TESTIMONY OF DAVID TERRY, EXECUTIVE DIRECTOR, THE NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS, BEFORE THE U.S. SENATE ENERGY AND WATER DEVELOPMENT APPROPRIATIONS SUBCOMMITTEE IN SUPPORT OF FY'16 DEPARTMENT OF ENERGY FUNDING

March 20, 2015

Chair Alexander, Ranking Member Feinstein and members of the Subcommittee, I am David Terry, Executive Director of the National Association of State Energy Officials (NASEO). NASEO is submitting this testimony in support of funding for a variety of U.S. Department of Energy (DOE) programs. Specifically, we are testifying in support of not less than $70 million for the U.S. State Energy Program (SEP). SEP is the most successful program supported by Congress and DOE, as I will discuss later in my testimony. This request in support of SEP should be for the *base program formula funding* that allows states to set and target their energy opportunities, within program guidelines, rather than utilizing DOE-directed competitive awards focused primarily on DOE's internal priorities. States utilize SEP funds to work with local businesses to help facilitate direct energy project development and demonstrations that leverage local resources, spur private investment, and create jobs. For over 30 years, SEP has set the standard for state-federal-private cooperation and matching funds to achieve critical federal and state energy goals. We also support $230 million for the Weatherization Assistance Program (WAP). Approximately half of the 56 State and Territory Energy Offices operate WAP and leverage private, utility, and other federal funds to deliver energy efficiency and associated cost savings to low-income citizens. Both SEP and WAP have a strong record of delivering savings to homeowners, businesses, and industry. In addition to SEP and WAP, we support FY'16 funding for the following DOE offices and programs: $131 million for the U.S. Energy Information Administration; $270 million for DOE Office of Electricity Delivery and Energy Reliability (DOE-OE); $404 million for DOE's Office of Energy Efficiency and Renewable Energy's (EERE) Advanced Manufacturing program; $264 million for DOE-EERE's Buildings Technologies Office; and $49 million for DOE-EERE's Clean Cities Program.

EIA's state-by-state data is essential to a number of state and private energy efforts and has continuously improved over the years. For example, EIA's expertise is a critical piece of energy emergency preparedness and response. States and companies utilize EIA data to prepare for and respond to energy supply disruptions, such as those associated with Super Storm Sandy. Also, EIA's operation of the State Heating Oil and Propane Program, which partners with states and the private sector on the collection of weekly heating oil and propane prices during the heating season, was essential in responding to the 2013-2014 propane crisis and avoiding even more serious health, safety, and economic impacts.

NASEO also supports funding for DOE's Electricity Office -- DOE-OE. Within this amount, NASEO supports the request to provide $63 million in energy reliability and assurance grants for state, local, and tribal governments to address grid modernization, enhance resiliency, and bolster energy assurance (energy emergency) planning, response, and training. In addition, funding should be provided to DOE-OE's Division of Infrastructure Security and Energy Restoration at no less than $14 million, which provides critical energy emergency preparedness and response activities, *e.g.*, Super Storm Sandy. Moreover, this office's actions were essential to enabling state and private efforts to mitigate and avoid the threat to life, safety, and damaging economic impacts during the propane disruptions in the Midwest and New England during the

winter of 2013-14. NASEO also strongly supports DOE-OE's R&D function, cyber security work, as well as the smart grid and grid integration activities of the National Electricity Delivery Division. NASEO also supports DOE-OE's innovative work under the Division of Energy Infrastructure Modeling and Analysis which focuses on energy systems risk analysis and predictive capability.

I would like to return to and expand upon my early statements in support for funding of not less than $70 million for the U.S. State Energy Program (SEP). This unique federal-state partnership program has a history of success, and is the only DOE program that provides funding directly to the states to target unique local needs and opportunities. Formula SEP funding provides states a flexible means to implement the state-directed actions such as the following:

- Developing comprehensive state energy plans, on behalf of governors, which identify untapped local energy resources and energy efficiency opportunities, promote energy-related economic development, and open new energy technology markets for businesses;
- Assisting small- and medium-sized manufacturers in increasing energy efficiency to improve competitiveness and support business incubators;
- Incentivizing private-sector businesses to work with consumers (e.g., home energy efficiency measures) and local governments (e.g., public facility retrofits) to implement energy efficiency measures that save money; and
- Establishing public-private energy efficiency financing programs (e.g., revolving loans, utility on-bill programs, energy savings performance contracting) that leverage private sector expertise and delivery capabilities. In every case, these financing programs are aimed at bridging market gaps and transitioning to private sector financing solutions that support new energy technology markets in such areas as high performance commercial and residential buildings, advanced materials for manufacturing, and new electric grid and distributed energy technologies.

