

U.S. DEPARTMENT OF
ENERGY

Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

NASEO 2020 Mid-Atlantic Regional Meeting

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June 3, 2020



Today's Topics

- **WIP Mission**
- **SEP Mid-Atlantic Update**
- **Initiatives Seeking State Feedback**
- **Resources:**
 - **SEP Appendix**
 - **WIP Technical Assistance Resources**

Weatherization and Intergovernmental Programs (WIP) Office



We enable
STRATEGIC INVESTMENTS
in energy efficiency and renewable energy
technologies through the use of **INNOVATIVE**
PRACTICES across the United States and a wide
range of stakeholders, in **PARTNERSHIP** with
state and local organizations and community-based
nonprofits.

RESULTS:



Saving
taxpayer
dollars



Making full use
of domestic
energy
resources



Cutting
energy
waste

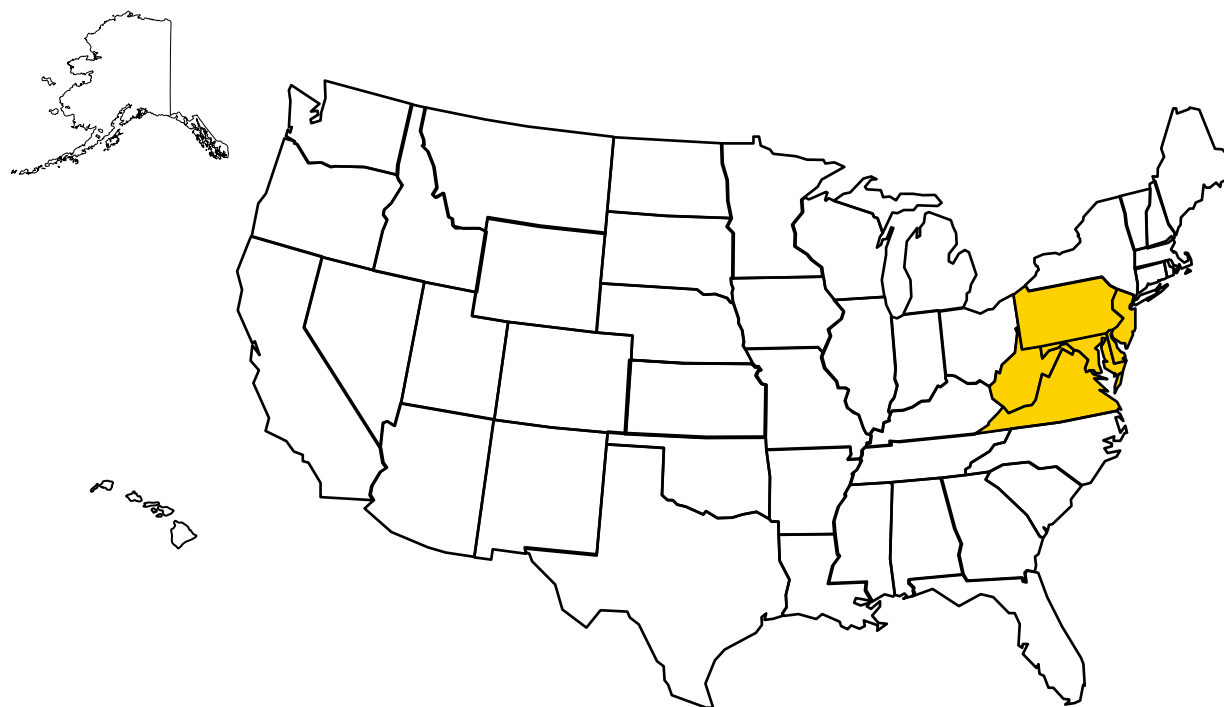


Improving
energy
independence
and security



Furthering the
development of
energy
infrastructure

NASEO Mid-Atlantic Region



DC

DE

MD

NJ

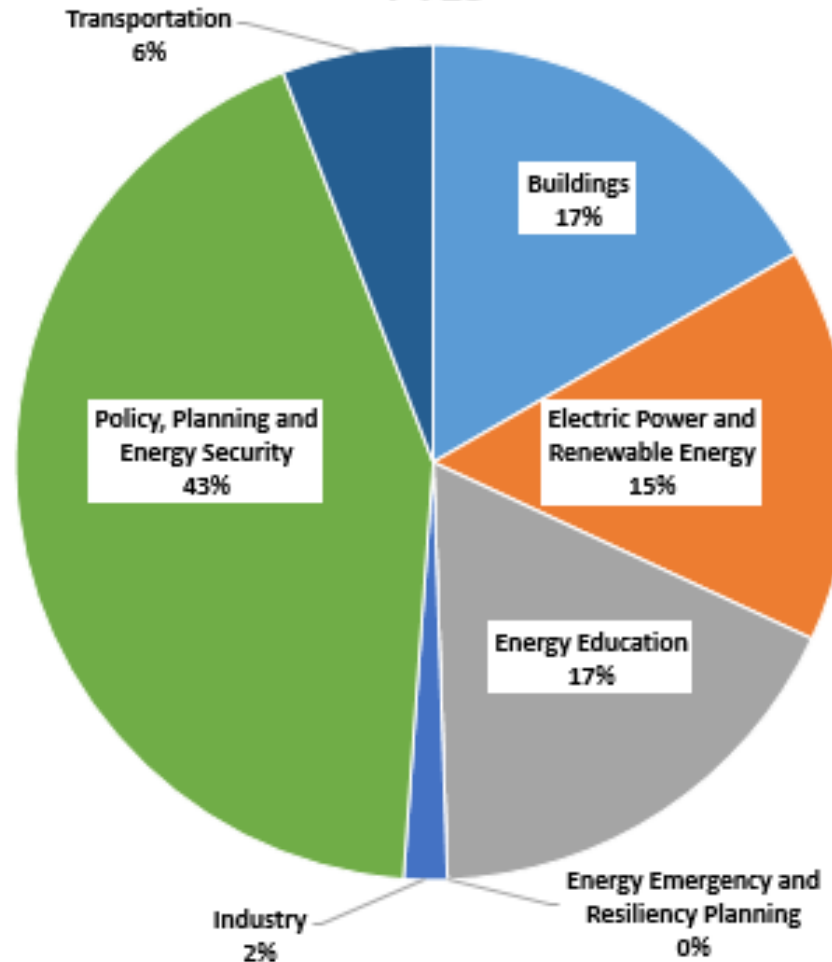
PA

VA

WV

NASEO Mid-Atlantic : PY19 Formula Market Allocation Breakdown

Mid-Atlantic Planned Formula Allocations
PY19



NASEO Mid-Atlantic – Formula Work

SEP Creates Jobs

- 1 job created for every \$2,500 invested

SEP is Cost-Effective

- \$4.50 saved for every \$1 federal invested
- *Examples: New Jersey, Pennsylvania*

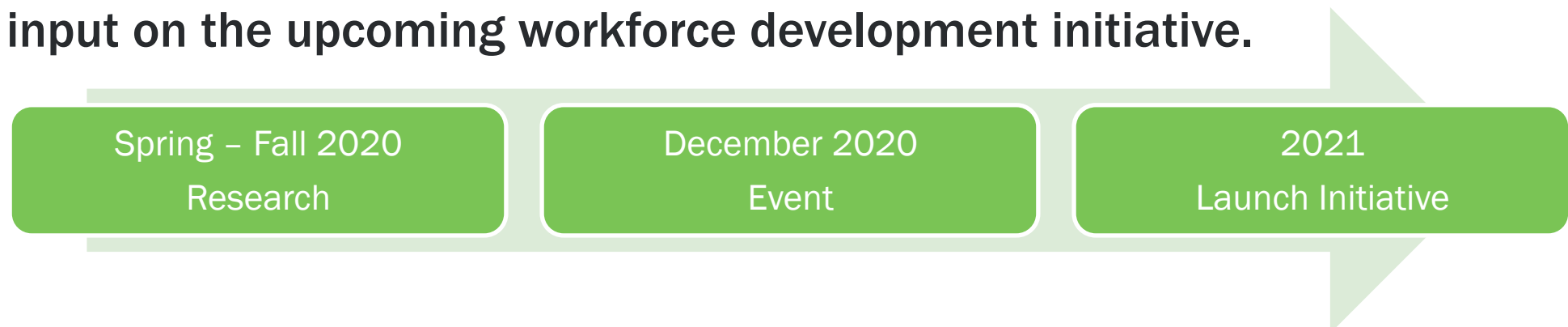
Note: All data are from the Oak Ridge National Laboratory State Energy Program National Evaluation



Upcoming Initiatives

Workforce Development

- SEP is considering launching a workforce development initiative in early 2021, for SEOs to address specific workforce development challenges collaboratively.
- SEP staff is researching SEO workforce development activities and has engaged NASEO to collect additional data to analyze what is working and what gaps exist in state programs that might benefit from DOE support.
- SEP is engaging a national lab to forecast regional workforce needs for the next five to ten years.
- WIP plans host an event to convene SEOs and relevant stakeholders in Washington, D.C. in early December 2020 to share research results, facilitate peer exchange, and solicit input on the upcoming workforce development initiative.



