

INDEX

- Aging population
 - automobile use and, 3, 106
 - energy demands of, xx, 49, 50–52, 104
 - federal spending on, 49–50, 51
 - influence on household types, 1
 - labor force effect of, 9, 10–12
 - work force participation of, 3, 9–10, 54n24
- Air-conditioning, 58, 62–64, 81
- Air transport, energy use by, 58, 59, 69, 70, 72, 84, 108
- Alaska, oil and gas production in, 94, 135, 138, 139, 195
- Alcoa process, 121
- Alien Adjustment and Employment Act of 1977, 167–68
- Aliens. *See* Immigration
- Aluminum industry
 - energy requirements of, 58, 60, 61, 83, 86, 121, 122–23
 - growth rate in, 120–21
- Appliances
 - average life of, 62
 - energy demand of, 58, 59, 65, 66, 68
 - government regulations for, 42–43, 47
 - market saturation for, 49, 63–64
- Argonne National Laboratory, 194
- Automobiles
 - aging population impact on, 3, 106
 - average life of, 62
 - energy demands of, 26, 48–49, 58, 59, 67, 70, 71–74, 76, 79, 82
 - fuel economy for, xxvii, 45–46
 - gas consumption of, 104–6
 - government regulations for, 41–47
 - lighter-weight, 39, 41, 83
 - market saturation of, 48
 - mileage of, xxx, 95
 - projected number of, xxvi, xxx, 3, 26, 48, 106
 - projected use of, xxii–xxiii
- Baby boom, 9, 13, 18
- Barges, energy demand of, 69, 70, 83, 84, 108
- Beaufort Sea oil, 195
- Best available control technology (BACT), 93, 183–84

- Blast furnace industry, 116, 119–20
- Boilers, 39, 62
- Building codes, 42, 47
- Building design, 39, 91
- Buildings
 - average life of, 62
 - government regulations for energy conservation in, 42, 47
- Bureau of Commerce, 66
- Bureau of Economic Analysis, 23, 116
- Bureau of Labor Statistics, 9, 12
- Bureau of Mines, 92, 100, 139
- Burns, Arthur, 21
- Buses, energy demand of, 67, 70, 83, 84, 106
- Capital
 - absorption by baby boom population, 18
 - effect on productivity, 3
 - as factor of national income, 4
- Capital stock, 14–15, 16, 61
- Captive coke, 74–77, 134, 136–37
- Carbon dioxide, climatic effects of, 189
- Cement manufacturing, 124, 125
- Census Bureau, 3, 7–8, 163, 164, 167, 169, 172
- Central Intelligence Agency, xxi
- Chapman, Leonard, 165
- Chemical industry
 - energy demands of, 40, 61, 69, 71, 75, 76
 - regional trends in, 113–16, 119
 - energy/output ratios for, 73, 115, 116
 - growth rate in, 72, 114, 115
- Clay industry. *See* Stone, clay, and glass product industry
- Clean Air Act(s), 93–94, 183–84
- Climate
 - carbon dioxide induced changes in, 189
 - effect on energy use, xx
- Coal, 36, 90, 92–94, 95, 96, 97, 194
 - development of, 184–85
 - federal land leasing for, 182
 - market penetration of, 187
 - mining standards for, xix, 180–81, 182, 183–84
 - pollution control effect on, xix, 185–89
 - price of, xxxii, 93, 179, 185, 186, 194
 - productivity in production of, 180–81, 182–83, 185
 - regional use of, 149
 - sector use of, 150
 - synthetics from, 94–95
 - technologies for, 185–87, 188–89
 - users of, xix, 61, 149, 150
- Coal Mine Health and Safety Act of 1969, 180
- Combined cycle gas turbine, 188
- Commercial sector, xxii
 - energy demand of, xx, xxxi, 1–3, 58, 59, 64–68, 81–82
 - regional, 104, 105
 - energy inputs for, 80, 87, 150
 - energy savings in, xxvii, 37, 39, 44
- Commercial space, xxvi, xxx, 23
- Congressional Budget Office, 13–14
- Conservation, energy, xxiii, 36–40
 - in commercial sector, 64, 66, 82
 - effect on demand, xxiv
 - fuel efficiency factors, 67
 - government managed, 41–48
 - in household sector, 63, 102
 - price-induced, 35
- Construction industry
 - growth in, 135
 - projected energy demand of, 77, 79
 - regional energy use by, 138, 142
- Council of Economic Advisers, 17
- Council on Environmental Quality, 36
- Cross elasticities, 156, 160, 161

