

## Securing the Energy System and Powering-Up the Grid for Economic Development and Affordability: State Actions Using State Energy Program Formula Funding

The U.S. State Energy Program (SEP) delivers formula funds provided by Congress to the governor-designated State Energy Offices in every state and territory in the nation to address energy emergency preparedness and response, develop new energy resources with the private sector, and demonstrate innovative technologies. SEP is the only program administered by the U.S. Department of Energy (DOE) that provides resources directly to states for their governors to strategically implement their energy priorities and harness energy opportunities while also supporting the national energy goals of Congress and the Administration. While each state uses SEP funds to meet their unique energy development opportunities, all states use a portion of their SEP formula funds to:

- Plan for and respond to energy emergencies resulting from physical and cybersecurity threats – savings lives and livelihoods;
- Advance electric grid and natural gas planning and infrastructure optimization with the private sector to meet growing energy needs and support economic development;
- Address energy sector affordability; and
- Demonstrate innovative energy technologies.

A longtime, bipartisan-supported program, SEP funding provides governors with flexibility to address the priorities set by Congress as well as harness unique energy development opportunities in their state. Such opportunities supported by SEP include advanced nuclear power and geothermal power development, support for increased domestic production of electric transformers and turbines, modernization of electric transmission and the natural gas system, adoption of cost-effective energy efficiency options, private investment in carbon utilization and management technologies, energy reliability upgrades for mission critical state and local facilities (e.g., schools, hospitals, police and fire operations), and meeting high-priority needs such as energy for data center development and new domestic manufacturing. The State Energy Offices' approach is to leverage resources and partner with the private sector. The results of the states' work over the past four decades is a remarkable record of supporting energy solutions to meet both state and national energy goals. A few examples of states' investments using SEP actions over the last 45 years include:

- Illinois, Pennsylvania, and others: Worked with the private sector in the early 1980s to create modern Energy Savings Performance Contracting – now a multi-billion dollar annual industry.
- Maryland, New York, California, Florida and others: Created plans and responded to energy supply emergencies in the late 1980s which led to today's federal energy emergency program.
- Texas, Nebraska, Iowa, Montana: Texas' LoanSTAR and Nebraska's Dollar and Energy Saving loan programs are among the earliest model energy efficiency financing programs that other states are replicating and have had huge uptake in financing with virtually no defaults. Earlier models were developed in the 1980s with Iowa's schools facilities program and Montana's bond program.
- *Minnesota:* Among the nation's first wind resource mapping efforts in the 1990s which opened opportunities for private investment in wind energy.
- *Massachusetts:* Created the first widespread 400 state buildings wireless energy monitoring and demand response energy efficiency program in the 2000s.
- Kentucky: Transformed K-12 school buildings which led to the nation's first, costcompetitive Zero Net Energy Ready schools in the 2010s.
- States in the Midwest and Northeast: coordinated efforts to address the propane and heating oil supply disruptions of the 2013-2014 winter season.
- New Mexico: Created a Guaranteed Energy Savings Performance Contracting Program that since 2013 has resulted in over \$277 million of bill savings.
- Southeastern states: Implemented energy emergency response plans during the historic 2017 and 2018 hurricanes that ravaged Texas, Florida, Georgia, South Carolina, North Carolina and the territories. Today, those states are using SEP to leverage private funds to implement resilience projects, such as improving the energy efficiency and on-site power capabilities of nursing homes, fire stations, and water treatment facilities, to reduce the health, safety and economic impacts of future natural disasters and potential cyber events.
- Virginia, North Carolina: Led rapid- and long-term recovery efforts in the aftermath of Hurricane Helene in 2024, conducting aerial damage assessments of electric utility infrastructure to expedite recovery and power restoration, and investing in permanent and mobile microgrids to provide flexible energy resilience.
- Kentucky, Indiana, New York, Wyoming, and others: Launched the Advanced Nuclear First Movers Initiative in 2025 to accelerate advanced nuclear project development by reducing financial and technology risks, devising supportive market adoption policies, defining supply chain needs, streamlining federal permitting, developing coordinated procurement options, exploring state-federal-private financing structures, and creating public-private partnerships.

The following overview report summarizes 50 recent projects and programs developed and implemented by the State Energy Offices utilizing SEP funds and public-private partnerships.

Alabama – The Alabama State Energy Office utilizes State Energy Program (SEP) formula funds to enhance energy affordability and increase energy efficiency across various sectors. For example, the Gadsden Board of Education used SEP funds to implement lighting and heating system upgrades, resulting in monthly energy cost savings of \$2,000 and an annual reduction of 49.2 MWh in energy use. The City of Millbrook renovated its civic center and wastewater facilities, achieving nearly \$2,000 in monthly savings and reducing energy consumption by 14.2 MWh annually. Additionally, the Lakeshore Foundation's replacement of underwater LED fixtures led to an 89% reduction in energy use for their pools, with annual savings of \$6,000.

