

TESTIMONY OF DAVID TERRY, PRESIDENT, NASEO, BEFORE THE U.S. SENATE ENERGY AND WATER DEVELOPMENT APPROPRIATIONS SUBCOMMITTEE IN SUPPORT OF FY'24 U.S. DOE FUNDING – April 21, 2023

Chair Feinstein, Ranking Member Kennedy, and members of the Subcommittee, I am David Terry, President of the National Association of State Energy Officials (NASEO) 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: **\$90 million for the U.S. State Energy Program (SEP); \$375 million for the Weatherization Assistance Program** (plus robust funding for the Readiness Fund); \$399 million for the Building Technologies Office, with not less than \$30 million for building energy codes, and \$50 million for grid-interactive efficient buildings; \$905 million for the Vehicle Technologies Office (FY'23 levels); \$318 million for SETO (FY'23 levels); \$330 million for CESER, with robust support for ISER and program direction; a robust increase for the Office of Electricity above the \$330 million in FY'23 including \$81 million for energy storage and \$50 million for regional electricity market development; \$464 million for carbon management within FECM; \$82 million for FEMP; \$2 million for the U.S. Energy and Employment Report; and \$106 million for the Grid Deployment Office. An increase above the \$3.46 billion for EERE in FY'23 is justified given the extraordinary energy affordability, climate, and reliability crises the nation is facing. We also recommend a new joint emergency planning and response program between DOE, DHS, the state energy offices, and the state emergency management agencies.

The “Dear Colleague” letter, signed by 45 Members of the U.S. Senate supports robust funding for SEP. The SEP statute provides states with flexibility to advance energy security and energy emergency preparedness and response, resilience, hydrogen, renewables, efficiency, EVs, transmission and distribution grid planning and more in ways that link with state policy to achieve greater national energy impact. States also work collaboratively using SEP formula funds to accelerate results: Pacific Northwest Hydrogen Hub (e.g., WA, OR); HALO Hydrogen Hub (LA, OK, AR); Appalachian Hydrogen Hub (e.g., KY, WV, OH); Western States Hydrogen Hub (NM, UT, WY, CO); ; Advanced Nuclear State Collaborative (e.g., WA, KY, AK, SC, OR, TN); [REVWest EV charging initiative](#) (e.g., MT, NM, UT, WY); Southeast Regional EV Initiative (e.g., SC, AL, KY, MS, TN); Microgrid Working Group (e.g., KY, ID, IL, PA, TN, WA); Southeast Petroleum Response Collaborative (e.g., FL, KY, MS, SC, TN) and [Western Petroleum Response Collaborative](#) (e.g., AK, CA, WA, NV, ID) which responds to disruptions caused by natural and other disasters; and [building-grid electric management](#) (e.g., CT, ID, FL, IL, NY, TN, PA). In the past, DOE has opted to “slice off” a portion of the SEP *formula* funds provided by Congress for DOE-directed competitive awards on DOE priority topics – nearly every state in the nation has objected to that practice. States also oppose the large amounts of SEP funds DOE takes “off the top” for technical assistance. We urge Congress to explicitly provide the requested \$90 million of SEP funds *as formula funding to states with no appropriated amount for use by DOE in providing technical assistance or for DOE-directed competitive activities.*

The SEP *formula* funds allow states to leverage DOE’s research activities and work with the private sector to improve electricity resilience, accelerate clean energy development, catalyze investments in carbon capture infrastructure, advance low-carbon hydrogen markets, support manufacturing energy efficiency, lower home energy costs through energy efficiency, and accelerate energy technology innovation through state-private sector partnerships. Two Oak Ridge National Laboratory (ORNL) studies found that each \$1 of SEP *formula* funds leverages \$10.71

of state and private funds and realizes \$7.22 in energy cost savings for citizens and businesses. With SEP funds the State Energy Offices lead or co-lead energy emergency planning and response across electricity, natural gas, and petroleum products in coordination with DOE's CESER—which provides exceptional leadership and technical expertise to the states and energy industry. Finally, SEP is the key connection between billions of dollars spent by DOE on R&D *and* the priorities of states. State energy policy guides energy markets and the DOE-state relationship must continue to be enhanced to achieve greater impact. A greater reliance by DOE on the states to ensure federal R&D meets real world conditions would maximize the impact of R&D funding and leverage the deployment capability of states.

Below are a few examples of the states' utilization of SEP funds.

