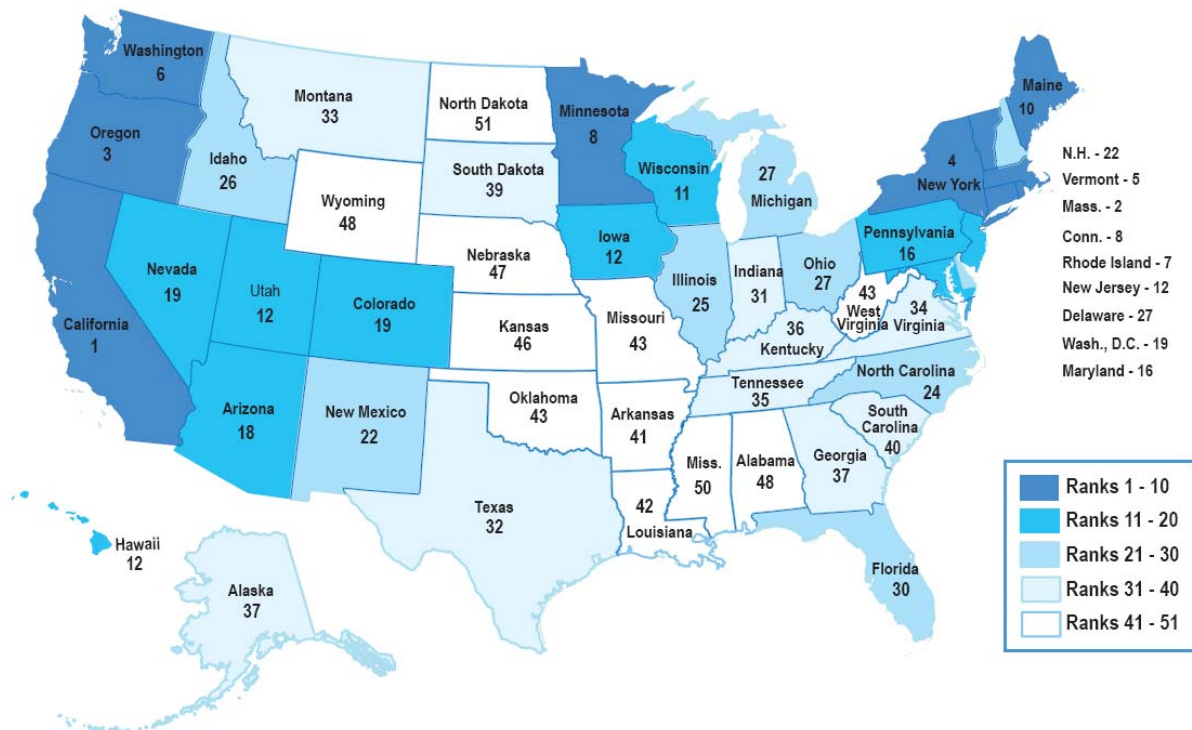


THE 2010 STATE ENERGY EFFICIENCY SCORECARD

EXECUTIVE SUMMARYⁱ

October 2010

Figure 1. Energy Efficiency Rankings: All U.S. States and District of Columbia



Note: Several states have the same score and tie in the rankings, including: 8, 12, 15, 19, 22, 27, 37, and 43.

Introduction

In 2010, states are again demonstrating their growing interest in energy efficiency as a means to bolster the economy, improve energy security, and drive technology innovation. Governors, state legislators and officials, and citizens increasingly recognize energy efficiency — the kilowatt-hours and gallons of gasoline that we *don't* use thanks to improved technologies and practices — as the cheapest, cleanest, and quickest energy resource to deploy. While the national economy slowly recovers from a recession, Congress continues to move at a glacial pace on major energy and climate legislation, which numerous studies have shown could help to stimulate the economy. Other major national issues have also forced energy and climate into the back seat. In the face of federal inaction, states are adopting aggressive and innovative policies to encourage investments in energy efficiency. As they have over the past few decades, **states will continue to guide our nation's direction toward a clean energy future to help save consumers money, boost local economies by creating jobs, and improve the environment.**