**Alaska** – In Alaska, the State Energy Office used U.S. State Energy Program formula funds to support the Alaska Energy Security Task Force, which was established by Governor Mike Dunleavy in February 2023 to develop a comprehensive statewide energy plan. The Task Force's final report included 60 recommendations for policies, projects, and programs to reduce energy costs, improve energy security, and promote sustainable energy solutions across Alaska. Some key developments based on the Task Force recommendations include establishment of a Railbelt Transmission Organization, which was later funded by the legislature; and development of a statewide energy plan (also supported with SEP funds) that aligns with the state of Alaska's Priority Sustainable Energy Action Plan.

**Arizona** – The Arizona Governor's Office of Resilience, the State Energy Office, used a portion of its U.S. State Energy Program formula funds to support a training bootcamp for 56 organizations, including local governments and nonprofits, attracting 287 attendees. Course graduates initiated 34 sustainability projects and 120 participants received Arizona Green Business Certifications. Through this program, Local First Arizona, a non-profit supporting small businesses in Arizona, hosted 12 workshops that served 249 participants, offering insights on financial resources like tax credits and low-interest loans for sustainability initiatives. The program also helps small businesses connect with utilities to access energy rebates and support for energy audits and retrofits.

**Arkansas** – Arkansas' State Energy Office is using U.S. State Energy Program formula funds to support energy upgrades and job creation across multiple sectors, including 510 professional certifications focused on energy efficiency and auditing. Training initiatives include working with the Arkansas Energy Engineers Association to certify 10 professionals through the Building Energy Professionals program; training 162 HVAC professionals through the Arkansas HVAC Association; and educating 114 teachers from 12 school districts on energy efficiency-related subjects. Additionally, the Arkansas Energy Office used SEP funds to collaborate with the University of Arkansas, Little Rock to conduct a jobs study to understand the number and types of energy professionals in the state, identifying workforce gaps and needs.

**California** – California utilized U.S. State Energy Program formula funds to support energy affordability through the development and implementation of state efficiency standards. In 2024, standards covering battery chargers, lighting, computers, televisions, computer monitors, and portable electric spas have resulted in cumulative retail cost savings of \$18.6 billion and

CO2e emission reductions of 30.4 billion pounds. The combined total annual impact of the program has grown to just over 40 terawatt-hours (or 40,000 GWh) as of 2022.

**Colorado** – The Colorado Energy Office uses U.S. State Energy Program formula funds to provide independent technical analysis and expertise for public utility commission proceedings that lead to more affordable and reliable power in Colorado. The energy office participated in approximately 40 proceedings in 2024, and focused on a technology-neutral approach to lower costs to consumers. In one instance, the energy office negotiated with a utility to ensure that 10 years of property tax revenues from an early plant closure were reinvested into the impacted community.

**Connecticut** – Connecticut uses U.S. State Energy Program formula funds in part to sustain the use of the energy management software, which collects and analyzes state agencies' utility bill data. This software helps track agency energy consumption trends, analyzing consumption by building and facility, identifying the most used commodities, as well as identifying and ranking facilities with the highest energy consumption. The data helps the state identify buildings in need of energy efficiency upgrades and assists agencies in implementing and tracking the success of energy efficiency measures. The investment in the software has helped save the state \$4.1 Million and has reduced energy consumption by 11.2% since 2020. In addition, this audit system also helped to flag and resolve over \$400,000 in utility billing errors, saving additional dollars for state agencies and taxpayers.

**Delaware** – Delaware uses U.S. State Energy Program formula funds to support Delaware's Energy Efficiency Advisory Council (EEAC) which works with utilities to fund and implement cost-effective energy efficiency programs. In 2023, Delaware's utilities, working with the Council, implemented efficiency programs that achieved energy savings equivalent to approximately 6,575 homes powered for a year through electric savings and more than 8,470 homes heated for a year through gas savings. These savings resulted in almost 37,240 metric tons of carbon dioxide avoided each year, the equivalent of taking 8,095 cars off the road. These energy savings reduced Delaware's overall reliance on increasingly expensive energy markets, making energy more affordable for Delaware households, businesses, and non-profit organizations.

