TABLE 10. State government expenditures for energy-related R\&D, by state: FYs 2009-15
(Dollars)

| State | $2009^{\text {a }}$ | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United States ${ }^{\text {b }}$ | NA | 229,684,238 | 268,045,943 | 241,005,588 | 194,780,008 | 120,229,416 | 312,114,377 |
| Alabama | NA | 988,806 | 1,279,672 | 788,212 | 509,974 | 386,692 | 688,913 |
| Alaska | NA | 1,359,100 | 1,301,000 | 1,438,817 | 1,799,951 | 35,860 | 53,202 |
| Arizona | NA | 267,174 | 1,702,776 | 6,243,529 | 7,630,643 | 1,547,000 | 658,000 |
| Arkansas | NA | 1,736,657 | 3,156,213 | 2,913,191 | 3,620,296 | 4,800,000 | 5,243,216 |
| California | NA | 105,072,000 | 95,975,000 | 75,756,774 | 55,577,129 | 18,393,000 | 194,354,000 |
| Colorado | NA | 1,464,536 | 409,252 | 313,762 | 254,860 | 1,934,715 | 2,241,216 |
| Connecticut | NA | 358,778 | 553,640 | 571,414 | 588,724 | 1,714,724 | 1,944,337 |
| Delaware | NA | 0 | 0 | 0 | 0 | 0 | 10,000 |
| District of Columbia | NA | 0 | 0 | 0 | 0 | 0 | 75,000 |
| Florida | NA | 3,571,447 | 4,158,768 | 8,476,266 | 990,320 | 355,629 | 1,117,124 |
| Georgia | NA | 1,000,000 | 1,200,000 | 800,000 | 0 | 3,096,465 | 3,148,268 |
| Hawaii | NA | 5,825,028 | 6,020,023 | 4,024,303 | 5,674,072 | 4,300,000 | 1,500,000 |
| Idaho | NA | 0 | 0 | 0 | 0 | 401,783 | 274,051 |
| Illinois | NA | 190,000 | 0 | 21,110 | 225,000 | 5,885,366 | 4,333,344 |
| Indiana | NA | 0 | 0 | 0 | 383,432 | 657,307 | 354,693 |
| Iowa | NA | 0 | 26,590,826 | 5,207,302 | 6,340,014 | 1,117,561 | 710,522 |
| Kansas | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| Kentucky | NA | 4,256,458 | 3,372,112 | 4,809,927 | 5,976,089 | 2,403,100 | 2,173,000 |
| Louisiana | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| Maine | NA | 5,000 | 5,000 | 821,675 | 480,594 | 415,000 | 986,000 |
| Maryland | NA | 40,000 | 25,000 | 300,000 | 300,000 | 200,000 | 200,000 |
| Massachusetts | NA | 0 | 0 | 0 | 0 | 2,640,446 | 4,998,471 |
| Michigan | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| Minnesota | NA | 1,243,965 | 249,201 | 1,702,500 | 122,084 | 327,995 | 897,117 |
| Mississippi | NA | 1,550,000 | 1,250,000 | 0 | 0 | 22,914 | 1,739 |
| Missouri | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| Montana | NA | 835,942 | 405,260 | 187,163 | 1,200 | 332,678 | 0 |
| Nebraska | NA | 5,000 | 10,000 | 196,427 | 236,100 | 100,000 | 0 |
| Nevada | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| New Hampshire | NA | 0 | 0 | 0 | 0 | 0 | 0 |
| New Jersey | NA | 500,000 | 0 | 437,685 | 0 | 0 | 0 |
| New Mexico | NA | 2,280,000 | 2,400,000 | 2,460,000 | 2,457,083 | 2,796,200 | 2,978,000 |
| New York | NA | 29,744,916 | 45,608,891 | 41,789,076 | 27,061,407 | 31,242,349 | 40,787,626 |
| North Carolina | NA | 100,000 | 105,000 | 0 | 0 | 1,322,052 | 1,652,847 |
| North Dakota | NA | 4,153,800 | 5,200,850 | 2,778,935 | 3,931,762 | 6,858,556 | 5,705,731 |
| Ohio | NA | 41,236,142 | 47,150,392 | 62,348,681 | 52,267,399 | 6,472,561 | 11,048,550 |
| Oklahoma | NA | 387,401 | 149,201 | 330,000 | 323,800 | 1,246,000 | 1,625,000 |
| Oregon | NA | 175,000 | 50,000 | 0 | 0 | 7,099,464 | 7,467,172 |
| Pennsylvania | NA | 0 | 0 | 2,070,343 | 1,699,984 | 2,580,520 | 2,156,564 |
| Rhode Island | NA | 0 | 0 | 0 | 0 | 2,000 | 1,200 |
| South Carolina | NA | 863,890 | 871,078 | 484,124 | 251,410 | 56,129 | 163,885 |
| South Dakota | NA | 0 | 0 | 0 | 0 | 3,779 | 26,862 |
| Tennessee | NA | 0 | 35,764 | 6,553 | 0 | 0 | 0 |
| Texas | NA | 0 | 0 | 374,013 | 447,132 | 0 | 0 |
| Utah | NA | 7,375,546 | 7,209,348 | 4,125,214 | 4,558,744 | 2,076,936 | 4,835,743 |
| Vermont | NA | 300,000 | 300,000 | 167,769 | 179,391 | 223,802 | 239,382 |
| Virginia | NA | 10,301,835 | 8,564,304 | 8,321,652 | 10,400,000 | 5,789,258 | 6,263,600 |
| Washington | NA | 0 | 0 | 0 | 0 | 148,000 | 0 |
| West Virginia | NA | 2,495,817 | 2,737,372 | 102,719 | 159,332 | 857,387 | 820,450 |

TABLE 10. State government expenditures for energy-related R\&D, by state: FYs 2009-15
(Dollars)

| State | $2009^{a}$ | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Wisconsin | NA | 0 | 0 | 250,000 | 150,000 | 30,000 | 30,000 |
| Wyoming $^{\text {Nuerto Rico }}{ }^{\text {c }}$ | NA | 0 | 0 | 386,452 | 182,082 | 356,188 | 349,552 |
| NA no $^{2}$ | NA | 100,000 | 100,000 | 106,470 | 220,000 | 422,494 | 400,000 |

NA = not available; not collected as a separate R\&D function for FY 2009.
${ }^{\text {a }}$ Energy category was introduced with the FY 2010 and FY 2011 Survey of State Government Research and Development. Previously, energy-related R\&D was reported primarily in Other and Environment and natural resources categories.
${ }^{\text {b }}$ U.S. total reflects all 50 states and the District of Columbia.
${ }^{\text {c }}$ Puerto Rico is not included in U.S. total due to its classification as a U.S. territory.
NOTES: State R\&D expenditures by function were surveyed beginning with the FY 2009 survey. State R\&D totals can display considerable volatility between survey years due to several national and state-specific factors. Large changes are not unusual, especially for discretionary spending items such as R\&D.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Survey of State Government Research and Development.

