Table 10.6 Capability to Switch Electricity to Alternative Energy Sources, 2002;
Level: National Data and Regional Totals;
Row: NAICS Codes, Value of Shipments and Employment Sizes;
Column: Energy Sources;
Unit: Million Kilowatthours.


Total United States

| Total United States |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | RSE Column Factors: | 0.9 | 1.4 | 0.9 | 1.6 | 1.7 | 0.6 | 0.8 | 1.7 | 0.5 | 0.9 |  |
| 311 | Food | 68,230 | 2,270 | 49,890 | 239 | 2,125 | 17 | 9 | 72 | 0 | Q | 12.2 |
| 311221 | Wet Corn Milling | 7,098 | 77 | 6,062 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 |
| 31131 | Sugar | 733 | 21 | 602 | * | 11 | 9 | 9 | 0 | 0 | * | 1 |
| 311421 | Fruit and Vegetable Canning | 1,987 | Q | 1,764 | Q | Q | 0 | 0 | 25 | 0 | 0 | 9.9 |
| 312 | Beverage and Tobacco Products | 7,917 | 136 | 6,879 | 53 | 87 | 0 | 1 | Q | 0 | 0 | 4.6 |
| 3121 | Beverages | 6,523 | 135 | 5,509 | 53 | 87 | 0 | 0 | Q | 0 | 0 | 6.6 |
| 3122 | Tobacco | 1,394 | 1 | 1,370 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 313 | Textile Mills | 25,387 | Q | 22,354 | 2 | Q | 0 | 0 | 0 | 0 | Q | 4.4 |
| 314 | Textile Product Mills | 4,870 | Q | 3,986 | Q | * | 0 | 0 | * | 0 | Q | 2.5 |
| 315 | Apparel | 3,579 | 52 | 1,982 | Q | Q | Q | Q | Q | Q | Q | 25.6 |
| 316 | Leather and Allied Products | 717 | Q | 611 | 0 | Q | 0 | 0 | 0 | 0 | Q | 18.5 |
| 321 | Wood Products | 21,621 | 321 | 18,552 | Q | 151 | Q | Q | 16 | Q | 49 | 9 |
| 321113 | Sawmills | 6,333 | 107 | 5,264 | 41 | 50 | Q | 0 | Q | 0 | 29 | 10.8 |
| 3212 | Veneer, Plywood, and Engineered Woods | 9,696 | 43 | 8,907 | Q | Q | * | 0 | * | 0 | W | 2.9 |
| 3219 | Other Wood Products | 5,282 | 158 | 4,099 | Q | 70 | 4 | Q | 5 | Q | 0 | 15.7 |
| 322 | Paper | 71,890 | 5,997 | 52,715 | 4,659 | 1,506 | 667 | 328 | 0 | 0 | 731 | 1.6 |
| 322110 | Pulp Mills | 2,628 | 1 | 2,105 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1.1 |
| 322121 | Paper Mills, except Newsprint | 25,258 | 1,388 | 19,385 | 881 | W | 265 | 283 | 0 | 0 | 310 | 2 |
| 322122 | Newsprint Mills | 10,827 | 2,050 | 6,733 | 2,050 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 |
| 322130 | Paperboard Mills | 19,626 | 2,482 | 13,077 | 1,697 | 1,233 | W | W | 0 | 0 | 421 | 1.3 |
| 323 | Printing and Related Support | 14,735 | 372 | 11,161 | 180 | Q | Q | Q | 125 | Q | * | 13.7 |
| 324 | Petroleum and Coal Products | 41,308 | 1,063 | 33,001 | 798 | 213 | W | 1 | 348 | W | 290 | 3.2 |
| 324110 | Petroleum Refineries | 38,625 | 999 | 30,821 | 788 | 165 | W | 0 | 342 | W | 277 | 3.5 |
| 324199 | Other Petroleum and Coal Products | 436 | 9 | 367 | 7 | 0 | 0 | 1 | 0 | 0 | 8 | 1 |
| 325 | Chemicals | 161,381 | 2,255 | 110,427 | 1,397 | 713 | 218 | 119 | Q | 0 | 192 | 5.3 |
| 325110 | Petrochemicals | W | W | 2,215 | W | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 |
| 325120 | Industrial Gases | 24,600 | 0 | 17,108 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11.6 |
| 325181 | Alkalies and Chlorine | 13,274 | w | 10,512 | W | 3 | 0 | 18 | 0 | 0 | 0 | 0.9 |
| 325182 | Carbon Black | 609 | 0 | 559 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 |
| 325188 | Other Basic Inorganic Chemicals | 26,179 | 44 | 9,857 | 13 | W | 0 | 0 | 0 | 0 | 0 | 0.8 |
| 325192 | Cyclic Crudes and Intermediates | 3,443 | , | 2,899 | 0 | * | 0 | 0 | 0 | 0 | 0 | 0.9 |
| 325193 | Ethyl Alcohol | 1,309 | 18 | 1,134 | 17 | 2 | 0 | 0 | 0 | 0 | 0 | 2.1 |
| 325199 | Other Basic Organic Chemicals | 25,136 | 336 | 21,771 | 263 | 63 | 0 | 0 | * | 0 | 8 | 3.1 |
| 325211 | Plastics Materials and Resins | 22,388 | Q | 15,790 | Q | 19 | 0 | 0 | 17 | 0 | W | 1.7 |
| 325212 | Synthetic Rubber | 1,916 | 0 | 1,604 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20.8 |



