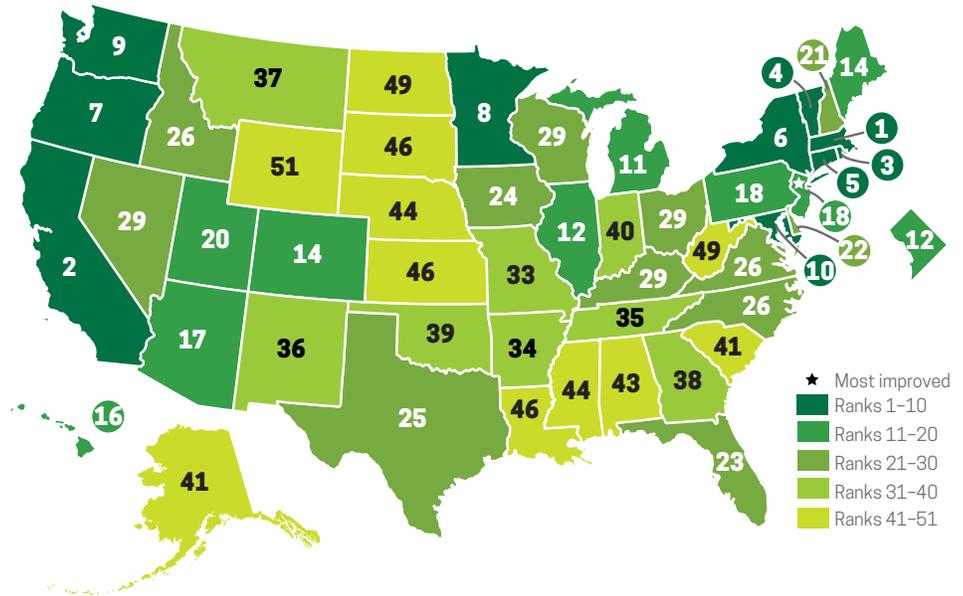


United States

The 12th edition of the *State Energy Efficiency Scorecard* ranks all 50 states and the District of Columbia. Massachusetts led the rankings with a first-place finish for the eighth year in a row, followed by California in second place, and Rhode Island in third. Rounding out the top five were Vermont and Connecticut. New Jersey was this year's most improved state. Missouri, Colorado, Connecticut, and South Dakota also saw notable improvements in their scores.

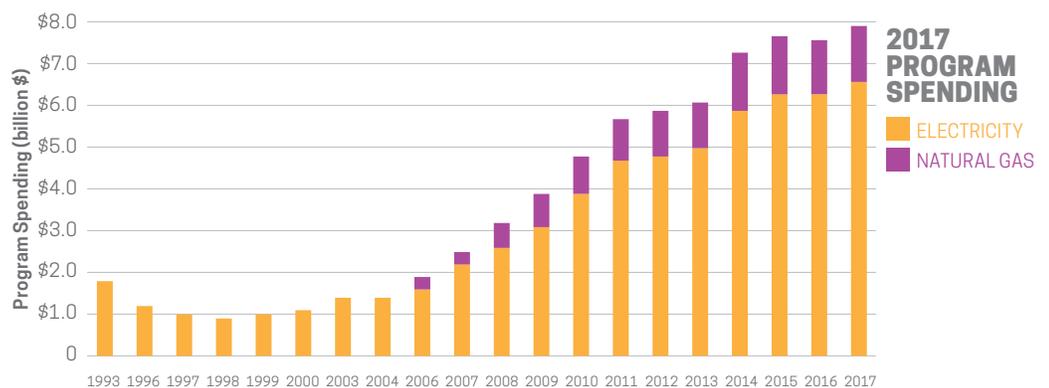
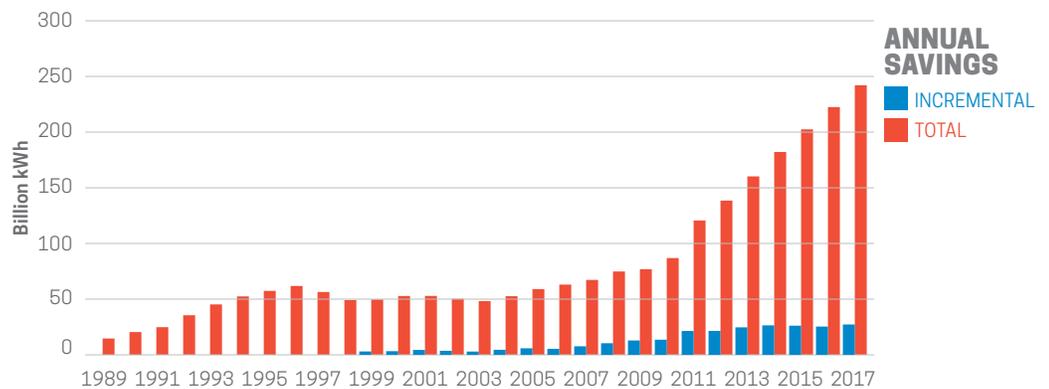


