

NASEO 2018 MIDWEST REGIONAL MEETING

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State Energy Program Manager

May 9-10, 2018



Today's Topics

- WIP Mission
- State Energy Program (SEP) Update
- SEP Midwest Update
- Partnerships & Technical Assistance Resources
- Strategic & Interagency Initiatives

Weatherization & Intergovernmental Programs (WIP) Office

WIP's mission is to enable strategic investments by a wide range of government, community and business stakeholders that expand energy choices in all communities, in partnership with state and local organizations to increase energy affordability, resiliency and reliability.



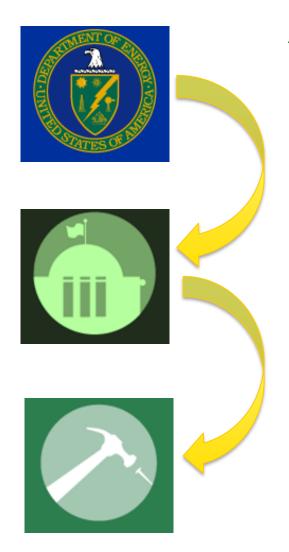
WIP Budget Summary

Breakdown	FY 2016 Enacted	FY 2017 Enacted	FY 2018 Enacted
State Energy Program	\$50M	\$50M	\$55M
Weatherization Assistance Program	\$215M	\$225M	\$248M
Total, Weatherization and Intergovernmental	\$265.0M	\$275.0M	\$303.0M

State Energy Program



SEP FY18 Formula Funding



FY18 Formula

FY18 Grant Guidance and Administrative Legal Requirements
 Document (ALRD) was released on February 7, 2018. It included
 draft 2018 allocations (FY17 allocations at \$39M)

State-led, formula-funded activities result in:

ENERGY RESILIENCY LOW-COST FINANCING PROGRAMS

JUSTINIA DISTRIBUTED GENERATION COMBINED HEAT AND POWER

COMMERCIAL SUMPROVED HOME ENERGY EFFICIENCY

AUDITS & STATE ENERGY PLANNING

IMPROVED APPLIANCES ENERGY

BETTER MOTORS

WEATHERIZATION WATER SAVINGS FINANCING PROGRAMS

ENERGY RELIABILITY PLANNING

INDUSTRIAL REVITALIZATION INNOVATIVE ENERGY

LOCAL LED LIGHTING STATE TECHNOLOGY DEMONSTRATIONS

GOVERNMENT PARTNERSHIPS RETROFITS FACILITY ENERGY EDUCATION

SOLAR AND WIND POWER RETROFITS TELECOMMUTING

National SEP Successes since 2010



Reduced energy waste in 20,000+ buildings (125M square feet) through energy efficiency upgrades

Installed 60,000+ renewable energy systems (8 million kilowatt hours)

Educated > 2 million 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 8 Implementation Models that serve as "how-to" guides for states who wish to replicate the programs achieving energy efficiency savings.



SEP FY17 Competitive FOA Summary

- FY17 FOA released on October 16, 2017. Applications were due January 11, 2018.
 - We received 23 applications.

Area of Interest	FOA Funding Range (\$)	Number of Projects	Award Duration
1: State Energy Planning	~\$200,000-\$300,000 for single state; ~500,000 for multi-state apps that include other state(s) as key partners	Up to 5	Up to 2 years
2: Opportunities for Innovative EE & RE Practices that Improve Energy Affordability, Reliability, and Resiliency	~\$200,000-\$300,000 for single state; ~500,000 for multi-state apps that include other state(s) as key partners	Up to 12	Up to 3 years
3. Technical Assistance to Advance SEP Formula EE/RE Activities	Up to \$100,000	Up to 10	Up to 2 years
Totals	Up to \$5 million	Up to 27	2-3

SEP Competitive Award Breakdown & Outcomes

Since 2014, 34 states have received SEP Competitive Awards totaling \$14.9M

Number of States with Competitive Awards by Topic Area (2014-2016)