Table 10.6 Capability to Switch Electricity to Alternative Energy Sources, 2002;
Level: National Data and Regional Totals;
Row: NAICS Codes, Value of Shipments and Employment Sizes;
Column: Energy Sources;
Unit: Million Kilowatthours.

| NAICS Code(a) | Subsector and Industry | Electricity Receipts |  |  | Alternative Energy Sources(b) |  |  |  |  |  |  | RSE <br> Row <br> Factors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total Receipts(c) | Switchable | Not Switchable | Natural Gas | Distillate Fuel Oil | Residual Fuel Oil | Coal | LPG | Coal Coke and Breeze | Other(d) |  |
|  | Total | 100,190 | 1,892 | 77,610 | 954 | 917 | 512 | 35 | 532 | Q | 335 | 13.5 |
| Midwest Census Region |  |  |  |  |  |  |  |  |  |  |  |  |
|  | RSE Column Factors: | 0.9 | 1.4 | 0.9 | 1.6 | 1.7 | 0.6 | 0.8 | 1.7 | 0.5 | 0.9 |  |
|  | Total | 252,896 | 8,895 | 202,694 | 4,878 | 4,018 | Q | 770 | 1,452 | Q | 462 | 11.3 |
| South Census Region |  |  |  |  |  |  |  |  |  |  |  |  |
|  | RSE Column Factors: | 0.9 | 1.4 | 0.9 | 1.6 | 1.7 | 0.6 | 0.8 | 1.7 | 0.5 | 0.9 |  |
|  | Total | 395,373 | 6,991 | 303,226 | 3,149 | 3,395 | 826 | 392 | 707 | Q | 1,126 | 6.9 |


| West Census Region |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RSE Column Factors: | 0.9 | 1.4 | 0.9 | 1.6 | 1.7 | 0.6 | 0.8 | 1.7 | 0.5 | 0.9 |  |
| Total | 106,701 | 5,441 | 84,938 | 3,855 | 2,065 | Q | 70 | 368 | Q | 135 | 4.3 |
| Economic Characteristic (e) |  |  |  |  |  |  |  |  |  |  |  |
| RSE Column Factors: | 0.3 | 1.1 | 0.3 | 1.2 | 1.7 | 1.1 | 1.2 | 3.2 | 1.2 | 1.2 |  |
| Value of Shipments and Receipts (million dollars) |  |  |  |  |  |  |  |  |  |  |  |
| Under 20 | 127,974 | 2,315 | 98,179 | 1,510 | 1,269 | Q | 159 | 873 | 83 | 191 | 22.9 |
| 20-49 | 122,191 | 2,542 | 97,252 | 1,167 | 1,553 | Q | 62 | 459 | W | 34 | 14.7 |
| 50-99 | 117,492 | 2,240 | 97,870 | 1,002 | 1,455 | Q | 0 | 362 | 0 | 57 | 13.6 |
| 100-249 | 167,370 | 5,983 | 126,881 | 2,190 | 3,977 | 209 | 97 | Q | W | 102 | 11.5 |
| 250-499 | 139,091 | 5,151 | 109,491 | 4,046 | 1,108 | 639 | 287 | 313 | 0 | 489 | 5.7 |
| 500 and Over | 181,042 | 4,989 | 138,795 | 2,921 | 1,034 | 169 | 662 | 654 | W | 1,186 | 4.2 |
| Total | 855,160 | 23,219 | 668,468 | 12,835 | 10,395 | 1,980 | 1,267 | 3,059 | 94 | 2,059 | 8.7 |
| Employment Size |  |  |  |  |  |  |  |  |  |  |  |
| Under 50 | 75,710 | 1,102 | 54,009 | 689 | 643 | 144 | 148 | 249 | 81 | 77 | 23.9 |
| 50-99 | 72,802 | 1,214 | 59,833 | 744 | 566 | Q | 54 | Q | * | Q | 24.7 |

