Legislative and Budget Process

U.S. House of Representatives	
Energy and Commerce Committee - Energy Subcommittee Member List	
Republican Members	**Democratic Members**
Fred Upton (Michigan - 06) - Chairman	Bobby Rush (Illinois - 01) - Ranking Member
Pete Olson (Texas - 22) - Vice Chairman	Jerry McNerney (California - 09)
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Robert Latta (Ohio - 05)	Kathy Castor (Florida - 14)
Gregg Harper (Mississippi - 03)	John Sarbanes (Maryland - 03)
David McKinley (West Virginia - 01)	Peter Welch (Vermont - 00)
Adam Kinzinger (Illinois - 16)	Paul Tonko (New York - 20)
Morgan Griffith (Virginia - 09)	David Loebsack (Iowa - 02)
Bill Johnson (Ohio - 06)	Kurt Schrader (Oregon - 05)
Billy Long (Missouri - 07)	Joseph P. Kennedy III (Massachusetts - 04)
Larry Bucshon (Indiana - 08)	G.K. Butterfield (North Carolina - 01)
Bill Flores (Texas - 17)	Frank Pallone (New Jersey - 06) - Ex Officio
Markwayne Mullin (Oklahoma - 02)	
Richard Hudson (North Carolina - 08)	
Kevin Cramer (North Dakota - 00)	
Tim Walberg (Michigan - 07)	
Greg Walden (Oregon - 02) - Ex Officio	

U.S. House of Representatives	
Committee on Appropriations - Energy and Water Subcommittee Member List	
Republican Members	**Democratic Members**
Mike Simpson (Idaho) - Chairman	Marcy Kaptur (Ohio) - Ranking Member
Ken Calvert (California)	Pete Visclosky (Indiana)
Chuck Fleischmann (Tennessee) - Vice Chair	Debbie Wasserman Schultz (Florida)
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U.S. Senate	
Committee on Energy and Natural Resources - Energy Subcommittee Member List	
Republican Members	**Democratic Members**
Cory Gardner (Colorado) - Chairman	Joe Manchin III (West Virginia) - Ranking Member
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Lamar Alexander (Tennessee)	Martin Heinrich (New Mexico)
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Luther Strange (Alabama)	Maria Cantwell (Washington) - Ex Officio
Lisa Murkowski (Alaska) - Ex Officio	

U.S. Senate	
Committee on Appropriations - Energy and Water Development Subcommittee Members	
Republican Members	**Democratic Members**
Lamar Alexander (Tennessee) - Chairman	Dianne Feinstein (California) - Ranking Member
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Mitch McConnell (Kentucky)	Jon Tester (Montana)
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Susan Collins (Maine)	Tom Udall (New Mexico)
Lisa Murkowski (Alaska)	Jeanne Shaheen (New Hampshire)
Lindsey Graham (South Carolina)	Jeff Merkley (Oregon)
John Hoeven (North Dakota)	Christopher Coons (Delaware)
John Kennedy (Louisiana)	

TO: State, Territory, and Affiliate Members
FROM: David Terry, Executive Director, NASEO
SUBJECT: Detailed Budget Comparison and DOE Budget Request Highlights for the President's FY'18 Budget Request

On Tuesday, May 23, 2017, President Trump released the Administration's FY'18 Budget Request. NASEO prepared the following **summary table (available here)** that compares the FY'18 budget request to previous years under the Office of Energy Efficiency and Renewable Energy, Office of Electricity Delivery and Energy Reliability, and ARPA-e, among other programs.

Below is a list of funding requests for programs of particular interest to the States, including:

$120 million request for the Office of Electricity and Energy Reliability
$636 million request for the Office of Energy Efficiency and Renewable Energy

- $0 request for the Weatherization Assistance Program (WAP)
- $0 request for the U.S. State Energy Program (SEP)
- $82 million request for Vehicle Technologies
- $82 million request for Advanced Manufacturing
- $69.7 million request for Solar Energy
- $67.5 million request for Building Technologies
- $56.6 million request for Bioenergy Technologies
- $31.7 million request for Wind Energy
- $45 million request for Hydrogen and Fuel Cell Technologies
- $12.5 million request for Geothermal Technology
- $20.4 million request for Water Power
- $10 million request for Federal Energy Management Program

$118 million request for the U.S. Energy Information Administration
$280 million request for the Office of Fossil Energy
$4.4 billion request for the Office of Science
$703 million request for the Office of Nuclear Energy
$20 million request for the Advanced Research Projects Agency-Energy

Included is an excerpt of the **budget request and justifications (available here)** covering most major U.S. Department of Energy Programs, including comparisons with prior years.

As a reminder, the President's budget request is not an appropriation. Congress will take up FY'18 appropriations discussions in the coming weeks. To review NASEO's appropriations testimony, please see our **policy page**.

If you have any questions, please contact Jeff Genzer or me. Thank you.

NASEO
National Association of State Energy Officials

FY'18 Budget Proposal for U.S. Department of Energy Programs

Program Highlights *(Dollars in Thousands)*	**President's FY'18 Proposed**	**FY'17 Actual**	**FY'16 Actual**	**FY'15 Actual**
Electricity Delivery and Energy Reliability (OE)	120,000	230,000	206,000	147,000
Energy Efficiency and Renewable Energy (EERE)	636,000	2,090,200	2,073,000	1,914,000
Advanced Manufacturing	82,000	257,500	228,000	200,000
Vehicle Technologies	82,000	306,959	310,000	225,000
Building Technologies	67,500	199,141	200,000	172,000
Hydrogen and Fuel Cell Technologies	45,000	92,000	100,000	97,000
Federal Energy Management Program	10,000	27,000	27,000	27,000
Solar	69,700	208,000	242,000	233,000
Wind Energy	31,700	89,500	95,000	107,000
Water Power	20,400	69,800	70,000	61,000
Bioenergy Technologies	56,600	205,000	225,000	225,000
Geothermal	12,500	69,500	71,000	55,000
Office of Weatherization and Intergovernmental Programs	0	275,000	265,000	243,000
U.S. State Energy Program	0	50,000	50,000	50,000
Weatherization Assistance Program	0	225,000	215,000	193,000
Energy Information Administration	118,000	122,000	122,000	117,000
Office of Fossil Energy	280,000	668,000	632,000	791,000
Office of Science	4,472,500	5,392,000	5,350,000	5,067,000
Office of Nuclear Energy	703,000	1,016,616	986,000	833,000
ARPA-e	20,000	306,000	291,000	280,000

115TH CONGRESS
1ST SESSION

H. R. 3050

AN ACT

To amend the Energy Policy and Conservation Act to provide Federal financial assistance to States to implement, review, and revise State energy security plans, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Enhancing State Energy Security Planning and Emergency Preparedness Act of 2017''.

SEC. 2. STATE ENERGY SECURITY PLANS.

(a) IN GENERAL.—Part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.) is amended by adding at the end the following:

''SEC. 367. STATE ENERGY SECURITY PLANS.

''(a) IN GENERAL.—Federal financial assistance made available to a State under this part may be used for the implementation, review, and revision of a State energy security plan that assesses the State's existing circumstances and proposes methods to strengthen the ability of the State, in consultation with owners and operators of energy infrastructure in such State, to—

''(1) secure the energy infrastructure of the State against all physical and cybersecurity threats;

''(2) mitigate the risk of energy supply disruptions to the State and enhance the response to, and recovery from, energy disruptions; and

''(3) ensure the State has a reliable, secure, and resilient energy infrastructure.

''(b) CONTENTS OF PLAN.—A State energy security plan described in subsection (a) shall—

''(1) address all fuels, including petroleum products, other liquid fuels, coal, electricity, and natural gas, as well as regulated and unregulated energy providers;

''(2) provide a State energy profile, including an assessment of energy production, distribution, and end-use;

''(3) address potential hazards to each energy sector or system, including physical threats and cybersecurity threats and vulnerabilities;

''(4) provide a risk assessment of energy infrastructure and cross-sector interdependencies;

''(5) provide a risk mitigation approach to enhance reliability and end-use resilience; and

''(6) address multi-State, Indian Tribe, and regional coordination planning and response, and to the extent practicable, encourage mutual assistance in cyber and physical response plans.