In 2005, Oak Ridge National Laboratory (ORNL) completed a second study of the U.S. State Energy Program and concluded, "The impressive savings and emissions reductions numbers, ratios of savings to funding, and payback periods . . . indicate that the State Energy Program is operating effectively and is having a substantial positive impact on the nation's energy situation." ORNL found that $1 in SEP funding yields: 1) $7.22 in annual energy cost savings; 2) $10.71 in leveraged funding from the states and private sector in 18 types of project areas; 3) annual energy savings of 47,593,409 million source BTUs; and 4) annual cost savings of $333,623,619. Energy price volatility makes the program more essential as businesses and states work together to maintain our competitive edge.

Examples of Successful U.S. State Energy Program Activities: The states have implemented thousands of projects through SEP. Here are a few representative examples.

Alabama: Through SEP-funded training workshops and webinars provided by the Alabama Department of Economic and Community Affairs' Energy Division, state agency staff was trained on utilization of no-cost building energy efficiency practices. As a result, Alabama state government agencies took steps that reduced utility bills in state-owned buildings by $7.4 million in the first two years; 37 percent above the goal of $5.4 million.

Alaska: The Alaska Energy Authority (AEA) and Alaska Housing Finance Corporation (AHFC) have used the flexibility of SEP formula funds to advance the state goal of improving statewide energy efficiency 15 percent by 2020. AEA has used a portion of the funds to leverage state funding for the Village Energy Efficiency Program which provides grants and technical assistance to remote, high-energy-cost communities for energy audits, planning, and

implementation of energy efficiency measures in community buildings and infrastructure. This program's past efforts have yielded impressive results with three-year payback periods on average and typically 30 percent reductions in annual energy consumption.

California: SEP contributes substantially to a number of energy efficiency initiatives in California. The State Property Revolving Loan Fund Program is supporting energy upgrades in more than 60 buildings located throughout the state. The Municipal and Commercial Building Targeted Measure Retrofit (MCR) program has provided energy audits and energy efficiency improvements at non-residential buildings in California. MCR installations at over 7,400 project sites in California are estimated to realize over 85.8 GWh in electricity savings, 8.6 MW in demand reductions, and 950,000 therms in natural gas savings.

Delaware: The Energy Efficiency Investment Fund utilizes $5 million of state funds on an annual basis to provide incentives to help commercial and industrial customers install high efficiency natural gas heating and water heating equipment, energy efficient lighting and lighting control improvements, and vending improvements. In addition, an SEP-supported revolving loan fund offers low-interest loans that encourage borrowers to adopt and install energy efficiency measures that, in turn, lower their bills.

Illinois: SEP funds were utilized to continue Illinois' emergency planning, advancing a Clean Energy Tech Fund, and operating the Innovative Energy Program (IEP) initiative. The IEP targets cutting-edge efficiency projects and integrating advanced battery storage. IEP has funded a number of projects, such as the Continental Electric Energy Storage pilot, which includes installation of a 53kW solar PV array along with a 114kW battery energy storage system.

Kentucky: The Kentucky Department of Energy Development and Independence helps teams of designers, architects, and school administrators develop and construct cost-effective zero-net energy capable schools. The energy use reductions and cost savings have been dramatic. The training and assistance efforts, accomplished through SEP funding, played a pivotal role in helping Kentucky pursue and achieve its market transformation goals.

Maine: SEP funds supported Maine's Home Energy Savings Program, which launched in 2010. To date, approximately 5,000 Mainers have conducted residential energy audits with at least 3,000 of these homeowners receiving rebates for whole-house energy upgrades. More than 100 licensed construction companies have been certified to participate in the program, which has resulted in excess of $27 million worth of residential energy retrofit projects.

