

Submitting Organization: Alliance to Save Energy
Appropriations Subcommittee: Senate Energy and Water Development
Department: Department Of Energy

**TESTIMONY OF KATERI CALLAHAN, CHIEF EXECUTIVE OFFICER OF THE ALLIANCE
TO SAVE ENERGY, BEFORE THE SENATE ENERGY AND WATER DEVELOPMENT
APPROPRIATIONS SUBCOMMITTEE IN SUPPORT
OF FY2015 DEPARTMENT OF ENERGY FUNDING**

March 20, 2015

Honorable Chairwoman, Ranking Member, and members of the Subcommittee, I am Kateri Callahan, President of the Alliance to Save Energy. The Alliance to Save Energy (the Alliance) is a nonprofit organization that promotes the goal of doubling U.S. energy productivity by 2030 through federal and local energy efficiency policies, programs, research, and education. The Alliance has worked for more than three decades to advance energy efficiency worldwide to achieve a healthier economy, a cleaner environment, and greater energy security. However, in this testimony I am representing not only the Alliance but also the energy efficiency community at large.

We are submitting this testimony in support of funding for key energy efficiency priorities at the Department of Energy (DOE). We recognize the significant challenges facing the federal government to reduce spending and spur economic growth, yet we strongly believe that failing to fund energy efficiency investments at these levels would undermine our national economic, environmental and security interests. These programs have resulted in exceptional value for American consumers and businesses as a source of savings that are spent in other economic sectors, yielding benefits far beyond their nominal outlays.

Energy efficiency is our nation's most abundant energy source. Economy-wide improvements in energy efficiency have contributed to the large reduction in U.S. energy use over the last 30 years. Economy-wide improvements in energy efficiency, along with structural changes in our economy, have supplied more energy over the last 30 years than domestic coal, natural gas, and oil combined. The energy productivity of the U.S. economy—the amount of energy it takes to produce one dollar's worth of goods—has increased by 50% over the past three decades. The economic productivity improvements over this period reduced our national energy bill by about \$700 billion.

Besides lowering expenditures for those who implement efficiency measures, relatively modest energy efficiency investments also lessen dependence on imported energy sources, reduce pollution and its health and environmental impacts, improve America's competitiveness in the global marketplace, alleviate stress to the electric grid and water infrastructure, and forestall the need for costly new electricity generating capacity. The DOE's efficiency research, development, and deployment (RD&D) activities, pursued in concert with American manufacturers, builders, and other important facets of our economy has been the foundation upon which these savings can accrue.

To that end, **we request funding of \$264 Million for the Building Technologies Office (BTO).** The Building Technologies Program continues to successfully provide substantive and technical assistance to guide the development of more efficient codes and appliance standards, as well as research emerging technologies that could help transform the market by making buildings more efficient.

Within the Building Technologies Office, we respectfully request that the funds be allocated in this manner:

\$264 Million for the Building Technologies Office with the following priorities within the account:

- **\$70 M for Equipment and Building Standards**, with an emphasis on ramping up support for states and local jurisdiction building code activities. For building energy codes, this should include (1) Providing consistent and clear priorities and goals to the model code bodies and to states; (2) providing assistance to states and local jurisdictions on energy code adoption and enforcement; (3) providing assistance to states and local jurisdictions with updated strategies for benchmarking; and (4) methodologies to establish a state baseline, and measurement of energy savings associated with state building code adoption and compliance. For the appliance standards program, DOE has recently caught up on rulemakings that were running behind legal deadlines and continues to work on more than a dozen products as required by statute. DOE is considering new commercial and industrial products. As well, DOE created an effective certification, compliance and enforcement regime, which until now did not exist and has increased its use of negotiated rulemaking process. We support these and the efforts underway to promote transparency and engagement within the process.
- **\$48 M for Residential Building Integration**, with the focus on accelerating the development and adoption of advanced building energy technologies and practices in new and existing homes. The Residential Building Integration program has the capacity to fundamentally transform homebuilding and renovation in this country but must stay focused on meeting the appropriate and laudable goals of development and adoption of advanced building energy technologies and practices for 70% efficiency improvements. Funding should be concentrated with the Industry Teams that can facilitate research, demonstrate and test new systems, and facilitate widespread deployment through their partnerships with builders, the construction trades, equipment, smart grid technology and systems suppliers, integrators and state and local governments. We strongly support the increased funding in the President's request for the expanded residential building energy efficiency retrofit program supporting all residential building types and income levels. Direct engagement with builders, contractors, and business is crucial to the success of buildings programs. Sufficient funding should be provided primarily for the industry teams that have the capability to bring all actors to the table and transform the market.
- **\$32 M for Commercial Building Integration**, with a need for DOE to not only facilitate the research and development on systems integration but also promote the widespread adoption of comprehensive deep retrofits to existing buildings and 50-100% energy reductions in new construction relative to the 2001 model code. We support a program of core research and development of more cost effective integration techniques and technologies could help the move towards both deep retrofits and zero net energy ready buildings. In addition, DOE needs to better engage with the stakeholders developing market transforming policies and investing in retrofits (e.g., private firms, state and local governments, non-profits) by coordinating with and working through them.
- **\$112 M for Emerging Technologies**, which should be focused on building envelope technologies and building equipment technologies with an increasing focus on building management technologies. Advanced heating, ventilation, and air conditioning (HVAC) research should increase and focus on innovative technologies that can provide reductions in primary energy use. Work should continue on advanced water heating and appliance technologies and systems. The program should intensify efforts to increase efficiencies with nano based lubricants, advanced fluids, and next generation alternatives. Advanced envelope technologies, including windows research and development should continue, as should research into building energy management capability. We also urge DOE to fund innovative new technologies that will move