''(c) COORDINATION.—In developing a State energy security plan under this section, the energy office of the State shall, to the extent practicable, coordinate with—

''(1) the public utility or service commission of the State;

''(2) energy providers from the private sector; and

''(3) other entities responsible for maintaining fuel or electric reliability.

''(d) FINANCIAL ASSISTANCE.—A State is not eligible to receive Federal financial assistance under this part, for any purpose, for a fiscal year unless the Governor of such State submits to the Secretary, with respect to such fiscal year—

''(1) a State energy security plan described in subsection (a) that meets the requirements of subsection (b); or

''(2) after an annual review of the State energy security plan by the Governor—

''(A) any necessary revisions to such plan; or

''(B) a certification that no revisions to such plan are necessary.

''(e) TECHNICAL ASSISTANCE.—Upon request of the Governor of a State, the Secretary may provide information and technical assistance, and other assistance, in the development, implementation, or revision of a State energy security plan.

''(f) SUNSET.—This section shall expire on October 31, 2022.''.

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 365(f) of the Energy Policy and Conservation Act (42 U.S.C. 6325(f)) is amended—

(1) by striking ''$125,000,000'' and inserting ''$90,000,000''; and

(2) by striking ''2007 through 2012'' and inserting ''2018 through 2022''.

(c) TECHNICAL AND CONFORMING AMENDMENTS.—

(1) CONFORMING AMENDMENTS.—Section 363 of the Energy Policy and Conservation Act (42 U.S.C. 6323) is amended—

(A) by redesignating subsection (f) as subsection (e); and

(B) by striking subsection (e).

(2) TECHNICAL AMENDMENT.—Section 366(3)(B)(i) of the Energy Policy and Conservation Act (42 U.S.C. 6326(3)(B)(i)) is amended by striking ''approved under section 367''.

(3) REFERENCE.—The item relating to ''Department of Energy—Energy Conservation'' in title II of the Department of the Interior and Related Agencies Appropriations Act, 1985 (42 U.S.C. 6323a) is amended by striking ''sections 361 through 366'' and inserting ''sections 361 through 367''.

(4) TABLE OF SECTIONS.—The table of sections for part D of title III of the Energy Policy and Conservation Act is amended by adding at the end the following:

"Sec. 367. State energy security plans.".

Passed the House of Representatives July 18, 2017.

Attest:

Clerk.

Congress of the United States
Washington, DC 20515

April 4, 2017

The Honorable Michael K. Simpson,
Chairman
Committee on Appropriations
Subcommittee on Energy & Water
Development, & Related Agencies
2362-B Rayburn House Office Building
Washington, DC 20515

The Honorable Marcy Kaptur,
Ranking Member
Committee on Appropriations
Subcommittee on Energy & Water
Development, & Related Agencies
1016 Longworth House Office Building
Washington, DC 20515

Dear Chairman Simpson and Ranking Member Kaptur:

We write to urge your continued support for key energy efficiency and clean energy programs within the Department of Energy: the Weatherization Assistance Program (WAP) and the State Energy Program (SEP). These programs provide the foundation for investments that create jobs, increase American competitiveness, save families and businesses money through improved efficiency, and reduce pollution. While we understand the challenges in developing an appropriations bill in a constrained fiscal environment, we respectfully request that you fund WAP at $230 million and SEP at $70 million for Fiscal Year (FY) 2018.

The Weatherization Assistance Program helps low-income families, seniors, veterans, and individuals with disabilities improve the energy efficiency of their homes, freeing up limited resources for other essentials like food and medicine. For four decades, WAP has provided weatherization services to more than 7 million low-income households. A peer-reviewed evaluation by Oak Ridge National Laboratory found that the program is cost-effective by even the most conservative estimates. Each Weatherization Assistance dollar produces $4.10 in benefits, including energy savings as well as improved health and safety. We respectfully request that WAP is funded at $230 million, the level that was included in the FY 2017 President's Budget Request. This will ensure that all states have the resources to support their weatherization programs that help reduce the burden of high energy prices on low-income families.

The State Energy Program enables states to assist with the development of energy efficiency and renewable energy projects, such as improving the efficiency of hospitals and schools, working with utilities and energy service companies to install clean energy and energy efficiency projects, developing energy emergency preparedness and response plans, and supporting private sector energy innovations through business incubators and job training. The Oak Ridge National Laboratory found that for every dollar of federal funding, the SEP leverages over $10 for energy-related economic development. The SEP provides 300,000 energy efficiency technical assistance

contacts with consumers and small businesses to aid them in implementing cost-effective actions. We respectfully request that this program be funded at $70 million, the level that was included in the FY 2017 President's Budget Request.

We appreciate your efforts in confronting our country's fiscal challenges and your prioritization of programs that promote job growth. In this spirit, we believe that investments in programs like WAP and SEP that reduce costs for both individuals and businesses, and create greater economic opportunities in communities across the nation, should be maintained in FY 2018.

Thank you for your consideration of this request. We look forward to working with you on this important matter.

Sincerely,

Paul D. Tonko
Member of Congress

David B. McKinley, P.E.
Member of Congress

Louise McIntosh Slaughter
Member of Congress

Eliot L. Engel
Member of Congress

Brian Higgins
Member of Congress

Frederica S. Wilson
Member of Congress

John P. Sarbanes
Member of Congress

Suzan K. DelBene
Member of Congress

Madeleine Z. Bordallo
Member of Congress

Rosa L. DeLauro
Member of Congress

Gregorio Kilili Camacho Sablan
Member of Congress

Steve Cohen
Member of Congress

Adam B. Schiff
Member of Congress

Janice D. Schakowsky
Member of Congress

Alcee L. Hastings
Member of Congress

William R. Keating
Member of Congress

Joe Courtney
Member of Congress

Marcia L. Fudge
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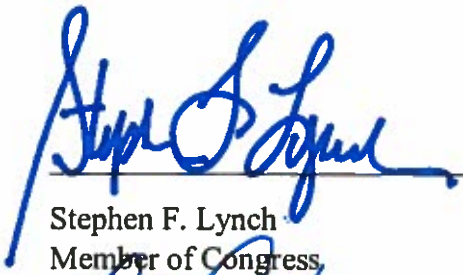
Emanuel Cleaver, II
Member of Congress

Don Young
Member of Congress

Timothy J. Walz
Member of Congress

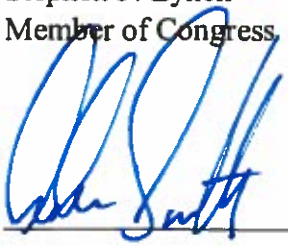
Doris O. Matsui
Member of Congress

Peter Welch
Member of Congress



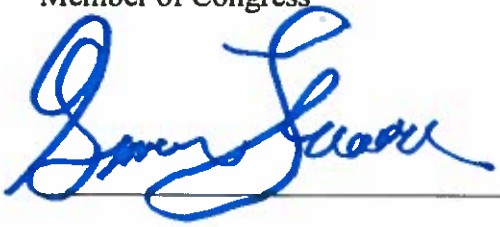
Stephen F. Lynch
Member of Congress

Barbara Lee
Member of Congress



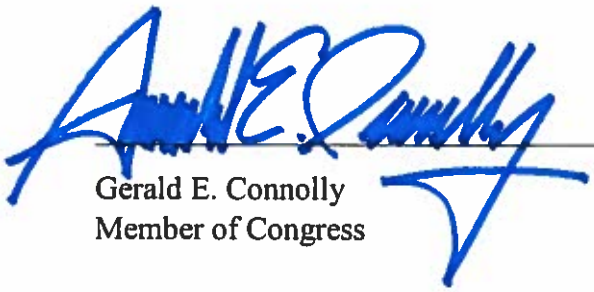
Adam Smith
Member of Congress

Keith Ellison
Member of Congress



Gwen Moore
Member of Congress

David N. Cicilline
Member of Congress



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Bobby L. Rush
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Eleanor Holmes Norton
Member of Congress

Elijah E. Cummings
Member of Congress

Chellie Pingree
Member of Congress

Danny K. Davis
Member of Congress

André Carson
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Peter A. DeFazio
Member of Congress