In this fourth edition of ACEEE's *State Energy Efficiency Scorecard*, we present a comprehensive state energy efficiency policy scorecard to document best practices, recognize leadership among the states, and provide a roadmap for other states to follow. This *Scorecard* can serve as a means of benchmarking state efforts on energy efficiency policies and programs with the goal of encouraging states to continue to raise the bar in their efficiency commitments. While several states have been pursuing energy efficiency for decades and are leading the way, several new leaders are quickly emerging by adopting and

implementing innovative new efficiency policies. Still, many states can accomplish much more to encourage energy efficiency and cannot afford to be left behind.

Key Findings

- Despite federal government inaction on climate and energy policy, states are moving forward and advancing energy efficiency policies and programs in an effort to create jobs and stimulate their economies during a period of considerable economic uncertainty.
- States' initiative is evident in our four most-improved states — Utah, Arizona, New Mexico, and Alaska — which have climbed at least eight spots since last year's *Scorecard*. The Southwest region of the U.S. has demonstrated considerable progress. These states and several more that have improved their rankings have made progress in increasing investments in utility energy-saving programs, expanding state government initiatives, and adopting better building codes.
- California has retained its #1 ranking for the fourth year in a row, outpacing all other states in its level of investment in energy efficiency across all sectors of its economy.
- Massachusetts has edged closer to the top spot after improvements in utility efficiency programs, transportation efficiency, availability of state-sponsored initiatives, and major plans to increase the breadth of its efficiency efforts in the next few years.
- State budgets for energy efficiency in 2009 are almost double the level of spending in 2007, increasing from \$2.5 billion to \$4.3 billion. Reported electricity savings from energy efficiency programs across all states increased 8% between 2007 and 2008 (the most recent available data).
- Twenty-seven states have adopted or have pending Energy Efficiency Resource Standards (EERS) that establish long-term, fixed efficiency savings targets — double the number of states in 2006. These states account for two-thirds of electricity sales in the U.S.
- Twenty states have either adopted or have made significant progress toward the adoption of the latest energy-saving building codes for homes and commercial properties — double the number of states in our *2009 Scorecard*.
- While steady progress on energy efficiency is evident across most of the country, several leading states, including Connecticut, New Jersey, New York, New Hampshire, and the District of Columbia, have made plans to divert millions of dollars of energy efficiency funds to balance the budget or reduce deficits, robbing their citizens of future energy savings and a more secure energy future.
- While federal transportation efficiency policy has progressed significantly this year with the adoption of new fuel economy standards and plans to set standards out to 2025, states are taking the lead to fill in the gaps in transportation opportunities. California, Massachusetts, and Washington have implemented transportation-specific greenhouse gas reduction targets while several other states have adopted policies to encourage the creation of compact and transit-oriented communities.
- The injection of more than \$11 billion of American Recovery and Reinvestment Act funds directly to state energy efficiency has helped stimulate significant progress in funding and creating new energy-saving programs that are saving consumers' money and putting people to work.

Methodology

This report provides a comprehensive assessment of policy and programs that improve energy efficiency in our homes, businesses, industry, and transportation sectors. The *Scorecard* examines six state energy efficiency policy areas and presents these results in six chapters (1) utility and public benefits programs and policies; (2) transportation policies; (3) building energy codes; (4) combined heat and power; (5) state government initiatives; and (6) appliance efficiency standards. States can earn up to 50 possible points in these six policy areas combined, with the maximum possible points in each area weighted by the magnitude of its potential energy savings impact.

The base year for policy assessment in the *Scorecard* varies by the policy area examined. For example, utility ratepayer-funded energy efficiency programs in Chapter 1 are assessed on budgets for 2009 and energy savings performance in 2008 (the most recent years for which data is available from all states) along with enabling utility policies in place as of July 2010 and forward-looking energy savings targets. Most other categories are based on the current status of policies in 2010.