us towards efficiency reductions consistent with achieving net zero energy ready buildings, consider resiliency and extreme weather events, and coordinate with the private and public sectors.

In addition to the funding for the BTO, **we respectfully request \$404 M for the Advanced Manufacturing Office**, divided as follows: at least 25% of the budget should support deployment activities (including \$8-10 million for the Industrial Assessment Centers); 25% should target research and development cost-shared with energy-intensive manufacturing; and at least 15% should target combined heat & power (CHP) research and deployment, including continued support for the regional technical application partnerships.

We respectfully request \$43 M for the Federal Energy Management Program, which retains the budget request. FEMP provides project and policy expertise to all federal agencies, assisting them to meet Congressional and Executive energy management goals: reducing waste in federal agency energy use, leading by example, and spurring innovation and the commercialization of efficient technologies. From 2009 to 2011, FEMP arranged energy savings performance contracts (ESPCs) that leveraged almost \$1.2 billion in project investment to save more than \$3.5 billion in energy and water costs.

We respectfully request \$230 M for Weatherization Assistance Program, a proven energy savings program which enables low-income families, seniors and individuals with disabilities to receive long term efficiency improvements to their homes. More than 7.4 million homes have been weatherized over the 38 year life of the program, which supports 10,000 living wage jobs. Highly trained weatherization workers are the largest energy efficiency workforce in the country. Weatherization is also the pathway to improved health and safety in low income homes, because the program is typically the only opportunity for trained professionals to enter a home and diagnose problems like carbon monoxide and mold and moisture which threaten the well-being of the occupants. For every \$1 invested in the Weatherization program, \$2.51 is returned to the households (in the form of energy savings) and to society.

We respectfully request \$70 M for the State Energy Program, which allows states to assist with the development of energy efficiency and renewable energy projects. According to an Oak Ridge National Laboratory study, of the State Energy Program for every federal dollar invested, \$7.22 in energy savings is achieved. Every federal dollar also leverages almost \$11.00 in non-federal funds. This program supports economic development activities in all sectors of the economy, from industry to agriculture to residential and commercial buildings.

We respectfully request \$175 M for a State Energy Productivity Innovation Challenge (identified in previous Budget Request as “Race to the Top”) with monetary awards to states to promote the goal of doubling electric and thermal energy. Such improvements will stimulate innovation, job creation and economic growth in the private sector without mandates. States can enhance their productivity by adopting policies related to building efficiency, combined heat and power, demand response, and smart grid.

We respectfully request \$444 M for the Vehicle Technologies Program, which supports a number of aggressive vehicle technology goals that can greatly reduce transportation fuel use In the nation including: enhanced battery energy storage at substantially lower cost, improvements in lightweight materials performance, and major gains in freight truck efficiency. The SuperTruck project has already exceeded its initial goal of tractor-trailer technology advances demonstrating a 50% improvement in freight efficiency, and the energy storage projects have achieved a cost reduction milestone for lithium-ion battery production of \$300 per kWh (modeled).

Additionally, we strongly urge you to exclude any provision from the Energy and Water Development Appropriations bill that would prohibit DOE from enforcing the lighting energy efficiency standards that were enacted in 2007. Lighting remains one of the least expensive efficiency upgrades to consumers, and the standards, which manufacturers are already investing to meet, are expected to save the average household \$100 or more a year and increase consumer choice by bringing innovative lighting options to market. Preventing the enforcement of the lighting standards will only drive up costs for efficient lighting, spur greater uncertainty in the marketplace, prevent job growth, waste energy, and diminish consumer choice.

Conclusion

In closing, we commend you for your important work and are fully aware of the difficult decisions required over the coming weeks. Energy efficiency offers solutions that drive the U.S. economy by creating jobs and saving energy. Energy efficiency investments also lessen dependence on imported energy sources, reduce pollution and its health and environmental impacts, improve America's global competitiveness, and alleviate stress to the electric grid and water infrastructure.

We urge the Appropriations Energy and Water Subcommittee to provide robust funding to these important DOE programs in FY2016. Thank you for your consideration of our requests.