districts, and other water authorities for novel and innovative technology-based solutions that improve the energy and water efficiency of water systems, including smart meters for water. Grants would come out of existing funds.

### **S. 1044 Access to Consumer Energy Information**

With the advent of smart meters, consumers can access a great deal of energy information to help them manage their energy bills. Some utilities provide this information to consumers, others do not. S. 1044, introduced by Senator Markey, would have DOE establish voluntary guidelines for consumer access to their own energy consumption information. Standardized guidelines make it easier for utilities and state regulators to make these data available, but decisions on whether to use the guidelines would be left to utilities and states. Thus this bill encourages, but does not mandate, making energy use information available to consumers. Under the bill, consumers could permit their energy use information to be made available to energy service providers they designate; this decision would be up to each individual consumer. The bill calls for extensive consultation with interested parties to develop the guidelines, and specifically includes data security and consumer privacy as issues to address.

## **S. 1053 Alternative Fueled Vehicle Fleets**

This bill, authored by Senator Franken, would authorize the inclusion of alternative fueled vehicles in federal ESPCs. It does not require federal agencies to include vehicles in their ESPC projects, but simply authorizes them to do so. The bill would also allow, but not require, agencies to participate in utility incentive programs for such vehicles.

### **3. USEFUL BILLS THAT COULD RECEIVE SUBSTANTIAL BIPARTISAN SUPPORT IF AUTHORIZATION OFFSETS CAN BE FOUND**

The following four bills help advance energy efficiency in important ways but have significant cost. We recommend that the Committee look for authorization offsets so that some, if not all, of these provisions can move forward. I believe all four of these bills will be discussed by the witness from the National Association of State Energy Officials, so I leave the details to him.

## **S. 703 WAP and SEP Reauthorization**

S. 703, introduced by Senators Coons, Collins, Reed, Schatz, and Shaheen, reauthorizes the low-income Weatherization Assistance Program (WAP) and the State Energy Program (SEP). WAP has been the key federal program to help low-income households reduce their energy bills. It makes sense to help these households reduce their energy bills on an ongoing basis instead of just helping them pay bills through the federal Fuel Assistance program. (Recall the old proverb, “Give a man a fish, and you feed him for a day; show him how to catch fish, and you feed him for a lifetime.”) The WAP program has been very successful: the last “meta-evaluation” of the program found average energy savings of more than 20 percent.<sup>4</sup> The new legislation includes several useful improvements to the current program, including a requirement that DOE develop minimum professional standards for WAP contractors and workers, a requirement for an independent quality assurance program, and a new competitive leveraged grant program for nonprofit agencies with a track record of success in serving low-income communities. This bill also reauthorizes the SEP program, which has been a key funding program for state energy office activities in all states.

This bill includes important improvements to these programs and we urge its passage. The WAP and SEP programs are ongoing and subject to the annual appropriations process. The appropriations process determines their cost; reauthorization of these programs will not cost a dime, and refusing to reauthorize them will not save any money.

In our view, this bill is very different from the next three bills we discuss, because it deals with an ongoing program with broad support, while the next three bills would establish new programs.

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<sup>4</sup> See Martin Schweitzer, *Estimating the National Effects of the U.S. Department of Energy’s Weatherization Assistance Program with State Level Data: A Meta-Evaluation Using Data from 1993-2005*, Oak Ridge National Laboratory, 2005. [http://weatherization.ornl.gov/pdfs/ORNL\\_CON-493.pdf](http://weatherization.ornl.gov/pdfs/ORNL_CON-493.pdf).

### **S. 878 Residential Energy Savings Act (RESA)**

Introduced by Senators Sanders, Cantwell, Wyden, King, Whitehouse, Markey, and Franken, S. 878 would establish a pilot program for state loans for energy efficiency upgrades in residential buildings. Many homeowners lack the capital to make energy efficiency investments, and this bill would help states and other eligible entities to provide this capital at attractive terms, often working with banks and other financial institutions. The bill would have DOE make loans to states, local governments, utilities, and other eligible entities who would use the funds to recapitalize, expand, or begin energy efficiency loan programs. The loans would be repaid with interest, providing for a high degree of cost recovery. States and other eligible entities would apply for funding, and DOE would evaluate the applications based on criteria designed to encourage best-practice program design, including innovative approaches such as on-bill repayment. Since the federal cost of capital is lower than its cost for many eligible entities, the program could provide a moderate-cost source of loan capital. To the extent states and other eligible entities could provide or raise additional funds for such activities as loan loss reserves, interest rates that are very attractive to consumers may be possible.

### **S. 893 Energy Productivity Innovation Challenge Act (EPIC)**

S. 893, introduced by Senators Warner and Manchin, would establish a competitive program to help states improve energy productivity. Energy productivity is a measure of the amount of goods and services provided in the economy per unit of energy use. Higher energy productivity means a more efficient economy and it spurs economic growth. The bill would provide initial grants to up to 25 states to develop energy productivity plans, and then would provide grants to up to 6 states based on effective initial implementation of the plans. This program would encourage innovative approaches to improving energy productivity and should be a priority if offsets can be found.

