

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 1999 Actual	FY 2000 Estimate	FY 2001 Budget	Change FY 00-01 Amount	Percent
Summary of DOE R&D (see notes at end of table):					
1. Energy Supply	359	364	468	104	28.4%
2. Science	2,672	2,638	2,969	332	12.6%
3. Fossil Energy	295	328	293	-35	-10.6%
4. Energy Conservation	381	431	465	33	7.8%
5. Atomic Energy Defense	3,197	3,301	3,405	104	3.1%
6. Clean Coal Technology ¹	0	0	0	0	--
7. Radioactive Waste Management	62	55	40	-15	-28.0%
Total DOE R&D	6,966	7,117	7,639	522	7.3%
Detail of DOE R&D:					
1. Energy Supply (does not include non-R&D components)					
Solar and Renewable Energy	286	272	376	103	38.0%
Nuclear Energy	73	92	92	0	0.2%
Total Energy Supply R&D	359	364	468	104	28.4%
2. Science (does not include non-R&D components) ²					
High-Energy Physics	674	693	704	11	1.7%
- <i>Large Hadron Collider</i>	65	70	70	0	0.0%
Nuclear Physics	326	348	364	16	4.7%
Fusion Energy Sciences	216	245	244	-1	-0.2%
Basic Energy Sciences					
Materials Sciences	405	397	456	59	14.8%
Chemical Sciences	202	207	223	17	8.1%
Engineering & Geosciences	42	37	41	4	10.0%
Energy Biosciences	29	31	34	3	9.8%
Equipment & Construction	105	100	262	162	161.9%
- <i>Spallation Neutron Source</i> ³	130	118	281	163	138.3%
Adjustment ²	-4	0	-8	-8	--
Total BES	779	772	1,008	236	30.6%
Advanced Scientific Computing Research ⁴					
Math., Info. and Compu. Sci.	135	119	170	51	42.5%
Laboratory Technology Res.	16	9	12	3	39.4%
Advanced Energy Projects	2	0	0	0	--
Adjustment ²	-2	0	0	0	--
Total ASCR	152	128	182	54	42.3%

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Table II-11. Department of Energy R&D

Table II-11 (continued). R&D in the Department of Energy
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	FY 1999 Actual	FY 2000 Estimate	FY 2001 Budget	Change FY 00-01 Amount	Percent
Biological and Environmental Research					
Life Sciences	173	171	189	18	10.7%
Environmental Processes	115	127	132	4	3.5%
Environmental Remediation	65	65	64	-1	-2.0%
Medical Apps./ Measurement	73	70	59	-12	-16.4%
Adjustment ²	-4	0	-1	-1	--
Total BER	422	433	444	11	2.6%
Energy Research Analyses					
Small Bus. Innov. Research	81	0	0	--	--
Multiprogram Lab Support	20	19	22	3	15.5%
Total Science	2,672	2,638	2,969	332	12.6%
3. Fossil Energy R&D (does not include non-R&D components)					
Coal	207	212	194	-19	-8.8%
Petroleum	47	57	53	-5	-8.2%
Gas	26	32	39	7	22.7%
Cooperative R&D	7	7	6	-2	-21.0%
Other R&D programs	10	10	10	0	-2.5%
Adjustments ²	-2	9	-8	-17	-183.1%
Total Fossil Energy R&D	295	328	293	-35	-10.6%
4. Energy Conservation					
	381	431	465	33	7.8%
5. Atomic Energy Defense Activities (does not include non-R&D components)					
National Nuclear Security Administration (NNSA) ⁵					
Weapons Activities					
Stockpile R&D	205	236	243	7	3.1%
ASCI ⁶	301	397	477	80	20.1%
Defense Appl. and Modeling	183	228	249	21	9.4%
ICF Ignition and High Yield	98	100	121	21	21.1%
Nat'l Ignition Facility Constr.	284	247	74	-173	-70.0%
Other construction	107	128	125	-3	-2.3%
All Other Weapons R&D	946	865	983	118	13.7%
Total Weapons Acts. R&D	2,123	2,201	2,273	72	3.3%

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Table II-11 (continued). R&D in the Department of Energy
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	FY 1999	FY 2000	FY 2001	Change FY 00-01	
	Actual	Estimate	Budget	Amount	Percent
Nonproliferation & Verification	200	183	191	8	4.3%
Naval Reactors	646	655	656	2	0.3%
Fissile Materials Disposition	63	63	71	9	13.7%
Total NNSA R&D ⁵	3,032	3,101	3,191	90	2.9%
Nuclear Safeguards & Security	22	27	26	-2	-5.5%
Environmental Management	138	167	182	15	9.2%
Intelligence	5	5	5	0	0.0%
Total Atomic Defense R&D	3,197	3,301	3,405	104	3.1%
6. Clean Coal Technology ¹	0	0	0	0	--
7. Radioactive Waste Management	62	55	40	-15	-28.0%
Total DOE R&D	6,966	7,117	7,639	522	7.3%
Conduct of R&D	6,012	6,214	6,697	483	7.8%
R&D Facilities	954	903	942	39	4.4%
DOE "FS&T" ⁷	6,222	6,372	6,881	509	8.0%
DOE R&D by Function:					
Defense	3,197	3,301	3,405	104	3.1%
General Science	2,672	2,638	2,969	332	12.6%
Energy	1,097	1,178	1,265	87	7.4%

Source: DOE budget justification and agency supporting documents.

¹ Does not reflect actual or proposed rescissions and deferrals of previously appropriated funds. True budget authority in this account is as follows: -\$40 million FY 1999; -\$146 million FY 2000; and proposed -\$155 million FY 2001 (net of a \$171 million advance appropriation and a \$326 million proposed deferral).

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

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

⁴ Formerly Computational and Technology Research.

⁵ New semi-autonomous agency within DOE. FY 1999 and 2000 figures adjusted for comparability with new account structure.

⁶ Accelerated Strategic Computing Initiative.

⁷ DOE contribution to the "FS&T" budget. Please see Chapter 7.

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

Please see Chapter 11 for a discussion of DOE R&D.

Table II-11. Department of Energy R&D

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

	FY 1999	FY 2000	FY 2001	Change FY 00-01	
	Actual	Estimate	Budget	Amount	Percent
DOE Defense Programs:					
National Nuclear Security Administration (NNSA):					
Weapons Activities	4,286	4,321	4,594	273	6.3%
Other Nuclear Security Acts.	1,645	1,375	1,584	209	15.2%
Total NNSA	5,931	5,696	6,178	481	8.5%
Defense Env. Restoration	4,322	4,466	4,552	86	1.9%
Defense Facilities Closure Projects	1,042	1,060	1,082	22	2.1%
EM Privatization	228	188	515	327	173.5%
Other Defense Activities	953	578	599	21	3.7%
Total DOE Defense	12,476	11,988	12,926	937	7.8%
Science	2,841	2,815	3,151	337	12.0%
Energy Supply	656	643	765	122	19.0%
Fossil Energy	377	404	376	-28	-7.0%
Energy Conservation	619	759	851	92	12.1%
Other Programs (net)	186	108	267	159	146.4%
Non-defense Environmental Mngmt	405	307	286	-21	-6.9%
Power Marketing Administrations	237	230	200	-31	-13.4%
Departmental Administration & IG	170	110	118	8	7.4%
Total DOE Budget	17,968	17,364	18,938	1,574	9.1%

Source: Department of Energy budget justification.

DOE appropriations only.

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

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

Please see Chapter 11 for a discussion of DOE R&D.