Florida – Florida utilized U.S. State Energy Program formula funds to support the Florida Wastewater Treatment Plant Energy Program, which aimed to improve energy efficiency in publicly-owned wastewater treatment facilities. For example, Altamonte Springs received \$500,000 to install operational energy efficiency improvements and renewable energy generation infrastructure at its Regional Water Reclamation Facility. These upgrades resulted in daily energy usage decreasing from 25,471 kWh to 21,002 kWh, and a total reduction of 1,550 megawatt hours annually. Additionally, Pinellas County Utilities was awarded \$106,000 to enhance energy efficiency at its South Cross Bayou Advanced Water Reclamation Facility. The project involved installing new light fixtures, occupancy sensors, and an emergency management system, leading to average electricity savings of 5% each day or approximately 18,000 kWh/day.

**Georgia** – The Georgia Energy Office used U.S. State Energy Program (SEP) funds to enhance the Building Operator Certification program for K-12 and higher education building maintenance operators throughout the state. The program has yielded significant results, with energy savings of 437,023.01 kWh in FY'22. On average, participating institutions have realized energy cost savings of approximately \$3,960 in their first year post-training. Participation has grown too; in FY24, 105 students were trained across various levels of the BOC program, including 56 in Level I, 30 in Level II, and 19 in the advanced supplemental course. This expansion reflects a strategic increase in scholarships from 40 in the initial years to 80 for Levels 1 and 2 in 2023, along with an additional 16 scholarships for the supplemental course. Overall, Georgia's investment using SEP funds not only supports the development of skilled building operators but also contributes to substantial energy efficiency and utility cost savings within Georgia's educational facilities.

**Hawaii** – The Hawaii Energy Office uses U.S. State Energy Program (SEP) formula funds to enhance the resilience and reliability of Hawaii's energy system. SEP funds support the development of a Common Operating Picture, which requires addressing both the flows and interdependencies of the statewide energy system, including those between the utility and the state's only petroleum refinery, and the status of inventories of petroleum resources relative to power generation, transportation, and other energy system needs.

Idaho – The Idaho Energy Office is using U.S. State Energy Program formula funds to reduce energy costs and improve efficiency in public buildings and businesses across the state. For example, in 2023, seven Idaho organizations recognized by the office saved nearly 16 million kWh resulting in over \$1.2 million in energy cost savings. Idaho also used SEP funds to support the Government Leading by Example program. In 2024, the program funded nine energy audits across two counties and seven schools, covering 476,315 square feet, and identified opportunities to save 5,335,267 kWh annually, which would result in \$192,834 in annual energy savings.

**Illinois** – The Illinois Energy Office worked with the Illinois Sustainable Technology Center and the Smart Energy Design Assistance Center to identify efficiency and resilience opportunities at wastewater treatment plans and public water systems across the states. Using U.S. State Energy Program formula funds, the energy office and partners performed 42 assessment across 40 public water facilities, and identified 5,054,174 kWh in energy savings and \$459,168 in cost savings.

Indiana – The Indiana Office of Energy Development used U.S. State Energy Program (SEP) formula funds to reduce community energy costs incurred by communities. The office supported a comprehensive Energy Conservation Measures project to improve efficiency reducing energy consumption and operational costs of Brown County Public Library by 85%. To support energy affordability and resilience, Indiana also provided an SEP grant to Englewood Community Development Corporation to upgrade HVAC systems, install a building energy management system, and introduce other energy-savings measures at the Englewood campus, which includes a multi-language faith congregational church, childcare center, and community center. These upgrades will result in energy savings of over 20% across the campus.

**Iowa** – Iowa's State Energy Office uses U.S. State Energy Program formula funding to support the Iowa Wastewater and Waste to Energy Research Program (IWWERP). The program is a collaborative initiative between the Iowa Economic Development Authority and the University of Iowa to enhance wastewater treatment efficiency in rural communities. The program has positively impacted nearly 60 communities and 20 businesses. Notable achievements include 65 percent and 5 percent energy savings of total wastewater energy consumption in the cities of Dike and Atlantic, respectively. Additionally, the program supports both graduate and undergraduate projects and hosts an annual wastewater treatment educational tour across the state.

Kansas – The Kansas Energy Offices uses U.S. State Energy Program formula funds to provide small rural business (rural communities with a population of less than 50,000) with energy assessments. These energy assessments provide small businesses with recommendations on how to be more energy efficient to assist with reducing their energy consumption, which in turns reduces the business expenses and keeps a viable business in a small rural community. For fiscal years 2023 and 2024, 52 energy assessments were completed with 2,219,954 projected kWh saved for small businesses in communities across Kansas. As part of the energy assessments program Kansas provides assistance to the small businesses to apply for USDA Rural Energy for America (REAP) grants to assist them with financial resources to implement some of the energy efficiency measures. These businesses include grocery stores, restaurants, agriculture producers, and lodging facilities as just a few examples. The energy efficiency measures can be as simple as weather stripping, upgraded lighting, to enclosed refrigerators.