### **S. 888 PREPARE Act**

Senators Schatz and Heinrich authored this bill to encourage regional energy partnerships. The bill would provide grants to groups of states for comprehensive regional planning activities. Remote states (Alaska and Hawaii) would also be eligible for grants for statewide planning activities. The impact of this broader energy planning bill on energy efficiency is unclear.

## ***4. BILL WE SUPPORT BUT THAT HAS UNCERTAIN PROSPECTS FOR STRONG BIPARTISAN SUPPORT***

### **S. 1063 American Energy Efficiency Act**

This bill, introduced by Senator Franken, would establish a national energy efficiency resource standard (EERS) to be administered by each state. An EERS establishes energy saving targets that electric and natural gas utilities must meet, with the target slowly rising over time. Utilities meet these targets by offering programs to help their customers save energy. Target levels are set based on experience established in many states on what can be achieved. Presently 24 states have such standards<sup>5</sup> and they have proven to be very effective energy savers. In 2014 ACEEE reviewed the EERS standards that had

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<sup>5</sup> See <http://aceee.org/topics/energy-efficiency-resource-standard-eers>.

been in place long enough to be evaluated and found that on average they were exceeding their savings targets.<sup>6</sup> Another 2014 ACEEE study looked at utility energy efficiency programs in 20 states with good evaluation data and found that they were costing utilities an average of 2.8 cents per kWh saved, which is much less than the cost of new electricity supply.<sup>7</sup> This study found that for most states the benefits of these programs were about two to three times the cost.

S. 1063 establishes the basic parameters of a national EERS, and calls for a DOE rulemaking to work out the details. In 2013, ACEEE estimated that a national EERS proposal that was similar to S. 1063 would save 37 quads of energy on a cumulative basis over the 2015–2030 period. This was about three times the savings we estimated for the 2013 version of the Portman-Shaheen bill. We will be revising these savings numbers in the next few months based on the latest data and bills.

Given the very high savings of this bill, we hope this committee can give it serious consideration. At a minimum, we urge this committee to keep the energy savings that an EERS can achieve in mind as it constructs the efficiency title of its comprehensive energy bill. A useful yardstick for an energy efficiency title will be whether it can save as much energy as a national EERS alone would save.

#### **5. BILL WE NEITHER SUPPORT NOR OPPOSE**

##### **S. 939 Study on Green Building Programs**

This bill was introduced by Senators Flake and Booker and asks DOE to conduct a study on existing federal programs to encourage green building. The study is to look at the costs and benefits of these programs and make recommendations to Congress. The bill labels these programs duplicative; this is a value judgment that should be determined by the study and not preordained. The study would require time and resources, and is not clearly directed toward the recommendations, but the recommendations on coordinating the programs and making them more effective may have some useful results.

#### **6. BILL THAT NEEDS SUBSTANTIAL WORK BEFORE WE CAN SUPPORT**

##### **S. 1047 Review Rulemaking Proceedings**

This bill, introduced by Senator Alexander, while well intended, is not very workable as written. The bill has the laudable goal of promoting coordination between rulemakings of various agencies. However, it puts all of the onus on only one agency (DOE), appears to set up a very cumbersome process to address the issue, and is ambiguous on some important details. We suggest that staff rework the bill to:

- Ask OMB to identify rules that may need coordination, as OMB is the agency that knows about all recent and pending rules.

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<sup>6</sup> See <http://aceee.org/research-report/u1403>.

<sup>7</sup> See <http://aceee.org/research-report/u1402>.

- Ask DOE and other agencies to attempt to coordinate rules as to requirements and effective dates so as to maximize net benefits, while reducing burdens as much as possible consistent with the goal of maximizing net benefits.
- Clarify that existing laws still apply and that this bill does not change the underlying requirements in existing statute.

## **7. *BILLS WE OPPOSE BECAUSE THEY WILL LIKELY DECREASE ENERGY EFFICIENCY***

### **S. 1048 Ceiling Fans**

This bill, authored by Senator Alexander, would remove the authority for DOE to amend existing ceiling fan efficiency standards and would violate several longstanding principles of equipment efficiency standards that go back to the 1980s. First, it upends a compromise between state governments, the federal government, and manufacturers that is at the core of equipment efficiency standards. Multiple states had efficiency standards in the 1980s, but manufacturers asked for uniform national standards. States agreed that their standards could be preempted by strong federal standards, including regular updates to the standards based on principles agreed to by states, manufacturers, and other parties in the National Appliance Energy Conservation Act of 1987. S. 1048 overrides this agreement by continuing to preempt state standards while preventing DOE from revising the standards.