Readers should note that although we provide individual state rankings, in terms of measuring commitment to energy efficiency policies and programs, the difference among the rankings is most significant among bins of every ten ranks or so rather than among individual ranking. For example, the difference among states listed in the “top ten” is much less significant than the difference between the tier of top ten and the second or third quintile. Figure 1 and Table 1 sort the state rankings in five “bins,” which is the best way for readers to interpret the results of the *Scorecard*. The last column shows the state’s change in ranking compared to the *2009 Scorecard*. Readers should note an important caveat: changes in state rankings are due to *both* changes in the scoring methodology as well as changes in state efficiency programs and policies.

To verify the accuracy and comprehensiveness of the policy information and data on which we score the states, we directly reached out to state-level stakeholders whose on-the-ground expertise is invaluable to the accuracy of our *Scorecard*. Officials at state energy offices and public utility commissions were given the opportunity in August to review the material concurrently on the ACEEE State Energy Policy Database on our Web siteⁱⁱ and the draft *2010 State Energy Efficiency Scorecard* report. Regional nonprofits and other state-level organizations also contributed to the review process.

Summary of Rankings

Figure 1 shows the results of the state scorecard rankings and classifies the states and the District of Columbia into five bins according to their ranks. Table 1 shows scores for each of the six policy areas, overall rankings, total scores out of a maximum possible 50 points, and change in a state’s rank compared to last year’s report.

The top ten states this year, shown in Table 2, score at least 27 points out of the possible 50 points, with California and Massachusetts taking the top two spots with 45.5 and 42.5 points, respectively. The next bin of ten states follows closely behind the top ten in total points, scoring between 22 and 26 points. The third bin of states scores at least 17 points and the fourth bin scores more than 8 points, while states in the lowest bin score 8 points or less.

This year’s “top ten” states, based on their combined scores, are listed in Table 2, along with the “top ten” states from last year’s *Scorecard*. These states lead the nation in encouraging their citizens to improve efficiency in homes, businesses, industry, and transportation systems. The 2010 top ten are mostly the same as in the 2009 *Scorecard*. For the fourth year in a row, California has the top score. For the second year in a row, Massachusetts ranks second and this year edges closer to California. Oregon, New York, Vermont, Washington, Rhode Island, Connecticut, Minnesota, and Maine round out the top ten again this year.

