NASEO
National Association of State Energy Officials

U.S. State Energy Program Update

Successful Projects and Programs Implemented by the States Utilizing SEP Funding

Table of Contents

Introduction

The U.S. State Energy Program (SEP) is the only program administered by the U.S. Department of Energy (DOE) that provides resources directly to the states to develop innovative energy programs to help all consumers, businesses, and sectors of the economy. A bipartisan-supported program, SEP provides discretion and deference to the nation's governors in the use of SEP funds within a broad statutory framework set forth by Congress. States set their priorities for use of SEP funds on activities such as planning for and responding to energy emergencies resulting from physical and cybersecurity threats; assisting small businesses and manufacturers in increasing energy efficiency and reducing energy costs to improve competitiveness and create jobs; developing programs to increase deployment of energy efficiency and renewable energy resources; aiding farms and rural homeowners in developing homegrown energy solutions to lower energy costs; advancing electric grid planning and optimization to enhance efficiency, reliability and affordability; and supporting local governments in retrofitting mission critical facilities such as schools, police stations, hospitals, and other public facilities to improve resilience and reduce utility bills paid by taxpayers.

The 40-year program, last authorized at $125 million, received $62 million in FY'20 appropriations. DOE's Oak Ridge National Laboratory conducted an evaluation of the program and the states' work and found that each $1 of SEP federal funds typically leverages $10.71 of state and private (non-federal) funds. Congress appropriated $55 million for SEP in FY'18 and FY'19, and the U.S. House affirmed their support for the program by unanimously passing a bill in 2017 to enhance the energy security aspects of this core program. On a bipartisan basis, the authorizing bill again passed the House in September 2019, and passed the Senate Energy and Natural Resources Committee the same month. One of NASEO's top priorities is informing Congress and the Administration about the value of SEP and the states' use of these funds.

A few examples of states' groundbreaking SEP actions over the past 40 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, cost-competitive 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 has helped create 5,636 jobs in the state's energy efficiency sector, and has led to a savings of $53.8 million in energy costs annually.
- *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.

The following overview report summarizes 51 recent projects and programs developed and implemented by the State Energy Offices utilizing SEP funds and public-private partnerships.

Alabama

SEP Funds Expanded the Wastewater Energy Management Initiative Program

In Alabama, the State Energy Office leveraged SEP funding to expand the Wastewater Energy Management Initiative Program. The program offered energy assessments to Alabama wastewater facilities focusing on reducing energy consumption through operational changes. So far, the program has offered assessments to thirty-three facilities and identified 14.1 million kWh of potential savings that can be achieved through no-cost and low-cost measures. In addition, these operational changes would reduce the amount of nitrogen discharged into Alabama waterways by 683 metric tons per year.

$1 million
Annual cost savings identified

14.1 million kilowatt hours
Annual electricity savings

683 metric tons per year
Potential nitrogen reduction in waterways

Alaska

SEP Funds Leveraged for LED Streetlight Replacement in 47 Rural Alaska Communities

$1.5 million
In state, local and private funds contributed

$8,000
In projected annual savings in one community

In Alaska, the Alaska Energy Authority (AEA) used State Energy Program funds to support outdoor lighting retrofits in rural communities. Through a unique public partnership, AEA's Village Energy Efficiency Program (VEEP) received a $1,000,000 grant from Wells Fargo to support a competitive application process per the program guidelines. Forty-seven applicants from across the State were selected to receive approximately $1,100,000 in Wells Fargo and AEA funding. Local match totaled $397,000. One recipient, Ouzinkie, is expected to replace 55 streetlights and six harbor lights, reducing Ouzinkie's consumption in these applications by nearly 60 percent, with more than $8,000 in annual savings anticipated.

Arizona

SEP Funds Supported Alternative Fuel Vehicles and Related Infrastructure and Energy Efficiency Improvements

In Arizona, the State Energy Office directed SEP funds to support the installation of eight electric vehicle (EV) charging stations, the purchase of one electric vehicle, and 11 energy efficiency improvements projects. One electric vehicle has been purchased to pilot a program

8
Publicly-available EV charging stations installed

11
Energy efficiency improvement projects completed

where alternative fuel vehicles are purchased and utilized for fleet travel. In addition, eight EV charging stations have been installed throughout the capitol mall complex and Arizona State Fairgrounds. The energy efficiency improvement projects include developing an energy vision plan, installing energy efficient LED lighting, and replacing/upgrading equipment. For example, SEP funding is assisting the City of Douglas with critical energy efficiency upgrades to a city owned building needed to support a major private employer.

Arkansas

SEP Funds Leveraged to Administer the Arkansas Energy Performance Contracting Program

3,075
Estimated jobs created

$100 million kWh
In electricity savings

155 thousand kGal
Water saved annually

430 MMBTUs
In yearly measured reduction of heating fuel consumption

In Arkansas, the State Energy Office leverages SEP dollars to support the Arkansas Energy Performance Contracting Program. The program has assisted seventeen institutions of higher learning, seven municipalities, four school districts, and two state agencies as they pursue increased energy efficiency and renewable opportunities through the program. To date, executed projects have or will save participants over 100 million kWh, 430 million MMBtus, and 155 thousand kGal of water annually while supporting the creation of an estimated 3,075 jobs.

California

SEP Funds Supported the Development of New Appliance Standards and Grid Resilience

$100 billion
In cumulative savings since 1980

30% less energy use
By nonresidential buildings

700,000
Fewer metric tons of GHG emissions over three years

In California, the State Energy Office utilized SEP funds to support the development and implementation of appliance and building standards. In 2019, the CEC completed appliance standards covering portable air conditioners, commercial and industrial air compressors, spray sprinkler bodies, general service laps, and pool pumps. Newly enacted appliance standards will lead to various energy and monetary savings for Californians: for example, the portable air conditioners standards are anticipated to save consumers approximately $5 million in the first year and $50 million annually after stock turnover in ten years. This year, the 2019 California Energy Code and associated modeling tools were also adopted. Under the 2019 Energy Code, single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes

built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. This will reduce greenhouse gas emissions by 700,000 metric tons over three years, equivalent to taking 115,000 fossil fuel cars off the road. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.

Colorado

Colorado Launched Statewide Agricultural Energy Efficiency Program with SEP Funds

$3 million
In leveraged project incentive funding from other sources

3,700 gallons
Of propane saved through project implementation

20,000 metric tons
Of CO2 equivalent savings identified and 1,500 MT saved through implementation

In Colorado, the State Energy Office (CEO) launched a statewide agricultural energy efficiency program. The program addresses barriers by bringing existing resources and partners together while leveraging a variety of funding options and utilizing a turnkey approach. Over the past 4.5 program years, the CEO has contracted with an experienced third party contractor to administer this program, which consists of free energy audits, preliminary renewable energy assessments, and technical support services ranging from audit report development/review and project prioritization to assistance in applying for project funding and project verification. As a result of this comprehensive program offering, over 240 agricultural audits have been conducted resulting in the identification of energy efficiency projects that have the potential to save over 17 GWh, 1.5 million therms, 75,000 gallons of propane, and 8,000 gallons of diesel fuel.

