

EXECUTIVE SUMMARY

The 2015 State Energy Efficiency Scorecard

The year 2015 marks a tipping point for energy efficiency. State policies are increasingly encouraging utilities to invest in cost-effective efficiency, prompting them to adopt new business models that align their interests with those of customers and policymakers. Utilities across the United States invested more than \$7 billion in energy efficiency over the past year. States are also spurring energy efficiency investments through advancements in building energy codes, transportation planning, and leading by example in their own buildings. These investments in energy efficiency reap huge benefits, giving businesses, governments, and consumers more control over how and when they use energy. Efficiency saves money, drives investment across all sectors of the economy, creates jobs, and reduces the environmental impact of energy use. This summer's release of the Clean Power Plan by the US Environmental Protection Agency (EPA) further motivates states to invest in cost-effective energy efficiency as a compliance option.

Governors, legislators, regulators, and citizens are increasingly recognizing that energy efficiency is a crucially important state resource. As a result, many innovative policies and programs that promote energy efficiency originate at the state level. *The 2015 State Energy Efficiency Scorecard* reflects these successes through a comprehensive analysis of state efforts to support energy efficiency.

In this ninth edition of our *State Energy Efficiency Scorecard*, the American Council for an Energy-Efficient Economy (ACEEE) ranks states on their policy and program efforts and recommends ways that states can improve their energy efficiency performance in various policy areas. The *State Scorecard* provides an annual benchmark of the progress of state energy efficiency policies and programs. It encourages states to continue strengthening their efficiency commitments in order to promote economic growth, secure environmental benefits, and increase their communities' resilience in the face of the uncertain cost and supply of the energy resources on which they depend.

The 2015 State Energy Efficiency Scorecard assesses state policies and programs that improve energy efficiency in our homes, businesses, industries, and transportation systems. It considers the six policy areas in which states typically pursue energy efficiency:

- Utility and public benefits programs and policies
- Transportation policies
- Building energy codes and compliance
- Combined heat and power (CHP) policies
- State government-led initiatives around energy efficiency
- Appliance and equipment standards

KEY FINDINGS

Figure ES1 shows states' rankings in *The 2015 State Energy Efficiency Scorecard*, dividing them into five tiers for ease of comparison. Later in this section, table ES1 provides details of the scores for each state. An identical ranking for two or more states indicates a tie.

