

BEFORE THE  
COMMITTEE ON ENERGY AND NATURAL RESOURCES  
UNITED STATES SENATE  
HEARING ON ENERGY EFFICIENCY LEGISLATION  
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TESTIMONY OF

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Chairman Murkowski, Ranking Member Cantwell and members of the Committee, I am Gene Therriault, Deputy Director of Statewide Energy Policy Development with the Alaska Energy Authority; and Vice Chair of the National Association of State Energy Officials (NASEO). I would like to thank the Committee for the opportunity to speak with you today as you consider this important package of energy efficiency legislation. We applaud the Committee for holding this legislative hearing on a variety of energy efficiency legislative matters. NASEO recognizes the value of the four building blocks that the Chairman has set forth regarding energy legislation, and today I will discuss the energy efficiency legislation. However, it is critical that we put this legislation in context. The state-federal relationship in energy policy is important and cannot be overlooked. Sometimes the myopia of Washington, D.C. makes it difficult to recognize the value of activities outside of the beltway. We look forward to continuing to work with both the Majority and Minority on the Committee. I would be remiss if I did not thank the Chairman for the open process she has initiated, including critical “listening sessions.” Staff work by Cathy Cahill, Chester Carson and Al Stayman, on both sides of the aisle, has been extraordinary.

As you know, energy efficiency is one of America’s greatest energy resources and is essential to our country’s energy independence, economic prosperity, and environmental quality. Being able to take full advantage of energy efficiency requires public-private partnerships and practical policies such as those contained in the legislation you are considering today. The passage of the legislation we support will benefit all the states across the nation and every sector of the economy, including energy cost savings for business, consumers, and government – greatly enhancing our economic competitiveness. We wanted to note that energy efficiency programs have a 40-year track record of success, with enormous remaining potential. For the past 12 years, our economy has grown while energy use has declined.

I am here representing NASEO, whose membership includes the nation’s 56 governor-designated State and Territory Energy Offices. In my role as Vice Chair of NASEO, I have the benefit of hearing from my peers in other states about the economic and energy successes of energy efficiency. Across the nation state energy offices are working in partnership with business, consumers, and other state and local government agencies. I will share some of these successes with you today.

First, NASEO greatly appreciates the Committee’s efforts to ensure the successful passage of S.535 – The Energy Efficiency Improvement Act – which certifies the energy performance of commercial rental properties, removes a regulatory barrier to the use of large, grid-enabled, electric water heaters, and encourages energy efficiency improvements in federal buildings. With regard to today’s hearing, NASEO strongly supports the following bills under consideration: the Weatherization Enhancement and Local Energy Efficiency Investment and Accountability Act (S.703); the Energy Savings and Industrial Competitiveness Act of 2015 (S.720); the Energy Savings Through Public-Private Partnerships Act of 2015 (S. 858); the Energy Productivity Innovation Challenge Act of 2015 (EPIC) (S. 893); the Residential Energy Savings Act (RESA) (S. 878); the PREPARE Act (S. 888); and Energy Retrofitting Assistance to Schools (S. 523).

## **S. 703: The Weatherization Enhancement and Local Energy Efficiency Investment and Accountability Act**

We want to thank the bi-partisan group of Senators who sponsored this bill, including Senators Coons, Collins, Reed and Shaheen. NASEO heartily endorses this critical legislation which reauthorizes appropriations for the U.S. State Energy Program (SEP), without substantive changes to the underlying statute. The bill would also reauthorize the Weatherization Assistance Program, with some crucial updates. It recognizes the long-term success of the program and the effectiveness of the network that delivers the program, including non-profits and community action agencies. First, the bill would update WAP by also creating opportunities for broader non-profit participation by establishing a complementary, competitive grant program. This will allow participation by other entities, such as voluntary organizations like Habitat for Humanity and Rebuilding Together. For example, Habitat for Humanity has expanded beyond its voluntary new construction work to include significant rehabilitation and repairs on older or foreclosed homes, and this includes weatherizing them to improve their energy efficiency. Addressing the energy needs of low-income households is imperative, as illustrated in Habitat's 2015 Shelter Report, entitled, "Less is More: Transforming Low-Income Communities Through Energy Efficiency." Second, the bill includes language calling for more rigorous standards for weatherization implementation.