Table 1. Summary of Overall State Scoring on Energy Efficiency

| Rank | State | Utility and Public Benefits Fund Efficiency Programs and Policies Score | Transportation Score | Building Energy Code Score | Combined Heat and Power (CHP) Score | State Government Initiatives Score | Appliance Efficiency Standards Score | Total Score | Change in Rank from 2009 Results |
|---------------------------------|----------------------|---|----------------------|----------------------------|-------------------------------------|------------------------------------|--------------------------------------|-------------|----------------------------------|
| <i>Maximum Possible Points:</i> | | 20 | 8 | 7 | 5 | 7 | 3 | 50 | |
| 1 | California | 18.5 | 7 | 7 | 5 | 5 | 3 | 45.5 | 0 |
| 2 | Massachusetts | 15.5 | 6 | 7 | 5 | 7 | 2.5 | 42.5 | 0 |
| 3 | Oregon | 14.5 | 5 | 6.5 | 4 | 6 | 1 | 37 | 1 |
| 4 | New York | 12 | 5 | 6.5 | 5 | 4.5 | 1.5 | 34.5 | 1 |
| 5 | Vermont | 19.5 | 4 | 3.5 | 3 | 3 | 0 | 33 | 1 |
| 6 | Washington | 12.5 | 6 | 6 | 4 | 2.5 | 0.5 | 31.5 | 1 |
| 7 | Rhode Island | 16 | 4 | 5.5 | 2 | 1.5 | 0.5 | 29.5 | 2 |
| *8 | Connecticut | 10.5 | 5 | 4 | 5 | 2.5 | 1 | 28 | -5 |
| *8 | Minnesota | 15 | 1 | 4 | 3 | 5 | 0 | 28 | 0 |
| 10 | Maine | 10.5 | 4 | 6 | 4 | 2.5 | 0 | 27 | 0 |
| 11 | Wisconsin | 13 | 1 | 4 | 4 | 4 | 0 | 26 | 0 |
| *12 | New Jersey | 7 | 5 | 5.5 | 4 | 3 | 0 | 24.5 | 1 |
| *12 | Hawaii | 12 | 2 | 4 | 3 | 3.5 | 0 | 24.5 | 7 |
| *12 | Iowa | 12 | 0 | 6 | 2 | 4.5 | 0 | 24.5 | 6 |
| ↑*12 | Utah | 11.5 | 2 | 5 | 3 | 3 | 0 | 24.5 | ↑ 11 |
| *16 | Maryland | 6 | 5 | 5.5 | 3 | 4 | 0.5 | 24 | -5 |
| *16 | Pennsylvania | 4.5 | 4 | 6 | 5 | 4.5 | 0 | 24 | -1 |
| ↑ 18 | Arizona | 9 | 4 | 3 | 3 | 2.5 | 1.5 | 23 | ↑ 11 |
| *19 | Nevada | 11 | 0 | 4 | 2 | 2.5 | 2.5 | 22 | -3 |
| *19 | District of Columbia | 5 | 4 | 6 | 4 | 2.5 | 0.5 | 22 | 1 |
| *19 | Colorado | 10 | 1 | 2 | 4 | 5 | 0 | 22 | -3 |
| ↑ *22 | New Mexico | 6.5 | 2 | 5.5 | 4 | 3.5 | 0 | 21.5 | ↑ 8 |
| *22 | New Hampshire | 9 | 0 | 5.5 | 2 | 4.5 | 0.5 | 21.5 | -9 |
| 24 | North Carolina | 5 | 0 | 5 | 5 | 5 | 0 | 20 | 2 |
| 25 | Illinois | 5.5 | 0 | 5.5 | 5 | 2.5 | 0 | 18.5 | 1 |
| 26 | Idaho | 8.5 | 0 | 5 | 2 | 2.5 | 0 | 18 | -6 |
| *27 | Delaware | 1.5 | 3 | 5.5 | 3 | 4.5 | 0 | 17.5 | -7 |
| *27 | Ohio | 4.5 | 0 | 3.5 | 5 | 4.5 | 0 | 17.5 | 1 |
| *27 | Michigan | 8 | 0 | 4.5 | 2 | 3 | 0 | 17.5 | 7 |
| 30 | Florida | 4 | 2 | 5.5 | 3 | 2.5 | 0 | 17 | -7 |
| 31 | Indiana | 5.5 | 0 | 5.5 | 3 | 2.5 | 0 | 16.5 | 1 |
| 32 | Texas | 3 | 0 | 3 | 5 | 3.5 | 0 | 14.5 | -9 |
| 33 | Montana | 4 | 0 | 6 | 1 | 3 | 0 | 14 | -2 |
| 34 | Virginia | 1.5 | 1 | 6.5 | 0 | 2.5 | 0 | 11.5 | 0 |
| 35 | Tennessee | 1.5 | 2 | 2 | 1 | 4.5 | 0 | 11 | 3 |
| 36 | Kentucky | 3.5 | 0 | 4 | 1 | 2 | 0 | 10.5 | -3 |
| ↑ *37 | Alaska | 0 | 1 | 2 | 2 | 5 | 0 | 10 | ↑ 8 |
| *37 | Georgia | 1.5 | 1 | 4.5 | 0 | 3 | 0 | 10 | 7 |