Diana DeGette
Member of Congress

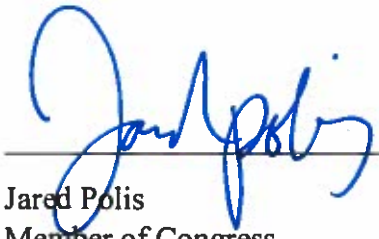
Jerrold Nadler
Member of Congress

Jim Costa
Member of Congress

James R. Langevin
Member of Congress

Yvette D. Clarke
Member of Congress

Kathy Castor
Member of Congress



Jared Polis
Member of Congress

Niki Tsongas
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John K. Delaney
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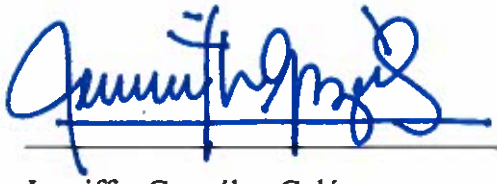
Carol Shea-Porter
Member of Congress



Jenniffer González-Colón
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A. Donald McEachin
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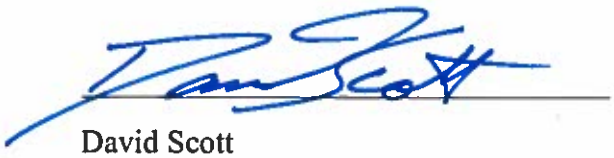

David Scott
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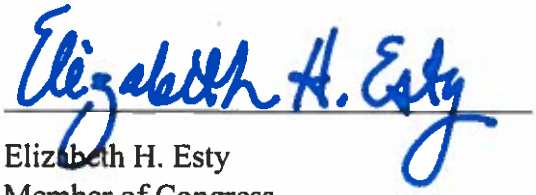
Alma S. Adams
Member of Congress



Elizabeth H. Esty
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Michelle Lujan Grisham
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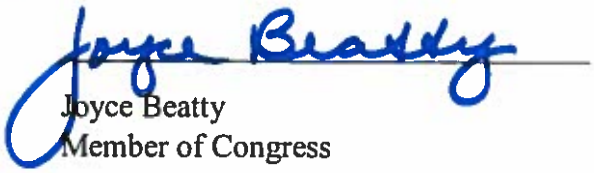
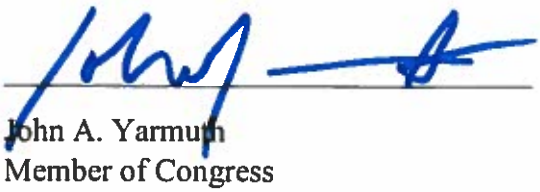
Ann McLane Kuster
Member of Congress



Joyce Beatty
Member of Congress

Donald M. Payne, Jr.
Member of Congress



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Member of Congress

Tom O'Halleran
Member of Congress

Alan S. Lowenthal
Member of Congress

Debbie Dingell
Member of Congress

Mark DeSaulnier
Member of Congress

John Garamendi
Member of Congress

Darren Soto
Member of Congress

Colleen Hanabusa
Member of Congress

United States Senate

WASHINGTON, DC 20510

June 5, 2017

The Honorable Lamar Alexander
Chairman, Energy and Water
Development Subcommittee
Committee on Appropriations
115 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Dianne Feinstein
Ranking Member, Energy and Water
Development Subcommittee
Committee on Appropriations
119 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Alexander and Ranking Member Feinstein:

We write to urge your continued support for two key energy efficiency and clean energy programs within the Department of Energy, the Weatherization Assistance Program (WAP) and the State Energy Program (SEP), and to express our deep concern with the President's preliminary budget proposal to eliminate their funding. These programs provide the foundation for energy efficiency and clean energy investments that create jobs, increase American competitiveness, save households and businesses money, and reduce pollution. While we understand the challenges in developing an appropriations bill in a constrained fiscal environment, we respectfully request that you provide $230 million for WAP and $70 million for SEP in Fiscal Year (FY) 2018.

The Weatherization Assistance Program helps low-income families, seniors, and individuals with disabilities make lasting energy efficiency improvements to their homes. The reduced energy costs free up limited financial resources for essentials such as food and medicine. Over the 40-year history of the program, WAP has helped more than seven million low-income households reduce their energy bills. An independent study of WAP by Oak Ridge National Laboratory indicates that the average single-family home reduced its annual energy costs by $264 per year through weatherization.

The energy savings are only a portion of the benefits from weatherization. The same study shows that the economic and health benefits of weatherization go far beyond permanently reducing energy costs. Children in weatherized households miss 10 percent less school, improving educational outcomes. Adults suffering from asthma miss 20 percent less work, increasing both their own incomes and their contributions to economic growth. Because WAP funds leverage other funds, the program directly and indirectly supports 8,500 jobs, and increases national economic output by $1.2 billion.

The State Energy Program provides technical expertise and funding to states to improve their energy security, increase their energy efficiency, and to boost economic growth. SEP combines the scientific and economic knowledge of the Department of Energy with locally led planning to improve the energy efficiency of hospitals and schools, install clean energy projects, and support private sector energy innovation. A second study by Oak Ridge National Laboratory shows that every SEP dollar spent leads to at least $4.70 in energy savings. The same study estimates that businesses reinvesting these energy savings into job-creating opportunities leads to thousands of jobs created per year.

We appreciate your efforts and your prioritization of programs that promote job growth and the growth of our nation's economy. We believe that investments in programs like WAP and SEP that reduce costs for American households and businesses, and create greater economic competitiveness for our nation, should continue.

Thank you for your consideration of this request, and we look forward to continuing to work with you to support these programs.

Sincerely,

Jack Reed
United States Senator

Susan M. Collins
United States Senator

Jeanne Shaheen
United States Senator

Richard Blumenthal
United States Senator

Martin Heinrich
United States Senator

Joe Manchin III
United States Senator

Sherrod Brown
United States Senator

Edward J. Markey
United States Senator

Sheldon Whitehouse
United States Senator

Tammy Baldwin
United States Senator

Cory A. Booker
United States Senator

Thomas R. Carper
United States Senator

Bernard Sanders
United States Senator

Tom Udall
United States Senator

Richard J. Durbin
United States Senator

Kirsten Gillibrand
United States Senator

Ron Wyden
United States Senator

Benjamin L. Cardin
United States Senator

Al Franken
United States Senator

Christopher S. Murphy
United States Senator

Elizabeth Warren
United States Senator

Gary C. Peters
United States Senator

Michael F. Bennet
United States Senator

Maria Cantwell
United States Senator

Mazie K. Hirono
United States Senator

Brian Schatz
United States Senator

Amy Klobuchar
United States Senator

Margaret Wood Hassan
United States Senator

Tim Kaine
United States Senator

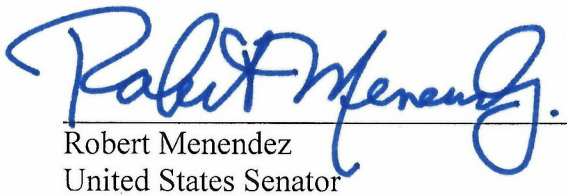
Christopher A. Coons
United States Senator

Jeffrey A. Merkley
United States Senator

Angus S. King Jr.
United States Senator

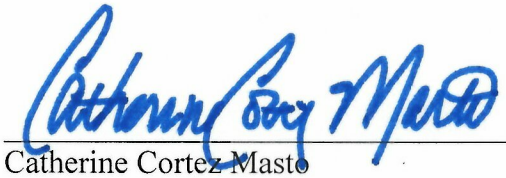
Debbie Stabenow
United States Senator

Robert P. Casey, Jr.
United States Senator

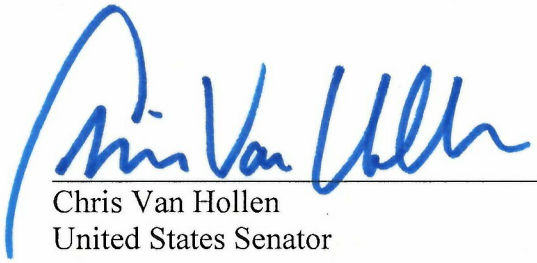


Robert Menendez
United States Senator

Mark R. Warner
United States Senator



Catherine Cortez Masto
United States Senator



Chris Van Hollen
United States Senator

TESTIMONY OF WILLIAM "DUB" TAYLOR, DIRECTOR, TEXAS STATE ENERGY CONSERVATION OFFICE, BEFORE THE U.S. HOUSE ENERGY AND WATER DEVELOPMENT APPROPRIATIONS SUBCOMMITTEE IN SUPPORT OF FY'18 U.S. DEPARTMENT OF ENERGY FUNDING

May 3, 2017

Chair Simpson, Ranking Member Kaptur and members of the Subcommittee, I am Dub Taylor, Director of the Texas State Energy Conservation Office, and I am testifying today on behalf of the National Association of State Energy Officials (NASEO) and our 56 governor-designated state and territory members. NASEO submits this testimony in support of funding for several U.S. Department of Energy (DOE) programs that are of great importance to the states. Specifically, we respectfully request $70 million for the U.S. State Energy Program (SEP), $230 million for the Weatherization Assistance Program, and expanded funding for the critical energy system modernization and energy emergency activities of DOE's Office of Electricity Delivery and Energy Reliability.