- Deficit spending, 17
- Denison, Edward F., 3, 6, 16
- Department of Commerce, 167
- Department of Defense, 41
- Department of Energy, xxi, 185
- Department of the Interior, 180
- Department of Labor, 3, 180
- Department of Transportation, 48
- Depreciation allowances, 18
- Deregulation, 94, 194, 195
- Devonian shales, 94
- Dow Chemical Company, 36

- East North Central region
 - commercial energy use of, 105
 - electricity power expansion projects in, 146
 - electric share of, 143, 149
 - gas and oil production in, 138, 139
 - household energy use in, 103
 - industrial energy use in, 110, 111–12, 114, 130, 131–32, 133–34
 - chemical, 117–18, 119
 - construction, 142
 - feedstocks and captive coke, 136–37
 - food, 129
 - metal, 122–23
 - mining, 140, 141
 - paper, 128
 - petroleum and coal products, 125
 - stone, clay, and glass products, 126
 - total energy use in, xx, 101, 151
 - transportation energy use in, 107, 108
- East South Central region
 - commercial energy use in, 105
 - electricity power expansion projects in, 145
 - electric share of, 143, 149
 - gas and oil production in, 138, 139
 - household energy use of, 103
 - industrial energy consumption
 - of, 110, 111–12, 114, 130, 131–32, 133–34
 - chemical, 117–18, 119
 - construction, 142
 - feedstocks and captive coke, 136–37
 - food, 129
 - metal, 122–23
 - mining, 140, 141
 - paper, 128
 - petroleum and coal products, 125
 - stone, clay, and glass products, 126
 - total energy use in, 101, 151
 - transportation energy use in, 107
- Education
 - of illegal aliens, 171, 175, 177n14
 - of labor force, 3, 18
- Efficiency offset, 4, 5
- Elasticities, xxiv, xxxii, 175, 193
 - cross elasticities, 156, 160, 161
 - income elasticity of demand, 155, 160
 - own price elasticity, 155–56, 157, 160–61
 - price elasticity of demand, 155
 - use of, 156, 157–62
- Electric drive and lighting, 58, 60, 61, 83, 85, 86
- Electricity
 - coal-fired, 185, 187, 188
 - cost of, xxxii, 18, 195–96
 - demand for, xxvii, 196
 - heat from cogeneration of, 36
 - inputs for, 89–92, 95, 96, 97
 - regional consumption of, 138–39, 143
 - sector use of, 58, 59–60, 74, 150
 - technological improvements for, 115
- Electric power expansion projects, 139–42, 144–49
- Emission standards, 93, 94

Employment

- of illegal aliens, 164, 172, 173, 174
- in Mexico, 165
- part-time, 12
- in service industries, xx, 23
- Employment Act of 1946, 13
- Energy demand, xix–xx, xxvii, xxxi, 101, 151
- of aging population, xx, 50–52
- analysis of, xxii, 57, 69–71, 74, 82, 83
- for captive coke, 74–77
- commercial sector, xx, 64–66, 67, 68, 81–82
- regional, 104, 105
- for feedstocks, 74–77
- GNP relationship to, 32–35
- gross, 74
- growth of, xxi
- high projection of, 79–87
- household sector, 61–64, 65, 81
- regional, 100–103
- illegal immigration impact on, 176
- industrial sector, 69–79, 83–85, 86
- regional, 109–12, 114
- low projection of, 61–79
- as national income factor, 4
- transportation sector, 67–68, 70, 82–83, 84
- regional, 104–8
- Energy intensity, 100, 102, 104
- Energy/output ratio, 69, 71, 73, 115, 116
- Energy Policy and Conservation Act of 1975, 35
- Energy prices. *See* Price of energy
- Energy Research and Development Administration, 115
- Energy sources, 95, 97, 149, 150
 - biomass, 90
 - coal, 90, 92–94
 - gas, 90, 94
 - geothermal, 90, 91–92
 - hydro power, 89–91, 90
 - nuclear, 90, 92, 96, 149
 - petroleum, 94–96

