

# ENERGY EFFICIENCY AND RENEWABLE ENERGY RESOURCES FOR STATE AND LOCAL LEADERS



Serving 50 States and 6 Territories

FALL 2018

# Energy efficiency and renewable energy are a **win-win** for state and local governments and K-12 schools.

Investments in energy efficiency and renewable energy infrastructure help create vibrant and healthy communities; provide a secure, reliable source of energy for homes and businesses; and produce well-paying, local jobs. As key decision makers for American energy investments, state and local governments are valued partners to the U.S. Department of Energy (DOE). Energy innovations at the state and local level help power the nation's economy.

The Weatherization and Intergovernmental Programs Office (WIP) is part of the DOE **Office of Energy Efficiency and Renewable Energy (EERE)** and it supports DOE's mission to create greater energy affordability, security, and resiliency. WIP's mission is to **enable strategic investments** in energy efficiency and renewable energy technologies through the use of innovative practices across the United States in partnership with a wide range of stakeholders, including state and local organizations and community-based non-profits. WIP supports DOE's strategic objective **to lower energy bills while expanding cost-effective energy choices** for all Americans through the Weatherization Assistance Program (WAP) and State Energy Program (SEP). For example:

- WAP has weatherized more than **7 million homes** and **annually supports 8,500 jobs** across the country. Through the weatherization improvements, these households save an average of \$283 every year.
- States use SEP funds to implement their energy security, economic development, resiliency, and emergency preparedness plans. Since 2010, SEP has supported states in **reducing energy waste** in more than 35,000 public buildings (166 million square feet) through energy efficiency upgrades.

WIP also helps state and local governments meet their energy goals by **developing tools and solutions to barriers**; convening and creating peer exchanges to showcase public sector leadership and effective private-public partnerships; and providing information from leading technical experts.

## State and Local Leaders successfully leveraged resources to

ACHIEVE OVER  
**\$2 BILLION**

IN PUBLIC-SECTOR ENERGY  
EFFICIENCY INVESTMENTS VIA

**ENERGY SAVINGS PERFORMANCE  
CONTRACTING (ESPC)**

COMMIT UP TO  
**\$335 MILLION**

TO HELP 155,000 LOW INCOME  
HOUSEHOLDS ACCESS ENERGY  
EFFICIENCY AND RENEWABLE

**ENERGY BENEFITS**

ACHIEVE A COMMITMENT TO  
UPGRADE

**1.3 MILLION**

STREET LIGHTS

**WITH AN EXPECTED ANNUAL  
SAVINGS OF \$48 MILLION**



Learn more:  
**ESPC Toolkit**

**New Resource:** Energy Savings Performance Contracting for Water Resource Recovery Facilities



Learn more:  
**Low-Income Energy Program Toolkit**

**New Resource:** Low-income Energy Affordability Data (LEAD) Tool



Learn more:  
**Outdoor Lighting Toolkit**

**New Resource:** Street Lighting Acquisition Evaluation Tool

Visit the State and Local Solution Center to find resources with valuable lessons learned and replicable solutions.

[energy.gov/EERE/SLSC](https://energy.gov/EERE/SLSC)

# Take A Closer Look



## Supporting Sustainable Wastewater Infrastructure

- Water and wastewater typically account for 30-40% of municipal energy budgets
- **Retrofits can save up to 50%**

Learn more and find resources: [energy.gov/eere/slsc/wastewater-infrastructure](https://energy.gov/eere/slsc/wastewater-infrastructure)



## Benchmarking Building Energy Use

- Benchmarked buildings save on average 2.4% annually
- **Potential energy cost savings for state and local governments are ~\$700 million per year**

Learn more and find resources: [energy.gov/eere/slsc/benchmarking](https://energy.gov/eere/slsc/benchmarking)



## Lowering Costs for Low-Income Households

- Low-income households represent 44% of all U.S. households and spend on average 8% of income on energy bills—three times more than those that are not low-income
- **Energy efficiency and distributed renewables can reduce the burden**

Learn more and find resources: [energy.gov/eere/slsc/low-moderate-income-communities](https://energy.gov/eere/slsc/low-moderate-income-communities)

### WIP Project Map

This interactive project map allows users to click on each state to open a new web page summarizing its SEP and WAP projects, recently published WIP success stories, and state-related Better Buildings initiatives.