California—Development of Appliance Standards. The State Energy Office uses SEP funds for its high-priority Building Efficiency Program and Appliance Efficiency Program, which includes world leading building energy efficiency standards and appliance energy and water efficiency standards. In 2020 California's general services lamps standard became national, and in 2021 they established standards for desktop/notebook computers, gaming systems, and pool pumps. Examples of previous standard successes: portable air conditioners saving 369 gigawatt-hours annually, and sprinklers saving 150 billion gallons of water annually.

Louisiana—Carbon Capture, Hydrogen and Energy Efficiency Revolving Loans. The Louisiana State Energy Office plays a pivotal role in advancing large-scale carbon management and hydrogen projects, such as the HALO hydrogen hub with AR and OK. The office also uses SEP funds to support an energy efficiency loan fund for public-sector entities implementing energy efficiency upgrades such as a \$1.7 million for Louisiana Tech University.

Alabama—Energy Efficiency for Local Governments. Alabama used a portion of their SEP funds to support energy efficiency upgrades at wastewater treatment plants and local facilities. In all, 29 grants to local governments, universities, and non-profits increased energy efficiency and reduced costs by deploying variable frequency drives, lighting, and efficient HVAC systems. In addition, Alabama's Energy Security Plan is supported with SEP funds allowing for needed updates to adapt to changes in Alabama's energy portfolio and infrastructure.

Alaska—Energy Security, Resilience, and Response. The State Energy Office used a portion of their SEP funds in the development of Alaska's State Energy Security Plan. The plan is essential to energy security planning and describe the state's energy landscape, people, processes, risks, and strategy to build energy resilience. More specifically, the plan details how a state secures its energy infrastructure against all physical and cybersecurity threats, mitigates the risk of energy supply disruptions, enhances the response to and recovery from energy disruptions, and ensures that the state has secure, reliable, and resilient energy infrastructure.

Delaware—Energy Efficiency Fund. The Delaware Energy Office operates a highly successful Energy Efficiency Investment Fund supported in part by SEP funds. Last year, the fund provided \$9.2 million across 218 projects, avoiding 69.7 million kWh and 151,540 MMBtu annually; saving \$4.9 million in annual energy costs; and reducing 57,429 metric tons of CO2 emissions, equivalent to 12,490 passenger vehicles driven for one year. Each dollar of funds leveraged \$5.82.

Illinois—Energy Innovation and Entrepreneurship. The State Energy Office used SEP funds to develop the Illinois Clean Energy Innovation Fund (ICEIF) to increase investment in high-potential, early-stage, Illinois-based cleantech companies to support innovation, entrepreneurship, and job creation. ICEIF is structured as a revolving investment fund via the 501vc® Platform, meaning capital returned to the fund upon a liquidity event (such as when a company is acquired or goes public) is used to replenish the fund for future investments. To date,

ICEIF has invested \$3.9 million in 13 Illinois-based companies, which have raised millions of dollars in follow-on investments employing over 250 and the fund is now valued at over \$8 million.

Kentucky–Microgrids for Resilience. The State Energy Office used a portion of their SEP funds to work with utilities, local emergency management authorities, and others to highlight microgrid deployment strategies across the Commonwealth that will bolster state-wide energy system resilience against natural hazards. An array of geospatial and quantitative data was examined to look at Kentucky’s critical infrastructure and natural hazards. Using industry best practices of site energy resources and back-up power capabilities, natural threats that pose risks to the state’s electricity distribution system and critical infrastructure were identified and examined. Power outages across Kentucky are a threat to safety and major contributor to economic loss that can be mitigated by these projects. A study document describing this work titled “The Kentucky Regional Microgrids for Resilience Study,” is aimed at helping communities achieve energy resilience and to support emergency planning strategies.

Mississippi–Manufacturing Energy Efficiency. The State Energy Office used SEP funds to support Mississippi Industrial Energy Efficiency Program grants. Each awardee completed an ASHRAE Level II energy audit and the state provided cost share for these audits. These projects are expected to save \$1.6 million over five years with companies saving 6% in energy costs. To date, Mississippi has invested \$587,593.13 in SEP funds over three funding cycles to help improve manufacturing efficiency, lower manufacturing energy costs, and support job growth.

Montana–Implementing Energy Projects in State-owned Veteran Retirement Homes. The State Energy Office used SEP funds to upgrade lighting and ventilation systems at Veteran retirement homes in Glendive and Columbia Falls. The project surpassed the statutorily-required cost effectiveness target and increased resident comfort through dimmable, high-resolution lighting, which is less disruptive to sleep patterns; provides high contrast to lessen risk of slips and falls; and increases contrast for people with limited vision.