| Rank | State | Utility and Public Benefits Fund Efficiency Programs and Policies Score | Transportation Score | Building Energy Code Score | Combined Heat and Power (CHP) Score | State Government Initiatives Score | Appliance Efficiency Standards Score | Total Score | Change in Rank from 2009 Results |
|------|----------------|---|----------------------|----------------------------|-------------------------------------|------------------------------------|--------------------------------------|-------------|----------------------------------|
| 39 | South Dakota | 4 | 0 | 0.5 | 3 | 2 | 0 | 9.5 | -3 |
| 40 | South Carolina | 1.5 | 1 | 3 | 1 | 2 | 0 | 8.5 | -4 |
| 41 | Arkansas | 1.5 | 0 | 3 | 1 | 2 | 0 | 7.5 | 0 |
| 42 | Louisiana | 0 | 0 | 4 | 0 | 3 | 0 | 7 | -1 |
| *43 | Missouri | 1.5 | 0 | 0 | 2 | 2.5 | 0 | 6 | -2 |
| *43 | Oklahoma | 1.5 | 1 | 1.5 | 0 | 2 | 0 | 6 | -4 |
| *43 | West Virginia | 0 | 0 | 3 | 1 | 2 | 0 | 6 | 2 |
| 46 | Kansas | 0.5 | 0 | 2 | 0 | 2.5 | 0 | 5 | -7 |
| 47 | Nebraska | 0.5 | 0 | 2.5 | 0 | 1 | 0 | 4 | 0 |
| 48 | Wyoming | 2.5 | 0 | 0 | 0 | 1 | 0 | 3.5 | 3 |
| 49 | Alabama | 0 | 0 | 0 | 1 | 2 | 0 | 3 | -1 |
| 50 | Mississippi | 0 | 0 | 0 | 1 | 1 | 0 | 2 | -1 |
| 51 | North Dakota | 0.5 | 0 | 0 | 1 | 0 | 0 | 1.5 | -2 |

Notes: † denotes 'most improved' states. *States with the same score tie for the same rank.

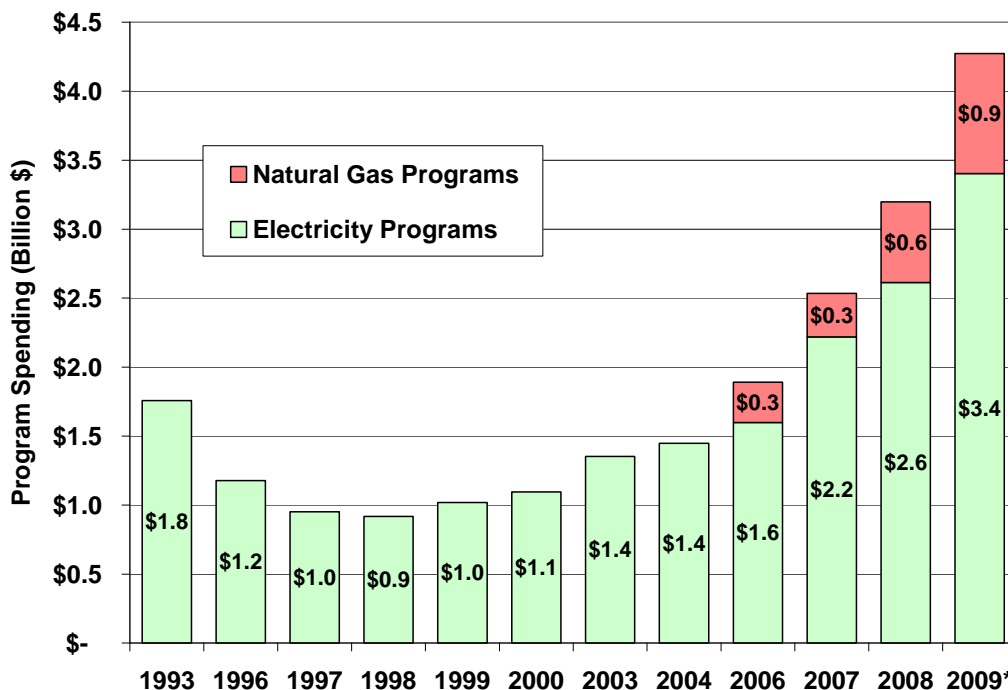
Table 2. Top Ten States for the 2010 and 2009 Scorecards

| 2010 Edition | | 2009 Edition | |
|--------------|---------------|--------------|---------------|
| 1 | California | 1 | California |
| 2 | Massachusetts | 2 | Massachusetts |
| 3 | Oregon | 3 | Connecticut |
| 4 | New York | 4 | Oregon |
| 5 | Vermont | 5 | New York |
| 6 | Washington | 6 | Vermont |
| 7 | Rhode Island | 7 | Washington |
| 8 (tie) | Connecticut | 8 | Minnesota |
| 8 (tie) | Minnesota | 9 | Rhode Island |
| 10 | Maine | 10 | Maine |

