

Index

- Argonne National Laboratory, 107
- automobiles, 28, 29, 107, 108, 109
- biomass, 24
- boilers, oil, 32, 142
- Bonneville Power Administration (BPA), 106
- chemicals and allied products industry, 112
- coal, 23, 68, 142
- demand sectors, 47
 - electric utilities, 47
 - industrial, 48
 - residential and commercial, 47
 - transportation, 47
- economic impacts, 127
 - IN FORUM macroeconomic model of U.S. economy, 128
 - energy skirt, 132
 - industrial input/output, 128
 - macroeconomics without energy detail, 128
 - modeling strategy based on OTA technology data base, 135
 - energy sector guidelines, 135
 - guidelines for rest of economy, 139
 - guidelines for scenario integration by iteration of fuel prices, 141
 - projections, 143
 - normal economic projection, the reference case, 143
 - two macroeconomic projections of oil import shortfall impacts, 144
- economic recession and productivity decline, 51
- efficiency, increased, 101
 - buildings, 102
 - heating oil conservation, 103
 - natural gas conservation, 106
 - transportation, 107
 - industry, 110
 - energy conservation potential, 113
 - technologies available to reduce oil dependence, 111
 - computer control systems, 111
 - housekeeping, 111
 - waste heat recovery, 111
- employment and unemployment, 131, 147
- energy consumption by end-use sector, 43
 - all fuel products, 43
 - natural gas, 44
 - oil, 43
- Energy Disaggregated Input/Output Data Base, 133
- Energy Information Administration (EIA), 102
- Federal Reserve Board (FRB), 48, 130
- food prices, 123
- fuel use changes, 119
 - alternative scenarios, 121
 - longer term effects, 122
- fuel switching, 32, 57
 - technologies:
 - compressed natural gas in motor vehicles, 64
 - conversion to solid fuels, 60
 - electric heat pumps, 59
 - ethanol, 62
 - liquefied petroleum gas in motor vehicles, 64
 - mobile gasifiers, 66
 - deployment of technologies, 75
 - electric utilities, 78
 - industrial boilers, 86
 - mobile engines, 89
 - residential/commercial space heat and hot water, 83
- fuel and grain supplies, 67
 - coal, 68
 - enhanced oil recovery, 71
 - grain, 73
 - liquefied petroleum gas, 71
 - natural gas, 70
 - wood and other solid biomass, 69
- reasons for excluding various oil replacement technologies from detailed consideration, 94
 - active solar systems, 95
 - electric vehicles, 96
 - electricity from wind, 96
 - ethanol from food processing wastes, 96
 - fossil synthetic fuels, 94
 - photovoltaics, 95
 - solar thermal electric generation, 96
- gasoline prices, 137
- grain feedstocks, 123
- gross investment and interindustry investment patterns, 131
- GNP (gross national product), 131, 146
- industrial product mix shift, 50
- industrial sector energy intensity, 48
- Industrial Sector Technology Use Model (ISTUM), 113, 114
- industrial use, 18
- inflation and government fiscal and monetary policies, 130, 148
- International Energy Agreement, 9, 33, 34
- iron and steel industry, 112
- jet fuel, 108
- labor productivity, 140
- legislation:
 - Clean Air Act, 27, 40
 - Energy Policy and Conservation Act of 1975, 102
 - National Energy Conservation Policy Act of 1978, 105
 - Public Utility Regulatory Policy Act, 27
- local development of energy resources, 136
- Mass Save program, 106

natural gas, 27, 28, 64, 70, 106, 123
New Source Performance Standards, 23

Pacific Gas & Electric Co., 106
paper and allied products industry, 111, 112

personal consumption expenditures, 1, 50

petroleum product mix, 45

distillate fuel oil, 45

ethane and liquefied gases, 46

jet fuel, 46

motor gasoline, 45

other petroleum products, 46

residual fuel oil, 45

petroleum refining industry, 112

policy, 24

advance preparation for shortfall, 29

measuring rate of replacement, 31

policy strategy, 26

selected regional and international considerations, 33

private investment, 149

research and development (R&D), 31

residential and commercial use, 18

Residential Conservation Service, 106

response, rapid, 17, 21, 121

response, slower, 20, 121

specific findings, 17

environmental impacts, 23

longer term effects, 23

macroeconomic impacts, 21

replacing oil through energy technologies, 17

stationary heat and steam, 137

Strategic Petroleum Reserve (SPR), 3, 4, **21, 25, 26, 34,**
128

synthetic fuels, 24

Tennessee Valley Authority (TVA), **106**

trade, world, 130

transportation use, 19

U.S. Department of Commerce, 32, 133

U.S. Department of Energy, 32, 103, 110, 133

utilities:

electric, 32

gas, 32

utility use, 17

wood, 24