First, SEP is the only federal energy program that allows the states to set priorities for the use of that funding. The underlying statute was amended in 1990 to provide governors with great flexibility in addressing each state's unique circumstances. In Texas, as in other states, we are focused on the role of energy in the context of economic development. Our state's *all of the above* approach to energy encourages competition which keeps energy prices low for consumers, and we want to keep it that way. SEP helps us target activities that directly address state and national energy goals, with sound oversight, but without unnecessary federal government direction or interference.

The Administration's *skinny budget* incorrectly asserts that eliminating both SEP and WAP would "reduce Federal intervention in state-level energy policy and implementation." Actually, SEP is a model state-federal partnership and is a good example of cooperative

federalism, which should be expanded. Earlier this year, the National Governors Association called out SEP and WAP as top energy funding priorities by specifically recommending to the Trump Administration to "continue and expand existing energy grant programs that states rely upon, particularly the Weatherization Assistance Program and State Energy Program." The reality is that of the approximately $30 billion expended by DOE annually, the $50 million in SEP funds is the only funding provided directly to the states to use on a wide range of energy priorities which the governors set. As authorized by Congress and administered by DOE, SEP provides discretion and deference to the governors within a broad statutory framework.

First and foremost, SEP is the most successful energy program supported by Congress. According to two Oak Ridge National Laboratory (ORNL) studies, SEP provides taxpayers with an exceptional value. ORNL found that $50 million in SEP federal funding delivers $535 million in private, state, and other non-federal leverage and $360 million in sustained, annual energy cost savings for families, businesses, and state and local governments. The evaluation by ORNL of the states' work using SEP funds found that each dollar of federal SEP funds leverages $10.71 of state and private funds and realizes $7.22 in energy cost savings for citizens and businesses–a great value.

States set their priorities for use of SEP funds on activities such as planning for and responding to energy emergencies resulting from natural and man-made disasters; assisting small businesses and manufacturers in reducing energy costs to improve competitiveness and create jobs; aiding farms and rural homeowners in developing homegrown energy solutions to lower energy costs; and supporting local governments in retrofitting schools, police stations, and other public facilities to reduce utility bills paid by taxpayers.

In my own State of Texas, we leveraged $293,000 in SEP funds to support clean energy technology startup companies, which have attracted $7 million (24:1) in investments, created 86 jobs, and resulted in $7.9 million (27:1) in economic impact. Other examples of how Texas has allocated SEP funding include the Texas Industries of the Future Program which has had great success in supporting chemical manufacturers and refiners to decrease the energy and water intensity of their Texas operations. And, we utilized SEP funds to support the City Efficiency Leadership Council and commercial Property Assessed Clean Energy (PACE) Training to encourage local building energy code adoption and compliance and local PACE financing program development. This public sector technical assistance effort resulted in 37 million square feet being assessed, and yielded significant energy and water savings opportunities with average paybacks of just five years. Each of these successes, and others, are possible using the flexible SEP formula funds which give our state, and other states, the ability to allocate funding to meet our top energy priorities and opportunities.

In Texas, SEP funds are also used to conduct energy and water assessments for public sector, taxpayer-supported facilities across the state. The energy and water saving projects that are identified can then be implemented under the LoanSTAR (Saving Taxes And Resources) revolving loan program, which offers low cost finacing to K-12 schools, local governments and state agencies. This program has awarded almost 300 loans totaling $375 million for projects that have saved borrowers $523 million in utility costs – an average of 18.5% savings annually.

NASEO and the states strongly prefer that all SEP funds provided by Congress come to the states through the base formula account, rather than including DOE's diversion of a small portion of the funds for a competitive program. NASEO is seeking $70 million in SEP funding with $50 million in base formula appropriations, and the remainder targeted to enhance state-

federal cooperation on energy emergency preparedness and response, including physical and cyber security of energy infrastructure. Governors, typically through the State Energy Office, lead energy emergency planning and response. This interdependent state-federal-private function is a hallmark of SEP and needs greater support given elevated threat levels and an increasingly complex energy system–grid, petroleum, natural gas. For example, in the most recent year for which we have data, up to 50 percent of the cyber-attacks in the United States were on energy infrastructure, with a significant portion of that being petroleum related.

Finally, SEP is one of the only meaningful connections between billions spent on federal energy research and development by DOE *and* the energy priorities, policies, and market strategies set by states. The states' exceptional stewardship of SEP funding is widely known and strongly supported.

In addition to SEP and WAP, NASEO supports FY'18 funding for the following DOE offices and programs: $289 million for DOE-EERE's Buildings Technologies Office (including building codes and appliance standards); the Clean Cities program within the Vehicle Technologies Office; and $262 million for DOE Office of Electricity Delivery and Energy Reliability (DOE-OE). At DOE-OE, energy assurance, infrastructure security and energy restoration actions are critical to enable state and private efforts to mitigate and avoid the threat to life, safety, and damaging economic impacts resulting from energy supply disruptions caused by natural disasters and man-made events. For example, resolution of the propane disruptions in the Midwest and New England during the winter of 2013-14, and the Colonial Pipeline ruptures in 2016 would have taken substantially longer and had an even greater impact on consumers and businesses without OE's leadership and partnership with the states and industry. We also suggest robust funding for the Energy Information Administration.

Formula SEP funding provides states a flexible means to implement state-directed actions. Beyond the successes in Texas, I am providing additional examples of the ways in which Idaho and Ohio leveraged and utilized SEP funding (NASEO's Executive Director, David Terry, is submitting written testimony with examples of activities from the other states represented on the Subcommittee):

Idaho: The Idaho Energy Office leveraged SEP funding to support the K-12 Energy Efficiency Project. Energy audits have been completed on 894 school buildings statewide. HVAC system tune-ups were also completed on the 894 school buildings across Idaho. Approximately $5 million was spent performing the HVAC tune-ups with anticipated savings for Idaho districts of about 10 percent of their energy budgets. Savings from the tune-ups are estimated at between 84,102,248 and 269,507,285 kBtu per year. Tune-up dollar savings based on site energy are estimated between $1,254,169 and $3,924,603 annually.

Ohio: The Ohio Energy Office utilized SEP funding to support the Energy Efficiency Program for Manufacturers. The program is enabling hundreds of Ohio's manufacturers to realize cost savings and improve the efficiency of their operations; putting these companies in a better position with their global competitors. The program has invested more than $24 million in Ohio's manufacturing sector to reduce energy usage for a combined annual savings of 1,112,109 million British Thermal Units (gas, oil, other) and 79,256 megawatt hours. These savings translate into a greenhouse gas emission reduction of 110,256 metric tons per year.

Contact Information: Dub Taylor, Director, Texas State Energy Conservation Office (Dub.Taylor@cpa.texas.gov) (phone 512-463-8352); David Terry NASEO Executive Director (dterry@naseo.org) (phone 703-299-8800) and Jeff Genzer, NASEO Counsel (jcg@dwgp.com) (202-467-6370).