Connecticut

SEP Funds Reduced Statewide Energy Costs by $9.1 million

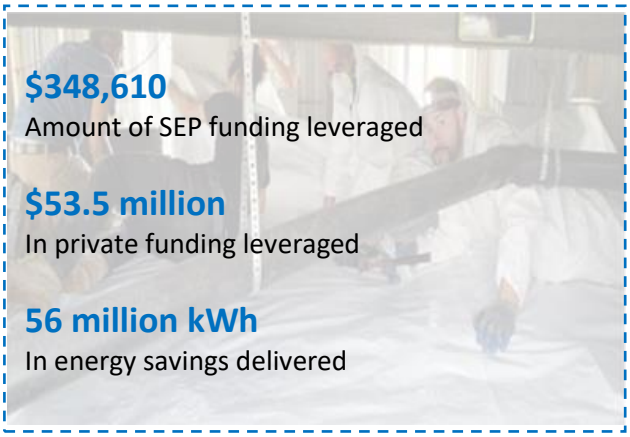
$9.1 million
Statewide energy cost reduction

575,000 MMBTUs
Reduction annually

In Connecticut, the State Energy Office used SEP funding to purchase and maintain a robust energy cost and use software program called EnergyCAP, which collects inputs from all state agency utility accounts and allows the State Energy Office to coordinate with individual agencies to implement energy efficiency programs and projects. The use of EnergyCAP has contributed to a statewide energy cost reduction of $9.1 million (12.7%) and 575,000 MMBTUs (19.1%) since January 2018.

Delaware

SEP Funds Provided Incentives to 448 Consumers and Small Businesses for Cost-Saving Energy Efficiency Improvements



In Delaware, the Division of Climate, Coastal, & Energy utilized SEP funds in operating the Green Energy Fund (GEF) and the Energy Efficiency Investment Fund (EEIF). The GEF provides grant incentives to Delaware electric utility customers for the installation of solar photovoltaic systems, solar hot water heating systems, small heating systems, geothermal heat pumps, small wind applications and renewable energy fuel cells. The EEIF provides grant incentives to Delaware businesses, local governments, and non-profits to make facility upgrades that lower their energy use and cost. From July 2018 through June 2019, the GEF provided 448 grants totaling about $0.9 million in rebate incentives to customers, and the EEIF supported 229 projects with over $4.8 million in grants allocated.

District of Columbia

SEP Funds Enabled 20 High School Teams to Build STEM Skills and Construct Electric Vehicles

In the District of Columbia, the Department of Energy and Environment (DOEE) used SEP funds to provide technical support to high schools participating in the Electric Vehicle Grand Prix (EVGP). The EVGP invites teams of high school students to design and build electric vehicles (EV), and enter the EV in a competitive race with their peers. DOEE provides new parts, new car kits, registration fees, and technical assistance, and students are encouraged to apply energy efficiency techniques to build an effective and efficient vehicle, and learn how to analyze data they retrieve from the cars' onboard computers. A course on welding and blow forming was provided as additional technical training for students who were interested in making a custom canopy for their school's vehicle. Students participating in the EVGP build their science, technology, engineering, and mathematics knowledge and are better prepared to enter the workforce.

Florida

SEP Funds Supported Energy Education Kits to Develop Teamwork, Problem-solving Abilities, and Investigate Environmental Issues

In Florida, the State Energy Office used SEP funds to provide K-12 public schools with energy education kits. There are three types of kits geared to different grade levels. All the kits are designed to develop teamwork, problem-solving abilities, and investigate environmental issues, and include items such as solar panels and electric motors, which provide opportunities for hands-on science, technology, engineering, and mathematics skills. In 2019, the State Energy Office purchased 677 kits in a combination of elementary, middle, and high school kits valued at $495,000; 210 of these kits worth $153,840 have been provided to schools. An estimated 71,400 children around the state will be impacted by these kits.

Georgia

SEP Funds Launched Energy Savings Performance Contracting Program, Representing $88 Million in Projects

$88 million
In financed projects

$367,047
Single project exceeded its guaranteed savings over three years

In Georgia, the State Energy Office has actively developed the guaranteed energy savings performance contracting program for state agencies. Agencies in Georgia can enter in to contracts for up to 20 years, and each year the energy service company performs measurement and verification to ensure the project is achieving the guaranteed savings. During the first six years of the program, six agencies have entered in to eight energy performance contracts, which represents about $88 million in financed projects. Seven performance contracts have finished construction and are generating savings, including Phillips State Prison, which exceeded its guarantee by $362,047 over the first three years.

Hawaii

SEP-Funded Visualization Tools Will Help Navigate Path to 100% Clean Energy

In Hawaii, the State Energy Office (HSEO) is using SEP funds to develop advanced visualization capabilities which will allow for HSEO to analyze and communicate information contained within complex energy data sets highlighting energy and related sector interdependencies and scenarios. Hawaii Advanced Visualization Energy Nexus (HAVEN) allows the Hawaii State Energy Office to enhance the assessment of utility power supply plans and related issues such as the electrification of ground transportation and land use. The HSEO is actively utilizing HAVEN in meetings with State Legislators, workshops with energy stakeholders and market participants, and presentations at community events to better analyze and communicate the tradeoffs and interdependencies of resource development plans to achieve 100 percent renewable energy in the State. The HAVEN "tableMAP" has been demonstrated more than fifty times over the past year.

$225,076
In SEP funds leveraged

2020: 606 GWh
2030: 1,501 GWh
2040: 4,188 GWh
2045: 6,875 GWh
In projected incremental renewable energy growth by each date

80,000
Number of solar photovoltaic systems on residences

Idaho

SEP Funding Leveraged to Coordinate Energy Emergency Preparedness Planning Efforts

In Idaho, the State Energy Office leverages SEP funding to coordinate Idaho's energy planning and policy development. This includes support for energy emergency preparedness planning activities as well as educating rural communities about energy efficiency through the state's Government Leading by Example (GLBE) program.

Energy-related emergency preparedness planning activities that Idaho participates in include updating Idaho's Energy Assurance Plan, development of a petroleum shortage response plan, and participation in all energy-related emergency preparedness planning meetings and tabletop exercises. Recently, the Energy Office assisted in the development and production of an energy resilience workshop that included a diverse set of stakeholders from the public and private sector.

Through the GLBE program, Idaho's energy office partners with rural counties and communities to reduce energy use in existing public buildings. By providing resources like energy audits and cost-share funding, the energy office helps local governments pursue energy efficient projects in order to demonstrate the importance and ease of energy conservation to rural communities. Idaho's efforts help communities of all sizes across the state, but are especially helpful to small, rural communities that do not have the staff levels or resources of larger cities.