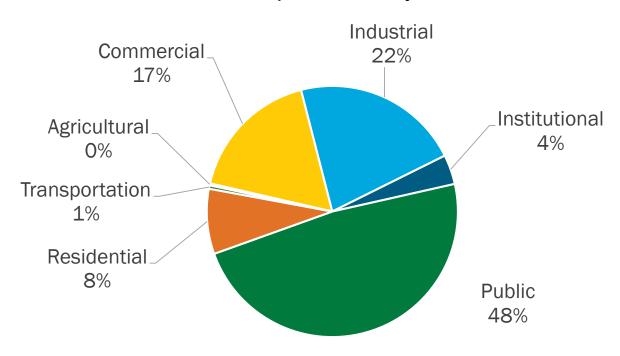
2016	TA to Advance SEP Formula Grant Activities	3
2014-2016	State Energy Planning	11
2014-2016	Opportunities for Innovative EE/RE Practices	20

Recent outcomes...

- ✓ Minnesota's Local Government Project for Energy Planning (LoGoPEP) team has created a planning tool that allows users to explore a city's potential energy futures. Starting with a business-as-usual forecast, users can set reduction goals and visualize the potential energy-savings impacts of reduction "wedges" from actions taken by local and state governments and others in the commercial, residential, and industrial sector.
- ✓ Hawaii and partners developed a beta version of visualization tool (HAVEN) on policy choices/tradeoffs necessary for energy system transformation in HI. It was demonstrated at the February NASEO Energy Policy Outlook Conference!

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
- \$602 million of available funds for RLF Programs
- 115% of available RLF funds have been loaned out to date

SEP Peer Exchange Webinar Series

- Launched August 2017 in response to States' request for SEP peer networking opportunities.
- Webinars are kicked-off and moderated by a representative from a State or Territory working in the SEP Formula space.
- Opportunities for additional follow up including smaller group discussions are offered after each webinar.

Webinars based on State requests and interest:

C-PACE. 27 state attendees. Outcome: P&TA C-PACE Working Group for state and local governments was developed using direct feedback from SEO participants.

Energy Assurance and Resiliency. 25 state attendees. Outcome: Follow up resources provided along with one-on-one discussions on how SEP Formula funding may be used to support planning efforts.

SEP 2018 Formula Funded Activities. 45 state attendees including Guam. Outcome: Potential for smaller group discussions and/or working groups on specific topics (K-12, for example) forthcoming

<u>Upcoming</u>: Next peer exchange planned for late May with the topic for discussion as 'Maximizing The Impact of Revolving Loan Funds.'

SEP 2017 National Training Forum

Topics discussed included:

- ✓ Energy emergency/resilience
- ✓ State energy planning
- ✓ Benchmarking
- ✓ ESPCs
- Reporting and annual application processes



Available Now: SEP Quarterly Update

Tailored to SEO staff and consists of new resources and helpful tools, reminders of upcoming events, recaps of recent activities and state showcased successes!



Hot Topics



Announcements



Tools & Resources



State Showcase



Dear State Energy Offices,

Happy New Year! We hope you had a very happy, safe and relaxing holiday season.

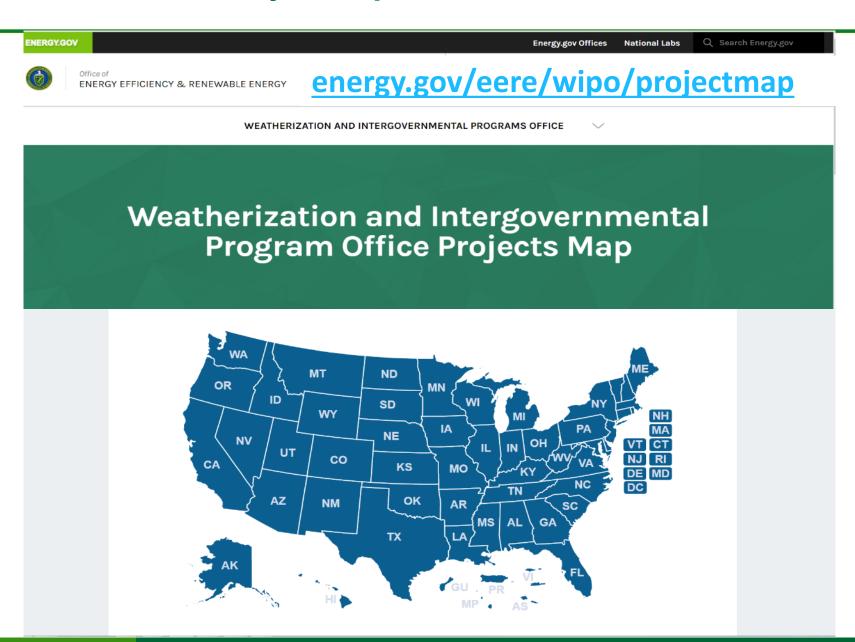
I am pleased to announce that with 2018 comes the first issue of the State Energy Program (SEP) Quarterly Update. As our valued partners, it is our goal to provide you with timely recaps of new and exciting SEP developments. The SEP Quarterly Update will be distributed via email and will include: reminders of upcoming deadlines as well as events and webinars you may choose to attend, SEP success stories from around the country, links to toolkits and resources we've developed for your benefit, and updates to program guidance or processes. Our hope is that you will find this newsletter to be interesting, informational and useful.