Both NASEO and our colleagues at the National Association of State Community Services Programs (NASCSPP) strongly support WAP reauthorization as presented in S. 703, which provides realistic funding levels, given current budget constraints. Chairman Murkowski, from the experience of the program in your state of Alaska, WAP is a proven, cost-effective, and successful program, and has helped low-income families, seniors, veterans, and individuals with disabilities make lasting and cost-effective energy efficiency improvements to their homes.

Before I discuss the specifics related to Alaska and NASEO's endorsement of the aforementioned bills, I would like to stress both Alaska's and NASEO's strong support of the SEP and provide some additional details and a recommendation for the Committee's consideration. SEP is among the most successful energy programs supported by Congress and it is the only program operated by the U.S. Department of Energy which provides formula funding directly to the states to strategically target energy efficiency, renewable energy, energy emergency preparedness, and other priorities. It is important to note that NASEO, and all 56 State and Territory Energy Offices, strongly believe that funding for SEP should be for the *base program formula funding* that allows states to set and target their own energy opportunities, within program guidelines. In recent years – at their discretion – DOE has utilized a portion of the states' formula funds for competitive awards to the states. However, DOE's practice in this area means that a portion of the awards focus on priorities set by DOE. Moreover, the resources required for states to respond to the competitive solicitations puts states with smaller staffs – such as Alaska – at a disadvantage and adds unnecessary costs as compared to the successful formula SEP funds. For this reason, we urge that all SEP funds be provided on a formula basis as Congress originally intended. Other pieces of legislation that we are discussing today address competitive programs for the states to promote specific policies.

The good news is that states have an extraordinary and well-documented track record of utilizing all SEP funds to leverage significant project and program funding and drive exceptional results for taxpayers. Oak Ridge National Laboratory (ORNL) completed a national evaluation of the states' use of SEP funding 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: \$7.22 in annual energy cost savings; \$10.71 in leveraged funding from the states and private sector in 18 types of project areas; annual energy savings of 47,593,409 million source BTUs; and annual cost savings of \$333,623,619. It is an exceptional program by any measure.

Formula SEP funding provides states a flexible means to implement the state-directed priorities, 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;
- Catalyzing planning and investment in grid modernization and pipeline expansion efforts;
- Assisting small- and medium-sized manufacturers in increasing energy efficiency to improve competitiveness and support business incubators;
- Incentivizing private-sector businesses to work with homeowners (e.g., home energy efficiency measures) and local governments (e.g., public facility retrofits) to implement energy efficiency measures that save families and taxpayers money; and
- Establishing public-private energy efficiency financing partnerships (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.

We look forward to working with this Committee to ensure that the WAP statute reflects 21st century options and best practices, with a commitment to quality workmanship, credentialing and standards for all aspects of the weatherization program. Weatherization provides the foundation for residential clean energy investments that create jobs, increase American competitiveness, saves families and businesses money through improved energy efficiency, and reduce pollution. The Weatherization Assistance Program has helped low-income families, seniors, veterans, and individuals with disabilities make lasting and cost-effective energy efficiency improvements to their homes. A total of 7.4 million homes have been weatherized by the program since its inception in 1976. There are more than seven thousand highly skilled jobs in the weatherization network, with countless more supported in related business supply chains, including materials suppliers, vendors, and manufacturers. Weatherization, through the supply chain, is a significant contributor to the economy, and has supported the construction industry and given a boost to American manufacturers and small businesses during challenging economic times. Reauthorization by Congress and reaffirming the Federal government's support for the Weatherization Program is key to sustaining its future.

Together with NASCSP, we urge the Committee to reauthorize these programs and help to ensure that states have the resources to continue to support the benefits we have just mentioned for SEP and WAP.

### **Alaska Efforts:**

In Alaska we appreciate the flexibility of the SEP funds as it advances the state goal to improve statewide energy efficiency by 15 percent by 2020. The Alaska Energy Authority (AEA) shares SEP funds with our sister authority, the Alaska Housing Finance Corporation (AHFC).