Illinois

$1,200,000
In SEP funds leveraged

$1,500,000
In non-state funds leveraged

$2,700,000
In investment dollars distributed

9
Start-ups funded

SEP Funds Supported Cleantech Startup Companies

In Illinois, the State Energy Office collaborated with the Clean Energy Trust (CET) to launch the Illinois Clean Energy Innovation Fund (Fund) to support innovative entrepreneurship and to foster Illinois cleantech sector jobs growth. As an Illinois non-profit, CET works closely with the Office of Energy to evolve and align the Fund with the clean energy economy in Illinois and the Midwest by making direct investments in high-potential, early-stage, Illinois-based cleantech companies. The Office of Energy began administering the Fund in FY2018 in partnership with CET and will continue to provide critical grant funding to Illinois entrepreneurs through a revolving investment structure.

Indiana

SEP Funding Supported Alternative Fuels and Resiliency in Rural Communities

55
New propane buses purchased in 12 school districts

$1.7 million
Saved annually, reverted back to school operating budgets

In Indiana, the State Energy Office funded 12 school districts across the State to replace inefficient diesel school buses with 55 new propane buses, saving approximately $1.7M annually – which has reverted back to school operating budgets. The Energy Office also funded 5 municipal entities in a community energy challenge to support resilience in municipal government and public safety. Projects ranged from back-up power infrastructure for local sheriff's departments to energy efficiency retrofits in public and K-12 school buildings. Finally, the Energy Office is in the process of funding six rural energy projects for a total of $300,000 with a focus on infrastructure. Projects include but are not limited to new HVAC in rural schools, hospitals and churches, waste and recycling, energy efficiency upgrades in agricultural facilities and a regional consortium of 10 counties participating in an alliance to improve on-farm power systems with data being used to uncover inefficiencies, and support better decision making across these rural counties and agricultural operations.

Iowa

SEP Funds Improved Iowa Building Stock Through B3 Building Benchmarking Initiatives

3,890
Number of meters enrolled in B3

2,224
Number of buildings enrolled in B3

81,428,386
Total square footage enrolled in B3

In Iowa, the State Energy Office enhanced a benchmarking platform that will be used to improve building stock throughout the state. The City of Des Moines recently passed the Des Moines Benchmarking Ordinance, which will require commercial buildings over 25,000 sq ft to track/report their energy and water usage. B3 Benchmarking will serve as a reporting platform for participants and will highlight areas in need of improvement. A Public Innovations & Efficiencies Checklist (PIE), which the Iowa Energy Office worked on with the State of Iowa Auditor, will be incorporated in the B3 Benchmarking Platform and will serve as a guide for low and no-cost energy efficiency improvements.

SEP funds were used to update the B3 Benchmarking software. Updates include an Awards and Recognition Program that tracks user activity within B3 and assigns points for participation. The B3 Report Card was also developed to provide users with a snapshot of their building portfolio and identifies potential energy savings over a 12-month period. An upcoming initiative will incorporate high school volunteers through their Silver Chord programs who will learn to track their school's energy usage via B3.

Kansas

$46,000 in SEP Funds Used to Promote and Sponsor the Kansas KidWind Challenge

In Kansas, SEP funds have been used to sponsor four regional competitions and the state KidWind Challenge. KidWind is an annual competition where student teams build and test their own wind turbines then compete in a regional event for a chance to move on to state and national competitions. The state KidWind Challenge grew from 17 teams in 2018 to 44 in 2019. The number of schools grew from 8 to 21 and the number of students from 55 to 147.

SEP funds were used to provide technical support to teachers, develop an informational webinar, loan out test wind tunnels and make presentations to students.

$46,000
In SEP funds leveraged

44 teams
In 2019, up from 17 teams in 2018

147 students
in 2019, up from 55 students in 2018

Kentucky

SEP Funds Increased Energy Affordability and Resiliency through Energy Efficiency, and Increased Awareness of Community Resilience Planning

$105,000
In SEP funds leveraged

$100,000
In private funds leveraged

25 homes
Received energy upgrades

25%
Reduction in energy costs in participating homes

In Kentucky, the State Energy Office leveraged $128,288 of SEP dollars to increase energy affordability and resilience through energy efficiency. In 2019, the Office successfully completed the Kentucky Home Uplift project with the Tennessee Valley Authority (TVA) to develop a scalable, sustainable model for delivering energy efficiency improvements to low-income households. The Office awarded $105,000

SEP funds to a regional utility provider and community action organization to qualify 25 low-income households to receive energy upgrades and reduce energy costs by 25 percent. TVA provided $100,000 for contractor management and energy upgrades. The Uplift model provided each home with pre-and post-audits, including a blower door test, and installation of various energy upgrades including HVAC, duct sealing, water heather, attic insulation, and air sealing. Approximately $8,500 was spent on each household. The second phase of the Kentucky Home Uplift project will study the non-energy health benefits resulting from weatherization activities on income-qualified homes. Ninety-five percent of the Kentucky Uplift project households are participating in the study.

The state also enhanced resilience through the Building for Resilience and Mitigation program. Under the program, the State awarded $23,288 SEP funds to increase awareness of community resilience, including national, state and local perspectives on emergency planning and hazard mitigation with an emphasis on strategies to build resilient communities. Kentucky also partnered with non-profits across the state with a focus on energy efficient, low income, resilient initiatives.

Louisiana

SEP Funds Used to Enhance Efficiency and Decrease Costs of Wastewater Treatment Facilities

1.76 million kilowatt-hours
Reduced annual energy consumption

$140,000
In annual savings

In Louisiana, the State Energy Office SEP-funded revolving loan program enabled the Terrebonne Parish Consolidated Government's Pollution Control Division to enhance efficiency and decrease costs at the Parish's North Regional Wastewater Treatment Plant. The project's $1.3-million total cost was made feasible by the Parish's participation in the Louisiana Department of Natural Resource's revolving loan program, allowing the Parish to finance the cost of implementing the improvements over time. Project partner GreenPoint Engineering's design upgraded the existing Primary Effluent Pump Station, and replaced the facility's six constant speed 150-hp pumps with two 100-hp and two 50-hp variable speed pumps.

The improved pumping station was brought into service in June of 2016, immediately yielding energy savings and improved management of the treatment process. To date, over the first two full years of operation since the completion of the project, the new pumping system has reduced annual energy consumption by 1.76-million kilowatt-hours, saving the Parish approximately $140,000 each year. The cost savings exceeded Administrator Greg Bush's expectations, allowing him to invest in improvements in other areas of the system as a result.

