



ADVANCED ENERGY INITIATIVE
Research and Development Funding in the President's 2008 Budget

President Bush announced the Advanced Energy Initiative (AEI) in his 2006 State of the Union address to accelerate the technical and cost viability of alternative energy technologies that can change the way we power our vehicles (thereby reducing our dependence on foreign oil) and our homes and businesses (reducing emissions of pollutants and greenhouse gases). The FY 2008 Budget includes \$2.7 billion for the AEI, a 26% increase over the President's 2007 request and almost \$1 billion more than the 2006 investment. Examples of technologies that can help change the way we power our homes and businesses include solar, wind, clean coal (including FutureGen), and nuclear power (including the Global Nuclear Energy Partnership: GNEP). The AEI will contribute to the President's goal of cutting U.S. gasoline use by 20% in 10 years announced in this year's State of the Union. Examples of technologies that can help reduce our dependence on oil include plug-in hybrid vehicles, hydrogen-powered fuel cells, and biofuels, including "cellulosic" ethanol derived from agricultural waste, forest residues and dedicated energy crops such as switchgrass. The AEI also includes critical basic research to overcome major technical barriers to the use of solar, cellulosic ethanol, hydrogen, and fusion (including support for the ITER fusion energy project). Presidential commitments on clean coal research (\$2 billion since 2001) and the Hydrogen Fuel Initiative (\$1.2 billion over five years) are fulfilled with this Budget.

Program (funding in millions)	2006 Enacted	2007 Request	2008 Budget	2008- 2006 (\$)	2008- 2006 (%)	2008- 2007 (\$)	2008- 2007 (%)
Energy Efficiency and Renewable Energy (EERE) R&D Programs							
Hydrogen and Fuel Cell Technology	155	196	213	58	37%	17	9%
Vehicle Technology	182	166	176	-6	-3%	10	6%
Biomass	91	150	179	88	97%	29	20%
Solar	83	148	148	65	79%	0	0%
Wind	39	44	40	1	3%	-4	-9%
Program Management (pro-rata)	58	67	72	14	25%	5	8%
Subtotal, EERE R&D	631¹	771	829	198	31%	58	8%
Fossil Energy (FE) R&D Programs							
Coal Research Initiative	314	281	385	71	23%	104	37%
FutureGen (non-add)	18	54	108	90	500%	54	100%
Power Generation/Stationary Fuel Cells	62	64	63	1	2%	-1	-2%
Program Management (pro-rata)	86	99	92	6	7%	-7	-7%
Subtotal, FE R&D	462	444	539	77	17%	95	21%
Nuclear Energy (NE) R&D Programs							
GNEP	79	243	395	316	400%	152	63%
Generation IV	54	31	36	-18	-33%	5	17%
Nuclear Power 2010	65	54	114	49	75%	60	111%
Nuclear Hydrogen Initiative	25	19	23	-2	-10%	4	19%
Program Management (pro-rata)	28	45	54	26	93%	9	20%
Subtotal, NE R&D	251	392	622	371	148%	230	59%
Science Basic Research Programs							
ITER Fusion Project	25	60	160	135	540%	100	167%
Fusion Energy (not including ITER)	263	259	268	5	2%	9	3%
Solar	28	62	69	41	147%	7	11%
Biomass	28	35	113	85	303%	78	223%
Hydrogen	58	71 ²	75	17	28%	4	5%
Program Management (pro-rata)	19	22	29	10	51%	7	31%
Subtotal, Science Basic Research	421	539²	713	292	69%	174	32%
Total, Advanced Energy Initiative	1765	2146	2703	938	53%	557	26%

¹This subtotal includes \$23 million for Geothermal R&D.

²The Hydrogen line for 2007 reflects the redefinition of this activity in the 2008 request, but the Science subtotal for 2007 is consistent with the definition used in the 2007 request.