Major Recent Developments

Overall, states have shown significant improvement in their efforts to encourage energy efficiency. For example, states budgeted about \$4.3 billion for ratepayer-funded electricity and natural gas efficiency programs in 2009, up from expenditures of \$2.5 billion in 2007 on efficiency programs (see Figure 3). In 2010, numerous new states adopted leading building energy codes to improve efficiency in all new residential and commercial building construction. Also, 27 states have adopted or have pending an Energy Efficiency Resource Standards (EERS) that establish long-term, fixed efficiency savings targets — double the number of states with this type of policy in 2006.

Figure 3. U.S. Electricity and Natural Gas Energy Efficiency Program Spending or Budgets by Year, 1993–2009



*All values actual program spending except for 2009, which are budgets.

Notes: Includes ratepayer-funded programs. Natural gas efficiency program spending is not available for 1993–2004.

The American Recovery and Reinvestment Act (ARRA) included the largest single investment in energy efficiency in U.S. history and is a major recent development in state energy efficiency activity. ARRA allocated approximately \$30 billion directly to energy efficiency programs and about \$12 billion went to the states from the Department of Energy’s Office of Energy Efficiency and Renewable Energy (EERE). Particularly in states minimally served by utility or public benefits programs, these programs provide an important first step to introduce consumers and decision-makers to the benefits of energy efficiency programs. Chapter 5 reviews state government initiatives, some of which have been spurred by ARRA funding, that play unique and important roles to encourage energy efficiency. Chapter 2 on building energy codes also shows new activity due to provisions in ARRA on building energy code adoption and compliance efforts.

Despite significant new state budget commitments in energy efficiency, some states are raiding energy efficiency program funds to close gaps in budget shortfalls. For example, Connecticut, the District of Columbia, and New Jersey have approved plans to divert millions of dollars from dedicated energy efficiency funds to help balance state budgets. Also, New York and New Hampshire are both diverting energy efficiency funds from their Regional Greenhouse Gas Initiative (RGGI) auction proceeds. These raids undermine the progress of states that have been national leaders in energy efficiency. Energy efficiency funding can help drive economic recovery by lowering consumer energy costs and freeing up money for consumer spending, while raiding these energy efficiency funds will hurt consumers over the long term, forestall transition to a clean energy economy, and undermine state efforts to achieve aggressive energy efficiency goals. As a result, we may see these states drop in the rankings in next year’s *Scorecard*.

“Most Improved” States

This year several new states, particularly from the Southwest region, stand out as “most improved” in the rankings compared to last year. These include: Utah (23rd to tied for 12th); Arizona (29th to 18th); New Mexico (30th to 22nd); and Alaska (45th to 37th). Utah significantly increased its budgets for energy efficiency programs to help customers save electricity and natural gas in their homes and businesses. The state legislature also recently passed goals for energy efficiency and renewable energy. In 2010, Arizona adopted aggressive new electricity savings targets to achieve 2% annual savings beginning in 2014 and by 2020 to reach 20% cumulative savings, relative to 2005 sales. New Mexico climbed eight spots (30th to 22nd) thanks to several measures to improve energy efficiency, including adoption of more stringent building energy codes, performance incentives for utilities administering effective efficiency programs, and financial incentives for combined heat and power systems. Alaska moved up 8 spots from the fifth to the fourth quintile. The state housing financing authority has recently implemented new initiatives to offer loans and rebates to residential customers and multi-family homeowners’ associations for energy efficiency improvements. Several other states have made significant advances that improved the state’s rank compared to last year, including Hawaii, Michigan, and Georgia.