**Kentucky** – The Kentucky Office of Energy Policy invested over \$700,000 in U.S. State Energy Program (SEP) formula funding over the past year to reduce the energy burden and improve the comfort and safety of Kentucky homes. Utilizing SEP funds provided by the state, Kentucky Habitat for Humanity will purchase solar shares from their partner, Louisville Gas and Electric and Kentucky Utilities, and add the shares to the household utility bills of low-income Kentucky families who earn between 25% and 60% Area Median Income. These shares will be added to the utility bills of newly constructed homes in the Dawson Springs area impacted by the 2021 tornadoes and will provide an estimated cost savings of between 25% and 60% on their electric bills for a term of 25 years.

**Louisiana** – The Louisiana Office of Energy, in partnership with Jefferson Parish, part of the Greater New Orleans area known as Old Metairie, used U.S. State Energy Program (SEP) formula funds to modernize street lighting infrastructure. The project included the removal of old, outdated, inefficient street lighting fixtures and replacing them with highly energy-efficient LED lighting fixtures. The project lights two crucial thoroughfares that impact numerous businesses and a school. The project improved lighting reliability and increased the pre-improvement bulbs' life expectancy by as much as 3-25 times, resulting in an annual savings of \$15,100 and 75,500kWh in estimated annual energy savings.

Maine – The Maine Energy Office used U.S. State Energy Program (SEP) formula funds to support several areas of energy policy and program development such as workforce development training grants and clean-tech innovation programming in rural areas. The office uses SEP funds to help support more than 15 workforce development training grants, as well as a clean energy job site to connect job seekers with work in the energy sector. Maine also used SEP funds to support other areas such as energy storage research and analysis, energy efficiency policy development, grid modernization planning as well as development of the updated State Energy Security Plan and the 2025 Maine Energy Plan.

Maryland – The Maryland Energy Administration used U.S. State Energy Program (SEP) formula funds to deliver multiple grant and rebate programs that increase energy efficiency, renewable energy, alternative transportation, and resiliency in Maryland. Programs support commercial, residential, and institutional constituents, with targeted energy efforts to assist residential customers with limited incomes in reducing their energy burden. The SEP-supported programs leverage funds from the state's Strategic Energy Investment Fund to cover the costs of energy efficiency upgrades and building retrofits to improve energy performance, among other activities.

Massachusetts – The Massachusetts Energy Office used U.S. State Energy Program formula funds to advance grid modernization by intervening in Public Utilities Commission proceedings. The Electric-Sector Modernization Plans Order was released in August 2024, which approved all three electric utilities' plans as strategic plans for updating the electric grid to enable an equitable and cost-effective clean energy transition in Massachusetts. The energy office, using SEP funds, was actively involved and is preparing to engage on cost recovery and metrics. The energy office is also developing stakeholder fact sheets and a consumer education web page on grid modernization topics to enhance engagement. The integration of energy security into policy decisions has allowed the energy office to secure funding for capital and risk assessments, further supporting grid modernization efforts. Overall, these initiatives aim to create a clean, affordable, resilient, and equitable energy future for all in Massachusetts.

**Michigan** – The Michigan State Energy Office uses U.S. State Energy Program formula funds to help communities plan for and enhance energy resiliency, and reduce energy costs through the Community Energy Management (CEM) program. CEM is designed to meet local governments wherever they are on the energy management spectrum. Accordingly, CEM can be used to fund a range of energy-related projects such as energy management, energy efficiency upgrades, sustainable financing solutions, and clean energy workforce development.

Minnesota – The Minnesota State Energy Office used SEP funds to provide oversight of Minnesota's Sustainable Buildings 2030 (SB2030) program. From 2009 through December 2024, 321 building projects have been involved in the SB2030 process. To date, 91% of all buildings projects enrolled in the SB2030 program have reported meeting or exceeding the SB2030 Energy Standard in design, with an average anticipated energy consumption 27% lower than standard. Buildings designed to SB2030 are predicted to save approximately 1,072 million kBtu/year, 137,000 tons of CO2e, and \$20.1 million per year, as compared to buildings built to

code. The 254 completed SB2030 projects are estimated to have saved 7,375 million kBtu, avoided 915,000 tons of CO2e and saved \$138.3 million, as of January 1, 2025.