- shale, 90, 94, 195
- shift in emphasis on, 89
- solar, 90, 91–92
- Engines, efficiency of, 39, 41
- Enhanced oil recovery, 94
- Enrichment technology, 115
- Environmental Protection Agency, 42, 183, 184
- Environmental standards
 - aluminum industry and, 120–21
 - Clean Air Acts, 93–94, 183–84
 - in coal industry, 180, 182, 183–84
 - effect on investment, 17
 - emissions, 93, 94
- Ethyl Corporation, 108
- Fair Labor Standards Act, 167–68
- Federal Energy Administration, 36, 47, 194
- Federal Energy Management Program, 41
- Federal Farm Labor Contractor Registration Act, 168
- Federal Highway Administration, 106
- Federal Power Commission, 96, 113, 139
- Feedstocks
 - energy demands of, 60, 61, 74–77, 83, 85, 86, 187
 - regional demands for, 134, 136–37
- Feedstock users, average life of, 62
- Fertility rate
 - effect on economic growth rate, xxi
 - effect on female participation rate, 11
 - effect on labor force, xxiv
 - effect on population, 1, 2, 6, 163
 - estimation of, xxv, 7
 - historical, 7, 8
- Flue gas desulfurization, 184, 185–86, 187
- Fluidized-bed combustion, 185, 186–87

- Food industry
 energy demands of, 40, 61, 75, 76
 energy/output ratio for, 73
 growth in, 72
- Ford Foundation Energy Policy Project, 39, 49
- Fri, Robert, 187
- Fuel. *See* Energy sources
- Fuel economy, 67, 69, 82, 116, 119, 121. *See also* Conservation, energy
- Furnaces, average life of, 62
- Gas, natural, xx, 94, 95, 97
 liquified, 94
 price of, xxxii, 195
 regional production of, 139
 regional use of, 149
 sector use of, 150
- Geothermal energy, 90, 91–92, 95, 97
 regional use of, 149
 sector analysis of, 150
 tax credit for, 43
- Glass products. *See* Stone, clay, and glass product industry
- Gross domestic product (GDP), 23, 24–25
- Gross energy demand, 74
- Gross national product (GNP), xxii, 3
 calculation of, 2, 6–7
 growth of, xxi, xxv, xxviii, xxix, 174–75
 historical relationship to energy, 32–35
 illegal immigration effect on, xix, 172–76
 labor force effect on, 6
 projection of, xxiii, xxiv, xxv, xxviii, 19–21
- Gulf of Mexico, gas from, 94
- Hall-Heroult process, 121
- Heat
 from cogeneration of electricity, 36
 energy demand of, 58, 59, 62–63
- Heating and cooling systems
 average life of, 62
 energy demands of, 63, 64, 65, 66, 68
- Heat pumps, 39, 62–63, 81, 82
- Heat recovery processes, improvement of, 39
- Hours worked, 6, 12, 19, 20, 21
- Households, number of, xxvi, xxx, 1, 21–22, 102
- Household sector, xxii
 energy demands of, xx, xxxi, 58, 59, 61–64, 65, 81
 regional, 100–103
 energy inputs for, 80, 87, 150
 energy savings in, 37, 39
 energy use efficiencies of, xxvii
- Houses, average life of, 62
- Humphrey-Hawkins Act, 13
- Hydro power, 89–91, 95, 97, 149
- Immigration
 illegal, 1, 164–67
 impact on economic growth, xix, 172–76
 impact on labor force, 8–9, 170, 171, 173, 174
 legislation for, 167–68
 major source countries of, 166
 projected, 168–70
 laws governing, 163–64
 net, 163, 167, 173
 population dependence on, 7–8, 163, 164, 169
- Immigration and Naturalization Service, 164, 168
- Income elasticity of demand, 155, 160
- Income, national, 3–6
- Independent Petroleum Association of America, 108
- Indian tribes, grants to, 44, 47
- Industrial sector, xxii
 electric use by, 74
 energy demands of, 40, 58, 60, 61, 69–79, 83–85, 86
 regional, 109–12, 114
 energy inputs for, 80, 87, 150
 energy/output ratio, 41