Workforce Development Scoping

Targeted Workforce

- Laborers
- Electricians/construction
- Technicians/mechanical support
- Energy professionals (e.g. building operators)
- Sales, marketing, customer service
- Students (high school and above)
- Recently Unemployed

Mechanisms

- Outreach
- State agency collaboration
- Partnerships

Activities

- Training, retraining
- Employer placement
- Curriculum development
- Career mapping

Industries

- Energy Efficiency
- CHP
- Solar
- Electric Utilities
- Batteries/microgrids
- Wind

Exclusions

- Weatherization
- Entrepreneurs
- Students below high school age
- Oil and gas
- Nuclear
- Transportation

Potential

- Renewable natural gas
- Transmission and distribution
- Manufacturing

Technology Action Group (TAG) Model

- In FY21 Grant Application Instructions, DOE would provide option to states to participate in a group collaboration (TAG) in *one* of the 2-3 topics.
 - Requirements for membership in a TAG:
 - Dedication of SEP formula funds to topic of interest:
 - 1% of formula allocation OR
 - At least \$10,000
 - Whichever is greater.
 - Agreement that participation will involve:
 - Set of metrics on which to report, jointly identified by DOE and states
 - Identification of goals to meet in two years (this is usual length of an Accelerator, and is also more likely to align with SEP 3-year grant period).
- DOE and states would jointly identify 2-3 topics of interest in which states would invest their SEP formula funds.
- DOE would organize Technology Action Groups (TAGs) of states around these topics of interest and provide technical assistance.

Possible TAG Topics for Discussion

Supporting energy storage deployment

- SEOs analyze their states' storage industry landscape and opportunities and collaborate on identifying and developing policies and programs to better support energy deployment in their states.

Managing peak demand with energy storage

- SEOs collaborate on studies to determine the level of energy storage necessary to reduce the amount of additional energy reserve input needed during peak demand.

Creating holistic energy assurance plans

- SEOs work together to find the best ways to leverage existing activities to create all-inclusive energy assurance plans that eliminate the need for additional plans.