Mississippi – The Mississippi Energy Office uses U.S. State Energy Program formula funds to increase energy capacity, supporting state-driven economic development while managing rising energy demands. This involves collaborating with local utilities to build necessary policies and infrastructure strategies to foster a resilient and efficient energy system. Key initiatives include developing the State's Energy Security Plan, hosting an Energy Resilience Summit, supporting grid resilience grants, assisting state and local governments with energy savings, and supporting energy and utility workforce through educational programs. Additionally, SEP funds support a statewide revolving loan fund and industrial grants for energy efficiency and partnerships with educational institutions. These efforts aim to enhance energy security, efficiency, collaboration, affordability, and innovation, ensuring an economically sustainable future for Mississippi – all to address the state's high energy burden.

**Missouri** – The Missouri Energy Office used U.S. State Energy Program formula funds to help Missourians avoid energy scams, reduce energy costs, and enhance energy security through energy policy development. The energy office created an energy forum where the state can take questions from the public and share information about energy and energy opportunities, helping people know what is true and what is false. In addition, Missouri continues to support the Missouri Roadmap to Resilience, which helps communities with the development of their own customized resilience plans by providing a toolkit of action steps to heighten the plans' impacts.

**Montana** – The Montana Energy Office has used U.S. State Energy Program formula funds to bolster energy security and advance state-driven initiatives. In 2024 the Energy Office updated the Montana Energy Security Plan and hosted a tabletop exercise with utilities and the state's Division of Emergency Services, testing a coordinated response to a wildfire-driven transmission outage scenario. Montana also has used State Energy Program funds to capitalize and promote financing programs that drive energy innovation and conservation in state facilities, homes, farms, and small businesses. Since 2009 the Energy Office has provided 1,019 low-interest loans across two programs supported by SEP funds. The programs have leveraged \$18.3M of private investment in energy improvements in 39 counties and secured an estimated \$2.64M in annual utility bill savings on state facilities.

**Nebraska** – The Nebraska Energy Office's Dollar and Energy Saving Loan (DESL) program, established 33 years ago, is supported by U.S. State Energy Program formula funds and provides low-cost financing for energy efficiency projects benefitting residents, businesses, and municipalities across the state. It has financed over 30,000 projects since 1990, totaling more than \$385.5 million in improvements. In fiscal year 2022, DESL helped finance over \$8.35 million for 250 loans that improved energy efficiency for 266 new projects. In that time on residential projects alone, DESL is estimated to have saved 45,978 kilowatt-hours of electricity, 37,830 therms of natural gas, and reduced carbon emissions by almost 5,205 tons. The program supports various initiatives, including upgraded lighting, heating systems, insulation, and solar

installations. With a revolving loan structure, DESL ensures ongoing funding for future energy conservation efforts.

**Nevada** – The Nevada Energy Office uses U.S. State Energy Program formula funds to support the Home Energy Retrofit Opportunities for Seniors program. HEROS provides low-income seniors with more affordable and healthier energy solutions through weatherization and other applicable upgrades. The HEROS program serves an average of 102 qualifying seniors every year. The state energy office also uses U.S. State Energy Program formula funds to support the development of a Lithium Circular Economy through the Recharge Nevada initiative. Recharge Nevada is a coalition that engages stakeholders across the entire "lithium loop" to build a sustainable innovation engine to accelerate globally competitive and commercially viable energy storage technologies. Lastly, the state uses U.S. State Energy Program formula funds to expand energy specific workforce development education and pipelines to address statewide gaps.

New Hampshire – The New Hampshire Energy Office used U.S. State Energy Program formula funds to support energy efficiency and affordability upgrades in rural school districts and public buildings. The SEP-funded SEED Program offers competitive grants to small, rural school districts in New Hampshire to support energy efficiency projects such as lighting upgrades. This initiative helps schools that lack the financial resources to undertake the work independently, often collaborating with utility programs. A project at Berlin Middle High School resulted in an estimated \$17,000 reduction in energy costs, with a total project cost of \$331,764 and \$150,000 funded by SEED. Similar energy efficiency projects are implemented in state buildings like the New Hampshire State Hospital, which saw a \$25,450 reduction in energy costs after lighting retrofits. These efforts highlight the program's impact on reducing energy expenses and promoting sustainability in both schools and state facilities.