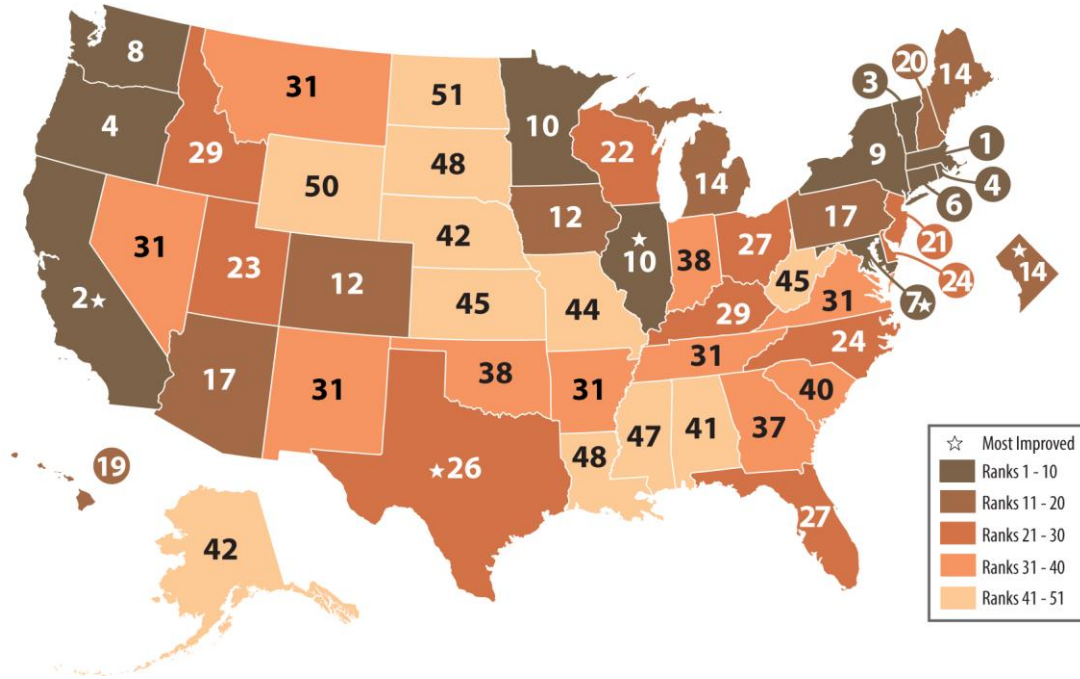


Figure ES1. 2015 State Scorecard rankings

Massachusetts retained the top spot in the *State Energy Efficiency Scorecard* rankings for the fifth year in a row, having overtaken California in 2011. The state's achievement is based on its continued commitment to energy efficiency under its Green Communities Act of 2008. Among other things, the legislation has spurred greater investment in energy efficiency programs by requiring utilities to save a large and growing percentage of energy every year through efficiency measures. Massachusetts achieved incremental electricity savings of over 2.4% of statewide retail sales in 2014.

Joining Massachusetts in the top five are **California, Vermont, Rhode Island, and Oregon**. All of these states have appeared in the top five in the past, demonstrating the continuing commitment and progress of the states in the top tier.

Connecticut, Maryland, Washington, New York, Minnesota, and Illinois rounded out the top tier. These states have well-established energy efficiency programs but also continue to push the boundaries by redefining the ways in which policies and regulations can enable energy efficiency.

States Rising and Falling

This year's most improved states were **Maryland, Illinois, the District of Columbia, California, and Texas**. Most-improved states showed the largest increases in points over last year's totals. Maryland has been a top-performing state for several years and in 2015 increased its commitment to energy efficiency by establishing new, more aggressive energy savings targets for utilities. Illinois is well along the path toward adoption of the most recent building energy codes, and procurement agreements with the Illinois Power Agency have allowed utilities to achieve energy savings beyond the constraints of a spending cap placed on programs run under the state's energy efficiency resource standard (EERS). The District of Columbia is among the most improved for the second year in a row, due to its progress across a number of policy areas and the ramping up of DC Sustainable Energy Utility programs. California's major efforts to achieve energy efficiency in schools, in addition to its implementation of a cap-and-trade program, earned the state several more points this year. Texas installed the most new CHP capacity of any state in 2014 and also prioritized building energy code compliance efforts through a partnership with the US Department of Energy.

Other states have also made recent progress in energy efficiency. **Delaware** actively convened stakeholder groups over the past year to develop energy savings targets for utilities and the Delaware Sustainable Energy Utility. **Pennsylvania** established new energy efficiency targets for electric utilities for the next five years.

Sixteen states fell in the rankings this year, and 27 states and two territories lost points because of substantive changes in their performance as well as changes in our methodology. **New Mexico** fell the farthest, losing four points and falling six positions in the rankings. This drop is indicative of the need to consistently update and improve policy. Although New Mexico has energy savings targets in place, other states have ramped up energy savings in recent years and adopted more recent (and more stringent) versions of building energy codes.

Results by Policy Area

The leading states in utility-sector energy efficiency programs and policies (covered in Chapter 2) were **Massachusetts, Rhode Island, and Vermont**. These are the same three states that topped this category in 2014. With long records of success, all three continued to raise the bar on cost-effective programs and policies. Massachusetts and Rhode Island both earned maximum points in this category for the second year in a row, with Rhode Island achieving incremental electricity savings of well over 3% of retail sales.

Total spending for electricity efficiency programs in 2014 reached \$5.9 billion. Adding this to natural gas program spending of \$1.4 billion, we estimate total efficiency program spending of more than \$7.3 billion in 2014. Reported state budgets were again slightly higher than actual spending. In 2014 budgets totaled \$8.2 billion, a significant increase over the \$7.7 billion we reported last year.

Savings from electricity efficiency programs in 2014 totaled approximately 25.7million megawatt-hours (MWh), a 5.8% increase over last year. These savings are equivalent to

about 0.7% of total retail electricity sales across the nation in 2014. Gas savings for 2014 were reported at 374 million therms (MMTherms), a 35% increase over 2013.

Twenty-five states continue to enforce and adequately fund energy savings targets to drive investments in utility-sector energy efficiency programs. The states with the most aggressive savings targets included **Arizona, Massachusetts, and Rhode Island**. This year **Maryland** also finalized strong energy savings goals. **New York** is making major changes to its utility regulatory structure as part of the state's ongoing Reforming the Energy Vision (REV) process, but multiyear savings targets remain an important measure of performance. In **Maine**, legislators and regulators made back-and-forth decisions about funding limits, but as of the time of publication Efficiency Maine was fully funded to implement the state's all-cost-effective efficiency mandate. Doubt remains as to the future of energy savings targets in **Ohio**, but most utilities in the state continue to meet targets despite a freeze put in place by legislation passed last year.