Maine

SEP Funds Supported Clean Energy Goals, Electric Vehicle and Energy Efficiency Initiatives, and Low-Income Community Support

In Maine, the Governor's Energy Office (GEO) used SEP funding to advocate for, develop, and implement nation-leading energy initiatives. In 2019, Governor Janet Mills signed legislation that requires greenhouse gas reductions of 45% by 2030 from 1990 levels and 80% by 2050; an increase in Maine's Renewable Portfolio Standard from 40% to 80% by 2030 and a goal of 100% by 2050; the creation of new solar and distributed generation incentives; and the requirement to approve the contract for what is poised to be the first floating offshore wind project in the country. The GEO sits on the board of Efficiency Maine Trust (EMT), the state's energy efficiency program administrator, and supported EMT's launch of new programs aimed at installing 100,000 new high efficiency air source heat pumps by 2025; increasing beneficial electrification opportunities; supporting electric vehicle charging infrastructure and new grants for electric vehicle purchases; and advancing efficiency programs that are aimed to save Maine ratepayers more than 6.9 million MMBtu in cost-effective lifetime energy savings. Each of these efforts, from solar to energy efficiency, have specific programmatic requirements for low- and moderate-income participants as well as energy cost reduction. The GEO is also the lead on the newly formed Bureau of Ocean Energy Management's Gulf of Maine Task Force aimed at identifying potential lease areas for offshore wind in the Gulf of Maine.

Maryland

SEP Dollars Used for Energy Efficiency Upgrades in Low- to-Moderate Income Communities

In Maryland, the State Energy Office used SEP funds to administer multiple grant and rebate programs to increase energy efficiency, renewable energy, alternative transportation, and resiliency in the State of Maryland. Programs support commercial, residential, and institutional constituents, with targeted energy efforts to assist residential customers with limited incomes in order to help reduce energy burden. The programs leverage funds from the Strategic Energy Investment Fund to cover the costs of energy efficiency upgrades and building retrofits to improve energy performance, among other activities.

$4.8 million
In non-SEP funds leveraged

2,746 megawatt-hours
In projected energy savings

8,511 MMBTU
In projected fuel savings

The Clean Energy Communities Low- to-Moderate Income Grant Program is an example of the use of SEP funds. The Program enables nonprofit organizations and local governments to implement energy efficiency measures that benefit low-to-moderate income residents in Maryland. In FY19, the program awarded approximately $4.8 million in leveraged funds in the form of energy efficiency grants. Twenty-four awards were issued statewide to 13 different grantees implementing projects to benefit low-to-moderate income Marylanders. The anticipated annual kWh savings are 2,746 MWH and 8,511 MMBTU of fuel saving, once projects are fully implemented.

Massachusetts

Leveraged SEP Funding to Support Energy Storage Initiatives

$51 million
In DOER grant funding and leveraged private funds for energy storage projects

32 MW and 83 MWh
Of proposed storage under the ACES program

587 MW and 2,385 MWh
Of current storage achieved through SMART program

In Massachusetts, SEP funding continues to support the Commonwealth of Massachusetts programs to advance energy storage. The State Energy Office developed and implemented the Advancing Commonwealth Energy Storage (ACES) program, which provided approximately $20 million in DOER grant funding and leveraged $31 million in private funds for energy storage projects. ACES was designed to promote leadership and innovation in energy storage deployment and business model demonstration to help catalyze the market. Twenty-six awards were made under this program for a total of 32 megawatts and 83 megawatt hours of proposed storage.

This work has informed the inclusion of energy storage in the Commonwealth's solar incentive program, the Solar Massachusetts Renewable Target (SMART). This has resulted in 620 storage energy storage projects in operation and development in Massachusetts to date, representing 587 MW and 2,385 MWh.

Michigan

SEP Funds Helped Reduce Energy Costs in Rural Communities

$88,176
In SEP funds leveraged

$617,964
In private funding leveraged

$151,553
In projected annual savings from funded projects

1,903,945 kWh
In projected annual energy savings from funded projects

In Michigan, the State Energy Office created the Agriculture and Rural Communities Energy Incentive program. This program provides funding directly to the agriculture sector and to rural communities, and grew out of findings from the state's Agriculture and Rural Communities Energy Roadmap, which documents the current status of energy-efficiency and renewable energy policies and programs for rural residents and businesses in the state. During 2019 this program provided over $88,176 in SEP funding, leveraging $617,964 in private funding, to eight businesses and three schools in nine rural communities. The savings from these funded projects totaled $151,553 per year as well as 1,903,945 kWh per year in energy savings.

Minnesota

SEP Partnerships Saved over 50 Billion BTUs in 2019

$15.7 million
In annual energy savings

50 billion
BTUs saved annually

In Minnesota, the State Energy Office is one of four core organizations of the Clean Energy Resource Teams (CERT)s partnership. CERTs staff held 32 events in 2019 which hosted over 2,700 attendees. They participated in an additional 315 events through presentations and other outreach activities for over 7,500 community members. An estimated 48.4 Billion BTUs were saved or offset through those efforts. They also launched an RFP, awarding funds for 35 local clean energy projects.

Minnesota's Sustainable Buildings 2030 (SB2030) program, which also receives core oversight from the Department of Commerce (State Energy Office) and Department of Administration, provides high efficiency design standards. In 2019, SB2030 efforts resulted in 185 buildings designed to the program's standards which is predicted to save an additional 1.023 Billion BTUs per year. This equates to roughly $15.7 million in annual savings, assuming an average cost of $15.35 per MMBtu. To date, 88% of all building projects enrolled in the SB2030 program have documented designs that met or exceed the Energy Standard with an estimated reduction of 372,000 tons of CO2e and saving Minnesotans over $44 million to date.

Mississippi

SEP Funds Used for Industrial Energy Efficiency Program Will Save $1.6 Million in Energy Costs

$280,250
In SEP funds leveraged

$657,300
In resulting energy efficiency projects

$1.6 million
In expected savings from projects over five years

1,800
Employees with improved working conditions

In Mississippi, the State Energy Office, the Energy & Natural Resources Division (ENRD), used SEP funds to launch a new grant program aimed at improving energy efficiency in the manufacturing sector in Mississippi. The Mississippi Industrial Energy Efficiency Program (MIEEP) grants were made available in October 2018 and seven projects were awarded. 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 on average each year. Projects implemented through MIEEP have resulted in improved working conditions for approximately 1,800 employees across a wide variety of manufacturers in Mississippi, including catfish processing and HVAC component production. Projects include lighting upgrades, compressed air system replacements and building envelope improvements that cover nearly 1.43 million square feet of manufacturing space. The funding announcement was released as a 50:50 cost-share grant; however, $280,250 in SEP funds have resulted in $657,300 worth of energy efficiency projects. The ENRD has set up each project location in the Energy Star Portfolio Manager platform to facilitate tracking of energy savings.