Onsite energy systems at critical facilities

- States work together to develop plans for onsite energy systems that can power critical facilities during grid outages and normal operation using lab-designed tools.

Main Street revitalization

- SEOs work together to identify successful strategies for targeting Main Street communities and small businesses to stimulate local energy efficiency projects performed by local professionals that reduce energy bills.

Examples of SEP formula funds dedicated to a TAG Topic (energy storage)

- \$75,000 in formula grant funds to conduct an analysis in partnership with the state economic development office and academia to identify the energy storage systems currently being manufactured and deployed both in the state and out of state.
- \$20,000 in the formula grant funds to develop an education and outreach guide directed at critical infrastructure and emergency shelters to inform decision makers on what forms of energy storage exist, how they work, and how to accurately estimate the economic benefits of energy storage and resiliency.
- \$10,000 in formula grant funds to hire a part-time graduate student to model ways to utilize energy storage assets, existing or new, to reduce the top 100 hours of peak demand in the state.

Proposed TAG Roles and Activities

- **DOE**
 - Organize the TAG and associated activities (calls, webinars, etc.)..
 - Facilitate technical assistance.
 - In collaboration with the participating states, identify TAG goals and metrics.
- **Participating States**
 - Dedicate formula funds to the TAG topic.
 - Participate in development and execution of the TAG.
 - Track staff time spent on the TAG.
 - Track progress towards TAG goals.
 - In collaboration with DOE, identify TAG goals and metrics.
- **Observers/Mentors**
 - Contribute to TAG discussions.

Field Technology Validation – Seeking State Partners!

- **SEP is seeking SEO partners to field test DOE-supported energy-saving technologies.**
 - Building energy management system, spray-foam insulation, and thin-film triple-pane windows.
- **SEP and NASEO hosted joint webinars in March and April to review technologies and site requirements.**
 - Thank you to all the states that participated: AL, CA, FL, HI, ID, IL, ME, MN, NJ, SC, VA, WA. Illinois is in ongoing discussion SEP/labs about site hosts.
- **Effort is part of a broader collaboration between DOE EERE and states.**
 - EERE Offices are WIP, Building Technologies Office, Advanced Manufacturing Office, Federal Energy Management Program) and multiple National Labs.
 - Stay tuned for more information.

SEP Market Title Project

GOAL: Achieve greater consistency in the use of **Market Titles** or **Activities** so that the SEOs and WIP are better positioned to share the impacts of SEP with state legislators and governors, U.S. DOE leadership, other federal agencies, the U.S. Congress, and others.

- State-led effort, coordinated by the Tennessee SEO and NASEO with DOE's guidance and participation. Reporting system (i.e., PAGE) last updated 10 years ago.
- Ensures that emerging policies and programs in such areas as **Energy Security** and **Workforce Development** are uniformly captured, and best practices and replicable models are shared.
- Reduces 595 self-named Market Titles to 8 consistent "**Activities**" while maintaining flexibility in choice of sector, community, fuel, technology, or application.
- Overview presentation for states held at 2019 NASEO Summer Conference and 2020 NASEO Winter Conferences, in addition to a Webinar for all SEOs.
- Pre-production or "beta" site developed for state working group testing underway.
- Next step is to develop "PAGE Application Instructions."



Energy Storage Grand Challenge

- The vision for the [Energy Storage Grand Challenge](#) (ESGC) is to create and sustain global leadership in energy storage utilization and exports, with a secure domestic manufacturing supply chain that is independent of foreign sources of critical materials, by 2030.
 - The ESGC set goals for the U.S. to reach by 2030 in: Technology Development and Transfer, Policy and Valuation, Manufacturing and Supply Chain, and Workforce.
 - The ESGC is managed by DOE's Research and Technology Investment Committee.
- **White Paper on Policy and Valuation**
 - SEP and NASEO solicited SEO input and received feedback from CA, CO, LA, MD, NM, NY, PR, TN and WA. Further input is welcome.
- **ESGC Workshops**
 - On May 13th a [workshop](#) summarized 6 energy storage use cases.
 - Regional [workshops](#) were held in May for the West/Southwest, Northwest, Midwest/Northeast. Additional workshops may be held.

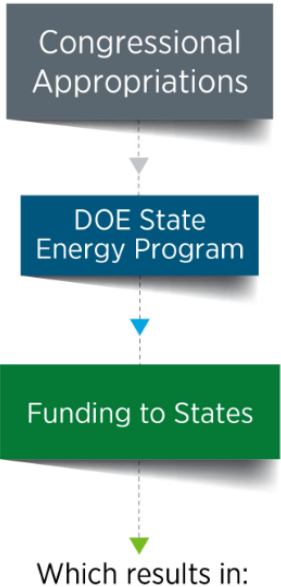
Resources

State Energy Program
WIP Technical Assistance Resources

WIP Budget Summary

Breakdown	FY 2017 Enacted	FY 2018 Enacted	FY 2019 Enacted	FY 2020 Enacted
State Energy Program	\$50M	\$55M	\$55M	\$62.5M
Weatherization Assistance Program	\$225M	\$248M	\$257M	\$305M
Total, Weatherization and Intergovernmental	\$275M	\$303M	\$312M	\$371M