As you digest the first issue, we welcome your input on what content you would find most valuable in the future. Also, we hope to feature your submitted success stories in the 'State Showcase' in upcoming issues.

Thank you for all the great work you do to improve energy affordability, reliability and resiliency.

AnnaMaria Garcia

Available Now: WIP Project Map!



Coming soon: Guide for Incorporating EE into State Plans

- Describes 10 steps commonly taken by SEOs to add energy efficiency (EE) into state energy plans;
- Provides examples from 21 states on how energy planning has been used by SEOs to enhance EE projects;
- Summarizes DOE research on EE potential in each state:
- Provides links to reports and other DOE resources to help states looking to further low-cost EE options through state planning processes.
- Resource will live on State and Local Solution Center

energy.gov/eere/slsc

A Guide for Incorporating Energy Efficiency in State Energy Plans

INTRODUCTION

About this Guide

This guide, written for states, describes ten steps that are commonly incorporated into state energy plans. For each step, the guide provides tips and examples from state energy plans to help states support datadriven energy planning that can enhance energy efficiency. The guide is designed to inform state efforts; it is not meant to be a comprehensive review of how to conduct energy planning.

State Planning and Energy Efficiency

Implementing energy efficiency measures and technologies has significant potential for energy and cost savings.² The U.S. Department of Energy (DOE) estimates that energy efficiency improvements could cost-effectively save consumers and businesses approximately 741,000 gigawatt-hours of electricity between 2016 and 2035, which is equal to 16% of baseline retail sales in the United States in 2035. At the state level, those range from 12% to 21% of retail electricity sales. The map below shows the percent of electricity savings potential by state in 2035.³





States use energy planning to set strategic goals, develop programs, and measure progress toward a shared vision of a desired energy future. 4 The two most cited goals of the forty states with energy plans as of 2017 are to: 1) ensure a reliable supply of energy and 2) manage costs so energy is affordable for

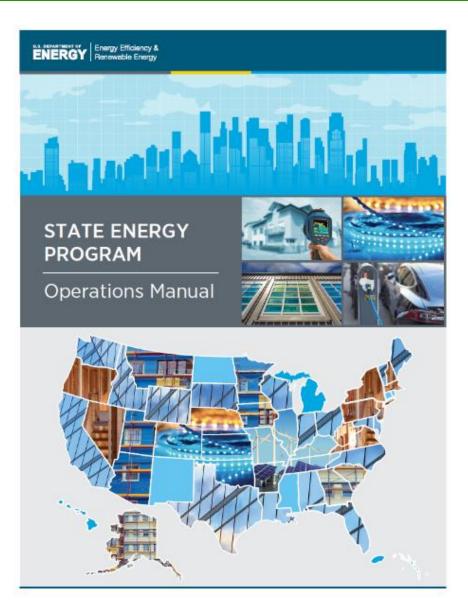
¹ For a comprehensive guide to state energy planning, see: Kate Marks and Julia Friedman. State Swergy Planning Guidelinez: A Guide to Develop a Comprehensive State Energy Plan Plus Supplemental Policy and Program Options (National Association of State Energy Officials, 2014).