New Jersey – The New Jersey State Energy office used U.S. State Energy Program formula funds to implement innovative energy efficiency programs to reduce energy bills of low and moderate-income residents while promoting clean energy goals. These formula funds also help alleviate New Jersey ratepayer burden by supporting such programs that would have otherwise been funded with ratepayer dollars. The Whole House Pilot Program aims to enhance energy efficiency and health by addressing barriers such as mold, asbestos, and lead paint hazards while implementing energy upgrades. Targeting homes in Trenton, the program also seeks to ensure that residences are electrification-ready, contributing to the state's goal of making 10% of low- and moderate-income housing stock ready for electrification by 2030. Additionally, the Non-IOU Energy Efficiency Program utilizes State Energy Program funds to extend energy efficiency benefits to customers of municipal electric companies, ensuring equitable access across the state. These initiatives are designed to achieve significant energy savings and improve living conditions for vulnerable communities while supporting New Jersey's ambitious clean energy targets. In addition to these programs, the State Energy Program formula funds support New Jersey's energy and water benchmarking program and State Energy Security plan development. The benchmarking program serves to fulfill a state law requiring commercial buildings over 25,000 square feet to measure their energy and water performance

annually, priming them for potential efficiency improvements. The State Energy Security Plan, replacing the current Energy Assurance and Emergency Response Plan, serves to protect New Jersey residents from current and emerging threats to the state's energy systems and supply chains.

**New Mexico** – The New Mexico Energy Office used U.S. State Energy Program formula funds to leverage local government resources to support projects that strengthen the energy security and resiliency of communities and electric grid infrastructure. In 2022, State Energy Program funds supported an engineering study for a microgrid serving one of New Mexico's oldest colleges and the town of El Rito. The microgrid is essential because of how isolated the town and campus are and how vulnerable the electricity service is to natural hazards. In 2021, SEP funds were leveraged to help Albuquerque develop a command-and-control system for all buildings and other assets (affectionately called "The BRAIN") resulting in over \$100,000 of savings per month on energy and water costs. This project has inspired other local governments across New Mexico to replicate it. The New Mexico State Energy Office also continued to use State Energy Program funds to support the Guaranteed Energy Savings Performance Contracting Program, which since 2013 has resulted in over \$277 million of bill savings. Last, New Mexico State Energy Office uses SEP funds to support grid emergency planning and preparedness, especially around wildfires and supporting the state's military bases and National Labs.

**New York** – The New York State Energy Office used U.S. State Energy Program formula funds to launch two key initiatives to enhance fuel supply awareness and reliability. The Fuels Availability and Supply Tracking Survey collects data from retailers across the state, focusing on winter heating fuels, which helps identify potential shortages and enables quick responses to emerging issues. NYSERDA also publishes weekly reports on fuel supply and prices, which are highly accessed by both industry participants and consumers. Together, these programs facilitate early detection of supply concerns and support informed decision-making in the fuel market, and play a crucial role in ensuring fuel availability, particularly in response to emergencies like kerosene shortages in the Northeast.

North Carolina – The North Carolina Energy Office used U.S. State Energy Program formula funds to invest in permanent and mobile microgrids to provide flexible energy resilience in the aftermath of Hurricane Helene. In collaboration with Land of Sky Regional Council, North Carolina Sustainable Energy Association, Footprint Project and a deep network of regional partners, the State Energy Office is supporting up to twenty-four stationary microgrids across six Helene-affected counties, and two mobile "Beehive" microgrid hubs, which will be installed to serve the entire state of North Caroline during future disasters (one in Western North Carolina and one in Eastern North Carolina). This innovative approach to disaster recovery and resilience will improve emergency energy access for critical community services serving thousands of North Carolinians, in recovery from and preparation for future storms

**North Dakota** – The North Dakota State Energy Office used U.S. State Energy Program formula funds to expand workforce development in the energy sector. The State Energy Office worked with community colleges to launch the second electrician program in the state, expected to

produce around 20 graduates annually. The North Dakota State College of Science used State Energy Program formula funds to develop an energy auditor program. Williston State College introduced the Digger Derrick Program to train utility pole installation, addressing local training needs for rural cooperatives. Lake Region State College is enhancing its wind energy program to meet global certification standards while adding solar and battery components. A two-week Lineman Orientation Program for high school seniors aims to tackle the nationwide shortage of linemen through career training.

**Ohio** – In Ohio, the State Energy Office utilized U.S. State Energy Program formula funding to support both the Energy Efficiency Program for Manufacturers and the Energy Efficiency Program for Non-Manufacturers, which covers commercial businesses, municipal government, universities & schools, and hospitals. In 2018, the program assisted 17 Ohio manufacturers in conducting an energy audit, identifying opportunities for energy savings, and developing an energy management plan. The projected annual savings would collectively be \$5.43 million a year. The program also assisted 67 commercial business, municipal government, university & school, and hospital clients during the same program year in conducting energy audits and identifying potential energy savings. The projected annual savings would collectively be \$5.4 million a year.