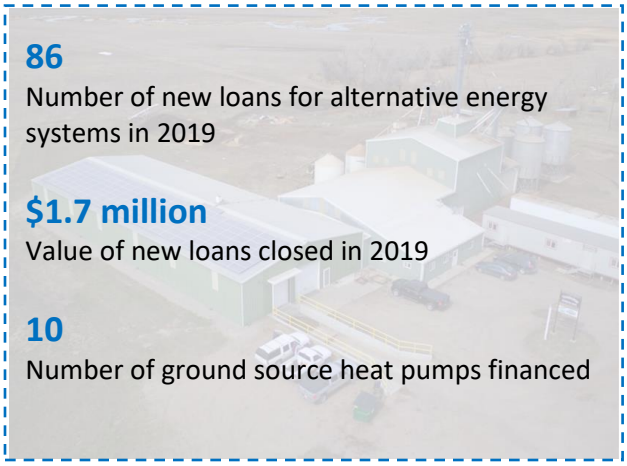
Missouri

SEP Funding Supported Energy Storage Programs

In Missouri, the State Energy Office funded three planning and feasibility studies related to energy storage. The first project was a grant of $24,900 for planning and host site feasibility studies by the Consortium for Battery Innovation. The project included demonstration projects involving stationary lead-acid batteries and electric vehicle (EV) charging infrastructure associated with other distributed energy resource options. The project is now well into its second phase, which includes gaining commitments on funding and involving committed partners to implement a project or projects based on what was proposed in the feasibility studies. Currently, an advanced lead-acid battery provider, an EV charging equipment provider, a utility, and a potential convenience store chain have stepped up with commitments to proceed. The consortium will seek funding through the VW Mitigation trust for a portion of the required funding during the initial round of funding for EV charging.

Montana

SEP Supported the $1.7 Million Alternative Energy Revolving Loan Program



In Montana, SEP funds were leveraged by the State Energy Office to promote Montana's Alternative Energy Revolving Loan Program. Montana's Energy Office closed 86 loans in 2019, totaling $1.7 million. The program finances ground source heat pumps, battery storage, energy conservation measures, and other technologies, and is available to individual homeowners, non-profit organizations, local governments, and small businesses. In 2019, SEP funds supported coordinated promotion of the loan program with USDA's Rural Energy for America Program.

Nebraska

SEP Funds Expanded the Longstanding Dollar and Energy Savings Loan Program to Help Nebraskans Affected by Flooding

In Nebraska, the State Energy Office leveraged SEP funding to expand the Dollar and Energy Saving Loan (DESL) Program to assist households recovering from damages sustained from intense flooding. Nebraska was impacted by unprecedented flooding in March and June of 2019. Eighty-four of Nebraska's 93 counties received Presidential disaster declarations. A combination of frozen ground and rivers, and extremely heavy snow and rain, produced conditions never before experienced in Nebraska. It has not been possible to determine the total monetary impact of the storms; conservative losses are well over one billion dollars. The Nebraska Department of Environment and Energy offered SEP-supported Dollar and Energy Saving Loans at a reduced 1% interest rate to help Nebraskans affected by the flooding. Over 175 residential and commercial entities received loans for various energy efficiency projects. Over $2.65 million in DESL funds were used to leverage over $2.95 million in energy efficiency improvements. Windows, doors, foundations, insulation and heating and cooling systems could all be included in the 1% loans.

Nevada

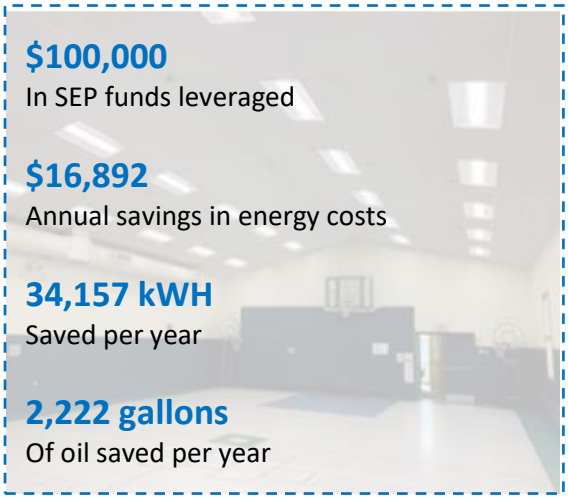
SEP Funds Leveraged To Support International Energy Conservation Code

In Nevada, the State Energy Office supported the implementation of the 2021 International Energy Conservation Code (IECC). In July of 2018, the Nevada State Energy Office adopted the 2018 IECC and supported local governments in their adoption of the code. The office recognizes the importance of advancing energy efficiency through the most recently published version of the IECC every three years and has committed to adopting the newest version upon publication by enacting regulations that automatically adopt the standard as it is updated.

The IECC as updated in the 2018 version provided an approximate energy savings in the state of Nevada of 2.10%, as published in DOE's technical analysis issued on December 10, 2019. Preliminary results of the 2021 code have been published and are expected to result in approximately a 5-10% energy savings in both residential and commercial construction according to energy efficiency advocates. DOE has determined that if the energy codes are modestly updated over time, consumers could save $126 billion on their utility bills over a thirty-year period. This equates to 841 million metric tons of carbon pollution avoided.

New Hampshire

SEP Funds Used to Decrease Energy Costs and Usage in Local Elementary School



In New Hampshire, the State Energy Office created the School Energy Efficiency Development (SEED) Grant, a one-time competitive grant award of $100,000, funded by the State Energy Program. The Jennie D. Blake Elementary School was selected as the recipient of the first SEED Grant. The SEED grant targeted three major efficiency areas: weatherization, lighting, and control upgrades. In the first year following project completion, the school has saved approximately $10,782 in electricity costs, and energy usage has decreased by 34,157 kWH per year. The school is also saving $6,110 per year in oil heating costs, and is using 2,222 fewer gallons of oil. Savings from the project can be reinvested directly back into the school.

New Jersey

SEP Funds Supported Efficiency Upgrades in Battleship Museum

$383,420
In SEP funding utilized

$100,000
Estimated annual energy savings

625,000 kWh
Estimated annual electric savings

In New Jersey, the State Energy Office utilized $383,420 in SEP funds to provide a grant that would fund the Battleship New Jersey Lighting Retrofit Project. This project involved the conversion of interior and exterior inefficient incandescent lights to LEDs. Over 5,000 fluorescent lighting tubes were replaced throughout the interior of the ship and 120 spot lamps and nine 1,000 watt metaled halide fixtures were replaced with 300 watt LED color changing lights on the exterior of the ship. The estimated annual energy savings for this retired battleship-turned-museum is $100,000, and the estimated annual electric savings is 625,000kWh.

New Mexico

SEP Funds Leveraged to Support GESPC Program

5,636 jobs
Due in large part to energy audits and performance contracts

$53.8 million
In utility savings

66 million pounds
Of CO2 avoided

In New Mexico, the State Energy Office administers the Energy Savings Performance Contracting Program to promote energy savings for the public sector including state agencies, public schools, institutions of higher education and local governments. Last year over $121 million in energy audit certifications were issued and $53.8 million in utility savings were realized. The projects reviewed and certified by the New Mexico State Energy Office guaranteed savings of $4.1 million per year. That savings equates to 180,000 therms of natural gas, 34.3 million in kilowatt hours of electricity and 10.7 million gallons of water to be saved annually. Overall, the projects, when completed, will reduce the greenhouse gas emissions of public facilities by 66 million pounds of CO2e. This reduction is the equivalent of the carbon sequestered by 39,138 acres of forests, 33,021,568 pounds of coal burned, or 74,364,407 miles driven in an average passenger car. Energy Performance Contracting has also stimulated job growth. New Mexico's 5,636 energy efficiency jobs in 2019 represented nationally leading growth of 11.6% relative to 2018. This growth was in large part due to the energy audits and performance contracts certified by the New Mexico State Energy Office, and these jobs span multiple skill sets including technicians, laborers, machinists, installers, roofers, insulators and building inspectors—as well as engineers, scientists, and architects working on cutting-edge technology. Moreover, these are local jobs that provide economic benefit to communities that cannot be outsourced.