² Energy efficiency is the reduction of energy use while maintaining the same level of service. Energy efficiency is often coordinated with energy conservation, which focuses on using less energy, or with demand-response programs that seek to lower the use of energy at specific times of the day or year when high energy demand may adversely affect system reliability.

⁵ Source: Electric Power Research Institute (EPRI), 2017. State Level Electric Energy Efficiency Potential Estimates.

While this guide is focused on energy-savings opportunities is residential, commercial and industrial sectors, it is important for state energy office officials to understand the significant energy impact of the transportation sector. It is expected that technological advancement u, e., the evolution and adoption of electric vehicles) will result in increased electricity consumption, but decreased energy use (or increased "energy productivity") overall. The so-called transportation-energy sexus is likely to impact state planning, policy and regulatory frameworks.

SEP Operations Manual Update



energy.gov/eere/wipo/state-energy-program

The SEP Operations Manual was launched in 2016. We're working an update now!

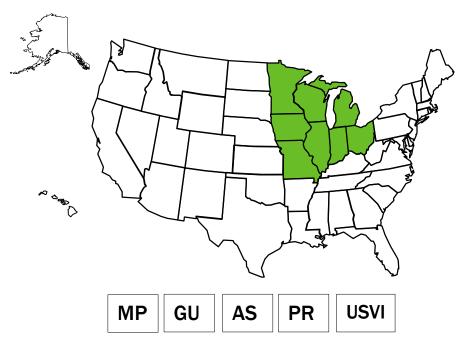
Topics Covered:

- SEP Funding Sources and Federal Regulations
- Rules and Procedures for Formula Funding
- Program Administration: Monitoring & Reporting
- DOE Technical Assistance Resources
- Appendix: Fact Sheet, PVE Funding Overview, Success Story template, etc.

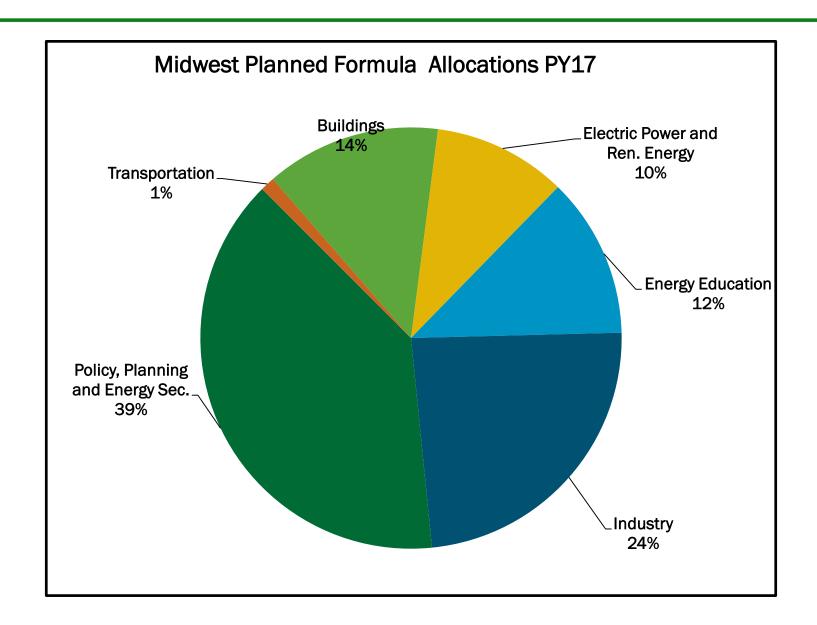
New SEP Success Stories



NASEO Midwest Region



NASEO Midwest: FY17 SEP Formula Market Titles



NASEO Midwest: New Success Stories

Office of Energy Efficiency & Renewable Energy

Minnesota Increasing Building Efficiency with Proven ESPC Model

JANUARY 4, 2017









Home » Minnesota Increasing Building Efficiency with Proven ESPC Model

EERE Success Story—Industrial Efficiency Protects Manufacturing Jobs

APRIL 27, 2017

Home > EERE Success Story-Industrial Efficiency Protects Manufacturing Jobs



EERE Success Story—Missouri Makes Critical Advances in Energy Efficiency at State Facilities

OCTOBER 24, 2017

Home » EERE Success Story—Missouri Makes Critical Advances in Energy Efficiency at State Facilities



With support from the Energy
Department's State Energy Program (SEP),
Missouri has made significant progress in
reducing energy consumption at its state
facilities.