**Oklahoma** – The Oklahoma State Energy Office used U.S. State Energy Program formula funds for several initiatives to enhance energy affordability on "Main Streets," particularly in Muskogee, by conducting energy audits on the top five public buildings with the highest energy loss potential. The State Energy Office is developing a toolkit for best practices in Energy Savings Performance Contracts and working with Main Streets. Additionally, Oklahoma is working on a State Energy Security Plan and a strategic plan. Also with State Energy Program funds, the state is implementing an ongoing lighting retrofit project for public buildings and schools in small towns and communities, demonstrating a comprehensive approach to energy efficiency and security across the state.

**Oregon** – The Oregon Department of Energy used U.S. State Energy Program formula funds to work with jurisdictions to develop home energy scoring policies that advance consumer education and awareness of energy consumption, and help consumers save money on utilities. Oregon now has four cities that require home energy scores at the time a property is listed for sale: Portland, Milwaukie, Hillsboro, and Bend. U.S. State Energy Program funds have long supported home energy scoring in Oregon, and most recently supported research and development of policy recommendations for adding rental property scoring to the state's homeowner-focused program. State Energy Program funding has also supported ODOE in research and analysis for the statewide energy strategy, including the convening of a group of local and technical experts to develop pathway models to inform how the state will achieve its energy goals while maintaining a resilient and affordable energy system. These efforts have supported the collection of data and feedback to help shape the final inputs for the model, which will be integrated into the Oregon Energy Strategy to be published by November 1, 2025.

**Pennsylvania** – The Pennsylvania Energy Office used U.S. State Energy Program formula funds to support the Shared Energy Manager Program, which has helped local governments in the state save over \$2.8 million on energy in 2024. The Shared Energy Manager program helps local governments hire engineers to identify and implement energy savings opportunities in buildings. In addition, over 14 million kilowatt-hours in electricity and 222k therms in natural gas savings have been identified, along with 10,420 MTCO2e in greenhouse gas emissions reductions. \$23,868,080 of grant and incentive funding has been identified for and/or applied for by local governments.

Rhode Island – The Rhode Island Energy Office, in partnership with the Rhode Island Commerce Corporation, used U.S. State Energy Program formula funds to launch Resilient Microgrids for Critical Services, and enhance energy reliability and resilience at key locations across the state. This initiative catalyzes the development of microgrids across Rhode Island municipalities, school districts, and fire districts, providing increased energy resilience during electrical grid outages. The program was created in response to multi-day power outages caused by severe weather and other utility events. Phase 1 of the program offers technical assistance for eligible applicants to develop feasibility studies for proposed microgrid projects. Projects with favorable feasibility assessments may qualify for further technical and financial assistance for construction in Phase 2.

**South Carolina** – The South Carolina Energy Office used U.S. State Energy Program formula funds to support a mini-grant program that awards funds to high-impact projects to support energy affordability and efficiency. In 2022, \$65,700 of SEP funds produced an estimated \$362,745 of energy cost savings over eight projects, as well as 28,155 MMBTus of energy saved — equivalent to the electricity used to power over 700 homes for over a year.

**South Dakota** – The South Dakota Energy Office uses U.S. State Energy Program formula funds to reduce energy costs in state-owned buildings and save taxpayer dollars. In 2023, the energy office supported energy upgrades in four state-owned buildings, which resulted in approximately \$28,440 in energy cost savings per year, with 387,685 kWh of energy saved per year.

**Tennessee** – The Tennessee Energy Office used U.S. State Energy Program formula funds to support the Tennessee Nuclear Energy Advisory Council. In May 2023, Governor Bill Lee established the council through Executive Order 101 to advance the state's nuclear leadership. The council was comprised of 22 members from various sectors, including industry, higher education, workforce development, and government, and was chaired by David W. Salyers from the Tennessee Department of Environment and Conservation. The council conducted comprehensive research and produced multiple key deliverables, including a preliminary analysis report in December 2023 and a final recommendations report in October 2024. The council's work focused on analyzing regulatory, workforce, and educational barriers to nuclear energy expansion, exploring funding opportunities and developing strategies to position Tennessee as a national leader in nuclear energy innovation. Although the council's initial term ended on November 1, 2024, its recommendations continue to guide Tennessee's nuclear

energy ecosystem, with potential future developments including the establishment of a Joint Office of Nuclear Advancement.

**Texas** – The Texas State Energy Office used U.S. State Energy Program formula funds to support Clean Tech Incubators in partnership with the University of Texas at Austin and Texas A&M Engineering Extension Service. From 2022 through 2024, the economic impact of the Clean Energy Incubator Program was estimated to be \$36,703,319 in direct Texas GDP contribution, and \$79,848,198 in total Texas economic output. In addition, the State Energy Program-supported LoanSTAR revolving loan program has been instrumental in enabling impactful energy efficiency projects throughout the state. Over \$580 million of energy efficiency projects have been funded, yielding more than \$865 million in utility savings and equating to over 7.04 billion kWh saved.