- energy savings in, xx, 37, 39
- energy use efficiencies for, xxvii
- location of industries, 109
- Inexhaustible fuels, 184
- Inflation, 17, 18, 50, 195
- Institute for Energy Analysis, xxi, 179
- Insulation, 39, 62, 63
 - federal programs for, 42, 43, 44–45, 47–48
- Intergroups shift offset, 4, 5
- Investment
 - in conservation technologies, 36, 44–45
 - declining profits and, 18
 - effect on productivity, 7, 16
 - pollution abatement and, 15–16, 93–94, 184
 - projected reduction in, xxi
 - trends in, 16–18
- Iron industry
 - energy use of, 40, 41, 58, 60, 61, 83, 86, 120, 122–23
 - growth of, 119
- Jet fuel, 41
- Kuznets, Simon, 23
- Labor force, 13
 - annual additions to, 174
 - composition of, 18–19
 - educational attainment of, 18
 - female participation in, 50
 - fertility rate and, xxi, 172
 - GNP and, xxii, 4, 6
 - growth of, xxiv, xxv, xxix, 20
 - illegal aliens in, 8–9, 170, 172, 173, 174
 - nonparticipants in, 9–10
 - participation rate and, 9–12
 - total employed, 20, 173
- Leasing federal lands for mining, 182
- Life-styles, energy consumption of, xxiv, 21, 36, 48
- Lighting systems
 - average life of, 62
 - energy demand projections for, 58, 59, 65, 66, 68, 83, 85, 86
- Liquified natural gas, 94
- Markets. *See* Saturated markets
- Mass transit, 26, 36, 39, 48, 116
- Metal industry
 - energy demand of, 40, 61, 75, 76
 - regional, 116–23
 - energy/output ratio for, 73
 - growth of, 72, 120–21
- Mexico
 - illegal aliens from, 165–67, 168
 - natural gas supply of, 94
- Middle Atlantic region
 - commercial energy use in, 105
 - electric power expansion projects in, 144
 - electric share of, 143, 149
 - gas and oil production in, 138, 139
 - household energy use of, 103
 - industrial energy consumption of, 110, 111–12, 114, 130, 131–32, 133–34
 - chemical, 117–18, 119
 - construction, 142
 - feedstocks and captive coke, 136–37
 - food, 129
 - metal, 122–23
 - mining, 140, 141
 - paper, 128
 - petroleum and coal products, 125
 - stone, clay, and glass products, 126
 - total energy use in, xx, 101, 151
 - transportation energy use in, 107
- Mileage, automobile, xxx, 95, 106
 - federal laws for, 41, 45–46, 58
- Mineral Leasing Act of 1920, 182
- Mining
 - coal, 180–81, 182, 183–84, 185
 - energy demand of, 77, 78, 79
 - regional, 134–35, 140

- regulations for, xix, 15–16, 180–81, 182, 183–84
- Mobile homes, 22
- Molten carbonate fuel cell, 188
- Mountain region, 99
 - commercial energy use in, 105
 - electric power expansion projects in, 148
 - electric share of, 143, 149
 - gas and oil production in, 138, 139
 - household energy use of, 103
 - industrial energy use of, 110, 111–12, 114, 130, 131–32, 133–34
 - chemical, 117–18, 119
 - construction, 142
 - feedstocks and captive coke, 136–37
 - food, 129
 - metal, 122–23
 - mining, 134, 135, 140, 141
 - paper, 128
 - petroleum and coal products, 125
 - stone, clay, and glass products, 126
 - total energy use in, 101, 151
 - transportation energy use in, 107, 108
- National Bureau of Economic Research, 23
- National Commission on Water Quality, 16
- National Energy Plan (NEP), 92, 93, 94, 179, 182, 184, 187**
- National energy policy, 32, 41**
- National Petroleum Council, 36
- New England region, 99
 - commercial energy use in, 104, 105
 - electric power expansion projects in, 144
 - electric share of, 143, 149
 - gas and oil production in, 138, 139
 - household energy use of, 103
 - industrial energy consumption
 - of, 110, 111–12, 114, 130, 131–32, 133–34
 - chemical, 117–18, 119
 - construction, 142
 - feedstocks and captive coke, 136–37
 - food, 129
 - metal, 122–23
 - mining, 140, 141
 - paper, 128
 - petroleum and coal products, 125
 - stone, clay, and glass products, 126
 - total energy use in, 101, 151
 - transportation energy use in, 107
 - Nitrogen oxides, 188
 - Nuclear energy, 90, 92, 95, 96, 97, 149
 - Oak Ridge National Laboratory, 36
 - Office of Business Economics, 71
 - Offshore drilling, 94, 195
 - Oil
 - price regulations, 35
 - prices of, xxxii, 194–95
 - production of, xx, 138
 - regional use of, 149
 - sector use of, 150
 - Oil embargo of 1973, xx, 41, 93
 - Open-cycle gas turbine, 188
 - Open cycle magnetohydrodynamics system, 189
 - Organization for Economic Cooperation and Development (OECD), 23
 - Organization of Petroleum Exporting Countries (OPEC), xx, 195
 - Own price elasticity, 155–56, 157, 160–61
 - Pacific region
 - commercial energy use in, 105
 - electric power expansion projects in, 148