TESTIMONY OF DAVID TERRY, EXECUTIVE DIRECTOR, NATIONAL ASSOCIAITON OF STATE ENERGY OFFICIALS, BEFORE THE U.S. HOUSE ENERGY AND WATER DEVELOPMENT APPROPRIATIONS SUBCOMMITTEE IN SUPPORT OF FY'18 U.S. DEPARTMENT OF ENERGY FUNDING – MAY 3, 2017

Chair Simpson, Ranking Member Kaptur, and members of the Subcommittee, I am David Terry, Executive Director of the National Association of State Energy Officials (NASEO). I am testifying on behalf of our 56 governor-designated state and territory members. NASEO respectfully requests funding for the following U.S. Department of Energy (DOE) programs: $70 million for the U.S. State Energy Program (SEP); $230 million for the Weatherization Assistance Program; $289 million for the Buildings Technologies Office including building energy codes and appliance standards; strong support for the Clean Cities program; strong support for the Energy Information Administration; and $262 million for the Office of Electricity Delivery and Energy Reliability (DOE-OE). At DOE-OE, energy assurance partnerships *with the states* are critical to enable state and private efforts to mitigate and avoid the threat to life, safety, and damaging economic impacts resulting from energy supply disruptions caused by disasters.

SEP is the only federal energy program that allows the states to set priorities with both state and national energy goals in mind, rather than responding to DOE's priorities. The underlying SEP statute, amended in 1990, provides governors with extraordinary flexibility and reflects the states' *all of the above* approach to energy which keeps prices lower, addresses reliability requirements, advances economic development, and supports environmental quality. Flexible SEP funding allows states to strategically target activities to meet goals set by governors, as intended by Congress, without unnecessary federal government interference.

The Administration's *skinny budget* incorrectly asserts that eliminating SEP and WAP would "reduce Federal intervention in state-level energy policy and implementation." In fact, SEP is the only DOE administered program which embodies cooperative federalism and affords governors' control of allocating funds within very broad guidelines set by Congress. This year, the National Governors Association called out SEP and WAP as top energy funding priorities urging the Trump Administration to "*continue and expand . . . the Weatherization Assistance Program and State Energy Program*." Moreover, the Southern States Energy Board, led by governors Hutchinson (AR) and Adkins (KY); the Governors Wind and Solar Energy Coalition led by governors Riamondo (RI) and Brownback (KS); and the Western Interstate Energy Board led by the energy directors for governors Herbert (UT) and Sandoval (NV) all called for continued and expanded funding for SEP. In addition, WAP is another example of a state-directed program with little federal interference.

As authorized by Congress and administered by DOE, SEP provides discretion and deference to the governors within a broad statutory framework supporting state and federal energy goals. According to two Oak Ridge National Laboratory (ORNL) studies, SEP provides taxpayers with an exceptional value. ORNL found that that each dollar of SEP funds used by the states leverages $10.71 of state and private funds and realizes $7.22 in energy cost savings for citizens and businesses. States set their priorities for use of SEP funds on activities such as planning for and responding to energy emergencies resulting from disasters; assisting small businesses to reduce energy costs to create jobs; aiding farms and rural homeowners to develop homegrown energy solutions; and supporting local governments in retrofitting schools, police stations, and other public facilities to reduce utility bills paid by taxpayers.

The overwhelming direction from the governors to state energy directors is to request that Congress stipulate all SEP funds be provided through the base formula account. NASEO is seeking $70 million in SEP funding with $50 million in base formula appropriations, with an additional amount targeted to enhance state-federal cooperation on energy emergency preparedness and response, including physical and cyber security of energy infrastructure. Governors, typically through the State Energy Directors, lead energy emergency planning. This interdependent state-federal-private function is a hallmark of SEP; it needs greater support given elevated threat levels and an increasingly complex energy system–grid, petroleum, natural gas, and other fuel production, distribution and use. In the most recent year for which we have data, 50 percent of U.S. cyber-attacks were on energy infrastructure, with a significant portion of that being petroleum related.

Finally, SEP is one of the only connections between billions of dollars spent on federal energy research and development by DOE *and* the energy priorities, policies, and market strategies set by states. A greater reliance by DOE on the states to ensure federal R&D meets real world conditions, state policy goals, and market gaps would maximize the impact of R&D funding. Below are a few examples of the states' utilization of SEP funding. We have omitted an example from Texas, because it was included in William "Dub" Taylor's testimony earlier today.

California utilized SEP funding to support the Municipal and Commercial Building Targeted Measure Retrofit program to aid local governments. The program has provided retrofit installations at over 7,400 project sites. These retrofits 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.

Florida utilized $250,000 of their SEP funds to assist the City of St. Augustine to replace outdated lighting fixtures with modern, energy efficient LEDs and motion sensing control systems in a historic downtown parking facility. Florida leveraged the SEP funds with $50,000 from the City of St Augustine. The LED lighting system has reduced electricity use by 50 percent, or $3,817 per month, and has reduced maintenance costs.

Idaho leveraged SEP funding to support the K-12 Energy Efficiency Project. Energy audits have been completed on 894 school buildings statewide. HVAC system tune-ups were also completed on the 894 school buildings across Idaho. Approximately $5 million was spent performing the HVAC tune-ups with anticipated savings of about 10 percent of energy budgets. Savings from the tune-ups are estimated at between 84,102,248 and 269,507,285 kBtu per year. Tune-up dollar savings based on site energy are estimated between $1,254,169 and $3,924,603 annually.

Indiana utilized SEP funding to help companies identify and make energy efficiency upgrades. The Indiana Conserving Hoosier Industrial Power (CHIP) program provided $2.2 million in grants to commercial or industrial facilities. Eleven companies in Indiana were selected to receive grants ranging from $52,000 to $400,000.

Nebraska leveraged SEP funding to expand the Dollar and Energy Saving Loan Program. The program is a revolving loan fund that reduces the interest rate for energy-related projects meeting minimum efficiency standards. Active since 1990, it is one of the longest standing and highest volume energy efficiency loan programs in the country, and has financed 28,362 projects, totaling $317 million and participation by 267 private lenders throughout the state. Over 25 years, the program's extraordinarily low write-off level is just $150,158.

New York used SEP funds to partner with the Wayne Finger Lakes Board of Cooperative Educational Services to install a 50kW Solar Electric System on the roof of an Early Childhood

Education Building. The system will reduce electric consumption at the site by 43 percent.

Ohio utilized SEP funding to support the Energy Efficiency Program for Manufacturers. The program enabled hundreds of Ohio's manufacturers to realize cost savings and improve efficiency. The program invested $24 million in Ohio's manufacturing sector for a combined annual energy savings of 1,112,109 million British Thermal Units and 79,256 megawatt hours.

Tennessee uses a portion of its SEP funds to support critical energy emergency (*or energy assurance*) functions in partnership with the federal government and private sector. For example, within the past year, three Colonial Pipeline incidents affected most of Tennessee's gasoline supply. The energy office's ability to collect confidential information from petroleum suppliers to assess the situation and coordinate with DOE and the Tennessee Emergency Management Agency to ensure mission critical and first responder fuel needs were met was essential to protecting public health and safety. In another example, many of the Tennessee's 1,650 commercial poultry houses have limited access to natural gas and rely on propane to heat livestock housing. In the winters of 2014-2015, propane distribution issues occurred, and the state worked with the industry and DOE to ensure that farmers had access to propane.

Washington uses a portion of its SEP funds to support energy emergency preparedness. For example, last year, state officials engaged in the Cascadia Rising energy emergency exercise, where state officials worked with the private sector, DOE, and others to respond to a simulated magnitude 9.0 earthquake and tsunami. The exercise brought focus to the need for a resilient grid, tested the state's responsibility for federal Emergency Support Function 12, and identified improvements such as developing pre-disaster agreements with Oregon and Idaho.

Contact Information: David Terry NASEO Executive Director (dterry@naseo.org) (phone 703-299-8800) (2107 Wilson Boulevard, Suite 850, Arlington, VA 22201).

TESTIMONY OF DAVID TERRY, EXECUTIVE DIRECTOR,

NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS,

BEFORE THE U.S. HOUSE ENERGY SUBCOMMITTEE OF THE

COMMITTEE ON ENERGY AND COMMERCE IN SUPPORT OF

ENERGY EMERGENCY PLANNING, RESPONSE AND MITIGATION ACTIONS AND

THE U.S. STATE ENERGY PROGRAM

JUNE 14, 2017

Chairman Upton, Ranking Member Rush, and members of the Subcommittee, I am David Terry, Executive Director of the National Association of State Energy Officials (NASEO). I am testifying on behalf of our 56 governor-designated state and territory members. We appreciate the Subcommittee's interest in the important issue of energy emergency planning, response, and mitigation, as well as the U.S. State Energy Program (SEP). Energy emergency actions are *interdependent* state-federal-private functions aimed at protecting the health, safety and economic vitality of the public. Funding from SEP is essential in most states' actions in this critical area.