Table 10.6 Capability to Switch Electricity to Alternative Energy Sources, 2002 Level: National Data and Regional Totals; Row: NAICS Codes, Value of Shipments and Employment Sizes;
Row: NAICS Codes, Vaiue
Column: Energy Sources;
Unit: Million Kilowatthours.

| NAICS Code(a) | Subsector and Industry | Electricity Receipts |  |  | Alternative Energy Sources(b) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total Receipts(c) | Switchable | Not <br> Switchable | Natural Gas | Distillate Fuel Oil | Residual Fuel Oil | Coal | LPG | Coal Coke and Breeze | Other(d) |  |
|  | 100-249 | 182,530 | 4,187 | 144,456 | 1,758 | 2,873 | Q | 31 | 874 | W | 154 | 15.6 |
|  | 250-499 | 186,702 | 7,063 | 148,692 | 4,910 | 2,525 | 413 | 20 | 373 | W | 157 | 10.1 |
|  | 500-999 | 164,164 | 3,667 | 129,447 | 1,612 | 1,712 | 410 | 331 | 531 | W | 513 | 6.3 |
|  | 1000 and Over | 173,252 | 5,986 | 132,031 | 3,122 | 2,076 | 476 | 684 | 684 | 0 | 1,073 | 7.9 |
|  | Total | 855,160 | 23,219 | 668,468 | 12,835 | 10,395 | 1,980 | 1,267 | 3,059 | 94 | 2,059 | 8.7 |

(a) The Bureau of the Census classifies establishments using the North American Industry Classification System (NAICS).
(b) 'Alternative Energy Sources' consist of those energy sources that could have been substituted for electricity receipts during 2002. The quantities are expressed in millions of kilowatthours, and therefore represent the quantity of electricity that could have been displaced by the given alternative type of energy.
(c) 'Total Receipts' represents those quantities of electricity generated off the manufacturing establishment site and available at the site for consumption It includes those quantities for which payment was made, quantities transferred in, quantities purchased and paid for by a central purchasing entity, and quantities for which payment was made in kind. It does not include electricity generated onsite. 'Electricity Receipts' has not been adjusted to account for any quantities that might have been resold or transferred out. The estimates include those quantities that were ascertained switchable or not switchable,
plus an additional quantity for which the switching status was not ascertained.
(d) 'Other' includes all other types of energy not already identified that
respondents indicated could have been consumed in place of electricity.
(e) Value of Shipments and Receipts and Employment Size categories were supplied by the Bureau of the Census.

NF=No applicable RSE row/column factor

* Estimate less than 0.5.

W=Withheld to avoid disclosing data for individual establishments.
Q=Withheld because Relative Standard Error is greater than 50 percent.
NA=Not available.
Notes: To obtain the RSE percentage for any table cell, multiply the cell's corresponding RSE column and RSE row factors. Totals may not equal sum of components because of independent rounding.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy Consumption Division, Form EIA-846, '2002 Manufacturing Energy Consumption Survey,' and the Bureau of the Census, data files for the '2002 Economic Census, Manufacturing - Industry Series.'