- electric share of, 143, 149
- gas and oil production in, 138, 139
- household energy use of, 103
- industrial energy use of, 110, 111–12, 114, 130, 131–32, 133–34
- chemical, 117–18, 119
- construction, 142
- feedstock and captive coke, 136–37
- food, 129
- metal, 122–23
- mining, 140, 141
- paper, 128
- petroleum and coal products, 125
- stone, clay, and glass products, 126
- total energy use in, xx, 101, 151
- transportation energy use in, 107, 108
- Paper industry
 - energy demands of, 40, 41, 61, 75, 76, 128
 - energy/output ratio for, 73
 - growth in, 72
- Participation, labor, xxii, xxv, 3, 6
 - aging population impact on, 3, 9–10, 54n24
 - calculation of, 9
 - gender differences in, 9–11
 - GNP relationship to, 2
 - retirement effect on, 9, 10–12
- Passive solar energy, 91
- Petroleum and coal products industry
 - energy demands of, 40, 41, 69, 75, 76
 - regional, 124, 125
 - energy/output ratio for, 73
 - growth of, 72, 124
- Pipeline transport, energy demand for, 69, 70, 83, 84, 108, 116
- Pollution abatement
 - in coal use, 96, 183–84, 185–87
 - effect on productivity, xxiv
 - investment and, 15–16, 18, 94
- Population
 - age composition shift in, 49, 50–52
 - calculation of, 6–7
 - energy use and, xx, 50–52
 - estimates of, xxiii, xxv, xxix, 7, 20
 - fertility rate effect on, 1, 163
 - GNP relationship to, 2
 - immigration effect on, 1, 7–8, 163, 164, 169
 - shift to sunbelt states, 26
- Price controls, 35, 94, 194, 195
- Price-demand relationship, 158–62
- Price elasticity of demand, xxiv, xxxii, 155
- Price of energy, xxi, xxviii, xxxii, 35, 121
 - for coal, 93, 179, 180, 181, 185, 186, 194
 - effect on demand, 156, 158–62
 - elasticities in, xxiii, xxiv, xxxii, 155–62, 193
 - after oil embargo, xx
 - regional, 109, 110
 - trends in, xxi, 18, 193–96
- Process steam and heat, 58, 60, 61, 83, 86
- Productivity, xxv, 163
 - in coal production, 180–81
 - factors influencing, 3
 - GNP relationship to, xxii
 - growth of, xxiv, 13–14, 18–19
 - of illegal aliens, 175
 - investment influence on, 7
 - labor force composition and, 18
 - as national income factor, 5
 - pollution abatement and, 94
 - reduction in, xxi, 180–81
 - in service sector, 23
 - technological influence on, 3, 35–36, 39
- Profits, declining, 18
- Public Law 89-236, 163–64
- Public Law 94-163, 41, 42
- Public Law 94-385, 42, 43–44, 47
- Rail freight, energy demand for, 67, 70, 83, 84, 106

- Raw materials, effect on national income, 4, 6
- Recycling, 41, 121
- Reforma field, 94
- Regional energy demands, 99, 100, 101
 - in commercial sector, 104, 105
 - in household sector, 100–103
 - in industrial sector, 109–12, 114, 122–41
 - in transportation sector, 104–8
- Replacement costs, 17, 18
- Research and development, 18, 91, 94, 179, 184, 185
- Retirement, 3, 9–12, 54n24
- Retrofitting, 39, 62–64, 66, 81–82