Each year, there are localized energy supply disruptions typically resulting from weather events or accidents which the energy industry and state and local officials do an extraordinary job of addressing. However, more significant disruptions to energy supplies – electricity, natural gas, coal, petroleum products, propane – resulting from hurricanes, flooding, earthquakes, and man-made events such as attempted cyber-attacks or terrorism, require far greater attention and more resources. For example, according to the National Oceanic and Atmospheric Administration, there have been more than 50 weather-related disasters over the past 10 years that each exceeded $1 billion in cost. Historic weather and non-weather energy supply disruption events such as Super Storm Sandy in 2012, the propane crisis in the winter of 2014-2015, and last year's three Colonial Pipeline events all required state-federal-industry mobilization to lessen the serious life, health, and economic impacts on citizens across entire regions of the nation. In the case of the Colonial Pipeline accidents, state energy officials in Alabama, Georgia, North Carolina, Tennessee, and other southeastern states worked with the U.S. Department of Energy (DOE), Office of Electricity Delivery and Energy Reliability (DOE-OE) and the petroleum industry to

ensure gasoline was provided for critical functions, as well as normal commerce. However, attendant price spikes caused by the disruption negatively impacted many consumers. Similarly, the well documented propane emergency of 2014-2015 required a sustained level of emergency response as the states, DOE, and the propane industry worked to ensure that propane for heating of homes and livestock facilities could be allocated and delivered. It was a very serious situation made better by the exceptional response of the states, DOE, and propane industry.

During a serious energy emergency, neither the Federal Government, nor state governments, nor the private sector can resolve these situations alone. Federal and state legal and operational authorities associated with energy emergency response require coordinated, and clearly delineated actions to minimize threats to public health and safety, and to restore communities to normal economic activity. Further, the federal emergency response architecture established by Congress and carried out by the U.S. Department of Homeland Security with other federal agencies recognizes the critical need for direct engagement among federal, state, and local authorities in each infrastructure sector. The U.S. Department of Energy has the federal lead for Emergency Support Function 12 – Energy (ESF12). The governors' state energy offices generally lead (or have a substantial role in) the ESF12 function at the state level, and these offices are the key state actor in planning for and responding to a variety of energy emergencies across all fuel types and energy producers and distribution channels. Public utility commissions often also have critical ESF12 roles, and NASEO and the state energy offices coordinate closely with National Association of Regulatory Utility Commissioners (NARUC) and their members.

State-federal cooperation on energy emergency planning and response is critical to effectively address both physical energy security and cyber security. In fact, within the past year, NASEO executed a new agreement with the DOE Secretary and our sister organization NARUC (DOE-State MOU – http://naseo.org/Data/Sites/1/eeac-agreement-and-terms-of-reference-final-february-2016---no-signatures.pdf). We have also participated in important energy emergency exercises led by DOE, such as Cascadia Rising, which focused on earthquake related energy emergencies, and Liberty Eclipse, which was cyber-focused. These exercises must continue, especially given changes in personnel at the federal level, state level and private sector. Cooperation and communications developed during planning and exercises is essential to ensuring interdependent authorities (e.g., waiver of driver hours) across the federal government and states are carried out in a streamlined fashion during emergency events.

Mitigation of future energy supply disruption risks and resulting energy emergencies is as important as planning. States work with the private sector to reduce energy system risks and avoid or lessen their impact on health, safety and the economy. State energy officials utilize SEP funds to plan for and respond to emergencies, as well as to mitigate the impact of future events. For example, states use SEP and state funds to work with the private sector to advance resilient and fortified energy infrastructure (e.g., pipelines, substations, petroleum storage facilities); promote high-performance buildings with on-site power options (e.g., Combined Heat and Power integrated with renewables) for mission critical facilities (e.g., police, fire, hospitals, water treatment); promote the use of alternative fuel vehicles (e.g., propane, electric, natural gas) to diversify fueling for first responder and larger vehicle fleets; advance cost-effective distributed energy resources for homeowners and small businesses; and promote practical building energy

codes that reduce energy load in commercial and residential facilities. SEP was designed by Congress to provide states with the flexibility to address these and other opportunities as directed by their governors within DOE's oversight parameters for this longstanding state-federal program.

SEP contains a required energy emergency planning function, which was added in a 1990 amendment. This provision requires submission of state energy emergency plans to DOE (42 USC 6323(e)). However, changes in energy flows, increasing control of energy-related systems by nonregulated entities, and the threats to energy infrastructure and end-use systems (both physical and cyber security) have created a need for elevating energy emergency planning and mitigation actions. Prioritizing and modernizing SEP's energy emergency planning requirement is an important and timely step in the face of increased risks and increased critical infrastructure interdependencies among petroleum, natural gas, electricity, water, and telecommunications. As such, NASEO supports changes in the energy emergency provision of the statute to modernize the energy emergency plans in ways that more systematically address both cyber security and physical security and the risks they now present to our states and the nation.

NASEO has worked with DOE and individual states (e.g., FL, GA, IN, ME, MI, MN, NE, OK, TN, WI) over a number of years to improve energy emergency planning and mitigation actions, and we have analyzed states' plans to identify best practices and key provisions. Through this work, we have developed NASEO's *Five Core Energy Emergency Plan Elements*, which we believe should be considered in states' plans and should be a part of any congressional action in this area. State emergency plans should:

a) Address key areas (e.g., cyber security, liquid and delivered fuels, workforce development, and coordination with both regulated and nonregulated electricity providers). Detailed narrative of state's energy profile and interdependencies as well as the geography and demographics of the energy infrastructure;
b) Include a detailed risk assessment of energy infrastructure, threats, hazards, economic and human consequences, and vulnerabilities and cross-sector interdependencies;
c) Provide a detailed risk mitigation plan on how the state will enhance energy infrastructure reliability, diversify fuels, reduce energy waste (e.g., energy efficiency), and improve the resiliency of energy supply, distribution, and end-use;
d) Offer detailed plans to respond to all hazards, including events that impact petroleum products, regulated and nonregulated utilities, and delivered fuel providers, cyber-attacks, physical attacks, natural disasters, and catastrophic events; and
e) Address multi-state and regional coordination efforts associated with planning, response, and mitigation.

As the Subcommittee addresses the importance of state energy emergency plans and interdependent state-federal authorities and functions, we recommend using the above criteria in the legislation as the foundation of prioritizing both DOE and state actions on planning, and retaining the longstanding flexibility of SEP that allows governors to direct state actions particularly with regard to emergency mitigation and energy-related economic development. Energy emergencies will continue to occur, and responses must be coordinated and effective. DOE's Office of Electricity Delivery and Energy Reliability leads DOE's energy emergency

response efforts and has done an exceptional job of assisting NASEO and the states. The DOE Office of Energy Policy and Systems Analysis, as well as the U.S. Energy Information Administration, provide essential energy emergency support functions, and DOE's Weatherization and Intergovernmental Programs Office has been responsive to state needs and extremely effective in the overall administration of SEP.

NASEO strongly supports the reauthorization bill for SEP and the Weatherization Assistance Program (WAP) introduced by Congressman Tonko (NY), including the specific reauthorization for appropriations for both programs. Funding for these programs is crucial, and we appreciate the bipartisan support that Congress has shown in appropriating funds.

The underlying SEP statute, amended in 1990, provides governors with extraordinary flexibility and reflects the states' *all of the above* approach to energy which keeps prices lower, addresses reliability requirements, advances economic development, and supports environmental quality. Flexible SEP funding allows states to strategically target activities to meet goals set by governors, as intended by Congress, without unnecessary federal government interference. This year, the National Governors Association called out SEP and WAP as top energy funding priorities urging the Trump Administration to "*continue and expand . . . the Weatherization Assistance Program and State Energy Program*." Moreover, the Southern States Energy Board, led by governors Hutchinson (AR) and Adkins (KY); the Governors Wind and Solar Energy Coalition led by governors Raimondo (RI) and Brownback (KS); and the Western Interstate Energy Board led by the energy directors for governors Herbert (UT) and Sandoval (NV) all called for continued and expanded funding for SEP.