New York

SEP Funding Supported Energy Savings through Heat Pump Investment

4.6 trillion BTU
Of targeted energy savings

$200 million
In heat pump market development and growth

In New York, through sustained support from the State Energy Program, NYSERDA has been informing the decision-making for New York's historic investment in heat pumps through technical, market and economic analysis. Heating and cooling in buildings represent 32% of New York State's combustion-related greenhouse gas emissions. In support of the State's GHG emissions reduction goals – targeting 40% reduction of GHG emissions by 2030 and 85% by 2050 – New York's Public Service Commission (Commission) has established a statewide target of at least 4.6 Trillion Btu of energy savings from heat pump installations over the period through 2025. SEP provided NYSERDA the ability to inaugurate market scaling for heat pump technologies and strategies through completion of an integrated, long-term Policy Framework to encourage the adoption of renewable, clean heating and cooling technologies (e.g., ground- and air-source heat pump systems) in 2017. In 2019, NYSERDA published its report "Analysis of Residential Heat Pump Potential and Economics." Going forward, SEP will maintain NYSERDA's technical and analytic approach to heat pump market growth, influencing both the outcomes directed by the Commission and helping to leverage NYSERDA's investment of approximately $200 million in heat pump market development and growth.

North Carolina

SEP Funding Leveraged to Set Clean Energy Goals

$380,000
Initial DOE SEP funding

$1,139,000 million
In private leveraged funds

In North Carolina, the State Energy Office leveraged SEP funds to develop a Clean Energy Plan (CEP) which will transition the state's electricity system to the 21st century. The CEP was developed for use as a statewide roadmap to encourage the use of clean energy resources and technologies and to foster the development of a modern and resilient electricity system. The CEP outlines 38 recommendations and 85 actions in key strategic areas, including: develop carbon reduction policy designs for accelerated retirement of uneconomic coal assets and other market-based and clean energy policy options; (2) develop and implement policies and tools such as performance-based mechanisms, multi-year rate planning, and revenue decoupling, that better align utility incentives with public interest, grid needs and state policy; and (3) modernize the grid to support clean energy resource adoption, resilience and other public interest outcomes. The NC CEP will serve as a statewide roadmap for the legislature, utilities commission, Governor's Office, state agencies, investor-owned utilities, rural electric cooperatives/public utilities, local government, academia, businesses, and the general public.

North Dakota

SEP Funding Supported School District Purchase of Electric School Bus

In North Dakota, the State Energy Program assisted the West Fargo Public School District and its partners with the purchase of an electric-powered school bus. This bus is the first of its kind in the area and the school district will be tracking and comparing costs of the electric-powered school bus to diesel-powered buses that it purchased at the same time.

Ohio

SEP Funding Leveraged to Save Over $10 Million Annually in Industrial and Private Sector

$5.43 million
Projected annual savings from 17 manufacturers

$5.4 million
Projected annual savings from 67 commercial businesses, municipal governments, universities, schools, and hospitals

In Ohio, the State Energy Office utilized SEP 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

SEP Funding Supported Local Government Energy Efficiency Projects

$450,486
In SEP funding leveraged

$166,034
In local funding leveraged

1,359,040 kWh
In annual electricity savings

25-30 percent
In average annual energy consumption savings

In Oklahoma, the State Energy Office funded local governments for lighting and water-wastewater treatment facilities' energy efficiency projects. In FY 2018's program year, $450,485 in SEP funds was coupled with $166,034 leveraged by the local communities.

The communities will save an annual average of 30-percent in energy consumption, which is approximately 1,359,040 kWh. The program funded communities with the goal of increasing resiliency. In addition to efficiency projects, SEO's partnership with the Office of Secretary of Energy and Environment is working with the National Renewable Energy

Laboratory to develop an interactive model for expressing the value of Distributed Energy Resources (DER) based on users' inputs from a particular jurisdiction. This model includes assessment tools to provide an evaluation of the market for DER in Oklahoma. This will assist with identifying best practices for enhancing consumer protections, regulatory enforcement, legislative actions, and industry compliance in the DER market.

Oregon

SEP Funds Supported Oregon Guidebook for Local Energy Resilience

$65,733
In SEP funds leveraged

$4,839
In non-SEP funds leveraged

In Oregon, the Oregon Department of Energy published the *Oregon Guidebook for Local Energy Resilience: for Small and Medium Electric Utilities*, a technical resource for the 38 consumer-owned electric utilities (COUs) serving Oregon. The Guidebook will help COUs identify strategies and actions they can take to improve local energy resilience. The three core components of the Guidebook are: (1) business continuity planning for small and medium electric utilities; (2) the identification of strategic opportunities to target efficiency investments and deploy distributed renewables to improve community energy resilience; and (3) an overview of federal and state emergency management planning efforts and how electric utilities can interface with those processes.

Pennsylvania

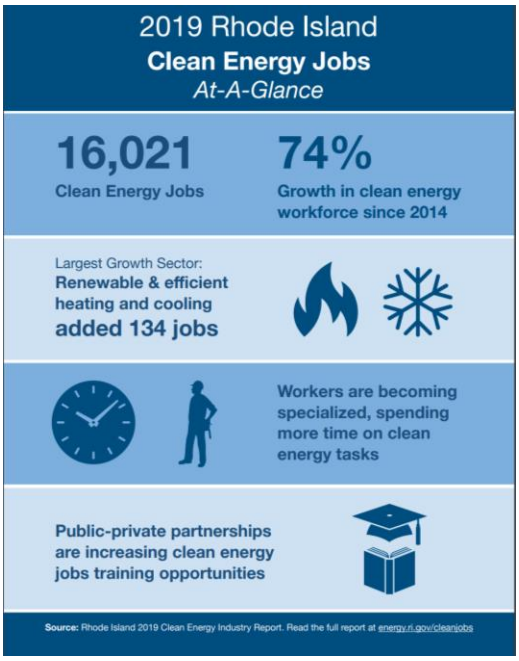
SEP Funding Supported Pennsylvania Electric Vehicle Roadmap

In Pennsylvania, the State Energy Office leveraged $97,960 in SEP funds to engage electric vehicle stakeholders statewide (Drive Electric PA Coalition (DEPA)) to increase the acceptance and adoption of electric vehicles (EVs) by state government agencies, local governments, businesses, industry, and the general public in Pennsylvania. The DEPA Coalition served as a stakeholder group providing valuable input and direction in a structured, facilitated process during the development of an EV Roadmap for the Commonwealth.