New Hampshire–School Energy Cost Savings. Since 2018, New Hampshire has used a portion of their SEP funds for the School Energy Efficiency Development Program, an annual competitive matching grant that allows schools in small communities to complete energy efficiency projects. This program’s dual purpose to create a safer, healthier learning environment for students and staff, and reduce a local school’s energy costs has been successful. For example, in 2020, \$80,000 was awarded to the New Boston Central School for LED lighting and controls, resulting in 110,812 kWhs of annual electricity savings and \$21,000 in annual cost savings.

New Mexico–Advancing Cutting-Edge Sustainable Buildings and EVs. The State Energy Office uses SEP funds to support implementation of the 2021 Sustainable Buildings Tax Credit Program. The program incentivizes New Mexico’s commitment to cutting-edge sustainable building practices including the provision for the installation of energy-conserving products in existing commercial and residential buildings–helping to improve existing buildings and low income and affordable housing. This program advances adoption of EVs through a tax incentive for EV-ready buildings–existing, new, commercial, residential–to make EV charging available or provide the appropriate electrical upgrades for charger installation. The tax incentive also provides bonuses for a fully electric house, and/or for meeting net-zero carbon certification, zero energy certification, zero waste certification or zero water certification.

North Dakota–Deploy Solar Panels, Bolster Resiliency, Educate Students. SEP Funds supported installation of 115 solar panels and an inverter at the Bismarck Public Schools Career

Academy. In addition to powering the building, instructors at the school plan to start incorporating the panels into their lessons.

Oregon–K-12 School Efficiency and Cost Savings. The State Energy Office utilized a portion of their SEP funds to collaborate with Oregon K-12 school districts to implement energy efficiency projects. Oregon uses SEP funds to provide technical support such as facility assessments, energy audits, financial plans for energy projects. Thirteen school districts completed 48 Energy Audits or Technical Analysis Studies, 21 school districts installed 185 energy efficiency measures, and completed measures are estimated to save 2,946,602 kWh of electricity and 222,562 therms of natural gas, with an estimated \$504,000 in cost savings each year. New to the program is EV school buses and chargers. The first EV bus was purchased in March 2023 for the Bend-LaPine School District.

South Carolina–Energy Innovation and Demonstration Grants for Schools and Communities. The State Energy Office used a portion of their SEP funds to support high-impact energy demonstration projects at colleges, local governments, and K-12 schools. Highly visible projects encourage utilization of cost-effective, emerging energy technologies. Cost sharing maximizes the benefits of such projects as the College of Charleston 5.92 kW solar system; City of Greenville 31.36 kilowatt (kW) solar system; and Richland School District Two purchase of equipment to expand the production and analytical capabilities of the Bengal Biodiesel program. Through a science course offered at Blythewood High School, students gain experience and produce biodiesel fuel to power the school’s tractor and activity bus. The class increased production from 1 liter to 40 gallons per week and was on nationally known *MotorWeek*.

Tennessee–Regional Energy Security. In August 2022, the State Energy Office collaborated with the Tennessee Emergency Management Agency and the Tennessee Valley Authority to conduct an exercise with 90 participants from eight states. The exercise involved severe winter weather, long-term power outages, and a cyberattack on a natural gas pipeline. This exercise was valuable as many participants were then involved in responding to Winter Storm Elliot in December 2022 when TVA ordered the first major curtailment in its 89-year history.

Washington–Energy Innovation and Energy Emergency Response. The State Energy Office used a portion of their SEP funds in the development and deployment of clean energy technologies through Washington’s Clean Energy Fund, which has invested \$231 million in such projects as energy storage, clean energy generation and transportation, manufacturing, and grid modernization. For example, these funds supported Seattle’s Miller Community Center microgrid project. In addition, the State Energy Office utilizes SEP funds to address critical energy emergency issues, such as responding to a regional fuel emergency caused by flooding in 2021. The State Energy Office collaborated with British Columbia and the multi-state Western Petroleum Shortage Collaborative to achieve a positive outcome.

Wisconsin–Critical Infrastructure Microgrids. The State Energy Office utilized a portion of their SEP funds to create the Critical Infrastructure Microgrid and Community Resilience Center Grant Program which focuses on innovative pre-disaster mitigation through critical infrastructure microgrids and other resilient building strategies. Projects include assessing the feasibility of energy storage and grid-interactive controls for resiliency in critical facilities (e.g., hospitals, water treatment). Grants to 15 recipients totaling \$915,265 were matched by \$611,438 from awardees.

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