[energy.gov/eere/wipo/weatherization-and-intergovernmental-program-office-projects-map](https://energy.gov/eere/wipo/weatherization-and-intergovernmental-program-office-projects-map)

### C-PACE Working Group

Commercial Property Assessed Clean Energy (C-PACE) market stakeholders and DOE are partnering with state and local governments to improve access to C-PACE financing and drive \$60 million in investment in building energy improvements.

[energy.gov/eere/slsc/commercial-pace-working-group](https://energy.gov/eere/slsc/commercial-pace-working-group)

## Keep the Conversation Going

Subscribe to Updates: [energy.gov/eere/slsc/subscribe](https://energy.gov/eere/slsc/subscribe)

Explore Resources: [energy.gov/eere/slsc/explore](https://energy.gov/eere/slsc/explore)

Contact Us: [stateandlocal@ee.doe.gov](mailto:stateandlocal@ee.doe.gov)

# Take Action

The State and Local Solution Center provides resources to support the energy priorities of state and local governments. These resources and WIP's activities produce almost immediate results, saving taxpayer dollars, making full use of domestic energy resources, boosting local economic development, spurring job creation, cutting energy waste, improving energy independence and security, and furthering the development of energy infrastructure. The resources are organized into four lead-by-example actions public sector leaders can take:



## Develop an Energy Plan

The development of a long-term energy plan is a foundational step for establishing and meeting state and local energy objectives. Effective planning enables energy performance improvements, cost savings, job growth, and public health benefits.

Available resources include:

- **Guide for Incorporating Energy Efficiency in State Energy Plans** – Provides guidance for incorporating energy efficiency into state plans and offers tips and examples at each stage in the energy planning process. The Guide complements the National Association of State Energy Officials (NASEO) State Energy Planning Guidelines.
- **State-by-State Energy Efficiency Potential** – Shows economic energy-efficiency potential in residential, commercial, and industrial buildings, plus a catalog of state and utility energy efficiency potential studies.
- **Guide to Community Energy Strategic Planning** – Introduces a step-by-step process for creating a robust strategic energy plan and offers tools and tips to complete each step.



## Design and Implement Energy Programs

State and local governments are uniquely positioned to identify and achieve their energy efficiency and renewable energy goals through programs that leverage their roles as both governing bodies and owners of facilities and infrastructure.

Available resources include:

- **State Energy Program Implementation Models** – Describes state approaches to overcoming an energy barrier. Implementation models serve as “how-to” guides for other states who wish to replicate the programs that are achieving energy efficiency savings.
- **Better Communities Alliance Resource Portfolio** – Compiles DOE resources and initiatives designed to support local governments in the areas of energy planning, infrastructure, buildings, finance, and data, among others.
- **Remote Alaskan Communities Energy Efficiency (RACEE) Competition** – Shows developing, reliable, and affordable energy efficient solutions that are replicable across remote communities.



## Pay For Energy Initiatives

An important component of a successful strategy is finding a way to pay for energy initiatives. Many state and local governments have found ways to use both innovative financing mechanisms and traditional finance tools to support their energy goals. Some mechanisms include bonding tools, loans, Energy Savings Performance Contracting (ESPC), Property Assessed Clean Energy (PACE), and on-bill financing.

Available resources include:

- **Lessons in Commercial PACE Leadership: The Path from Legislation to Launch** – Captures lessons learned from state and local leaders to fast track the set-up of commercial PACE financing programs. The resource draws on interviews with market actors and program implementers and guides the reader through key decision points in program development.
- **Expanding ESPC to New Markets** – A series of ESPC guides introducing performance contracting as a way to increase energy efficiency and upgrade facilities in particular market sectors. Sector guides are available now for K-12 schools, fleets and fueling infrastructure, and wastewater treatment facilities. Upcoming guides will address small projects and hospitals.
- **Current Practices in Efficiency Financing: An Overview for State and Local Governments** – Provides guidance to state and local governments as they determine which financing programs best suit the needs of their communities.



## Access and Use Energy Data

States, local governments, and school districts are using data-driven energy management to cut energy waste—by around 2% per year on average—and to realize associated cost savings. Whether for a single building, campus, or across a portfolio of assets, effective energy management includes activities such as establishing an energy baseline, benchmarking, utilizing energy data to identify savings opportunities, and measuring and verifying results.