Mississippi: SEP funds were utilized to support several programs aimed at reducing energy consumption and costs in public buildings. The Energy Division partnered with the Mississippi Department of Finance and Administration to implement a "Lead by Example" program which, to date, has conducted 278 building audits. The public buildings program is helping to finance energy-saving upgrades through ESPCs at 10 public institutions. Under the program, 149 public buildings, representing more than 3 million square feet of space, have been completed.

Montana: Montana's Alternative Energy Revolving Loan Program was expanded using SEP funds and provides a financing option to Montana homeowners, small businesses, non-profits, and government entities to install alternative energy systems. Funds are paid back to the program and loaned out again, extending the funding benefits for years. Loans are capped at $40,000 and carry a 3.25 percent interest rate (rate adjusted annually) with terms of up to 10 years. For example, in 2013 the Renewable Energy program coordinated and provided assistance to F.H. Stoltze Land Lumber located in Columbia Falls on the first 5 MW biomass cogeneration installed in the State.

New Hampshire: The New Hampshire Green Launching Pad – a new public-private partnership between the Governor's Office, the Office of Energy and Planning, and the University of New Hampshire – funds state businesses in the clean tech sector. Funded through SEP, the Green Launching Pad is an investment in the future of New Hampshire business. The success of the program's first round is best described by the turnout. The Board planned to distribute around $90,000 to each of three winning teams. Instead, of the more than 70 teams that applied, five teams each received between $20,000 and $60,000.

New Mexico: Among New Mexico's recent energy efficiency successes using SEP funding, is a traffic light project launched in 2009. In partnership with the New Mexico Department of Transportation, this project used SEP funding to convert 355 traffic signals in 33 communities from incandescent lamps to light-emitting diode (LED) lamps. After one year in operation, the LED program has resulted in a 75 percent energy savings and a 67 percent cost savings.

North Dakota: $2.4 million from SEP was allocated to the energy efficiency rebate program to provide rebates through utility partners for high efficiency furnaces, air conditioners, lighting retrofits, thermal storage, and insulation packages. The rebate is unrelated to the state's ENERGY STAR Appliance Rebate, which rebated $615,000 in five weeks.

Oklahoma: The Tulsa Public Schools, used SEP funding and a combination of federal and state tax credits, to convert its entire fleet of 177 diesel-powered buses to compressed natural gas. The SEP funds were provided in the form of a grant through the Oklahoma Department of Commerce. Once all buses are converted the school district expects to save between $750,000 and $1 million annually on fuel costs.

Oregon: Funded in part by SEP, the Oregon Department of Energy's (ODOE) umbrella Public Buildings Program includes the State Energy Efficiency Design (SEED) Program. The SEED program will save almost $1.4 million this year in energy costs, according to a new report from ODOE. Under the SEED program, agencies have reduced energy use in state buildings by more than 20 percent, meeting energy reduction targets more than two years ahead of schedule. The goal for all of state-owned buildings was to reduce overall energy use by 20 percent by the end of 2015 compared to a baseline year of 2000. The goal was achieved in 2012 and continuous improvements have led to a combined energy reduction of 22.4 percent.

South Carolina: During the past two years, a public building energy retrofit program in South Carolina, using SEP funds, has resulted in energy efficiency improvements in 579 buildings statewide. The buildings represent nearly 21 million sq. ft. of space and include 32 two/four-year colleges, 22 state agencies and 85 school districts. All measures funded through the program's grants and loans have a minimum return on investment of at least 2.5 to 1.

Tennessee: The Tennessee State Energy Office oversees the contribution to the Pathway Lending Energy Efficiency Loan Program, a public-private $35 million revolving loan fund established by the State, TVA, Pinnacle Bank, and Pathway Lending in 2010 to benefit businesses and industry. The state and other partners hope to expand the program to local governments and quasi-governmental entities by spring 2015. The State is instituting a new EmPower Tennessee program to target reductions in State utility bill spending by 28%.

Washington: The Washington Department of Commerce selected a local company's plan for the Pasco area canal for funding from SEP. A grant in the amount of $898,175 was awarded to the project developers, Green Energy Today, of Kennewick, Washington. The grant is one of thirty-six grants funded through the Energy Efficiency and Renewable Energy Grant and Loan Program offered by the Department's State Energy Office.

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