

Index

- 20th century, 5, 21, 345, 346, 402, 415
- 21st century, 14, 22, 27, 30, 31, 45, 52, 67, 112, 167, 168, 181, 244, 301, 345, 346, 347, 348, 357, 358, 359, 361, 368, 379, 385, 395, 397, 399, 400, 401, 421, 431, 441
- accident, nuclear, 214, 236, 237, 245, 247, 251, 326, 328, 369, 370
- acid, 9, 156
- activation, 330, 331, 334
- active solar heating, 126, 131
- adaptive strategies, 45–82
- agriculture, 6, 9, 14, 136, 152, 330, 360, 415, 432
- aluminum, 115, 185, 373, 392, 393, 403, 429
- Apollo missions, 370
- Arecibo radar, 386
- Aspen Global Change Institute, 205, 402
- asteroids, 367, 373
- batteries, 157, 158, 163, 171, 184–6, 202
- best available technology (BAT), 108
- biodiversity, 157, 360, 438, 442
- biomass, 7, 8, 30, 31, 40, 72, 127, 130, 136, 137, 153, 156–7, 181, 182, 202, 230, 241, 249, 302, 350
- biosphere, 7, 14, 414, 434, 446
- biota, 8, 365, 433, 438
- birds, 156, 372, 373
- breeder reactor, 41, 216, 284, 286, 301, 355, 368, 369, 374, 402
- brine, 362, 363
- buildings, 40, 111, 114, 398
- CAFE standards, 108, 112
- capacity factor, 139, 143, 147, 151, 168
- capital, 347, 359, 364, 396, 397, 398
- capital cost, 72, 126, 145, 169, 182, 185, 187, 202, 212, 213, 239, 257, 260, 270, 288, 291, 328, 392
- carbon dioxide, 6–8, 27, 60, 74, 123, 156, 157, 167, 191, 290, 325, 329, 357, 360, 365, 374, 403, 411, 412
- carbon tax, 37, 39, 47, 59, 68, 69, 72–6, 109, 159
- cardinal issues, 41, 242
- Clementine, 393
- climate change, 1–21
- coal, 8, 9, 29, 33, 72, 115, 124, 216, 239–41, 302, 328, 347, 350, 357, 360, 361, 373, 393, 396, 397, 398, 399, 401, 403
- cogeneration, 115, 116, 127
- combined cycle, 116, 130, 201, 204, 206, 302
- compressed air energy storage (CAES), 183, 196
- deuterium, 325, 326, 369, 370
- developed nations, 22, 97, 154, 345, 347, 348, 373, 374
- developing nations, 8, 23, 31, 36, 97, 154, 162, 346, 347, 348, 357, 401
- do-a-little (DAL), 52–82
- economic growth, 23, 27, 33, 42, 69–76, 92, 95, 97, 191, 346
- electric vehicles, 171
- emissions stabilization (ES), 52, 64
- energy intensity, 29–40, 87–100, 118
- environment, 347, 373, 374, 393, 401
- environmental impact, 23, 28, 126, 156, 286, 300, 338
- ethanol, 166
- externalities, 78, 93, 173, 270
- fast-ignitor, 339, 340
- fission, 345, 368, 369, 370, 371, 396, 397, 398, 399, 402
- Flibe, 339
- flywheels, 184–6 188, 202, 207
- Freshlook study, 378
- fuel cells, 95, 112, 169–71, 182, 186, 188, 196, 201, 204, 398
- fusion, 38, 41, 218, 242, 274, 325–42, 345, 360, 369, 370, 371, 374, 399
- Fusion Ignition Research Experiment (FIRE), 333
- GEO-SSPS, 356, 374, 380
- geothermal energy, 42, 123, 124, 126, 131, 139–42, 145, 153, 156, 159, 353, 361, 366
- global energy, 23, 30, 32, 39, 40, 87, 97–100, 173, 345, 346, 357, 402

greenhouse effect, 1–23	nuclear fission, 30, 31, 33, 40, 188, 196, 206, 211–322, 355, 369
greenhouse gases, 1–23	nuclear fusion, 41, 325–42, 355, 369
grid, 362, 376, 398	nuclear safety, 250
Gross Domestic Product (GDP), 29, 31, 33, 71, 87, 174, 267, 286, 292, 299, 403	nuclear waste disposal, 253
Gross World Product (GWP), 53, 54, 61, 62, 348, 399, 401	nuclear weapons proliferation, 254
heavy-ion accelerator, 338	ocean energy, 127, 130, 141, 352, 363
helium-3, 369, 370	OTEC, 143, 144, 352, 365
human health, 14, 18, 20, 23, 347, 358, 397	passive solar heating, 131
hydrates, 9, 42, 328, 351, 361	phased array radar, 386, 390
hydrogen sulfide, 11, 156	photovoltaic, 123–30, 188, 196, 206, 349, 354, 367, 397, 398
hydropower, 130, 138, 139, 153, 173, 182, 331, 352, 357, 361, 364	policy instruments, 40, 47, 58, 59, 87, 107
inertial fusion energy, 336–8	population, 1, 19, 23, 27–33, 87, 88, 90, 97, 101, 112, 113, 162, 163, 187, 191, 372, 386, 399, 400, 401, 402
International Thermonuclear Experimental Reactor (ITER), 327, 333, 341	power grid, 149, 366, 367, 371
investment, 348, 358	power tower, 131
investment credits, 110	Purchasing Power Parity (PPP), 39, 88, 92
Kyoto Protocol, 22, 23, 38, 46, 48, 53, 98, 211	radioactive waste, 41, 345
L4, 383	renewable energy, 123–79
L5, 383	satellites, 374–86, 395
landfill gas, 126, 130, 351	solar concentrated power, 130, 354
launch costs, 378, 379, 380, 381	solar power satellites (SSPS), 356, 374–86, 393
life-cycle costs, 376, 396	space manufacturing facility, 382–3
lithium, 185, 327, 328, 331	spheromak, 334, 335
Lunar and Planetary Institute, 382	Study of Critical Environmental Problems (SCEP), 420
lunar base, 383	Study of Man’s Impact on the Environment (SMIC), 420
lunar materials, 382, 383, 390, 392, 395, 400	superconductivity, 172
Lunar Prospector, 393	thorium, 327
Lunar Solar Power (LSP), 187, 348, 356, 371, 381–403	tokamak, 327, 328, 331–5
methane, 6, 8, 12, 60, 123, 131, 157, 169	TOPEX/POSEIDON, 364
microwaves, 345, 372, 384, 386, 393	tritium, 325–9, 369, 370
Moon, 345, 365, 370, 373, 374, 377, 381–403	wind energy, 126–35, 188, 196, 353, 366
National Ignition Facility (NIF), 331, 340	World Energy Council, 346, 374
NSA, 361, 362, 366	