Energy Efficiency Resources to Support State Energy Planning

State and local governments across the United States are focused on meeting a variety of energy, economic development, and environmental goals. Energy efficiency improvements could meet these needs while cost-effectively saving consumers and businesses nearly 741,000 gigawatt hours of electricity between 2016 and 2035, which is equal to about 16% of the electricity use projected in 2035 in the United States.[1] They can also provide air quality improvements, local jobs, and increased energy system reliability.

An early step for most energy efficiency planning is to identify and quantify energy savings opportunities, and then to understand how to access this potential. The U.S. Department of Energy's (DOE's) Office of Energy Efficiency and Renewable Energy (EERE) offers resources that can help with both of these steps.

Access the resources described in this fact sheet on the EERE website: energy.gov/eere/slsc/EEopportunities

Energy efficiency savings can come from many types of energy efficiency programs and activities across the residential, commercial, and industrial sectors. *Photos courtesy of iStock and (top left) the National Renewable Energy Laboratory / Subrato Chandra*

Identify Energy Efficiency Potential

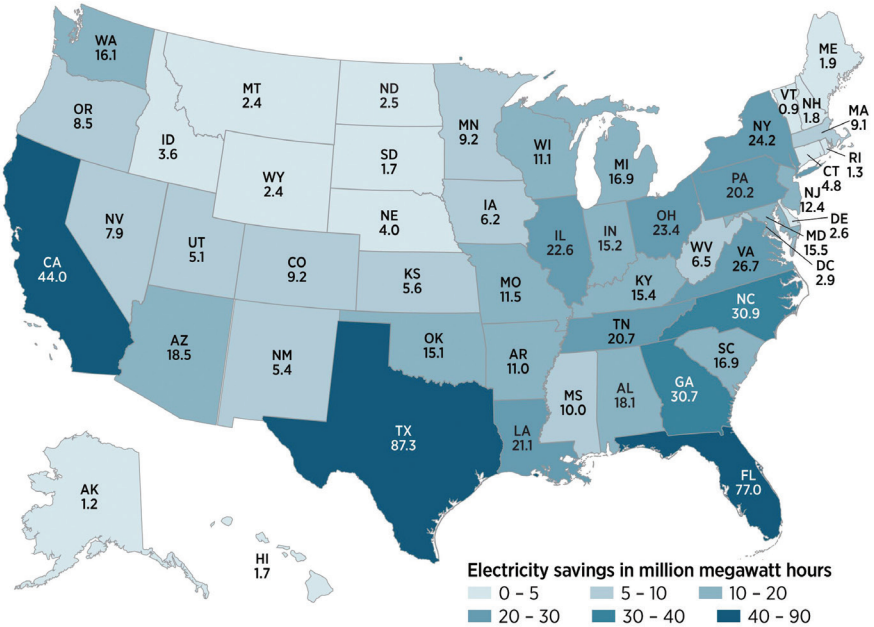
State Level Electric Energy Efficiency Potential Report and Maps

An EERE-commissioned Electric Power Research Institute study consistently quantifies total residential, commercial, and industrial electric energy efficiency potential on a state level. This report shows total state electricity savings available cost-effectively from 2016 to 2035 in million megawatt hours (equivalent to thousand gigawatt hours) and as a percentage of state sales, and it shows which states are on track to achieve these savings.

Additional EERE studies show state-level energy efficiency potential from four specific types of energy efficiency opportunities:

- Residential single-family homes: electricity and total energy (report and map available)
- Industrial: total energy and electricity (memo and maps available)
- Building energy codes: total energy, cost savings, and emissions (report and map available)
- Combined heat and power: electricity (report, map, and state profiles available).

Total Economic Electricity Savings Potential by State: Residential, Commercial, and Industrial (2016—2035)[2]



Additional maps on the website show energy efficiency potential from residential buildings, industrial facilities, building energy codes, and combined heat and power.

[1, 2] Electric Power Research Institute, *State Level Electric Energy Efficiency Potential Estimates*, 2017.

Catalog of Energy Efficiency Potential Studies

EERE compiled approximately 80 energy efficiency potential studies published by states, utilities, and non-governmental organizations from 2007 to 2016 that identify economic electricity savings available within their jurisdictions. The majority of these studies (66%) found an average potential electricity savings rate of 1% to 2.5% available per year. The catalog contains an easy-to-read chart comparing these studies and provides links for each.

Access Energy Efficiency Opportunities

Learn about approaches to access specific energy efficiency opportunities through the State and Local Energy Efficiency Action Network (SEE Action) and pathway presentations.

SEE Action's Guide for States

SEE Action is a state- and local-led effort facilitated by DOE and the U.S. Environmental Protection Agency to bring energy efficiency to scale. *SEE Action's Guide for States: Energy Efficiency as a Least-Cost Strategy to Reduce Greenhouse Gases & Air Pollution, and Meet Energy Needs in the Power Sector* presents established pathways to advance demand-side energy efficiency; case studies of successful regional, state, and local approaches; and common protocols for documenting savings.

Pathway Presentations

Read short presentations (15–20 slides each) on actions that states can take to achieve savings from specific energy efficiency opportunities:

- Ratepayer-funded energy efficiency
- Industrial energy efficiency
- Building energy codes
- City-led energy efficiency
- Combined heat and power
- Energy savings performance contracting.

A summary presentation is also available.

Access the resources described in this fact sheet on the EERE website: energy.gov/eere/slsc/EEopportunities

Additional Resources

The Energy Efficiency Opportunities web page also links to several other resources, including

State and Local Solution Center

Features resources for developing an energy plan, designing and implementing energy programs, paying for energy initiatives, and accessing and using energy data.

Technical Assistance Gateway

Provides an access point to DOE's technical assistance and cooperative activities with state, local, and tribal officials.

SEE Action EM&V Portal

Lists resources for energy efficiency program administrators and program managers that address consistency of evaluation, measurement, and verification (EM&V).

U.S. Energy and Employment State Report

This report provides a demographic and sector analysis of direct energy employment for each state across four categories: power generation, transmission, energy efficiency, and vehicles.

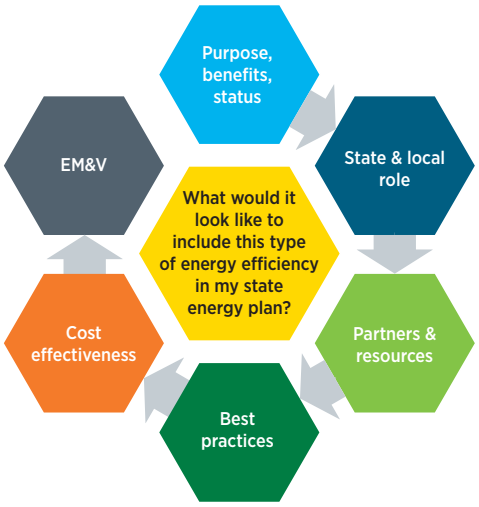
Presentation: Accessing DOE's Many Energy Efficiency Resources and Technical Assistance

Gives a brief synopsis of EERE energy efficiency partnership programs and resources.

Presentation: Energy Modeling 101

Covers the basics of the power sector modeling and analytical tools that provide data on the electric power system.

Pathway presentations show how state energy planners can incorporate energy efficiency opportunities into their decision making.



U.S. DEPARTMENT OF ENERGY
Energy Efficiency & Renewable Energy

For more information, visit energy.gov/eere/slsc/EEopportunities
or contact stateandlocal@ee.doe.gov

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