Second, Congress has a long history of legislating on standards issues when there is a consensus, but, absent consensus, leaving technical decisions to DOE. This principle has applied to legislation adopted during times when either one party or the other controlled Congress. DOE is now conducting a technical rulemaking on ceiling fan standards and has yet to propose a specific standard. Some manufacturers are concerned they will not like the standard DOE sets and seek to prevent DOE action. They anticipate that DOE will seek to ban decorative fans or to require the use of advanced motors on all fans, despite verbal statements to the contrary by DOE officials at a workshop on their preliminary analysis. On the other hand, at least one manufacturer supports stronger standards. Rather than Congress stepping in without technical expertise, a better course of action would be to let DOE propose a specific standard, and then have all parties comment on the proposal so that DOE could revise it to reflect facts elucidated during the comment period. Substantial energy savings are at stake: according to DOE's preliminary analysis savings could range from about 1 to 3 quads depending on the level DOE ultimately selects. These savings will not happen if S. 1048 is enacted.

### **S. 1029 Furnaces**

This bill, introduced by Senators Hoeven and Alexander, would have Congress weigh in on another DOE rulemaking, this one for standards for residential furnaces. Such standards were established by Congress in 1987 and have not been updated since then (rules were finalized in 2007 and 2011 but in both cases legal suits led to new rulemakings). DOE is now trying again under a settlement agreement that ended the last lawsuit which calls for completion of this rule by March 2016. DOE has issued a notice of proposed rulemaking (NOPR), with comments due June 10, 2015. S. 1029 would prevent DOE from issuing a final rule and instead would institute an advisory group process that would extend at least

a couple of years from date of enactment. S. 1029 would override the terms of the settlement that called for a final rule by April 2016, making it less likely that parties would agree to settlements in the future (why settle if a party to the agreement then runs to Congress to change the settlement?). Also, assuming Congress passes an energy bill in late 2015, this means that the earliest any new standard could take effect would be late 2022 (two years for the new advisory group process plus five years provided under current law from publication of a final rule until it takes effect). This would be 35 years after the current standard was set!

We are aware of many parties' concerns about DOE's proposed standard, and discussions among the parties have been taking place to find a settlement acceptable to all. DOE knows about these concerns, and we have heard reports that it is exploring other pathways it can take to address them. Congress should allow both the DOE rulemaking and the settlement discussions of the parties to proceed without interference. In our view a settlement could be reached this year if all parties negotiate in good faith. This bill is counterproductive as it would delay a very overdue standard by about two years and also reduce the incentive for some parties to reach agreement. Substantial energy savings are at stake: DOE estimates its proposed standard would save 2.78 quads of energy.

### **Other Bills Worth Noting**

Two other bills were recently introduced, and while not included in this hearing, are worth noting. Both bills fall into our second category, i.e., bills with the potential for strong bipartisan support.

#### **S. 1054 Smart Manufacturing**

This bill was introduced by Senator Shaheen to encourage the use of smart energy saving techniques in manufacturing. It is a companion to S. 1046 which promotes smart buildings. I believe this bill will be included in a future Energy and Natural Resources Committee hearing but should in addition be considered an energy efficiency bill.

#### **S. 1055 Deep Energy Retrofits to Federal Buildings**

Senator Franken has another bill that would encourage deep energy saving retrofits in federal buildings. The bill defines a deep retrofit as one that reduces energy use by 35 percent or more. This bill would expand GSA's successful deep energy retrofit program, effectively reducing federal building energy-use and costs and thereby saving taxpayer dollars. The bill was referred to Committee on Environment and Public Works, but we would urge this committee to be supportive if it is proposed as an amendment on the Senate floor.

### **Conclusion**

The United States has made substantial progress in reducing energy waste and improving energy efficiency in all sectors of our economy. But there is the potential to do much more. Passage of S. 535 earlier this month was a good start, and now the 114<sup>th</sup> Congress can make much greater strides in advancing energy efficiency by enacting many of the bills before us today. In particular, we recommend that this committee report out a bill with broad bipartisan support. Bills in such a package might include:

- S. 720 Energy Savings and Industrial Competiveness Act (including S. 523 [schools], S. 1039 [data centers] and S. 869 [all of the above])
- S. 600 Energy Efficiency Retrofit Pilot Program
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- S. 1055 Deep Energy Retrofits to Federal Buildings

Several other bills could also meet this criterion based on refinements to current language and/or identification of authorization offsets.

I also want to note that, just as ACEEE analyzed the energy and economic impacts of energy efficiency bills in 2013, we plan to do so again later this year based on the energy efficiency titles reported out of committee in both the Senate and the House. We hope our analysis will aid in refining the ultimate legislation as well as showing the many benefits that energy efficiency legislation can bring to consumers, businesses, and the United States economy.

Congress has given bipartisan support to energy efficiency for many decades. We hope the 114<sup>th</sup> Congress will continue this tradition and develop a bill with broad support that can pass the House and Senate and gain the president's signature.

This concludes my testimony. Thank you for the opportunity to present these views.