SEP FY20 Formula Funding



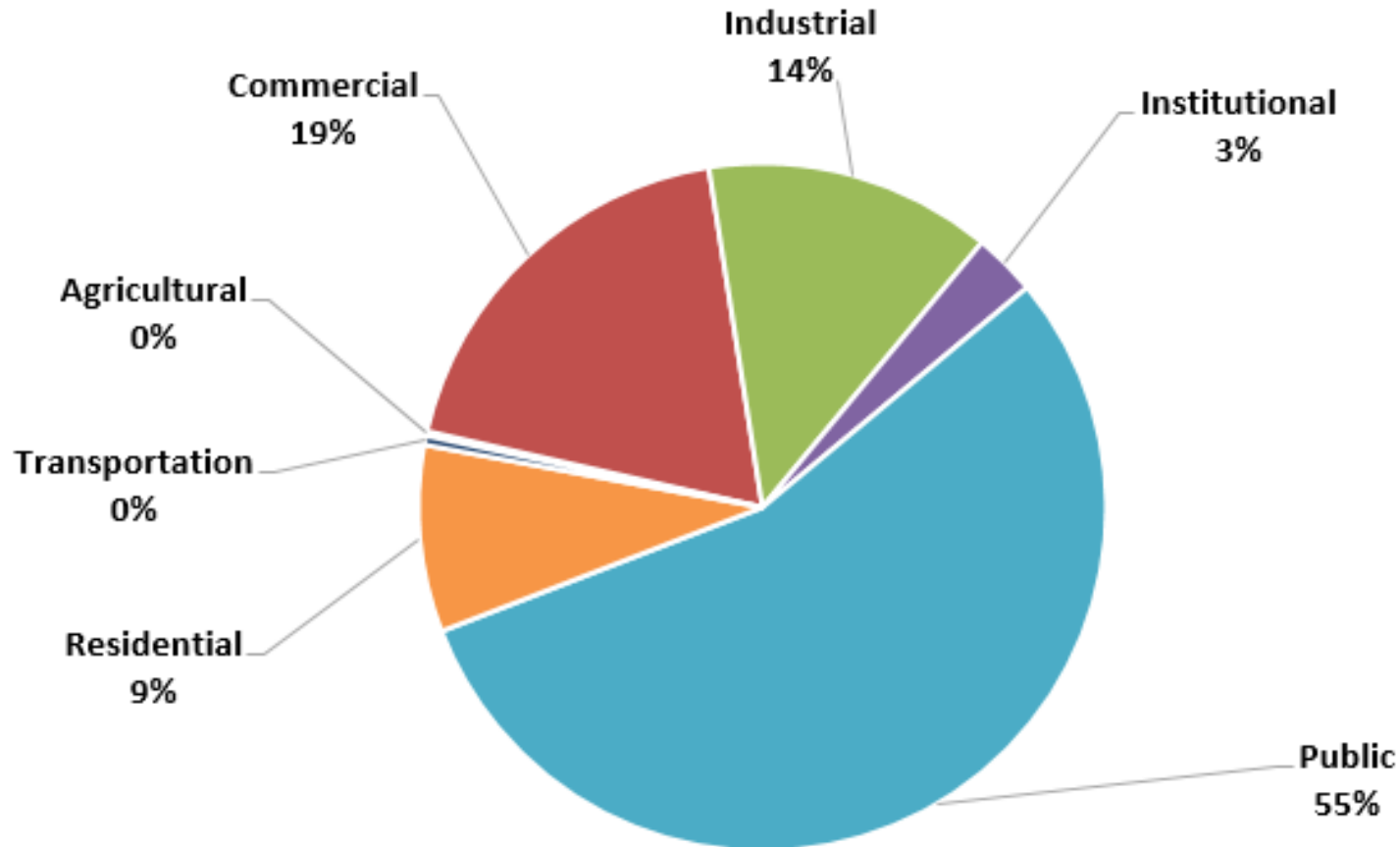
- FY20 Grant Application Instructions and the Administrative and Legal Requirements Document (ALRD) were released on February 3, 2020, including 2020 allocations at \$56M.

- Application due dates:

SEP Program Year Ending	Application Due Date
June 30, 2020	April 7, 2020
August 31, 2020	April 21, 2020
September 30, 2020	May 5, 2020

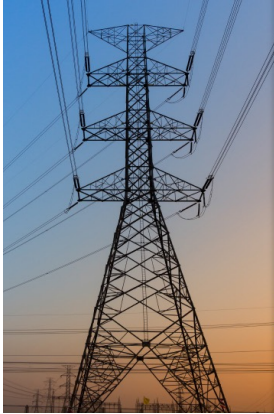
Status of SEP National Revolving Loan Funds (RLF)

Loan Recipient Sector, by loan value



- \$690 million in ARRA funding has been budgeted to 37 state-run financing programs
- \$578 million of available funds for RLF Programs
- 115.23% of available RLF funds have been loaned out to date

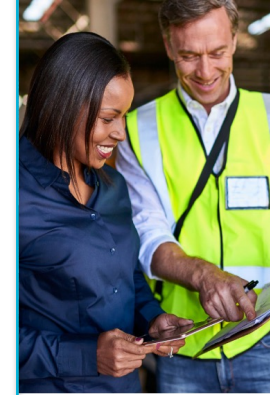
National SEP Successes Since 2017



Increased energy efficiency in 22,000+ buildings
(87M square feet)

Installed 27,000+ renewable energy systems
(783,000 kilowatt hours)