As authorized by Congress and administered by DOE, SEP provides discretion and deference to the governors within a broad statutory framework supporting state and federal energy goals. According to two Oak Ridge National Laboratory (ORNL) studies, SEP provides taxpayers with an exceptional value. ORNL found that that each dollar of SEP funds used by the states leverages $10.71 of state and private funds and realizes $7.22 in energy cost savings for citizens and businesses. States set their priorities for use of SEP funds on activities such as planning for and responding to energy emergencies; assisting small businesses to reduce energy costs to create jobs; aiding farms and rural homeowners to develop homegrown energy solutions; and supporting local governments in retrofitting schools, police stations, and other public facilities to reduce utility bills paid by taxpayers.

The overwhelming direction from the states is to request that Congress stipulate all SEP funds be provided through the base formula account. NASEO is seeking $70 million in SEP funding for FY'18 with $50 million in base formula appropriations, with an additional amount targeted to enhance state-federal cooperation on energy emergency planning and preparedness, including the physical and cyber security of energy infrastructure (Please see NASEO's FY'18 testmony – http://www.naseo.org/Data/Sites/1/2017-house-energy-and-water-final-testimony-of-dub-taylor.pdf). Consistent with the proposed authorizing legislation, we support $90 million per year for SEP.

Governors, typically through the State Energy Directors, lead energy emergency planning. This interdependent state-federal-private function is a hallmark of SEP; it needs greater support given

elevated threat levels and an increasingly complex energy system–grid, petroleum, natural gas, and other fuel production, distribution and use. In the most recent year for which we have data, 50 percent of U.S. cyber-attacks were on energy infrastructure, with a significant portion of that being petroleum related.

Funding for SEP is crucial to modernizing energy emergency planning and ensuring this interdependent state-federal function meets today's threat environment. Without expanded funding and maximization of SEP formula funding from DOE, these requirements would be inappropriate. The state-DOE energy assurance partnership is critical in operationalizing state and private efforts to mitigate and avoid the threat to life, safety, and damaging economic impacts resulting from energy supply disruptions caused by natural and man-made disasters.

NASEO also continues to support the Strategic Petroleum Reserve (SPR), and regional heating oil and gasoline reserves. The provisions of the FAST Act should help modernize the SPR.

Conclusion

Thank you for the opportunity to testify.

Contact Information: David Terry NASEO Executive Director (dterry@naseo.org) (phone 703-299-8800) (2107 Wilson Boulevard, Suite 850, Arlington, VA 22201).

Department of Commerce

Hearing on
States' Perspective on Energy Security Planning, Emergency Preparedness, and State Energy Programs

United States House of Representatives
Committee on Energy and Commerce

Subcommittee on Energy

June 14, 2017

Statement of Michael Furze
Assistant Director, Energy Division

Washington State Department of Commerce

SUMMARY

USDOE State Energy Program (SEP) funds support Washington's integration of smart grid technology with emergency planning, policy development, and strategic infrastructure investment. The USDOE funding formula provides about $710,000 annually to the state of Washington. We use these funds to support emergency preparedness, energy reliability, and economic resilience, enabling basic planning and preparedness activities and leveraging additional energy-related funding.

Reauthorization of SEP and Weatherization (WAP) allows states to continue this work, advancing public-private partnerships that deliver energy-related economic development, supporting grid modernization efforts, and improving energy emergency preparation and response. An FY 18 appropriation of $70 million for SEP and $230 million for the Weatherization Assistance Program builds on the necessary work the programs do in Washington State and nationwide.

In many cases, the linkage between SEP funds and energy resilience is clear. For example, SEP funds allow us to prepare for the energy-related consequences of a major earthquake and tsunami through the Cascadia Rising functional exercise. This exercise brought together a cadre of nationwide experts and taught us to that there is a big difference between knowing what could happen and preparing for what could happen.

In addition to emergency planning, there are other examples where the role of SEP funds in energy resilience which are less obvious but equally important. A good example is the SEP-funded policy development work that helped create our state's Clean Energy Fund. This state-funded program supports and leverages outside investment for grid modernization and energy technology that will bring much-needed stability to our infrastructure and economy.

SEP funds help create a stable and prosperous future for the people of our state and will help save lives during a disaster. Your continued support for SEP and WAP allows us to deliver on that responsibility, providing the people of Washington State the safety and future they deserve.

INTRODUCTION

Good morning, Chairman Upton, Ranking Member Rush, and members of the Subcommittee. I am Michael Furze, Assistant Director of the Energy Division at the Washington State Department of Commerce. Thank you for the opportunity to appear today to discuss our perspective on energy assurance planning, emergency preparedness, and state energy programs.

OVERVIEW

The USDOE State Energy Program funding formula provides about $710,000 per year to the state of Washington to support emergency preparedness, energy reliability, and economic resilience. These funds enable basic planning and preparedness activities and leverage a much larger amount of other energy-related funding.

Washington State shares a number of risk factors with our West Coast neighbors that require complex planning and preparation. These include: cyber-attack, drought, volcanoes, flooding, severe storms, tsunamis, and earthquakes. These are the potentially catastrophic scenarios that drive our work within Energy Assurance and Emergency Planning. This work has been funded in part through the State Energy Program of USDOE. Lately, we are seeing an increasing number of requests for additional work to plan for emergencies, disasters, catastrophic events, and cyber-attacks from both our state and federal counterparts. We support expanded state-federal cooperation to improve energy emergency planning, response and mitigation actions with the private sector.

Reauthorization of SEP and Weatherization allows states to continue advancing public-private partnerships that deliver energy-related economic development, support grid modernization efforts, and improve coordinated energy emergency preparation and response. An FY 18 appropriation of $70 million for the U.S. State Energy Program (SEP) and $230 million for the Weatherization Assistance Program builds on the necessary work the programs do in Washington and across the country. Directing USDOE to maximize the formula funding allows our governor and State Energy Office to

target Washington's energy emergency planning, response and mitigation needs and opportunities, as well as energy-related economic development.

CATASTROPHIC PLANNING

In many cases, the linkage between SEP funds and energy resilience is clear. For example, SEP funds allow us to prepare for the energy-related consequences of a major earthquake. Subcommittee members may be familiar with Cascadia Subduction Zone and the likelihood of a catastrophic earthquake and its devastating effect on critical infrastructure, including the electrical grid. The Cascadia Subduction Zone is an 684 mile long fault line, formed by the Juan de Fuca plate moving eastward and driving under the North American plate. When the stress formed by this subduction releases, earthquakes of magnitude 9.0 can occur with intense shaking lasting up to 10 minutes generating tsunamis. Research shows that a 9.0 earthquake lasting 5 minutes, could impact over 140,000 square miles, resulting in over 14,000 fatalities and 24,000 injuries. Our interstate highways and ports will be damaged or destroyed. Our citizens will be displaced. Our grid will go down. Fuel will be in short supply. Our economy will suffer. The long-term cost to our infrastructure will be in the billions.

This scenario drove Washington State to participate in our largest functional exercise, Cascadia Rising, where we worked with experts from around the nation. What we learned from this exercise is that there is a big difference between knowing what could happen and preparing for what could happen. Preparing for a catastrophe requires continuous funding and support from many sources in order to develop the plans and sustain the capacity to execute them.

During the exercise, in addition to natural gas and electrical grid reliability, we focused on petroleum products and tested our fuel allocation plan. One of our biggest achievements in the Cascadia Rising exercise was the successful roll out of the Washington State Energy Disruption Tracker, which allows us to visually map outages, expected restoration times, and critical infrastructure on a statewide

platform. This program, funded in part through USDOE's Office of Electricity, will help us obtain and maintain situational awareness in during a disaster.

Part of the success of the Cascadia Rising exercise is recognizing that we are not fully prepared for a disaster of this magnitude. We have the people, and we have the knowledge, and need continued support to move forward. SEP funds are critical to our continued preparation for an event that we know is inevitable.

We are currently involved in a statewide inter-agency collaboration to address some of our most critical issues identified during Cascadia Rising. This effort, known as Resilient Washington, is currently designing a 50-year plan to bring Washington State to a higher level of readiness for catastrophic events. We aren't doing this alone. Washington's Energy Office is working to improve energy assurance efforts in collaboration with private industry and other state agencies that support Emergency Support Function-12, including the state Utilities and Transportation Commission, as well as the USDOE ESF12 representatives and the USDOE Office of Electricity.