**Utah** – The Utah Energy Office is utilizing U.S. State Energy Program formula funds to support a wide range of energy initiatives and educational programs. The state has developed an energy resources web experience and resource manual to inform decision-makers and the public. State Energy Program formula funds support STEM Fest, an event for 10,000 students showcasing energy innovations, as well as a K-12 energy fair, workforce night, and scholarship program for STEM students. The state is overhauling educational materials to align with curriculum standards and supporting utilities in EV infrastructure planning and grid modernization. State Energy Program formula funds also back methane leakage detection efforts using drone technology, transportation efficiency initiatives, industrial assessment centers, and the development of modeling software to determine optimal energy resources for Utah.

**Vermont** – The Vermont Energy Office used U.S. State Energy Program formula funds to update the Vermont Residential Building Energy Standard and the Vermont Commercial Building Energy Standard, and to conduct trainings on the new standards. The new standards increased the thermal shell performance, required air tightness and mechanical upgrades to energy equipment and systems, and will result in lower energy bills for new buildings and renovations across the state.

Virginia – The Virginia Energy Office used U.S. State Energy Program formula funds to support Hurricane Helene response efforts. Following the declaration of a state of emergency on September 25, 2024, the agency mobilized quickly to assist with response and recovery. The State Energy Office director provided support during a 14-hour in-person shift at the Emergency Operation Center, helping to establish and manage the Energy Taskforce. Virginia Energy Office staff coordinated with various state agencies and neighboring states to share information and resources. The agency's UAV Team played a vital role in supporting AEP's restoration efforts by conducting aerial surveillance in difficult terrain areas, which led to the rapid deployment of crews and restoration of power to over 600 customers. The UAV Team also assisted with hazardous material assessment at power-generating dams affected by debris from the hurricane.

Washington – The Washington State Energy Office used U.S. State Energy Program formula funds to enhance energy security and resilience in its most rural, remote, and end-of-the-line communities. Through the Energy Resilience Technical Assistance Program, the state provides targeted services to help these communities address critical energy security and resilience goals. The program focuses on building long-term, trusted relationships within and among communities while addressing challenges posed by numerous hazards, including wildfires, floods and extreme weather. In just 19 months, it has supported over 75 communities, advancing projects valued at more than \$80 million. For example, the Lyle Fire Department in Klickitat County secured \$712,910 for microgrid installation after revising its initial grant application with support provided by the energy office. The project strengthens emergency response capabilities and energy security and autonomy in a wildfire-prone region. Similarly, the Toppenish School District in Yakima County worked with the State Energy Office using SEP funds to pursue multiple successful grant applications, securing over \$2.3 million in funding for microgrid installation and energy system upgrades to create resilience hubs within local schools.

West Virginia – The West Virginia Energy Office, in collaboration with the West Virginia Emergency Management Division, used U.S. State Energy Program formula funds to host the state's first Energy Security tabletop exercise in Charleston, WV. The exercise evaluated how the West Virginia State Energy Security Plan would guide the response to a combined cyber and physical attack causing a large-scale power outage. The event strengthened stakeholder engagement and clarified roles and responsibilities during energy emergencies in West Virginia. Participants examined interdependencies between the energy sector and other critical lifeline infrastructure sectors, such as the water and wastewater sector and the transportation systems sector. These discussions highlighted challenges and opportunities for coordination during long-term power outages and underscored the benefits of regular communication between stakeholder groups to share tools, information, and best practices.

**Wisconsin** – The Wisconsin Office of Energy Innovation used U.S. State Energy Program formula funds to support the Wisconsin Refueling Readiness grant program, which facilitates the fueling of emergency vehicles during major power outages by expanding the network of designated disaster fueling facilities throughout the state. State Energy Program funds are provided to publicly and privately owned fueling stations and bulk petroleum shortage facilities to install wiring for a generator to restore power to the fueling/distribution areas as quickly as possible. Since the program's inception, State Energy Program funds have made backup power available at 50 convenience stores, highway shops, and bulk petroleum storage facilities across the state.

**Wyoming** – The Wyoming Energy Authority used U.S. State Energy Program formula funds to enhance energy security, advance state-led initiatives, and increase energy affordability across the state. In 2023, SEP funds were used to provide grants to seven K-12 schools districts, 14 local governments, and seven small businesses to complete approved energy efficiency retrofits. The combined investment resulted in an estimated annual cost savings of \$96,800, with an annual energy savings of 1,183,108.6 kWh.