Educated >1,385,000 people in performing energy audits
and upgrades

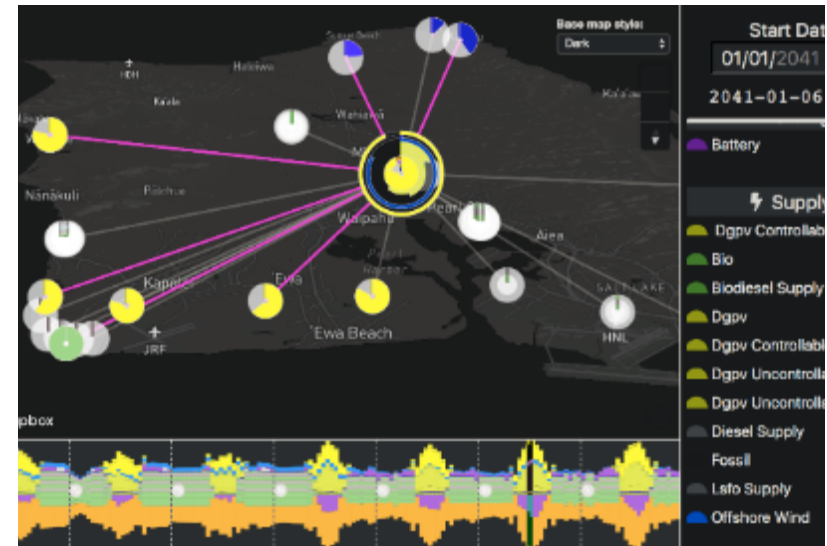
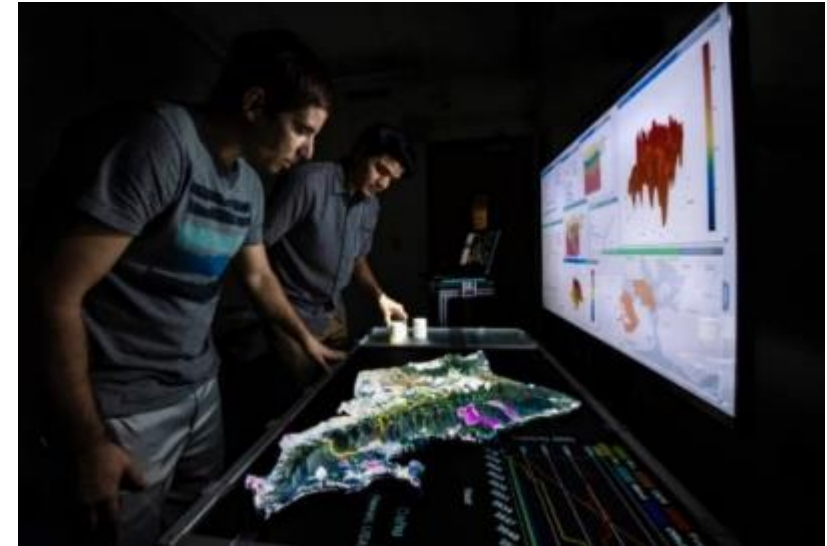


- ✓ States implemented energy security, resiliency, and emergency preparedness plans;
- ✓ Developed state-led strategic energy initiatives;
- ✓ Invested in expanded use of energy resources abundant in states;
- ✓ Piloted innovative energy projects within the private sector, K-12 schools and universities; and
- ✓ Developed 12 Implementation Models that serve as “how-to” guides for states who wish to replicate the programs achieving energy efficiency savings.



SEP Planning Tools and State-Specific Access to NREL

- Hawaii Advanced Visualization Energy Nexus (HAVEN) uses a 3D table top model to communicate the tradeoffs of state resource plans. (SEP Competitive Award).
- Engage is a web-based energy-transport optimization model for system capacity planning. (DOE Energy Transitions Initiative)
- Engage models plans; HAVEN visualizes them.
- **Low-cost training for HAVEN/Engage is available using SEP or other funds through NREL's new streamlined contracting method.**



SEP Training Resources for New Staff

- **SEP Orientation and Training Module:**
 - A web-based training created specifically for new State Energy Office staff to provide a foundation and understanding of the key critical elements to managing and implementing the State Energy Program.
 - Access it here:
<https://www.energy.gov/eere/wipo/state-energy-program-orientation-and-training-modules-new-staff>

State Energy Program Orientation and Training Modules for New Staff

[Home](#) » State Energy Program Orientation and Training Modules for New Staff

Download presentations to learn more about the U.S. Department of Energy's (DOE) State Energy Program. Topics include history, budget, and resources.

Welcome to the State Energy Program



[Learn More](#)

History of the State Energy Program

Module 1

[Learn More](#)

Understanding the Budget & Your Grant Awards

Module 2

[Learn More](#)

Roles and Responsibilities

Module 3

[Learn More](#)

The "Must-Knows" of Utilizing My SEP Budget

Module 4

[Learn More](#)

Peer Sharing & Best Practices

Module 5

[Learn More](#)

Your Go-To Resources for SEP

Module 6

[Learn More](#)

WIP Technical Assistance Resources

WIP Technical Assistance

OUR GOAL:
Maximize
energy
and cost
savings

WIP provides technical assistance that:

1. Offers **TOOLS AND SOLUTIONS** to barriers facing states, local governments, and K-12 schools
2. Convenes and creates **PEER EXCHANGES** to showcase public-sector leadership and effective public-private partnerships
3. Provides information from leading **TECHNICAL EXPERTS**

We help states, local governments, and K-12 schools:



Develop
an Energy
Plan



Design and
Implement
Energy Programs



Pay for
Energy
Infrastructure



Access and
Use Energy
Data

Sustainable Wastewater Infrastructure of the Future (SWIFt) Accelerator

70+ wastewater treatment facilities across 25 state, regional, and local partners collectively achieved more than 8% (86 million kWh) in energy savings and put in place plans to achieve long-term energy savings of 30%

Scoping for SWIFt Phase 2 is ongoing and will continue this momentum by leveraging the tools, resources, and lessons learned to benefit the broader wastewater sector