LEVERAGED INVESTMENT

In addition to emergency planning, there are other examples where the role of SEP funds in energy resilience is less clear but equally important. A good example is the SEP-funded policy development work that helped create our state's Clean Energy Fund. This state-funded program supports and leverages outside investment for grid modernization that will bring much-needed stability to our infrastructure.

One such project is the Micro Transactive Grid project with Avista in Spokane, Washington. This project will control and optimize the use of shared distributed energy resources. This project will bring information management systems, solar panels, and energy storage assets onto an integrated loop feed that supports a shared model of energy economy. This project could also create a micro-grid powerful enough to be used as an island of refuge in the event of a large electrical outage. While this

project is funded with state capital funds, it demonstrates the supportive and integrated relationship among the states and the federal government. SEP-funded policy development and emergency planning, funded through USDOE, has allowed us to guide the future of grid improvement projects in Washington State.

CONCLUSION

In conclusion, USDOE funds have been critical to the success of the Washington State Department of Commerce Energy Division to integrate smart grid technology with emergency planning, policy development, and strategic infrastructure investment. SEP funds help create a stable and prosperous future for the people of our state and will help save lives during a disaster. Your continued support allows us to deliver on that responsibility, providing the people of Washington the safety and future they deserve.

I thank you again for the invitation to provide my thoughts on the State of Washington's perspective on energy security planning, emergency preparedness, and state energy programs and welcome any questions that you might have.

Testimony of David Gipson, Director

Energy Resources Division, Georgia Environmental Finance Authority

Before the Energy Subcommittee of the U.S. House Energy and Commerce Committee

State's Perspective on Energy Security Planning, Emergency Preparedness, and State Energy Programs

June 14, 2017

Chairman Upton, Ranking Member Rush, and members of the Subcommittee, I am David Gipson, director of the Energy Resources Division of the Georgia Environmental Finance Authority (GEFA), which serves as the State Energy Office. I also serve as co-chair of the Energy Security Committee of the National Association of State Energy Officials (NASEO). I am testifying today to give my perspective on energy security planning and emergency preparedness. I appreciate the Subcommittee's interest in this important issue, which has long been a focus of NASEO and the 56 state and territory energy offices.

First, it's important to note that Georgia's energy assurance planning activities leverage funds from the U.S. Department of Energy (DOE) State Energy Program (SEP). The funding helps ensure the local, state, and federal governments are coordinating planning and response efforts with the private sector, who owns the infrastructure. Energy assurance planning and response are interdependent functions that require government and the private sector to work together. This is accomplished through the formation of energy assurance plans as a part of the SEP, and performed through Emergency Support Function #12 – Energy (ESF-12). ESF-12 is part of a broader emergency operations plan that brings together many support functions to respond to emergencies. In Georgia, GEFA is the lead ESF-12 coordinator and utilizes SEP funding for both energy emergency planning and response. We take an all-hazards approach to planning, which means we prepare for energy emergencies affecting fuels and electricity. We leverage local, state, federal, and private-sector resources to make our state more resilient to energy disruptions that can ripple across the economy and threaten public safety.

To put the role of ESF-12 in context, I would like to describe our response to Hurricane Matthew in October 2016. In the eastern Caribbean, Matthew reached a Category 5 hurricane with winds of 160 miles per hour.

It made landfall in Haiti and eastern Cuba on October 4, 2016, as a Category 4. It continued through the Bahamas—weakening some—but it was still at a Category 3 when it set sights on the southeastern coast of the U.S. During this time, the ESF-12 team activated our energy assurance plan and prepared to lead ESF-12 in the State Operations Center (SOC), which is housed at the Georgia Emergency Management Agency. To prepare, we reached out to other state and private partners, such as the Georgia Public Service Commission, the Georgia Department of Agriculture, fuel suppliers, the Georgia Power Company, and our electric membership cooperatives and municipal power providers.

Once on-site at the SOC, we worked closely with the other ESFs to prepare for, monitor, and respond to the range of serious impacts caused by Hurricane Matthew. The storm caused more than 320,000 Georgians to lose power. We worked closely with the state's electric utilities around-the-clock to monitor power outages and to establish priority restoration for critical facilities, such as hospitals and nursing homes. During this storm, more than ever before, we felt the support of the U.S. DOE. I received a call from the Office of Electricity Delivery and Energy Reliability as the storm approached offering to send a regional energy assurance specialist to Georgia. A specialist was welcomed in Georgia and in other states in the region.

The value of the local, state, federal, and private-sector relationships in emergency events cannot be overstated. The federal presence made it easy to know the situation in surrounding states at all times. It allowed the federal energy assurance representatives to provide coordinated situational reports for all of the impacted states, containing similar information on impacts and restoration efforts. State resources during emergencies are busy clearing roadways, running contraflow operations on evacuation highways,

establishing shelters for evacuees, evacuating critical facilities like hospitals that are in harm's way, and ensuring critical facilities such as water treatment plants have back up power. The utility providers in Georgia have a strong track record with quick response times, and this storm was no different.

The ESF-12 functions simply cannot be done by any one entity alone. Local, state, federal, and private-sector resources are completely interdependent. This is especially true in a state like Georgia that imports all of its petroleum, natural gas, and coal from other states and countries.

Beyond hurricanes that threaten a direct hit to Georgia's coast, ESF-12 prepares for Gulf hurricanes that can linger in the state causing high winds and flooding, but more importantly, disrupt the pipelines that supply our fuel from the Gulf. We've seen multiple disruptions over the past nine years—from Hurricanes Katrina, Rita, Gustav, and Ike, along with disruptions like the recent pipeline explosion. Any time the flow of fuel is slowed to a city the size of Atlanta, it can be a major problem. In the case of the Colonial Pipeline explosion, U.S. DOE helped by holding regular state coordination calls to provide verbal and written updates. This made coordination easier on individual state responses, such as driver hour waivers for motor fuel carriers.

Over time, we have vastly improved our information systems. For example, if we hear of a fuel shortage in a particular area, we can drill down to the gas station level and give them a call, or call the local emergency management agency. We can assess critical infrastructure, the age and demographics of the population, the weight capacity of nearby bridges, and other critical information.

What I hope you take away from today's hearing is that it is critical to ensure a nationwide network of energy emergency response personnel from the boots on the ground all the way up to Washington, D.C. As the grid becomes more complex, it is even more critical. State energy offices like Georgia that are leading ESF-12 have built the long-term, positive relationships needed with electric utility and fuel companies to effectively plan and respond to hurricanes, tornados, ice storms, and other emergencies. Resilience is about relationships, knowing stakeholder's roles, practicing our plans to test them, and exploring mitigation opportunities.

An example of improved relationships and coordination with the federal government occurred last month. A colleague and I were invited to speak at a FEMA office in Atlanta where U.S. DOE was holding a training for federal ESF-12 employees. A state representative from South Carolina was present to talk with them about what they can expect to see and do if they are deployed to a state operations center. Coordinated training efforts like this build relationships in advance of emergencies, which is very important. Additionally, tabletop exercises simulating energy disruptions that cross state lines are important to challenge plans and to fix vulnerabilities that otherwise become problematic in real time.

Early this year, Governor Nathan Deal announced $50 million in funding to establish the Georgia Cyber Innovation and Training Center in Augusta, Georgia, expanding upon the capabilities of the U.S. Army's Cyber Command at Fort Gordon. The center will be a state owned cyber range that brings together academia, private industry, and government. It will establish cybersecurity standards across state and local agencies with the capability to develop and practice protocols for responding to cyber threats. The facility

will be focused on training, education, and research and development. It will act as an incubator for cyber security startup companies. This concept is designed to challenge professionals and systems in a safe and protected setting in preparation for cyber incidents.

In conclusion, I would like to stress the importance of funding for energy assurance planning activities, which is a component of the State Energy Program. I hope you can see from my testimony that the funding is a critical resource for helping states like Georgia prepare for and respond to energy emergencies.

Contact information: David Gipson, Director, Energy Resources Division, Georgia Environmental Finance Authority (dgipson@gefa.ga.gov) (phone 404-584-1007)