- Safety requirements, xxiv, 15–16, 18, 180–81
- Saturated markets, 26, 48–49, 63–64
- School attendance, 50, 54n24
- Scrubbers, stack, 93–94, 183–84, 185–86
- Service industries, 22–23, 24–25, 66, 67
- Shale oil, 90, 94, 195
- Ships, energy use by, 58, 60, 69, 70, 83, 84, 108
- Smelters, average life of, 62
- Social Security system, 9–11, 49–50, 51, 167, 180
- Solar-assisted annual cycle energy system (ACES), 39
- Solar energy, 90, 91–92, 95, 97
 - regional use of, 149
 - sector use of, 150
 - tax allowances for, 43, 48
- South Atlantic region, xx
 - commercial energy use in, 105
 - electric power expansion projects in, 145
 - electric share of, 143, 149
 - gas and oil production in, 138, 139
 - household energy use in, 103
 - industrial energy use in, 110, 111–12, 114, 130, 131–32, 133–34
 - chemical, 117–18, 119
 - construction, 142
 - feedstocks and captive coke, 136–37
 - food, 129
 - metal, 122–23
 - mining, 140, 141
 - paper, 128
 - petroleum and coal products, 125
 - stone, clay, and glass products, 126
 - total energy use in, 101, 151
 - transportation energy use in, 107
- Speed limit, national, 41
- Steel industry
 - energy use of, 40, 41, 58, 60, 61, 83, 86, 120, 122–23
 - growth rate of, 116, 119
- Stone, clay, and glass product industry
 - energy/output ratio of, 73, 125
 - energy use in, 40, 61, 75, 76
 - regional, 124–125, 126
 - growth in, 72, 124
- Strip mining, 94, 180, 181
- Sulfur content of coal, 93–94
- Sulfur dioxide, control of, 183, 184, 186, 187, 188
- Sunbelt states, population shift to, 26
- Supreme Court, opinion on nuclear power plants, 92

- Tax credits, 43, 44–45, 47–48
- Technologies, energy saving, xxiii, 17, 61
 - in chemical industry, 115
 - effect on energy demands, xxi, xxiv
 - effect on productivity, 3, 35–36, 39
- Teen-agers, unemployment among, 12–13
- Transfer expenditures, 17
- Transportation sector, xxii
 - energy efficiencies for, xxvii

- energy inputs for, 80, 87, 95–96, 150
- energy savings in, 37, 39
 - federal laws for, 41, 45–46
- energy use by, xxxi, 58, 59, 60, 67–68, 70, 82–83, 84
 - regional, 104–8
 - life-style effect on, 48
- Trucks
 - energy demand of, 67, 70, 83, 84
 - fuel economy for, 46, 47
- Trucks, service
 - average life of, 62
 - energy demands of, 58, 59, 67, 70, 83, 84
 - lighter-weight, 39
- Unemployment, 12–13
- United Mine Workers, 93, 180, 182–83
- Uranium enrichment, 115
- Wages, 171, 172, 182–83
- Water heating, 63, 65, 68
- Water treatment plants, 16
- Weatherization, federal program for, 47–48. *See also* Insulation
- West Germany, energy use in, 36–39, 41, 40
- West North Central region
 - commercial energy use in, 105
 - electric power expansion projects in, 147
 - electric share of, 143, 149
 - gas and oil production in, 138, 139
 - household energy use of, 103
 - industrial energy consumption of, 110, 111–12, 114, 130, 131–32, 133–34
 - chemical, 117–18, 119
 - construction, 142
 - feedstocks and captive coke, 136–37
 - food, 129
 - metal, 122–23
 - mining, 140, 141
 - paper, 128
 - petroleum and coal products, 125
 - stone, clay, and glass products, 126
 - total energy use in, 101, 151
 - transportation energy use in, 107, 108
- West South Central region, 99
 - commercial energy use in, 105
 - electric power expansion projects in, 147
 - electric share of, 143, 149
 - gas and oil production in, 138, 139
 - household energy use in, 103
 - industrial energy use in, 110, 111–12, 114, 130, 131–32, 133–34
 - chemical, 117–18, 119
 - construction, 142
 - feedstocks and captive coke, 136–37
 - food, 129
 - metal, 122–23
 - mining, 140, 141
 - paper, 128
 - petroleum and coal products, 125
 - stone, clay, and glass products, 126
 - total energy use in, xx, 101, 151
 - transportation energy use in, 107
- Wind-related energy equipment, 43
- Women
 - participation in work force, 3, 6, 10–11, 12, 50
 - part-time employment of, 12
 - unemployment among, 12–13