Coming Soon Wastewater Energy Management Toolkit (Summer 2020)



<https://betterbuildingssolutioncenter.energy.gov/accelerators/wastewater-infrastructure>

Sustainable Corrections Infrastructure Partnership (SCIP) Accelerator



State and federal agencies will work with DOE over three years to strive for portfolio-wide energy savings of 20% and collective cost savings of more than \$250 million a year

Formal launch TBD (potentially late 2020), based on COVID-19 and state considerations

For more information, contact Alice.Dasek@ee.doe.gov (Announced Summer 2020)

Available Toolkits



Energy Savings Performance Contracting (ESPC) Toolkit

Best practices that partners used to establish and implement ESPC, including a host of M&V resources

[https://
betterbuildingssolutioncenter.energy.g
ov/energy-savings-performance-
contracting-espcc-toolkit](https://betterbuildingssolutioncenter.energy.gov/energy-savings-performance-contracting-espcc-toolkit)

Clean Energy for Low Income Communities Accelerator (CELICA) Toolkit

Case studies, issue briefs, data tools, and templates on advancing energy affordability and equitability for low-income households

[https://
betterbuildingsinitiative.energy.gov/
CELICA-Toolkit](https://betterbuildingsinitiative.energy.gov/CELICA-Toolkit)



Outdoor Lighting Toolkit

Decision tools, lessons learned, and other resources on upgrading street lights to modern, high-performance systems

[https://
betterbuildingssolutioncenter.energy.g
ov/outdoor-lighting-toolkit](https://betterbuildingssolutioncenter.energy.gov/outdoor-lighting-toolkit)

Resource Highlights

Commercial Property Assessed Clean Energy (C-PACE) Working Group

[C-PACE Working Group: Year in Review](#)

[C-PACE Financing and the Special Assessment Process](#)

[Lessons in C-PACE Leadership: The Path from Legislation to Launch](#)

[Toolkit: C-PACE Financing for Resiliency](#)



June 2019¹

Commercial PACE Financing and the Special Assessment Process: Understanding Roles and Managing Risks for Local Governments

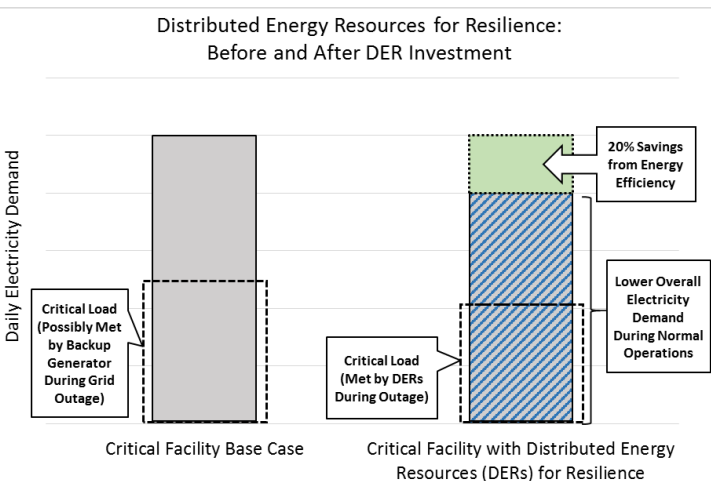
Greg Leventis and Lisa Schwartz, Lawrence Berkeley National Laboratory

Executive Summary



This issue brief is for local governments that are well-positioned to participate in a commercial property assessed clean energy (C-PACE) program but are looking to inform a decision about whether to join or create a program. This resource addresses two specific barriers these local governments may face regarding C-PACE programs: (1) uncertainty about the likelihood of tax foreclosure on properties in default of C-PACE payments and the risks local governments bear, and (2) uncertainty about the staff labor commitment associated with administering the program, including the execution of the special tax assessment process.



How Distributed Energy Resources Can Improve Resilience in Public Buildings: Three Case Studies and a Step-by-Step Guide



Energy Data Management Guide



Energy Data Management Guide

Take control of your energy data in seven steps!