A 2012 SEP Competitive Award helped Missouri achieve the energy efficiency goal set forth in Executive Order 09-18. The Executive Order mandated energy savings of two (2) percent per year for 10 years at state facilities managed by Missouri's

NASEO Midwest: Competitive Award Breakdown (2013-2016)

12 Competitive Awards totaling \$3.7M

Awards by Topic Area (2013-2016)

Advancing Industrial EE	IA, MI, WI
Financing	IL
Clean Energy Economic Opportunity Roadmaps	MI
Driving Demand for Public Facility Retrofits	IA, WI
Evaluation, Measurement, Verification	МО
State Energy Planning	IL, MI, MN
Working with Local Governments	MN

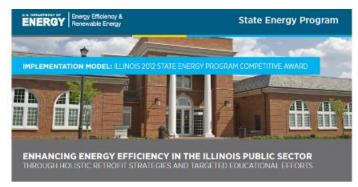
Outcomes so far (select examples)

- Minnesota's Guaranteed Energy Savings Program supports implementation of ESPCs. By 2016, the project pipeline consisted of 16 state and local entities totaling nearly 300 buildings and 9 million square feet. These projects are projected to save nearly \$900,000 and more than 40 billion Btus of energy annually.
- Missouri provided Building Operator Certification® (BOC) training to 250+ state facility managers and building operators to give them tools to increase savings at their facilities and achieve the state's mandated goal of 2% energy savings per year for 10 years.
- ✓ Wisconsin is implementing cost-effective Combined Heat and Power (CHP) and industrial energy efficiency opportunities (IEE) for the state's agriculture sector.

NASEO Midwest: SEP Implementation Models (IM)

ILLINOIS

ENHANCING EE THROUGH HOLISTIC RETROFIT STRATEGIES AND TARGETED EDUCATIONAL EFFORTS



Illinois prublic sector facilities have long been an underutiked source of energy efficiency. The state's wastewater treatment facilities, municipal facilities, street lighting, and K. Iz schools are the highest consuming facilities in terms of sillowath books (kWh), and therefore have the largest economic potential for gains in electric efficiency according to a 2015 study by the Energy Resources Center at University of Illinois - Chicago, For Illinois, this potential represents a great challenge and an even reparter corporation for the producting public sector huisting electricity consumption. In response to this challenge, Illinois developed the Trade ABy Program to incentivize retrotits and increase energy efficiency in buildings. The Illinois Department of Commerce received financial support through a State Energy Program Competitive award to develop and implement the Trade ABy Program between 2012 and 2015.



BUILDING ELECTRICITY CONSUMPTION

420% BY 2020

Achieve a 20 percent reduction of building electricity consumption in the Illinois public sector by 2020, from 2006 baseline.





The Illinois Department of Commerce and Economic Opportunity created and implemented the Illinois Energy Now Trade Ally Program, an initiative that utilizes recognition to feater competition among energy efficiency providers. The Program advances public sector participation in energy efficiency projects by empowering Trade Allies through enhanced networking, training, and technical assistance operharities. Barrier

PUBLIC SECTOR PARTICIPATION

Limited public sector participation in energy efficiency projects.





In less than one year, Trade Allies completed more than 300 new energy efficiency projects in the public sector, a 40% increase over projects completed in 2012. These projects encompassed a wide variety of upgrades that helpcel librate achieve energy savings of over 5.9 million MMBTU and thus meet its annual public sector energy efficiency milestones in 2015.

WEATHERIZATION AND INTERGOVERNMENTAL PROGRAMS OFFICE

IOWA

ADVANCING ENERGY EFFICIENCY THROUGH BENCHMARKING



The lowa Energy Center (IEC) launched the lowa Public Building Benchmarking Project in 2010 to collect building energy data in order to prioritize and catalyze public sector energy efficiency improvements by illustrating how buildings wearing and highlighting opportunities to reduce energy waste. The Project featured an online database of ublity consumption in public buildings and identified \$3.9 million in potential energy cost savings in its first phase. Eager to build upon the early success of the Project, lowa targeted and recruited building managers from the public sector to add 902 buildings to the database with financial support from a 2012 U.S. Department of Energy State Energy Program Competitive Award.