Table 3. Most Improved States since 2009 Scorecard

| 2010 Rank | State | Score | Change in Rank from 2009 |
|-----------|------------|-------|--------------------------|
| 12 | Utah | 24.5 | ↑ 11 |
| 18 | Arizona | 23 | ↑ 11 |
| 22 | New Mexico | 21.5 | ↑ 8 |
| 37 | Alaska | 10 | ↑ 8 |

Energy Efficiency Performance Metrics by Humboldt State University and the Natural Resources Defense Council (NRDC)

This is the second year in which we include in the *Scorecard* a chapter prepared by Humboldt State University and NRDC. Chapter 7 presents and discusses a methodology for an aggregate, state-level metric of energy consumption intensity (ECI) in the residential sector and provides summary results for each of the 50 U.S. states. Whereas the *Scorecard* tracks policy and program actions and results, the methodology in Chapter 7 identifies changes in actual state energy consumption (i.e., energy consumption per capita) after adjusting for changes due to year-to-year variations in weather. The methodology has been revised since the *2009 Scorecard* to account for differences among states in the average heat rate applied to electricity sales to estimate primary energy consumption. The *2009 Scorecard* contained summary results for the year 2006; this *Scorecard* contains summary results for the years 2006–2008 using the revised methodology.

This research confirms that it is possible to track trends in state energy consumption intensity, even with the imperfect data sets that are currently available. With improvements in the data collection process, the approach could be further strengthened into a powerful tool for evaluating states’ progress in reducing energy consumption. The findings from this chapter are not included in the overall state rankings of this scorecard, but rather as an exploratory exercise in measuring energy consumption trends as a means to understanding energy efficiency.

Conclusion

Energy efficiency — the energy we *do not* need thanks to better technologies and practices — is our cheapest, fastest, and cleanest energy resource. In 2010, states continued to guide our nation’s path toward a cleaner energy future through more efficiency. Given this tremendous amount of activity at the state level, it is important to recognize best practices and leadership, both to encourage other states to

follow and to lay the groundwork for strong federal policy in the future. This state energy efficiency policy scorecard builds on this need to document and benchmark state best practices, recognize leadership, and provide a roadmap for other states to follow. Since 2008, the National Renewable Energy Laboratory (NREL) has completed a similar analysisⁱⁱⁱ on renewable energy development and policy best practices each year. The results of that effort serve as an important complement to this review of energy efficiency policies, which together provide a robust roadmap for states to follow in paving a path toward a cleaner and more reliable energy future.

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About the American Council for an Energy-Efficient Economy (ACEEE)

This report, *The 2010 State Energy Efficiency Scorecard*, is available for free download at <http://www.aceee.org/research-report/e107>.

ACEEE is a nonprofit organization dedicated to advancing energy efficiency as a means of promoting economic prosperity, energy security, and environmental protection. For more information, see <http://www.aceee.org>. ACEEE fulfills its mission by:

- Conducting in-depth technical and policy assessments
- Advising policymakers and program managers
- Working collaboratively with businesses, public interest groups, and other organizations
- Organizing conferences and workshops
- Publishing books, conference proceedings, and reports
- Educating consumers and businesses

Projects are carried out by staff and selected energy efficiency experts from universities, national laboratories, and the private sector. Collaboration is key to ACEEE's success. We collaborate on projects and initiatives with dozens of organizations including federal and state agencies, utilities, research institutions, businesses, and public interest groups.

Support for our work comes from a broad range of foundations, governmental organizations, research institutes, utilities, and corporations.

ⁱ This report was prepared by Maggie Molina, Max Neubauer, Michael Sciortino, Seth Nowak, Shruti Vaidyanathan, Nate Kaufman, and Anna Chittum. A chapter on residential energy efficiency performance metrics was also prepared by Humboldt State University and the Natural Resources Defense Council. A copy of this report is available for download at <http://www.aceee.org/research-report/e107>.

ⁱⁱ See www.aceee.org/sector/state-policy.

ⁱⁱⁱ See www.nrel.gov/cepa for the *State of the States 2009: Renewable Energy Development and the Role of Policy*. A 2010 update is forthcoming.