AEA has used a portion of the SEP funds to leverage state funding for the Village Energy Efficiency Program (VEEP). This program provides grants and technical assistance to remote, high cost communities for energy audits, planning and implementation of energy efficiency measures in community buildings and infrastructure. Past iterations of this program have yielded impressive results with average payback periods of three years, and typical annual energy savings of 30 percent (electric and space heat). SEP funds support important site visits, community education and outreach and multi-agency planning and coordination. This multi-agency coordination and community involvement is critical in remote Alaska villages where fuel oil prices may be \$8 to \$9 a gallon.

Formula SEP funds help support energy efficiency community engagement, education and outreach throughout Alaska. Funds have been particularly helpful in facilitating state participation in the DOE Tribal Strategic Technical Assistance Response Team (START) program. START identifies five villages each year to provide assistance in planning, technology and opportunity assessment and project development. With SEP funds, AEA staff can insure that our small rural villages are taking full advantage of the energy efficiency opportunities available to them.

Formula SEP funds also support Alaska's statewide efficiency outreach and education efforts including management of the Alaska Energy Efficiency Partnership (the Partnership). The Partnership is a group of more than 40 energy efficiency stakeholders including government entities (state, local, tribal and school districts), utilities, advocacy groups and private sector service providers.

AEA also uses SEP funds to facilitate efficiency projects with private commercial property owners and the lenders who serve them. This is an important and underserved market with significant potential efficiency savings for rural communities in Alaska.

SEP-assisted programs help pay for outreach and education material development, as well as work with this important building sector. This outreach effort is leveraged with state funds that pay for ASHRAE level II audits for private commercial buildings.

The AHFC uses their portion of the SEP funds to support a residential energy efficiency program. To date, the Alaska Legislature has provided \$350 million dollars to fund this effort.

Many other states utilize SEP as seed money to develop and implement much larger programs with non-Federal funding. In Alaska, this program provides grants to homeowners to have an energy audit done on homes. Based on the recommendations of the audit, the homeowner can then qualify for a direct cash rebate of up to \$10,000 to reimburse for energy efficiency upgrades performed on the home. As of January 2015, improvements have been made to approximately 16,000 homes. The average homeowner spent \$11,681 and qualified for a rebate of \$6,889. The improvements generally resulted in a yearly energy savings of 34 percent, or cash savings of \$1,464. The AEA and AHFC SEP programs cover the majority of the state's energy efficiency efforts.

### **1. Building Energy Efficiency Standard (BEES)**

Meeting the Alaska Building Energy Efficiency Standard (BEES) is required for all new residential homes built since 1992 and community-owned buildings receiving AHFC financing. AHFC is responsible for the BEES, provides technical assistance, and maintains a list of individuals who may verify compliance with the BEES. On April 3, 2013 AHFC adopted the 2012 International Energy Conservation Code (IECC) with Alaska Specific Amendments as our BEES. Alaska Specific Amendments include an additional two climate zones among other amendments, which generally make the BEES slightly more stringent than the 2012 IECC.

### **2. AKWarm Energy Modeling Software**

The AkWarm<sup>®</sup> software used by AHFC since 1996 is an integral part of AHFC's energy programs and financing. AkWarm is specifically designed for Alaska. It uses a wide range of weather data from across the state and its fuel and utility costs are updated regularly. AkWarm is free and is the preferred energy modeling software in the state. Only AHFC authorized energy raters may issue an official energy rating, but anyone is able to visit our website and download the software. A light Commercial AKWarm exists as well.

### **3. Alaska Retrofit Information System (ARIS)**

ARIS is a database managed by AHFC that contains detailed information and characteristics of both residential and commercial buildings across Alaska. Every time an energy rating is completed in the state, that housing information is uploaded to the ARIS database. Today, the database has about 75,000 unique housing records. This data allows program staff and researchers the ability to answer a variety of questions not only about the housing characteristics, but energy end use and program effectiveness. With the development of AKWarm – Commercial, ARIS is able to track energy use in public facilities and commercial buildings as well. In fact, all state buildings are using the ARIS database to track energy use, as required by 2010 legislation.