Available resources include:

- **Energy Data Management Guide** – A seven-step framework for establishing a robust and sustainable energy data management program in the public sector—the foundation for strategic energy management.
- **Putting Data to Work** – Examines how data from building performance ordinances can deliver an array of benefits for local governments, energy efficiency service providers, utilities, and building owners.
- **Evaluation, Measurement, and Verification of Energy Data** – A web portal with a variety of resources on evaluating the performance of energy efficiency activities.

STATE AND LOCAL SOLUTION CENTER:  
[energy.gov/eere/slsc/popular-tools-and-resources](https://energy.gov/eere/slsc/popular-tools-and-resources)

# Engaging with EERE

The mission of EERE is to create and sustain American leadership in the transition to a global clean energy economy. Its vision is a strong and prosperous America powered by clean, affordable, and secure energy.

Below are a few examples of EERE initiatives and resources for state and local governments in the areas of energy efficiency, renewable energy, and sustainable transportation. To learn more, visit the State and Local Solution Center: [energy.gov/eere/slsc/other-state-and-local-resources](http://energy.gov/eere/slsc/other-state-and-local-resources).

## RENEWABLE POWER



### SOLAR

**SolSmart** helps communities across the country become “open for solar businesses” through no-cost technical assistance and national recognition.



### GEOTHERMAL

**Regulatory and Permitting Information Desktop Toolkit** is a suite of tools to facilitate efficient state and federal permitting of new geothermal, solar, and transmission projects.



### WIND

**WINDExchange** provides resources to help communities weigh the benefits and costs of wind energy and get data, analysis tools, and information about each step in the wind energy development process.



### WATER

**Hydropower Vision** is a first-of-its-kind comprehensive analysis to evaluate future pathways for hydropower in the United States. It is focused on continued technical evolution, increased energy market value, and environmental sustainability.

## ENERGY-SAVING HOMES, BUILDINGS, & MANUFACTURING



### GOVERNMENT

**The WIP Project Map** enables users to explore recent SEP and WAP projects, WIP success stories, and public sector Better Buildings initiatives.



### HOMES

**Home Energy Score** is a simple tool to help homeowners, homebuyers, and renters gain comparable and credible information about a home's energy use.



### BUILDINGS

**The Standard Energy Efficiency Data Platform** allows cities and states to streamline the process of managing and standardizing portfolio-scale building performance data. Users can combine, clean, store, compare, and share data using this open-source database.



### The Zero Energy Schools Accelerator

provides school districts with technical guidance and resources to help break down barriers to achieving zero net energy.



### ADVANCED MANUFACTURING

**Industrial Assessment Centers** conduct assessments and provide site-specific recommendations to small manufacturers on opportunities to improve productivity, reduce waste, and save energy.

## SUSTAINABLE TRANSPORTATION



### VEHICLES

**Clean Cities** coalitions bring together cities and other key stakeholders to drive the development and use of affordable, domestic transportation fuels, technologies, and energy-efficient mobility solutions.



### BIOENERGY

**Integrated Biorefineries Interactive Map** showcases biorefineries by state at pilot, demonstration, and pioneer scales.



### HYDROGEN AND FUEL CELLS

**H2USA** is a public-private collaboration focused on overcoming the barriers to hydrogen infrastructure and increasing the widespread adoption of fuel cell electric vehicles.

**EERE CROSS-CUTTING INITIATIVES** provide state and local decision makers technical assistance and resources to lead innovation and achieve their energy efficiency and renewable energy priorities. For information about EERE Funding Opportunities, visit EERE Exchange: <https://eere-exchange.energy.gov/>.

**SEE Action**  
STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

**Better Buildings**  
U.S. DEPARTMENT OF ENERGY

**Cities-LEAP**

U.S. DEPARTMENT OF  
**ENERGY**

Office of ENERGY EFFICIENCY  
& RENEWABLE ENERGY

For more information, visit: [energy.gov/eere/slsc](http://energy.gov/eere/slsc)  
or email us: [stateandlocal@ee.doe.gov](mailto:stateandlocal@ee.doe.gov)

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