

Table II-11. Department of Energy R&D

Table II-11. R&D in the Department of Energy
(budget authority in millions of dollars)

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Budget	Change FY 01-02	
				Amount	Percent
Summary of DOE R&D (see notes at end of table):					
1. Energy Supply *	333	409	284	-125	-30.5%
2. Science *	2,662	2,955	2,930	-25	-0.8%
3. Fossil Energy	290	396	296	-100	-25.3%
4. Energy Conservation *	410	441	316	-125	-28.3%
5. Atomic Energy Defense	3,201	3,499	3,542	42	1.2%
6. Clean Coal Technology ¹	0	0	0	0	--
7. Radioactive Waste Management	60	45	31	-13	-29.9%
Total DOE R&D	6,956	7,744	7,399	-346	-4.5%
Detail of DOE R&D:					
1. Energy Supply (does not include non-R&D components)					
Renewable Energy Resources *	268	328	227	-101	-30.8%
Nuclear Energy	66	81	57	-24	-29.4%
Total Energy Supply R&D	333	409	284	-125	-30.5%
2. Science (does not include non-R&D components) ²					
High-Energy Physics *	678	702	706	4	0.6%
- <i>Large Hadron Collider</i>	70	59	49	-10	-16.8%
Nuclear Physics	340	355	355	0	0.0%
Fusion Energy Sciences *	239	245	245	0	0.1%
Basic Energy Sciences					
Materials Sciences	389	443	434	-9	-2.0%
Chemical Sciences	198	217	219	2	1.0%
Engineering & Geosciences	36	40	39	-1	-2.1%
Energy Biosciences	30	33	32	-1	-2.5%
Equipment & Construction	100	259	280	21	8.3%
- <i>Spallation Neutron Source</i> ³	118	278	291	13	4.8%
Adjustment ²	4	-8	-8	0	0.0%
Total BES	756	984	997	13	1.3%
Advanced Scientific Computing Research * ⁴					
Math., Info. and Compu. Sci.	114	156	156	0	0.0%
Laboratory Technology Res.	8	10	7	-3	-28.2%
Adjustment ²	2	0	0	0	--
Total ASCR	124	166	163	-3	-1.6%

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Table II-11 (continued). R&D in the Department of Energy
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				Amount	Percent
Biological and Environmental Research					
Life Sciences	161	192	186	-6	-3.3%
Environmental Processes	123	130	129	0	-0.2%
Environmental Remediation	64	61	66	5	7.6%
Medical Apps./ Measurement	68	96	51	-45	-46.9%
Construction	0	2	10	8	300.8%
Adjustment ²	6	-1	-1	0	--
Total BER	422	481	442	-40	-8.2%
Energy Research Analyses *	1	1	1	0	2.5%
Small Bus. Innov. Research	84	0	0	0	--
Multiprogram Lab Support	19	22	22	0	0.0%
Total Science R&D *	2,662	2,955	2,930	-25	-0.8%
3. Fossil Energy R&D (does not include non-R&D components)					
Clean Coal Power Initiative ⁵	0	0	150	150	--
Fuels and Power Systems ⁵	208	324	160	-164	-50.7%
Oil Technology	56	67	30	-36	-54.4%
Natural Gas Research	31	45	21	-24	-53.4%
Cooperative R&D	7	8	0	-8	-100.0%
Plant and Capital Equipment	3	4	2	-2	-48.6%
Adjustments (deduct non R&D)	-14	-52	-67	-15	29.8%
Total Fossil Energy R&D	290	396	296	-100	-25.3%
4. Energy Conservation *	410	441	316	-125	-28.3%
5. Atomic Energy Defense Activities (does not include non-R&D components)					
National Nuclear Security Administration (NNSA) ⁶					
Weapons Activities					
Stockpile R&D	204	246	305	60	24.3%
Adv. Simulation & Computing	637	747	738	-9	-1.2%
ICF Ignition and High Yield	219	234	223	-11	-4.6%
Nat'l Ignition Facility Constr.	247	197	245	48	24.2%
Other construction	124	149	84	-64	-43.2%
All Other Weapons R&D	707	785	853	68	8.7%
Total Weapons Acts. R&D	2,138	2,357	2,449	92	3.9%