Get Started

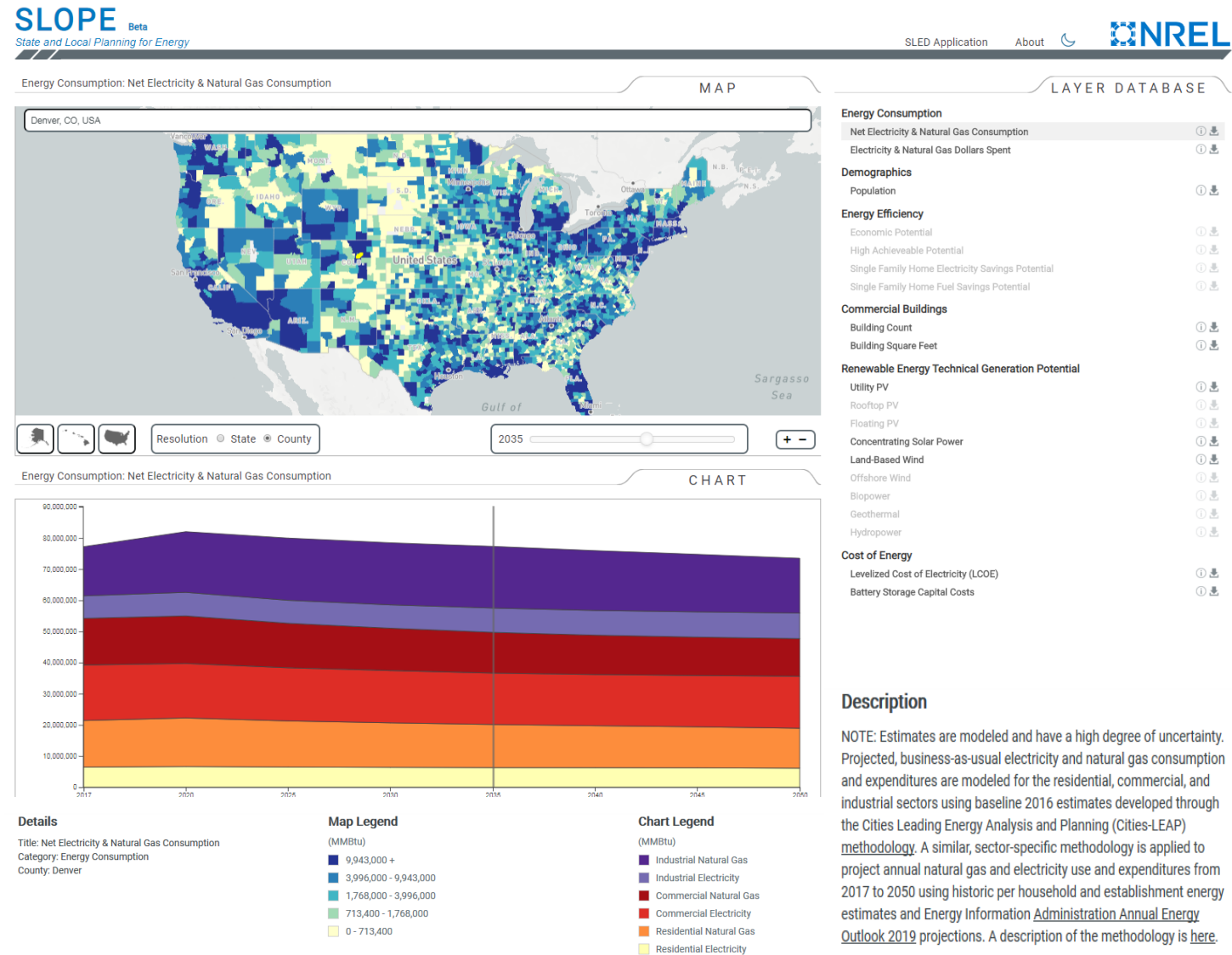
Coming Soon

State and Local Planning for Energy (SLOPE) Platform

A DOE-led collaboration across 8 EERE technology offices and NREL to create a *dynamic, comprehensive energy planning platform* of integrated, localized data for state and local decision makers

- **Phase I:** Includes electricity and natural gas consumption, projected population, energy efficiency potential, renewable energy technical generation potential, and levelized cost of energy (Beta launched Jan. 2020)
- **Phase II:** Adding transportation and generation mix data; enabling user-saved settings (under development in 2020)

Access the Platform:
<https://gds.nrel.gov/slope>
Comments or Questions?
slope@nrel.gov



Virtual Better Buildings Summit: June 8-11

No cost to register; already 1,500+ registrants! Sessions potentially of interest to state attendees:



Better Buildings®
U.S. DEPARTMENT OF ENERGY

JUNE 8-11
2020 SUMMIT
A Virtual Leadership Symposium

REGISTER TODAY

Learn more and register: betterbuildingsolutioncenter.energy.gov/summit

U.S. DEPARTMENT OF ENERGY

The Road to Resilience: Setting Energy Savings as a Strategic Priority for Wastewater Treatment Plants (Tuesday, June 9; 1:00–2:30 p.m.)

Building a Clean Energy Workforce (Tuesday, June 9; 11:00–12:30 p.m.)

Distributed Energy Resources for Cost Savings and Resilience (Tuesday, June 9; 1:00–2:30 p.m.)

What's New in Energy Efficiency Finance? (Tuesday, June 9; 3:00–4:30 p.m.)

Stump the Chumps: How to Optimize Critical Facilities (Wednesday, June 10; 3:30–4:30 p.m.)

Approaches for Achieving Zero Energy Ready: Maximizing Efficiency and Controlling Costs (Thursday, June 11; 11:00–12:30 p.m.)

Measuring Up to the Equity Challenge: Energy Affordability and Equity Planning (Thursday, June 11; 3:00–4:30 p.m.)

