Table 10.3 Number of Establishments with Capability to Switch Natural Gas to Alternative Energy Sources, 2002;
Level: National Data;
Row: NAICS Codes;
Column: Energy Sources;
Unit: Establishment Counts.

|  |  |  | atural Gas(b) |  |  |  | Alternativ | rgy | (c) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NAICS Code(a) | Subsector and Industry | Total Consumed(d) | Switchable | Not <br> Switchable | Electricity <br> Receipts(e) | Distillate Fuel Oil | Residual Fuel Oil | Coal | LPG | Coal Coke and Breeze | Other(f) |

## Total United States

| Total United States |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | RSE Column Factors: | 0.6 | 1.1 | 0.7 | 1.2 | 1.1 | 1.1 | 1.2 | 1.1 | 0.9 | 1.1 |  |
| 311 | Food | 12,018 | 2,210 | 10,674 | 532 | 1,170 | 413 | 75 | 862 | 3 | 25 | 9.9 |
| 311221 | Wet Corn Milling | 47 | 16 | 39 | 4 | 6 | W | W | 6 | 0 | W | 1 |
| 31131 | Sugar | 62 | 23 | 51 | W | 4 | 13 | 4 | 0 | W | 0 | 1 |
| 311421 | Fruit and Vegetable Canning | 416 | 113 | 337 | 4 | 67 | 49 | W | 32 | W | W | 5.5 |
| 312 | Beverage and Tobacco Products | 1,132 | 239 | 960 | 124 | 134 | 35 | Q | 123 | W | 0 | 14.3 |
| 3121 | Beverages | 1,075 | 206 | 925 | 120 | 113 | 25 | Q | 120 | 0 | 0 | 23.6 |
| 3122 | Tobacco | 57 | 33 | 35 | 4 | 20 | 9 | 4 | 4 | W | 0 | 1 |
| 313 | Textile Mills | 1,388 | 630 | 1,008 | 56 | 412 | 178 | 31 | 102 | 0 | 0 | 7.1 |
| 314 | Textile Product Mills | 2,245 | 294 | 1,963 | 235 | 131 | 106 | 103 | 172 | 79 | 137 | 22 |
| 315 | Apparel | 3,014 | 328 | 2,875 | 229 | 217 | 189 | 156 | 183 | 154 | 154 | 15.8 |
| 316 | Leather and Allied Products | 568 | 160 | 416 | 152 | 45 | 35 | 35 | 42 | 35 | 11 | 11.4 |
| 321 | Wood Products | 4,600 | 848 | 3,941 | 601 | 102 | 80 | 19 | 257 | 6 | 103 | 4.1 |
| 321113 | Sawmills | 476 | 128 | 351 | 94 | 21 | W | 4 | 16 | 0 | 19 | 6.8 |
| 3212 | Veneer, Plywood, and Engineered Woods | 774 | 138 | 651 | 81 | 5 | 4 | 0 | 66 | 0 | 28 | 9.9 |
| 3219 | Other Wood Products | 3,153 | 550 | 2,764 | 405 | 64 | 59 | 0 | 154 | 0 | 41 | 5.1 |
| 322 | Paper | 3,481 | 614 | 3,039 | 239 | 233 | 152 | 28 | 172 | W | 11 | 2.6 |
| 322110 | Pulp Mills | 26 | 8 | 20 | 0 | 4 | 6 | 0 | W | 0 | W | 1 |
| 322121 | Paper Mills, except Newsprint | 267 | 116 | 198 | 18 | 52 | 42 | 15 | 12 | 0 | 8 | 11.2 |
| 322122 | Newsprint Mills | 16 | 5 | 12 | 0 | W | W | 0 | 0 | 0 | 0 | 1.1 |
| 322130 | Paperboard Mills | 185 | 77 | 151 | 11 | 34 | 43 | 10 | 5 | W | W | 1.7 |
| 323 | Printing and Related Support | 13,304 | 1,638 | 11,755 | 1,358 | 293 | 160 | 281 | 573 | 173 | 43 | 11 |
| 324 | Petroleum and Coal Products | 1,409 | 294 | 1,233 | 40 | 151 | 79 | 4 | 138 | W | 50 | 12.2 |
| 324110 | Petroleum Refineries | 198 | 93 | 168 | 10 | 18 | 18 | 4 | 42 | W | 30 | 2.9 |
| 324199 | Other Petroleum and Coal Products | 30 | 4 | 30 | 0 | W | 0 | 0 | 0 | 0 | W | 1.1 |
| 325 | Chemicals | 6,757 | 1,380 | 5,753 | 624 | 518 | 236 | 66 | 512 | 0 | 165 | 4.5 |
| 325110 | Petrochemicals | 33 | 4 | 30 | W | W | W | 0 | W | 0 | 0 | 1 |
| 325120 | Industrial Gases | 174 | Q | 119 | Q | W | 0 | 0 | Q | 0 | Q | 9.5 |
| 325181 | Alkalies and Chlorine | 29 | 15 | 18 | W | 5 | W | 6 | 5 | 0 | W | 1 |
| 325182 | Carbon Black | 22 | W | 22 | 0 | 0 | W | 0 | 0 | 0 | W | 1.1 |
| 325188 | Other Basic Inorganic Chemicals | 315 | 38 | 301 | 8 | 22 | 9 | W | 20 | 0 | 3 | 13.6 |
| 325192 | Cyclic Crudes and Intermediates | 36 | 11 | 30 | 0 | 7 | W | 0 | W | 0 | W | 1 |
| 325193 | Ethyl Alcohol | 46 | 9 | 41 | 0 | W | 0 | W | 5 | 0 | W | 1 |
| 325199 | Other Basic Organic Chemicals | 480 | 144 | 435 | 21 | 58 | 55 | 38 | 20 | 0 | 18 | 2.9 |
| 325211 | Plastics Materials and Resins | 588 | 168 | 473 | 78 | 120 | 73 | 9 | 97 | 0 | 4 | 3.6 |