California, Massachusetts, and New York led the way in energy-efficient transportation policies (covered in Chapter 3). California's requirements for reductions in greenhouse gas (GHG) emissions have led it to identify several strategies for smart growth, and Massachusetts promoted smart growth development in cities and municipalities through state-delivered financial incentives. New York is one of the few states in the nation to have a vehicle-miles-traveled reduction target.

The leading states in building energy codes and compliance (Chapter 4) were **California** and **Illinois**. Only four states – **California, Illinois, Maryland, and New Jersey** – have adopted the latest commercial *and* residential building energy codes without significant weakening amendments.

Massachusetts, Maryland, and California took top points for their combined heat and power policies (Chapter 5), while **California, Illinois, Minnesota, and New York** led the way in state government initiatives (Chapter 6). All of these states offer financial incentives to consumers and state and local governments, and also invest in research and development programs focused on energy efficiency.

California continues to lead the nation in its setting of appliance standards (Chapter 7). This year, to address its drought conditions, California adopted new standards for plumbing products that will lead to both energy and water savings.

Table ES1 gives an overview of how the states fared in each scoring category.

Table ES1. Summary of state scores in the *2015 State Scorecard*

Rank	State	Utility & public benefits programs & policies (20 pts.)	Transportation policies (10 pts.)	Building energy codes (7 pts.)	Combined heat & power (4 pts.)	State government initiatives (7 pts.)	Appliance efficiency standards (2 pts.)	TOTAL SCORE (50 pts.)	Change in rank from 2014	Change in score from 2014
1	Massachusetts	20	8.5	6	4	5.5	0	44	0	2
2	California	14	10	7	4	6.5	2	43.5	0	3
3	Vermont	19	7	6.5	2	5	0	39.5	0	2
4	Oregon	13	8	6.5	2.5	5.5	1	36.5	-1	-1
4	Rhode Island	20	5	5	3	3	0.5	36.5	-1	-1
6	Connecticut	15	6	5	3	5.5	1	35.5	0	0
7	Maryland	12	7	6.5	4	5	0.5	35	2	5
8	Washington	11	8	6.5	2.5	5	0.5	33.5	0	0
9	New York	10	8.5	5	3	6	0	32.5	-2	-2.5
10	Illinois	10	6	7	2	6	0	31	1	4
10	Minnesota	13.5	4	5.5	2	6	0	31	0	2
12	Colorado	8.5	5	4.5	1	5	0.5	24.5	1	0
12	Iowa	11	2.5	6	1.5	3.5	0	24.5	2	0.5
14	District of Columbia	6	6.5	6	1	3.5	0.5	23.5	7	3.5
14	Maine	8	6	2	2.5	5	0	23.5	2	1
14	Michigan	11.5	4.5	4	1	2.5	0	23.5	-2	-2.5
17	Arizona	11.5	3.5	2	1.5	3	0.5	22	-2	-1.5
17	Pennsylvania	4	6	4.5	2.5	5	0	22	3	1.5
19	Hawaii	12	4	2	1	2.5	0	21.5	-2	0
20	New Hampshire	9	2	4	1	3	0.5	19.5	2	1
21	New Jersey	5	6	4	1.5	2.5	0	19	-2	-2
22	Wisconsin	7.5	2	2.5	2	4	0	18	-5	-3.5
23	Utah	6.5	2	3.5	1	4	0	17	0	-1
24	Delaware	0	6	4.5	1.5	4.5	0	16.5	1	-0.5
24	North Carolina	2	4	4	2	4.5	0	16.5	0	-1
26	Texas	0.5	3	6	2	4	0.5	16	8	3
27	Florida	1.5	5	5.5	1	2.5	0	15.5	1	-1
27	Ohio	7	0.5	3	1.5	3.5	0	15.5	-2	-1.5
29	Idaho	4	0.5	5.5	0.5	3.5	0	14	1	-0.5
29	Kentucky	2.5	1	5	0.5	5	0	14	4	0.5
31	Arkansas	7	1	3.5	0	1.5	0	13	0	-1
31	Montana	3.5	0	5	1	3.5	0	13	0	-1
31	Nevada	3	1	4	1	4	0	13	-2	-3
31	New Mexico	4.5	1	3	1	3.5	0	13	-6	-4
31	Tennessee	1.5	4.5	1.5	0.5	5	0	13	7	1
31	Virginia	-0.5	5	4	0	4.5	0	13	4	0.5
37	Georgia	1.5	4.5	3.5	0	2.5	0.5	12.5	-2	0
38	Indiana	4	2.5	2	0.5	2	0	11	2	0.5
38	Oklahoma	3	1	3	0.5	3.5	0	11	-3	-1.5
40	South Carolina	1	3	3	0	3	0	10	2	0
41	Alabama	0	0.5	4.5	0	4.5	0	9.5	-2	-1.5
42	Alaska	0	2	1.5	1	4.5	0	9	5	1
42	Nebraska	0.5	0.5	5	0	3	0	9	0	-1
44	Missouri	1.5	1	1.5	0.5	4	0	8.5	0	-0.5
45	Kansas	0	1	2	0.5	4.5	0	8	-5	-2.5
45	West Virginia	-0.5	3	4.5	0.5	0.5	0	8	1	-0.5
47	Mississippi	0.5	1	2.5	0.5	3	0	7.5	0	-0.5
48	Louisiana	0.5	1.5	2	0.5	1.5	0	6	-4	-3
48	South Dakota	3	0.5	0.5	0.5	1.5	0	6	1	-1.5
50	Wyoming	1	1	2	0	1.5	0	5.5	0	-1
51	North Dakota	0	1.5	1.5	0.5	0.5	0	4	0	0