Stay Connected

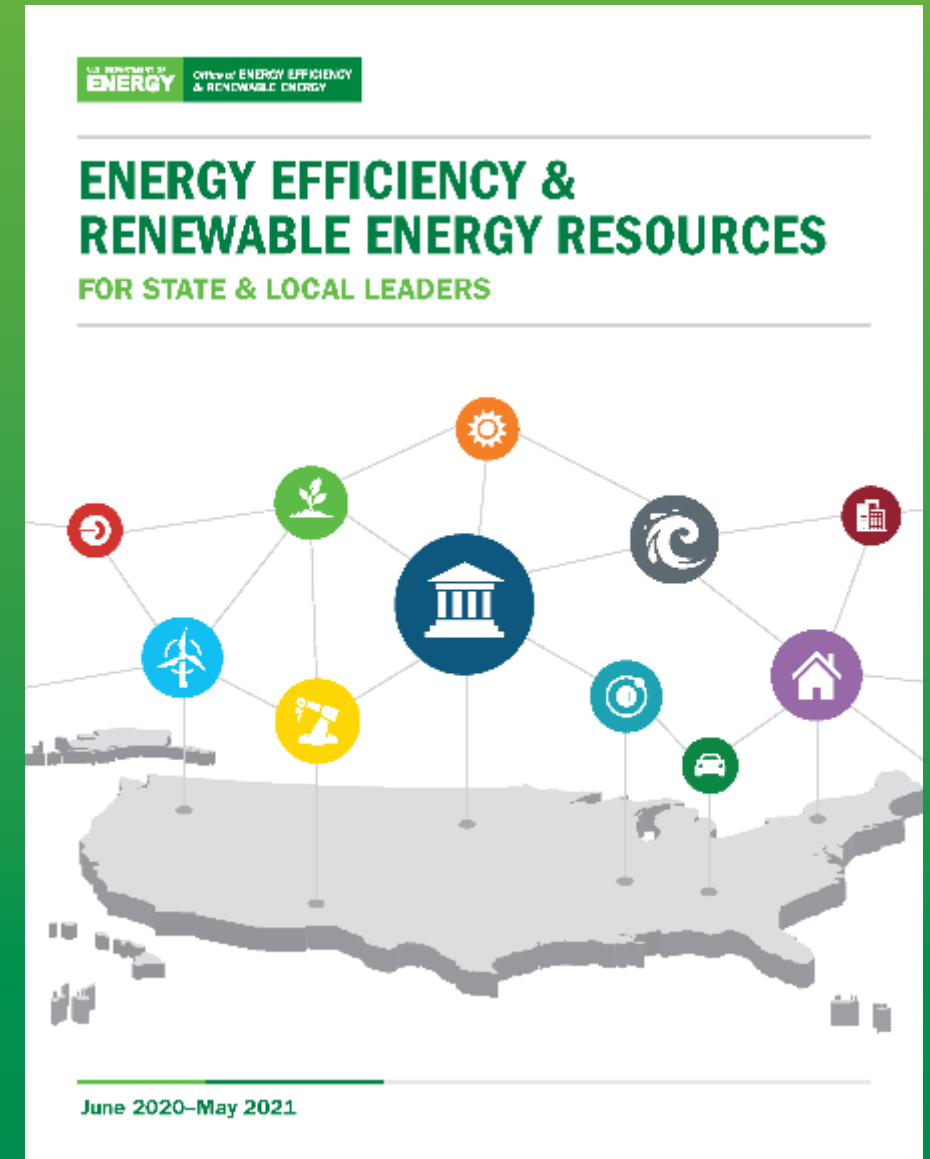
- **State and Local Solution Center**
 - More than **400** tools, resources, and best practices
- **State and Local Spotlight**
 - Monthly newsletter with ~**32,000** subscribers

Subscribe:

<http://energy.gov/eere/slsc>

Contact WIP:

stateandlocal@ee.doe.gov



Clean Energy for Low-Income Communities Accelerator (CELICA) Toolkit

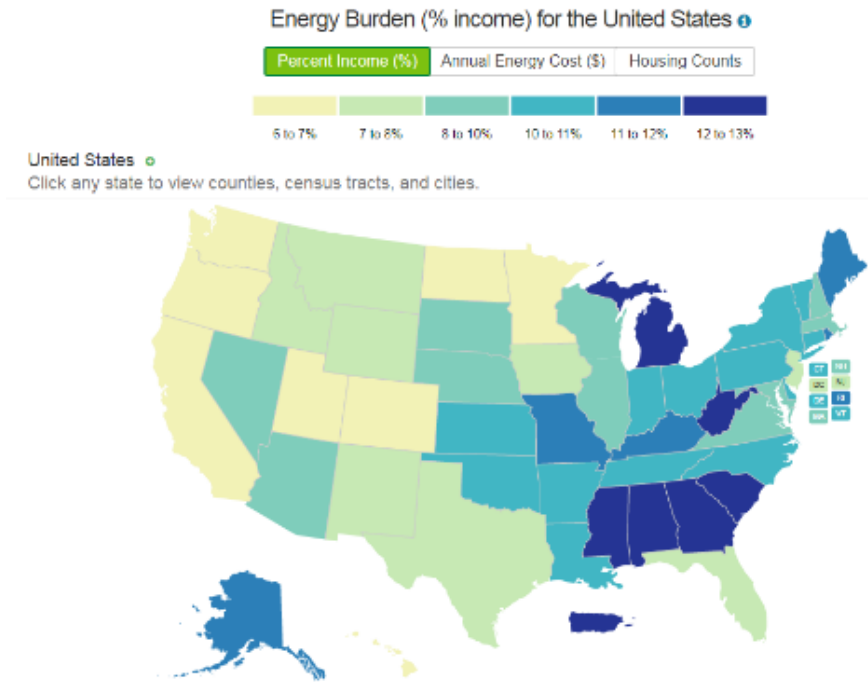
- Product of Better Buildings Initiative and 2-year partnership with over 30 stakeholders from public, private, and non-profit sectors
- CELICA partners successfully leveraged resources to commit **up to \$335 million to help 155,000 low income households** access energy efficiency and renewable energy benefits, and demonstrated promising program models
- Types of resources in CELICA Toolkit:
 - Case Studies/Promising Practices
 - Issue Briefs
 - Data Tools
 - Templates

CELICA Toolkit: <https://betterbuildingssolutioncenter.energy.gov/CELICA-Toolkit>



Low-Income Energy Affordability Data (LEAD) Tool

- **Goal:** Help communities make data-driven decisions by improving understanding of low- and moderate-income household and energy characteristics
- A web-based interactive tool with national, state, city, census tract level maps, and data for all 50 states plus PR and DC
- Since its launch (Summer 2019) over 4,000 users, including:
 - National Grid utility (NY)
 - State of Kentucky
 - Texas Energy Poverty Institute



LEAD Tool: <https://www.energy.gov/eere/slsc/maps/lead-tool>