



ADVANCED ENERGY INITIATIVE
Research and Development in the President's 2007 Budget

In his State of the Union address, President Bush outlined the Advanced Energy Initiative (AEI) in pursuit of a national goal of replacing more than 75% of U.S. oil imports from the Middle East by 2025. Since 2001, nearly \$10 billion has been invested by the Federal government to develop cleaner, cheaper and more reliable alternative energy sources. The AEI provides a 22% increase in this clean-energy R&D at the Department of Energy (DOE). The Initiative will accelerate breakthroughs in two vital areas.

The Administration will work to diversify energy sources for American homes and businesses through: the President's Coal Research Initiative, with \$281 million in FY 2007 for development of clean coal technologies—nearly completing the President's \$2 billion commitment four years ahead of schedule; the FutureGen project, a key part of the Coal Research Initiative, with \$54 million in 2007 to support the partnership between government and the private sector to build a near-zero atmospheric emissions demonstration coal plant that captures the carbon dioxide it produces and stores it in deep geologic formations; the President's new \$148 million Solar America Initiative—an increase of \$65 million over FY 2006—to accelerate the development of semiconductor materials that convert sunlight directly to electricity; \$44 million for wind energy research—a \$5 million increase over the 2006 level; and clean and safe nuclear energy under the new \$250 million global nuclear energy partnership.

The President also proposes acceleration of the development of domestic, renewable alternatives to gasoline and diesel fuels through: \$150 million for the Biofuels Initiative—a \$59 million increase over FY 2006—to help develop bio-based transportation fuels such as “cellulosic ethanol” from agricultural waste products, such as wood chips, stalks, or switch grass; \$31 million to speed the development of advanced battery technology to extend the range of hybrid vehicles and make possible “plug-in” hybrids and electric cars—a 27 percent increase over FY 2006; and \$289 million for the President's Hydrogen Fuel Initiative.

Program (funding in millions)	2006 Enacted	2007 Budget	2007-2006 (\$)	2007-2006 (%)
Energy Efficiency and Renewable Energy (EERE) Programs				
Hydrogen Technology	80	114	34	42%
Fuel Cell Technology	75	82	7	9%
Vehicle Technology	182	166	-16	-9%
Biomass	91	150	59	65%
Solar	83	148	65	78%
Wind	39	44	5	13%
Geothermal	23	0	-23	-100%
Program Management (pro-rata)	58	67	9	0%
Subtotal, EERE	632	771	139	22%
Fossil Energy (FE) Programs				
Clean Coal/Fossil Energy R&D (Coal Research Initiative)	314	281	-33	-11%
Other Power Generation / Stationary Fuel Cells	62	64	2	3%
Program Management (pro-rata)	86	99	14	16%
Subtotal, FE	461	444	-17	-4%
Nuclear Energy (NE) Programs				
Global Nuclear Energy Partnership/Adv. Fuel Cycle Initiative	79	250	171	216%
Generation IV	54	31	-23	-43%
Nuclear Power 2010	65	54	-11	-17%
Nuclear Hydrogen Initiative	25	19	-6	-24%
Program Management (pro-rata)	28	38	10	34%
Subtotal, NE	251	392	141	56%
Science Programs				
ITER fusion project	25	60	35	140%
Fusion (not including ITER)	263	259	-4	-2%
Solar	28	62	34	121%
Biomass	28	35	7	25%
Hydrogen	58	101	43	74%
Program Management (pro-rata)	19	22	4	21%
Subtotal, Science	421	539	119	28%
Total, Advanced Energy Initiative	1,765	2,146	381	22%