Table 10.3 Number of Establishments with Capability to Switch Natural Gas to Alternative Energy Sources, 2002;
Level: National Data;
Row: NAICS Codes;

## Column. Energy Sources;

Unit: Establishment Counts.

|  |  | Natural Gas(b) |  |  | Alternative Energy Sources(c) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NAICS Code(a) | Subsector and Industry | Total Consumed(d) | Switchable | Not Switchable | Electricity <br> Receipts(e) | Distillate Fuel Oil | Residual Fuel Oil | Coal | LPG | Coal Coke and Breeze | Other(f) | RSE <br> Row <br> Factors |
| 325212 | Synthetic Rubber | 103 | 23 | 101 | Q | 21 | 13 | W | 13 | 0 | 0 | 1.6 |
| 325222 | Noncellulosic Organic Fibers | 50 | 27 | 31 | 5 | 15 | 9 | 0 | 5 | 0 | 0 | 1 |
| 325311 | Nitrogenous Fertilizers | 44 | 4 | 43 | 0 | W | W | 0 | W | 0 | W | 1 |
| 325312 | Phosphatic Fertilizers | 21 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 |
| 3254 | Pharmaceuticals and Medicines | 917 | 117 | 862 | 21 | 75 | 16 | W | 10 | 0 | 8 | 3.4 |
| 325412 | Pharmaceutical Preparation | 507 | 64 | 481 | 4 | 47 | 13 | W | 5 | 0 | W | 3.9 |
| 325992 | Photographic Film, Paper, Plate, and Chemicals | 162 | 25 | 147 | Q | 10 | W | W | W | 0 | 0 | 2.9 |
| 326 | Plastics and Rubber Products | 8,022 | 1,618 | 6,816 | 1,091 | 471 | 105 | 91 | 497 | 14 | 64 | 3.4 |
| 327 | Nonmetallic Mineral Products | 7,328 | 1,304 | 6,360 | 702 | 442 | 250 | 104 | 563 | 46 | 31 | 16.3 |
| 3272 | Glass and Glass Products | 979 | 242 | 860 | 178 | 57 | 29 | Q | 86 | 0 | W | 13.1 |
| 327211 | Flat Glass | 38 | 11 | 32 | W | 7 | 0 | 0 | W | 0 | W | 1 |
| 327213 | Glass Containers | 61 | 20 | 50 | 4 | 7 | W | 0 | 15 | 0 | 0 | 1 |
| 327310 | Cements | 136 | 44 | 104 | Q | 11 | 9 | 16 | 6 | 5 | 4 | 2.3 |
| 327410 | Lime | 44 | 16 | 37 | W | 5 | W | 8 | 4 | W | W | 1 |
| 327993 | Mineral Wool | 183 | 53 | 140 | 45 | 42 | Q | Q | 48 | Q | Q | 29.3 |
| 331 | Primary Metals | 3,599 | 548 | 3,237 | 183 | 112 | 73 | 11 | 315 | 4 | 20 | 3.2 |
| 331111 | Iron and Steel Mills | 448 | 51 | W | 11 | 10 | 4 | W | 22 | W | W | 3.6 |
| 331112 | Electrometallurgical Ferroalloy Products | 14 | W | W | 0 | W | W | 0 | W | 0 | 0 | 1.1 |
| 3312 | Steel Products from Purchased Steel | 504 | 82 | 447 | 33 | 7 | W | 0 | 42 | 0 | 5 | 4 |
| 3313 | Alumina and Aluminum | 423 | 107 | 340 | 29 | 39 | 33 | 0 | 58 | 0 | 5 | 5.2 |
| 331312 | Primary Aluminum | 41 | 20 | 25 | 0 | W | W | 0 | 16 | 0 | W | 2.3 |
| 3314 | Nonferrous Metals, except Aluminum | 629 | 82 | 606 | 48 | 21 | 13 | 0 | 24 | 0 | 0 | 3.7 |
| 3315 | Foundries | 1,582 | 224 | 1,413 | 61 | 31 | 18 | 8 | 167 | W | 7 | 3.4 |