ENERGY CONSUMPTION IN PUBLIC BUILDINGS

\$\frac{1}{20\%}\$ BY 2020

Achieve a 20 percent decrease in energy consumption in public buildings by 2020, based on a 2009 baseline.





Engage public facility owners and utilities to expand the lowa Public Building Benchmarking Project (Project), and use the Project's web-based benchmarking tool as the basis for energy efficiency project decisions in public buildings.





INCOMPLETE DATA ON PUBLIC BUILDINGS

Decisions on energy efficiency improvements are difficult to prioritize across a large statewide public buildings portfolio when there is incomplete data on public buildings.





lowa added 902 buildings to its benchmarking database; exceeding the project pad by almost 15 percent and nearly doubling the number of public sector buildings enrolled. Project enrollment increased from 1,274 to 2,176 buildings; enrolled. Project enrollment increased from 1,278 to 2,176 buildings; representing over 40 percent of the estimated total public building portfolio, including; city, county, K-12 public school, higher education, and state buildings. The benchmarking tool identified a potential 1,090,398 million BTV in energy saxings, representing \$14,75,177 of annual energy cost savings. Seven of the organizations participating in this program for at least year realized an average energy use reduction of 4.8% annually. lowa will continue to use this robust data set and analysis to prioritize and accelerate energy efficiency upgrades in lowa's public buildings, moving the state doses to its energy goals.

WEATHERIZATION AND INTERGOVERNMENTAL PROGRAMS OFFICE

Partnerships & Technical Assistance (P&TA) Team

Helping States, Local Governments, and K-12 Schools:

Develop an Energy Plan



Design and Implement Energy Programs



Pay for Energy Initiatives



Access and Use Energy Data



Developing Resources & Sharing Best Practices

NEW! AVAILABLE NOW:

- C-PACE
 - C-PACE Working Group TA Overview
 - <u>C-PACE Working Group Expression of Interest Form</u>:
 Actively recruiting! Submit to stateandlocal@ee.doe.gov
 - <u>Lessons in Commercial PACE Leadership: The Path from Legislation to Launch</u>
 - C-PACE: An Overview for State and Local Governments
- Wastewater & Energy Savings Performance Contracting (ESPC)
 - Energy Data Management Manual for the Wastewater
 Treatment Sector
 - ESPC for Water Resource Recovery Facilities
 - ESPC: Improving Infrastructure & Turning Waste into Wins
- Better Communities Alliance (BCA) Resource Portfolio
- States, Local Governments, and K-12 Schools: Better Buildings
 Champions

COMING SOON:

Summer 2018: Energy Data Management Guide

March 201

Office of ENERGY ENERGY EFFICIENCY & RENEWABLE ENERGY

FACT SHEET: C-PACE Working Group

The C-PACE Working Group is a cohort of state and local governments working together to learn about, launch, and refine commercial property assessed clean energy (C-PACE) financing programs. This U.S. Department of Energy (DOE) initiative will leverage technical assistance from leading C-PACE experts and market partners to:

- Develop tools and solutions to barriers facing state and local governments;
- Convene and create peer exchanges to showcase public-sector leadership and effective public-private partnerships; and
- > Provide information from leading technical experts.

The goal of these efforts is to stimulate \$60 million in C-PACE investments by 2022.



Better Buildings Challenge and Accelerators



Better Buildings Challenge: Public Sector Results

(7 states, 46 local governments, 27 K-12 school districts)



ENERGY SAVED

45 TRILLION BTUS



CARBON EMISSIONS AVOIDED

2.9 MILLION TONS



DOLLARS SAVED

\$420 MILLION



WATER SAVED

1.5 BILLION GALLONS

Cumulative results through 2016

Accelerators & Toolkits

Sustainable Wastewater Infrastructure of the Future (SWIFt) Accelerator

- √ 100+ facilities across 24
 states aspiring to 30%+
 energy savings
- √ 100% of partners actively tracking energy performance

Outdoor Lighting Toolkit

 Ranked #3 most-viewed solution (out of more than 1,000 Better Buildings Solution Center resources) in 2017