HIGHLIGHTS AND OPPORTUNITIES

Overall, 2018 was a turbulent year for energy efficiency, but many states continued to make significant progress toward increased savings across multiple policy areas. Several states that passed major efficiency legislation in 2017, including Illinois and New Hampshire, moved ahead with implementation this year, putting newly strengthened efficiency programs into effect. In Michigan and Nevada, new savings plans were filed in response to energy legislation highlighted in the *2017 State Scorecard*. In addition, states like Arkansas, Colorado, New York, New Jersey, and Virginia all unveiled plans to significantly increase investment in clean energy and energy efficiency, often driven by concerns about climate change. Massachusetts, California, and Rhode Island all continued to lead the ranks and raise the bar with new policy initiatives, such as California's adoption of net-zero energy building energy codes and Massachusetts's expanded investment in grid-side modernization, which is paving the way for smart meter deployment. Meanwhile, new opportunities for efficiency and distributed resources were facilitated through improved data access, policy innovations, and technological advancements like smart control systems, geographic targeting, electric vehicle grid integration, and energy storage.

UTILITIES

Utilities spent approximately \$6.6 billion on electricity efficiency programs in 2017. Adding this to natural gas program spending of \$1.3 billion, we estimate total efficiency program spending of more than \$7.9 billion in 2017. Reported savings from electricity efficiency programs in 2017 totaled approximately 27.3 million MWh. These savings—from 2017 programs alone—are equivalent to about 0.72% of total retail electricity sales across the nation. We estimate savings from natural gas and unregulated fuels at approximately 37.5 million MMBtu for 2017. Twenty-seven states have now established mandatory energy savings targets to drive investments in utility-sector energy efficiency programs, with New Jersey passing legislation setting savings goals earlier this year. Arkansas, Colorado, and New York also rolled out new targets in 2018 that will increase energy savings. On the other hand, programs in Iowa suffered a major attack by state lawmakers, which resulted in drastic budget cuts for efficiency. Connecticut also saw funding for efficiency repurposed to fill budget holes.



United States

TRANSPORTATION

A focal point in 2018 was the role states played in strengthening fuel efficiency in the transportation sector as the federal government announced plans in August to freeze previously established national vehicle efficiency standards for 2022–25. The move drew increased attention to California’s leadership. Under a Clean Air Act waiver, the state has been permitted to maintain its stronger vehicle efficiency standards which have served as a model for those in other states and at the federal level. Twelve states and the District of Columbia currently use California’s standards, and Colorado’s governor signed an executive order earlier in 2018 announcing plans to adopt them. California also maintains a zero-emissions standard—adopted by nine states and DC—which requires an increase in sales of plug-in hybrid, battery electric, and fuel-cell vehicles between 2018–25. These state-level commitments to efficiency will be vital to maintaining national progress on fuel economy and tailpipe emissions. Twenty-four states have transit statutes that provide sustainable funding sources not only for operating expenses, but also for the expansion and maintenance of transit facilities. Six states have adopted reduction targets for vehicle miles traveled.

BUILDING ENERGY EFFICIENCY POLICIES

National model building energy codes—the 2018 IECC and ASHRAE 90.1-2016—were finalized recently, with the latter expected to increase site energy savings by 6.7% above the earlier ASHRAE code. In the future, states can expect to see increased building sector savings due to these code updates. More than a dozen states have now updated their building energy codes based on the 2015 IECC, and many are in the process of reviewing the 2018 IECC for potential adoption. In 2018, Connecticut and Pennsylvania became the latest states to adopt the 2015 IECC for new residential and commercial construction.

COMBINED HEAT AND POWER

Research suggests that CHP accounts for 7–8% of total energy savings available within the United States; however CHP policies vary widely across the country. Massachusetts, California, Maryland, New York, Illinois, Rhode Island, and Maine are the only states that have approved production goals for CHP generation, which is a strong policy driver for encouraging utilities and program administrators to acquire generation from CHP. Other top-performing states include Connecticut, Minnesota, Oregon, Pennsylvania, and Washington. Each of these states define CHP as an eligible resource in an energy efficiency resource standard and offer deployment incentives that improve the economics of CHP investments. However, even in these top-scoring states, barriers to CHP deployment remain.

STATE GOVERNMENT-LED INITIATIVES

In addition to utility-sponsored programs, nearly every state offers some sort of financial incentive to its residents and businesses for energy-efficient upgrades, purchases, or projects. This year, we noted an especially robust portfolio of programs and policies in California, Colorado, Connecticut, Massachusetts, Minnesota, Oregon, Rhode Island, Vermont, and Washington. All of these states offer a diverse range of state-sponsored incentive programs in addition to lead by example policies, such as benchmarking requirements for public facilities, and funding for research centers that focus on innovative energy-efficient technologies. States have also demonstrated increasing success with programs like Property Assessed Clean Energy (PACE) and green banks, which leverage private markets to lower upfront costs of, and increase investment in, energy efficiency measures.

APPLIANCE STANDARDS

California was the first state to introduce appliance standards in 1976, and it has continued to lead in this policy area. After completing standards for computers and computer monitors in 2017, California updated portable electric spa standards and initiated a public rulemaking process for portable air conditioners, commercial and industrial air compressors, linear fluorescent lamps, and other products in 2018. The state now has ongoing rulemakings for more than a dozen products. In Vermont, Act 139 sets energy and water efficiency standards for 16 products, including three federal standards that were completed but never published. A 2017 law, Act 42, provides that the state can enforce federal standards if they are “withdrawn, repealed or otherwise voided” at the federal level.