### **4. Building Monitoring**

Primarily funded with SEP, a Building Monitoring System was developed to manage building energy use in real time. The System includes both software and hardware needed to monitor and analyze a building's energy use. The goals of the Building Monitoring project are to discover where energy savings can be made and to create a guideline manual for future building monitoring. It is also the hope of this project to engage

operators to be more aware of energy costs related to the way they operate their buildings and to provide them with the tools needed to manage building energy consumption.

Examples of other states' successful projects and programs, which utilized SEP funds and substantial leverage of non-federal funds in collaboration with private sector and state and local government partners is included at the end of my testimony.

In addition to our support for the reauthorization of SEP and WAP (S. 703), NASEO also strongly supports the following bills:

### **The Energy Savings and Industrial Competitiveness Act of 2015 (S.720)**

NASEO continues to support the energy efficiency bill primarily sponsored by Senators Portman and Shaheen. This forward-looking legislation addresses a wide variety of efficiency opportunities, ranging from building energy codes to federal building performance. While we appreciated the fact that S. 535 was passed by both the House and Senate and addressed grid-integrated water heaters, "Tenant Star" and other limited building efficiency opportunities, it will deliver on only a small part of efficiency's huge potential. We supported passage of S. 535.

### **The Energy Savings Through Public-Private Partnerships Act of 2015 (S. 858)**

NASEO has long supported Energy Service Performance Contracts (ESPCs). Senators Gardner, Coons, Portman and Shaheen should be congratulated for introducing this bill to promote expanded use of energy and water efficiency measures in Federal buildings. The industry develops approximately \$7 billion in projects annually, mostly in government buildings and in strong cooperation with the state energy offices. Most of these projects are in state, local and school buildings. We are coordinating the Federal and state programs to reduce duplication and improve use of best practices.

### **Energy Productivity Innovation Challenge Act of 2015 (EPIC) (S. 893)**

Senator Warner and Senator Manchin have reintroduced an excellent bill. EPIC is originally based on a commission report under the auspices of the Alliance to Save Energy. The objective is to double the productivity of national electricity use by 2030 by fostering new approaches. Again, the bill recognizes the value of the Federal government and states working together, rather than working at cross-purposes. These two former Governors put a structure in place under the bill that would allow up to 25 states to receive funding to implement plans to increase energy productivity. Depending on the success of those efforts, after 18 months, a second round of funding would be provided to up to 6 states with the best performance. We believe that supporting and rewarding state leadership on energy efficiency is a creative and appropriate role for the Federal government and we give it our full support.

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

Senators Sanders, Cantwell, Wyden, King, Whitehouse, Markey, and Franken, and last year, Senator Murkowski, put forth an excellent bill focused on residential energy efficiency

upgrades. This innovative bill would provide a loan from the Federal government to the states who would, in turn, set up voluntary programs to loan money to residential consumers for energy efficiency upgrades. It is intended to be complementary to the Weatherization Assistance Program, by going beyond low-income households to offer financing to all residential consumers. We expect that the thoughtful approach taken in this bill will overcome the challenges that have hindered progress in residential sector efficiency.

### **The PREPARE Act (S. 888)**

Senator Schatz and Senator Heinrich are also to be applauded by introducing the PREPARE Act. This bill is based on successful cooperative planning initiatives undertaken in Hawaii and through the State Energy Program across the country. It calls for the development of regional energy partnerships (or sole state efforts in Hawaii and Alaska), focused on integrating investments in infrastructure, technology, innovation, public-private partnerships and energy system modernization. System resiliency is also a critical objective. Far too often, our energy system has been seen as separate stovepipes without a proper understanding of interdependencies and impacts, both intended and unintended. The bill calls for the development of cooperative agreements between the states or regions and the U.S. Department of Energy to bring its substantial technical expertise and experience to bear on state and regional challenges.

### **Energy Retrofitting Assistance to Schools (S. 523)**

NASEO supports efforts to improve the energy efficiency of schools. In fact, states and local governments have been working with school districts in this area for decades. Unfortunately, funding for the Institutional Conservation Program (ICP) (42 U.S.C. §6371), which included funding for states to implement these activities with schools, has not been appropriated for approximately two decades. We support the efforts contained in this bill introduced by Senators Collins, Warner, Ayotte and Merkley. We also pledge our continued assistance (see Subsection 1(c)(2)(B)).