The EV Roadmap was published in February 2019 as a planning document that identifies the state of the EV market in Pennsylvania, defines a set of proposed strategies to support the expansion of the EV market, and provides estimates of the potential benefits and impacts to the state from an increased EV market. The EV Roadmap recommends 13 strategies to address barriers and to increase consumer and dealer confidence in EVs, encourage utility participation in expanding the EV charging infrastructure, improve consumer economics, and expedite processes for installing and expanding EV infrastructure across the state. To date, there has been implementation of several of the strategies, particularly those related to outreach and education to consumers and dealers, as well as some legislative efforts related to involvement of electric utilities in charging infrastructure planning and implementation. For example, a Ride & Drive Event at the Pennsylvania Capitol Complex showcased electric and hybrid vehicles and featured more than 20 exhibitors from the public and private sectors to demonstrate EV technology.

Rhode Island

SEP-Funded Projects Supported Governor's Clean Energy Goals



In Rhode Island, the Office of Energy Resources implements clean energy policies and programs that help reduce and stabilize energy costs, shrink carbon footprints, and attract new investment and job growth across the economy. In March 2017, Governor Gina M. Raimondo announced a strategic goal to increase the state's clean energy portfolio ten-fold by the end of 2020, to 1,000 MW in total. By the end of 3Q 2019, the state counted 809 MW of clean energy generation capacity, consisting of 430 MW offshore wind, 189 MW solar, 144 MW onshore wind, 35 MW landfill gas/anaerobic digestion, and 11 MW small hydroelectric power. With the recent addition of the 400 MW Revolution Wind offshore wind project, approximately 85% of Rhode Island's current clean energy portfolio is comprised of in-state renewables or projects scheduled for adjacent federal waters.

The 1,000 MW goal is not just about energy, but clean energy jobs too. Now 16,021 jobs strong, Rhode Island's clean energy economy continues to demonstrate robust economic growth. Since 2014, clean energy employment in the Ocean State has grown by an impressive 74 percent.

South Carolina

SEP Funds Helped Local Business Install Solar Array, Create Jobs

In South Carolina, Sportsman Boats took advantage of funding through the State Energy Office to install a rooftop solar photovoltaic array on its manufacturing plant. The system will generate over 20 million kWh over the course of 20 years, saving Sportsman Boats $3 million on its energy bills — enough savings to allow the company to add 100 new jobs.

$800,000
Amount of loan awarded through EERL program

$294,000
In leveraged funds from USDA's Rural Energy for America grant, and state+federal investment tax credits

1,000,000 kWh
Per year of estimated electricity production

$150,000
Of estimated annual energy savings

Sportsman Boats borrowed $800,000 through the State Energy Office's Energy Efficiency Revolving Loan (EERL) program, which funds energy upgrades for business and industry and is administered in coordination with the South Carolina Business Development Corporation. In addition to EERL funding, Sportsman Boats received a $294,000 grant from the U.S. Department of Agriculture's Rural

Energy for America Program. Taking advantage of both the federal investment tax credit and a 25% state income tax credit, the system has an expected payback of approximately five years.

South Dakota

Tracking Software Supported by SEP Enables State to Make Energy Efficiency Upgrades

In South Dakota, the State Energy Office uses an energy tracking software to manage energy usage and track building efficiency. The data can highlight buildings that are more energy intensive and could benefit from energy efficiency upgrades. SEP funds were used to review the existing data and recommission the database after ten years of use. The project also moved the state to a web based system with the database hosted by the software company, and two days of onsite training was coordinated for the users. The project was successful and several the institutions of higher education are moving forward with additional projects to better utilize the software and data. Two of the state rest areas located along Interstate 90 are undergoing renovations and the energy data was analyzed to determine if installing a geothermal system was feasible. After doing the analysis it was determined to move forward with the project.

Tennessee

SEP Funds Used to Support STEM Education

In Tennessee, the State Energy Office's K-12 energy education program promotes energy literacy and introduces educators and students to topics including, but not limited to, electricity generation, consumption, and measurement; renewable energy; and energy efficiency and conservation. In Program Year 2019, staff hosted over 30 K-12 energy education events throughout the state, engaging more than 5,000 students and educators in 56 counties. Educators that attended the events reported the potential to further expand the program's reach and provide more than 1,800 hours of energy education to more than 20,000 students over the course of the next school year. Tennessee plans to expand this successful program in 2020 and will strive to provide energy education opportunities to at least one school in each of Tennessee's 95 counties, prioritizing economically distressed or at-risk counties and/or schools whose low-income student population is greater than 60% of the total student body.

30
Education events

5,000 students
Engaged in 56 counties

20,000 students
Potentially reached over the next year

Texas

$509,000 in SEP Funds Leveraged $27.6 Million In Capital Raised for Clean Tech Start-Ups

$509,000
U.S. SEP funds leveraged

$27.6 million
Private and non-federal funds to support clean energy technology

$28.4 million
Economic impact to support clean energy technology

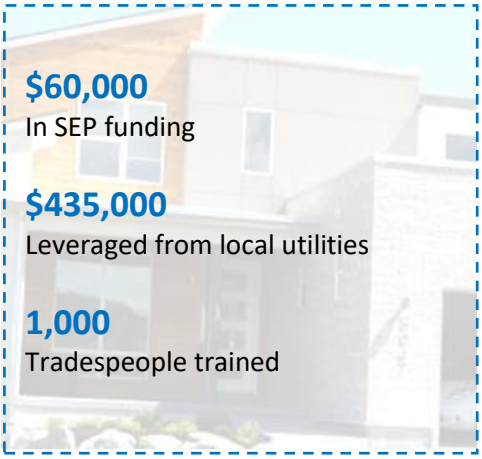
490
Private sector jobs created

In Texas, the State Energy Office supported continued operations of Clean Energy Business Incubators with $509,000 of State Energy Program funding. These incubators supported clean energy technologies startup company development. These companies attracted $27.6 million (54:1) in direct investments, an economic impact of $28.4 million (55:1) to the state of Texas. 490 jobs were created throughout the state from this support. Since 2001, the successful Texas Industries of the Future Program continues to support manufacturers to decrease the energy and water intensity of their Texas operations. The City Efficiency Leadership Council and Property Assessed Clean Energy (PACE) Training provides targeted assistance and outreach to Texas cities, specifically related to building energy code adoption and compliance.