Energy Savings Performance Contracting (ESPC) Toolkit

- Comprehensive set of resources to support every step of the ESPC decisionmaking process
- ✓ Guided tours available

State and Local Outreach

energy.gov/eere/slsc

State and Local Solution Center

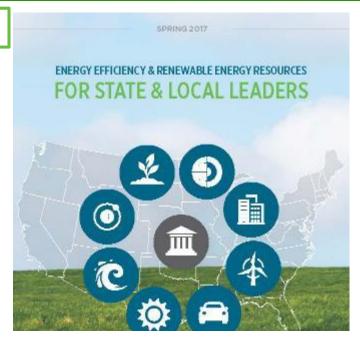
- 380+ tools, resources and best practices to implement energy projects
- 6,700+ average visits per month
- 30% increase in visits over FY'17
- Most popular pages in FY'17:
 - Property Assessed Clean Energy Programs
 - Energy Savings Performance Contracting
 - Building Energy Use Benchmarking

EE & RE Resources for State and Local Leaders

 Disseminated at several events targeting State and Local government leaders (e.g., NASEO, NCSL, NGA, FL & NV local events)

State and Local Spotlight

- Monthly update with 13,600+ subscribers
- Subscribe: http://energy.gov/eere/slsc
- Email Us: <u>stateandlocal@ee.doe.gov</u>



ENERGY.GOV
Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

State & Local Spotlight

March 1, 201

A monthly update from EERE's Weatherization and Intergovernmental Programs Office (WIP) for state, local, and K-12 officials featuring resources to enable strategic investments in energy efficiency and renewable energy technologies and innovative practices across the United States by a wide range of government, community, and business stakeholders, in partnership with state and local organizations and community-based nonprofits.

Commercial PACE News and Events

New Resource—Lessons in Commercial PACE Leadership: The Path from Legislation to Launch

Commercial property assessed clean energy (C-PACE) financing is a rapidly growing market and an opportunity for state and local governments to support economic



2018 Better Building Summit!

SAVE THE DATE!



betterbuildingssolutioncenter.energy.gov/summit

Strategic & Interagency Initiatives Team

Inter-organizational initiatives that help underserved communities gain access to more energy efficiency and renewable energy choices



Clean Energy for Low Income Communities Accelerator (CELICA)

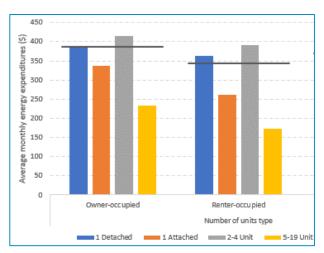
Year 2 continued...

37 partners (14 state, 12 local, 11 community action agencies/non-profits/utilities)

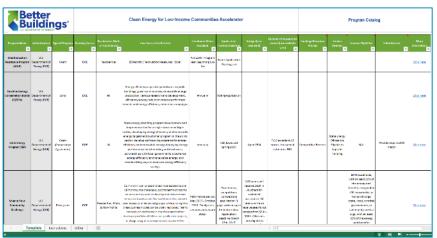


CELICA Resources Available Now

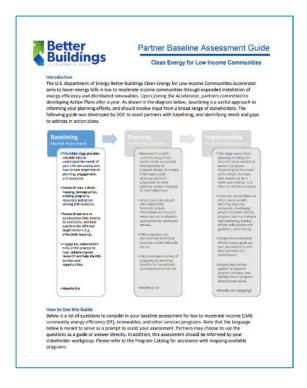
Low-income Energy Affordability Data (LEAD) tool



CELICA Program Funding Catalog



Low Income Energy Baseline Assessment Guide



SEE Action - What's New

Guide for States: EM&V Frameworks for EE Portfolios Funded by Utility Customers

Guide for States on Technical Reference Manuals

ENERGY STAR®
Retail Products
Platform (RPP):
Evaluation Guidance

Contact: Johanna Zetterberg

<u>Johanna.Zetterberg@ee.doe.gov</u>
(202) 288-7414



Sign up for announcements www.seeaction.energy.gov

QUESTIONS?



THANK YOU!

Amy Royden-Bloom

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