### **Examples of States' Successful Programs Utilizing SEP:**

The states have implemented thousands of energy efficiency programs and projects. Following 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.

**Arizona:** SEP funds are supporting energy efficiency improvements in 33 school districts statewide. The School Energy Efficiency Program, administered in conjunction with the Arizona School Facility Board, provided grants covering up to 30 percent of project costs with the school district responsible for the remaining 70 percent either through an energy performance contract or utilizing bonds. Under the program, Higley Unified School District funded lighting, controls

and HVAC upgrades in four schools. For one school, these energy measures have translated into an annual savings of \$153,855 – nearly 30 percent on its utility bill. The energy savings will pay the school’s share of their energy performance contract in seven years.

**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.

**Colorado:** Since the mid-1990s, 143 public jurisdictions have worked with an energy services company (ESCO) to identify \$29 million in annual utility savings through a technical energy audit through Colorado’s Energy Performance Contracting Program. Because each technical energy audit is high-quality, “investment-grade,” those guaranteed utility savings have been leveraged to attract \$447 million in capital construction funds. As of June 2014, 182 active and completed projects have improved the performance of public school and university buildings, veterans facilities, libraries, parks, market community centers, wastewater treatment plants, prisons and other government buildings in communities across 75 percent of Colorado’s counties.

**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.

**Hawaii:** The state implemented public building energy retrofits and solar projects, which exceed \$40 million in energy cost savings and 98,900 MWh of guaranteed energy savings annually. Hawaii is in the midst of a major energy transformation, including the interconnection of approximately 50,000 solar photovoltaic systems on residences.

**Idaho:** The Idaho Office of Energy Resources (OER) is working with rural cities and counties that want to save energy in existing public buildings; seven approved applicants will receive energy audits on a total of 13 city or county buildings, and OER is working with the audit recipients to provide cost-share funding on energy efficient retrofits identified in the energy audit.

**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.

**Louisiana:** In Louisiana, the state energy office in coordination with Entergy has invested \$14.7 million in 61 energy efficiency improvements that has resulted in \$30 million in annual fuel savings. The SEP program has also supported their Home Energy Rebate Option Program (HERO), which has resulted in over 1,100 home retrofits and a 30% average increase in energy efficiency per home and nearly 47,000 MMBtu in total annual energy savings in all homes completed.

**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.

**Massachusetts:** The Commonwealth's solar incentive program, launched earlier this year, is having the desired effect of stimulating Massachusetts' economy. In addition to putting people back to work it is also changing the state's energy future. Administered through the Massachusetts Clean Energy Center (CEC), the solar rebate program is funded through SEP. Capitalized with \$8 million, the program has leveraged \$32 million in outside capital that has triggered the construction of eight megawatts of new solar photovoltaic capacity at 100 sites around the Commonwealth.

**Michigan:** The Michigan Energy Office (MEO) invests nearly all of its SEP appropriation and energy revolving loan funds on projects that focus on communities, clean energy manufacturing, and implementing energy policies. MEO has invested in development of best energy practices and placement of Community Energy Managers in communities to help reduce energy waste and to improve energy efficiency in public buildings to free up budgets for re-investment in local priorities. Incentives for retooling, advanced manufacturing, and development of clean energy technologies are provided annually to small business. MEO is also engaged with key partners to create a roadmap for implementing Michigan's new energy policies that will result in an affordable, reliable, and a sustainable energy portfolio for Michigan.

**Minnesota:** Project ReEnergize, Minnesota's energy efficiency rebate program designed to save homeowners energy and money and create jobs in the residential construction industry, was so successful that it's been called a model for other proposed federal SEP projects, including the Home Star program. Project ReEnergize was the \$3 million SEP-funded program administered by the Builders Association of Minnesota on behalf of the Minnesota Department of Commerce (the state energy office). The program included half-day training for qualified licensed contractors and issued average rebates of \$2,200 to about 1,200 homeowners. The average cost per home improvement project was \$13,700. For every \$1 in rebate money provided, consumers spent \$5 upgrading their homes with energy efficiency improvements.