We also included three US territories in our research this year: Puerto Rico, Guam, and the US Virgin Islands. While we did score these territories, we did not include them in our general rankings. All of them have taken some steps toward ensuring that building energy codes meet the requirements of the American Recovery and Reinvestment Act, but they have not yet invested heavily in energy efficiency in other sectors. The best-performing of these, Puerto Rico, would rank 48th if it were a state. Table ES2 shows their scores.

Table ES2. Summary of scores for territories in the *2015 State Scorecard*

Territory	Utility & public benefits programs & policies (20 pts.)	Transportation policies (10 pts.)	Building energy codes (7 pts.)	Combined heat & power (4 pts.)	State government initiatives (7 pts.)	Appliance efficiency standards (2 pts.)	TOTAL SCORE (50 pts.)	Change in score from 2014
Puerto Rico	0	2.5	2.5	0	2	0	7	0
Guam	0	0	3	0	0.5	0	3.5	-1
US Virgin Islands	0	0	2.5	0	0.5	0	3	-1

STRATEGIES FOR IMPROVING ENERGY EFFICIENCY

Put in place and adequately fund an EERS or similar energy savings target. EERS policies establish specific energy savings targets that utilities or independent statewide program administrators must meet through customer energy efficiency programs. They serve as an enabling framework for cost-effective investment, savings, and program activity. EERS policies can catalyze increased energy efficiency and its associated economic and environmental benefits.

Examples: Massachusetts, Arizona, Hawaii, Rhode Island

Adopt updated, more stringent building energy codes, improve code compliance, and involve efficiency program administrators in code support. Buildings use more than 40% of the total energy consumed in the United States, making them an essential target for energy savings. Mandatory building energy codes are one way to ensure a minimum level of energy efficiency for new residential and commercial buildings.

Examples: California, Maryland, Illinois, Mississippi

Set quantitative targets for reducing vehicle miles traveled, and integrate land use and transportation planning. Like buildings, transportation consumes a substantial portion of the total energy used in the United States. Although the recent federal fuel economy standards will go a long way in helping to reduce fuel consumption, states will realize even greater energy savings by codifying targets for reducing vehicle miles traveled (VMT) as well as integrating land use and transportation planning to create sustainable communities with access to multiple modes of transportation.

Examples: California, New York, Massachusetts, Oregon

Treat cost-effective and efficient CHP as an energy efficiency resource equivalent to other forms of energy efficiency. Many states list CHP as an eligible technology within their

EERS or renewable portfolio standard (RPS), but they relegate it to a bottom tier. ACEEE recommends that states give CHP savings equal footing, and this requires that they develop a specific methodology for counting energy savings attributed to its utilization. If CHP is allowed as an eligible resource, EERS target levels should be increased to take into account the CHP potential and ensure that CHP does not displace traditional energy efficiency measures.

Example: Massachusetts

Expand state-led efforts – and make them visible. Initiatives may include putting in place sustainable funding sources for energy efficiency incentive programs; investing in energy efficiency-related research, development, and demonstration centers; and leading by example by incorporating energy efficiency into government operations. States have many opportunities to lead by example, including reducing energy use in public buildings and fleets, demonstrating the market for energy service companies that finance and deliver energy-saving projects, and funding research centers that focus on breakthroughs in energy-efficient technologies.

Examples: New York, Connecticut, Alaska