Utah

SEP Funds Delivered Energy Code Training

In Utah, the State Energy Office (OED) partnered with local utilities and Salt Lake Community College to deliver the first-of-its-kind statewide energy code training. The accredited program has provided training to more than 1,000 tradespeople, officials, and professionals involved in residential and commercial energy code compliance. The trainings are provided free of cost and enable attendees to obtain Utah Division of Occupational and Professional Licensing continuing education credits. OED invested $60,000 of SEP dollars in this program and was able to leverage an additional $435,000 in funding from local utilities to further reach of the program



$60,000
In SEP funding

$435,000
Leveraged from local utilities

1,000
Tradespeople trained

Vermont

Leveraged $75,000 in SEP Funds to Create Clearinghouse for Weatherization Information

$75,000
In SEP funding

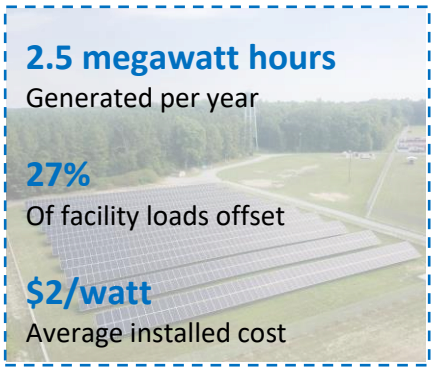
$300,000
In non-SEP funds leveraged

2,000
Households per year weatherized

In Vermont, the State Energy Office directed SEP funds to support the creation of a comprehensive thermal efficiency website to serve as a neutral, unbiased clearinghouse encouraging Vermonters to take action that will reduce their household's energy use while improving indoor air quality. Vermont has ambitious energy goals and offers the new website as a service to help building owners learn more about their options to heat and cool their homes more efficiently. EnergySaver.Vermont.gov provides resources, links, and practical advice to help Vermonters save energy and save money when making home improvements.

Virginia

SEP Funding Used to Lead By Example and Decrease Energy Use through Solar Installations



2.5 megawatt hours
Generated per year

27%
Of facility loads offset

$2/watt
Average installed cost

In Virginia, The State Energy Office funded the installation of solar photovoltaic projects at five state facilities as part of the Governor's Executive Order 43 "lead by example" solar initiative calling for 30% renewable generation for state facilities by 2030. The initial projects include: 122 kilowatt roof mounted system at the Department of Forestry Headquarters in Charlottesville; 300 kW ground mounted system at the Virginia Public Safety Training Center in Hanover; 660 kW ground mounted system at Haynesville Correctional Center in Haynesville; 150 kW system at the Department of Mines Minerals and Energy office in Big Stone Gap, and; 140 kW system at the Department of Game and Inland Fisheries in Richmond.

The five systems will generate just under 2.5 megawatt hours per year and, on average, will offset over 27% of the facilities' electric load. The Virginia Office is already in discussions with a number of other state agencies for a second round of cost-shared projects. Additionally, the Office is working with agencies, including Virginia's Community Colleges, which are implementing solar installer training programs, to enable them to enter into long term solar Power Purchase Agreements with private sector developers by "buying down" the cost of the PPAs for the host agencies.

Washington

SEP Funds Supported Resilience, Enable Emergency Preparedness Planning

In Washington, the State Energy Office began drafting the Washington State Energy Emergency Management Program Strategic Plan, which provides a strategy and a maturity model for the statewide Energy Assurance program. Building on lessons learned from the Enbridge Pipeline explosion in 2018, Washington focused on updating foundational documents, building support for a fuel plan and started work on a range of planning documents. The Washington Fuel Action Plan served as a primary focus. The Energy Office developed policies and procedures on how to effectively manage a State petroleum fuel shortage. Washington met regularly with stakeholders at the state and local level, convening meetings with local and regional stakeholders throughout the year. The effort led to better relationships and an understanding of the framework for distributing fuel, which includes three key policies:

- prioritization guidance for allocation and distribution of petroleum fuel,
- specific actions to implement during each stage of a fuel shortage, and
- the inclusion of the private sector, local jurisdictions, tribal nations, special purpose districts, federal agencies and neighboring states.

Washington also updated the Emergency Support Function 12 Standard Operating Guide, which was last updated in 2013. The report details how the state would coordinate with local, federal, tribal and private sector partners to restore Washington's energy systems during an energy emergency. This work helped explain the SEO role when legislators and advocates asked about the state's preparedness for the Public Power Supply shut offs experienced in California. The update is nearly complete and provides detailed actions for the response and restoration activities during an energy emergency or energy supply disruption.

West Virginia

SEP Funds Used to Train Student Engineers to Provide No-Cost Technical Assistance to Private-Sector Clients

In West Virginia, the State Energy Office has partnered with the WV University Statler School of Engineering's College of Mechanical and Aerospace to provide low- and no-cost energy efficiency training audits, technical assistance and other service options to businesses, municipalities, schools and nonprofits throughout the state. This program uses senior and graduate-level engineering students, providing them with real world working experience. Since 2010 this partnership has provided:

600
Number of engineering students trained

400
Number of public and private sector clients assisted

$20 million
In energy cost savings identified

30.3 Million kWh
In energy savings identified

- Hands-on training to 600 engineering students
- Assistance to 400 public and private sector clients
- 30.3 million KWh and $20 million in identified potential energy savings.

A notable example is Crestwood Inc, a natural gas compression station, in Salem, WV. The client requested an energy assessment. Suggested recommendations included: condensing turbine for electricity generation from waste heat, installing a PLC-based control system to improve operation of a reboiler, installation of a building energy management system, adjusting boiler air-to-fuel ratio, and energy efficient lighting. When implemented the company will see combined savings and increased revenue exceeding 11,000,000 kWh/year of electricity, 3,700 MMBtu/year of natural gas, with annual cost savings of nearly $1,000,000. Estimated payback on investment is approximately two years.

Wisconsin

SEP Funds Helped Create an Energy Innovation Grant Program (EIGP) Totaling over $25 million

$5 million
Amount of funding leveraged

30
Number of successful applicants for grant funding

$4.5 million
Local and private investment capital leveraged

In Wisconsin, the State Energy Office implemented a grant program for manufacturers, municipalities, tribes, and k-12 school districts. The program will reduce energy consumption, increase the use of renewable energy and transportation technologies, bolster preparedness and resiliency in the energy system, and ensure that comprehensive energy planning is at the forefront of these efforts. In previous rounds, $5 million was made available for the 30 successful applicants that leveraged Focus on Energy rate-payer funded incentive programs and an additional $4.5 million in local and private investments.

Through EIGP, Wisconsin will track energy use and cost savings, emission reductions, renewable energy generation, job creation, and the impact of education and training on the workforce.

Wyoming

SEP Funds Reduced Energy Costs in 32 Public Buildings, in Addition to Roadway Lighting Upgrades

In Wyoming, the State Energy Office leveraged SEP funding to reduce energy costs in public buildings by providing consulting services, procurement support and third-party contract verification for energy savings performance contracts. With this support, public agencies are able to redirect utility payments and maintenance budgets into infrastructure improvements. For example, the Wyoming Department of Transportation is saving $215,000 annually by having upgraded 730,000 square feet in 32 buildings in Phase I of a project. Phase II is underway to upgrade additional buildings with lighting and mechanical improvements and to improve all roadway lighting across the state using LED fixtures and lamps which will result in $690,000 in annual savings for an investment of $10.75 million in Tax Exempt Lease Purchase financing.

Phase I: $215,000
Annual energy savings within the Wyoming Department of Transportation

730,000
Square feet upgraded in

32
Wyoming DOT buildings

Phase II: $690,000
Annual energy savings due to roadway lighting improvements

$10.75 million
Investment in tax exempt lease purchase financing