**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 (the state energy office). Once all buses are converted the school district expects to save between \$750,000 and \$1 million annually on fuel costs.

**Ohio:** SEP has funded many initiatives to help Ohio small businesses reduce operating costs and improve their competitiveness. The Council for Smaller Enterprises (COSE) is providing small businesses with access to educational and financial resources for energy improvements, and utilizing online tools from the state and Federal agencies to help track the companies' sustainability and energy efficiency. The

Building Operator Certification is a professional certification program, sponsored in part by OERD, which is improving the effectiveness of energy efficiency programs.

**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%.

**Utah:** SEP funding was leveraged to establish the Utah Home Performance Program (UHP) – a residential energy efficiency rebate program to build the infrastructure and a permanent workforce for a “whole home” retrofit market. Starting in 2010 with a budget of \$4.5 million, UHP achieved the following: an average of 29 percent energy savings per home (initial goal was 20 percent); a network of 85 UHP approved companies, creating 130 jobs; leveraged \$7.5 million in residential energy efficiency retrofits; and retrofitted 1,250 homes (initial goal was 758).

**Vermont:** Thanks to a SEP-funded \$50,000 grant and \$500,000 loan from the Vermont Clean Energy Development Fund (CEDF), the 425-acre Auburn Star farm will soon be home to a digester designed to produce biogas from farm waste. The gas will then be used to generate electricity – offsetting both the energy purchased by the farm and the waste to be disposed of. The CEDF received proposals from thirty-two different projects requesting over \$7 million in financial assistance. In all, more than \$3.3 million was distributed across the state.

**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.

**West Virginia:** Among the SEP-funded initiatives are several programs that emphasize improving energy efficiency in public buildings as a way to reduce energy costs to taxpayers. The initiatives focus on nine departments within state government including Corrections, Higher Education, K-12, National Guard, Health and Human Resources, Environmental Protection, Natural Resources, and Agriculture and Administration. A \$2.1 million project administered by the West Virginia Division of Energy and funded by the SEP will reduce annual operating costs for West Virginia's most expensive facility to heat by more than \$400,000 per year. The project will pay for itself within five years.

**Wyoming:** SEP funding has been vital as the state energy office works to further efforts in the residential market, business, industry, local, and state government. SEP funds provide program support for a variety of activities that include a Facility Building Retrofit Program, a K-12 Facility Retrofit and Renewable Demonstration Program, and a Residential Renewable Energy Grant Program. Since 1999, Wyoming residents have benefited from renewable incentive grants through the state energy office. During the last two decades, more than 400 incentives have been issued. Cost and generation data on recent installations is being collected and will provide valuable analytics on outcomes. The renewable systems include nine ground source heat pumps, as well as 75 photovoltaic and 144 small wind systems with the generating capacity on those systems totaling over 657 kilowatt (kW).

### **Energy Efficiency Legislation that Should be Changed**

While we have not taken a position on all the bills before the Committee, we believe S. 939, intending to evaluate and avoid duplication in "green buildings" programs, should be modified. S. 939 will impose an administrative burden on states and local governments, as well as DOE. As we read the GAO report referenced in the legislation, the key recommendation is to enhance coordination among programs, not to presume duplication is occurring. Since some state programs appear to have made the list, we want to urge the Committee and the sponsors of the bill to work with the states and DOE. For example, "administrative expenses" are already defined in the SEP and WAP regulations. Subsection 1(a) of the bill will cause additional work. Since the states operate hundreds of programs and have implemented tens of thousands of projects, we are not interested in pursuing an expedition on defining "service" under the proposed bill (Subsection (1)(a)(4)). Again, the report required in the bill will necessitate DOE contacting the states for much of this information. We hope to be able to work with the Committee and the bill's sponsors to identify both programs that work and programs that could be enhanced with greater coordination. An option the Committee may wish to consider is a request for an interagency task force to address these issues.

### **Conclusion**

Thank you for the opportunity to testify today. I am prepared to answer any questions.