| 331511 | Iron Foundries | 396 | 74 | 337 | 14 | 13 | 4 | W | 60 | 0 | 4 | 4 |
| 331521 | Aluminum Die-Casting Foundries | 215 | 25 | 201 | 8 | 7 | W | 0 | 21 | 0 | 0 | 1.7 |
| 331524 | Aluminum Foundries, except Die-Casting | 304 | 39 | 279 | 17 | W | W | 0 | 25 | 0 | W | 2.5 |
| 332 | Fabricated Metal Products | 26,976 | 4,562 | 23,007 | 3,758 | 1,077 | 910 | 321 | 2,674 | 160 | 473 | 7.3 |
| 333 | Machinery | 14,123 | 2,178 | 12,388 | 1,689 | 505 | 751 | 258 | 1,072 | 168 | 139 | 6 |
| 334 | Computer and Electronic Products | 6,629 | 753 | 6,050 | 639 | 182 | 127 | 158 | 252 | 98 | 104 | 4.3 |
| 334413 | Semiconductors and Related Devices | 434 | 50 | 413 | 8 | 35 | 7 | W | 10 | W | 5 | 2.2 |
| 335 | Electrical Equip., Appliances, and Components | 3,349 | 477 | 3,026 | 190 | 86 | 68 | Q | 272 | W | 13 | 12.6 |
| 336 | Transportation Equipment | 5,993 | 854 | 5,367 | 493 | 123 | 168 | 79 | 594 | 66 | 71 | 4.3 |
| 336112 | Light Trucks and Utility Vehicles | 41 | 9 | 36 | 0 | 0 | W | W | 6 | 0 | W | 1 |
| 337 | Furniture and Related Products | 6,144 | 695 | 5,479 | 634 | 275 | 131 | 36 | 353 | 36 | W | 10.8 |
| 339 | Miscellaneous | 11,171 | 1,276 | 9,965 | 1,172 | 97 | 23 | 117 | 289 | 110 | W | 3.3 |
|  | Total | 143,250 | 22,900 | 125,312 | 14,742 | 6,777 | 4,267 | 2,064 | 10,015 | 1,160 | 1,732 | 3.1 |

Table 10.3 Number of Establishments with Capability to Switch Natural Gas to Alternative Energy Sources, 2002; Level: National Data;

## Row: NAICS Codes;

## Column: Energy Sources;

Unit: Establishment Counts.

(a) The Bureau of the Census classifies establishments using the North American

Industry Classification System (NAICS)
(b) These counts include only those establishments that reported this activity in 2002.
(c) 'Alternative Energy Sources' consist of those energy sources that could
have been substituted for natural gas during 2002. The quantities are expressed in billions of cubic feet, and therefore represent the quantity of natural gas
that could have been displaced by the given alternative type of energy.
(d) 'Total Consumed' represents those quantities (Total Inputs) of natural gas that were ascertained switchable or not switchable, plus an additional quantity for which the switching status was not ascertained.
(e) 'Electricity 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
(f) 'Other' includes all other types of energy not already identified that respondents indicated could have been consumed in place of natural gas.
NF=No applicable RSE row/column factor

* Estimate less than 0.5.
$\mathrm{W}=$ Withheld to avoid disclosing data for individual establishments.
$\mathrm{Q}=$ 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.'