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Table II-11 (continued). R&D in the Department of Energy
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	FY 2000	FY 2001	FY 2002	Change FY 01-02	
	Actual	Estimate	Budget	Amount	Percent
Nonproliferation & Verification	180	204	195	-9	-4.6%
Naval Reactors	655	669	667	-1	-0.2%
Fissile Materials Disposition	52	62	67	6	9.6%
Total NNSA R&D ⁶	3,024	3,292	3,379	87	2.6%
Nuclear Safeguards & Security	26	26	26	0	0.0%
Environmental Management	146	176	131	-45	-25.3%
Intelligence	5	5	5	0	0.0%
Total Atomic Defense R&D	3,201	3,499	3,542	42	1.2%
6. Clean Coal Technology ¹	0	0	0	0	- -
7. Radioactive Waste Management	60	45	31	-13	-29.9%
Total DOE R&D	6,956	7,744	7,399	-346	-4.5%
Conduct of R&D	6,057	6,690	6,329	-362	-5.4%
R&D Facilities	899	1,054	1,070	16	1.5%
DOE R&D by Function:					
Defense	3,201	3,499	3,542	42	1.2%
General Science	2,662	2,955	2,930	-25	-0.8%
Energy	1,093	1,290	927	-363	-28.1%

Source: DOE budget justification, OMB data for R&D, and agency supporting documents.

* FY 2002 figures have been modified to reflect amendments to the original request transferring funds to Renewable Energy Resources from Energy Conservation and to Fusion Energy Sciences from selected Science programs.

¹ Does not reflect previously appropriated funds in this program, nor rescissions and deferrals. True budget authority in this account is as follows: -\$146 million FY 2000; \$9 million FY 2001 (after \$95 mil. transfer to Fossil Energy); and \$82 million FY 2002.

² Does not include program direction, waste management, and other non-R&D costs. Adjustments align program costs with R&D, and adjust for use of prior-year balances.

³ Development and construction costs. Development costs are in Materials Sciences.

⁴ Formerly Computational and Technology Research.

⁵ New program in FY 2002 of cost-shared, competitively awarded R&D and demonstration projects of coal technologies. Follows on FY 2001 Power Plant Improvement Initiative (in Fuels and Power Systems) of demonstration projects funded through a transfer from Clean Coal Technology. Adjustments subtract demonstration (non R&D) costs.

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Table II-11. Department of Energy R&D

⁶ Semi-autonomous agency within DOE.

Figures are rounded to the nearest million. Changes calculated from unrounded figures.

Please see Chapter 9 for a discussion of DOE R&D.

Department of Energy Budget (discretionary budget authority in millions of dollars)

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Budget	Change FY 01-02	
				Amount	Percent
DOE Defense Programs:					
National Nuclear Security Administration (NNSA):					
Weapons Activities	4,564	5,069	5,300	231	4.6%
Other Nuclear Security Acts.	1,383	1,571	1,477	-95	-6.0%
Total NNSA	5,946	6,641	6,777	136	2.0%
Defense Env. Restoration	4,586	4,966	4,549	-417	-8.4%
Defense Facilities Closure Projects	1,062	1,080	1,051	-30	-2.8%
EM Privatization	83	-32	142	174	-542.3%
Other Defense Activities	683	866	838	-28	-3.2%
Total DOE Defense	12,360	13,521	13,355	-165	-1.2%
Science	2,825	3,155	3,160	4	0.1%
Energy Supply	584	661	505	-156	-23.6%
Fossil Energy	397	541	449	-92	-17.1%
Energy Conservation	750	815	795	-21	-2.5%
Other Programs (net)	213	390	400	11	2.7%
Non-defense Environmental Mngmt	302	279	229	-51	-18.1%
Power Marketing Administrations	229	200	205	5	2.5%
Departmental Administration & IG	116	106	115	9	8.3%
Total DOE Budget	17,776	19,669	19,213	-456	-2.3%

Source: Department of Energy budget justification.

DOE appropriations only (discretionary).

Includes R&D and non-R&D components.

Figures are rounded to the nearest million. Changes calculated from unrounded figures.

Please see Chapter 9 for a discussion of DOE R&D.