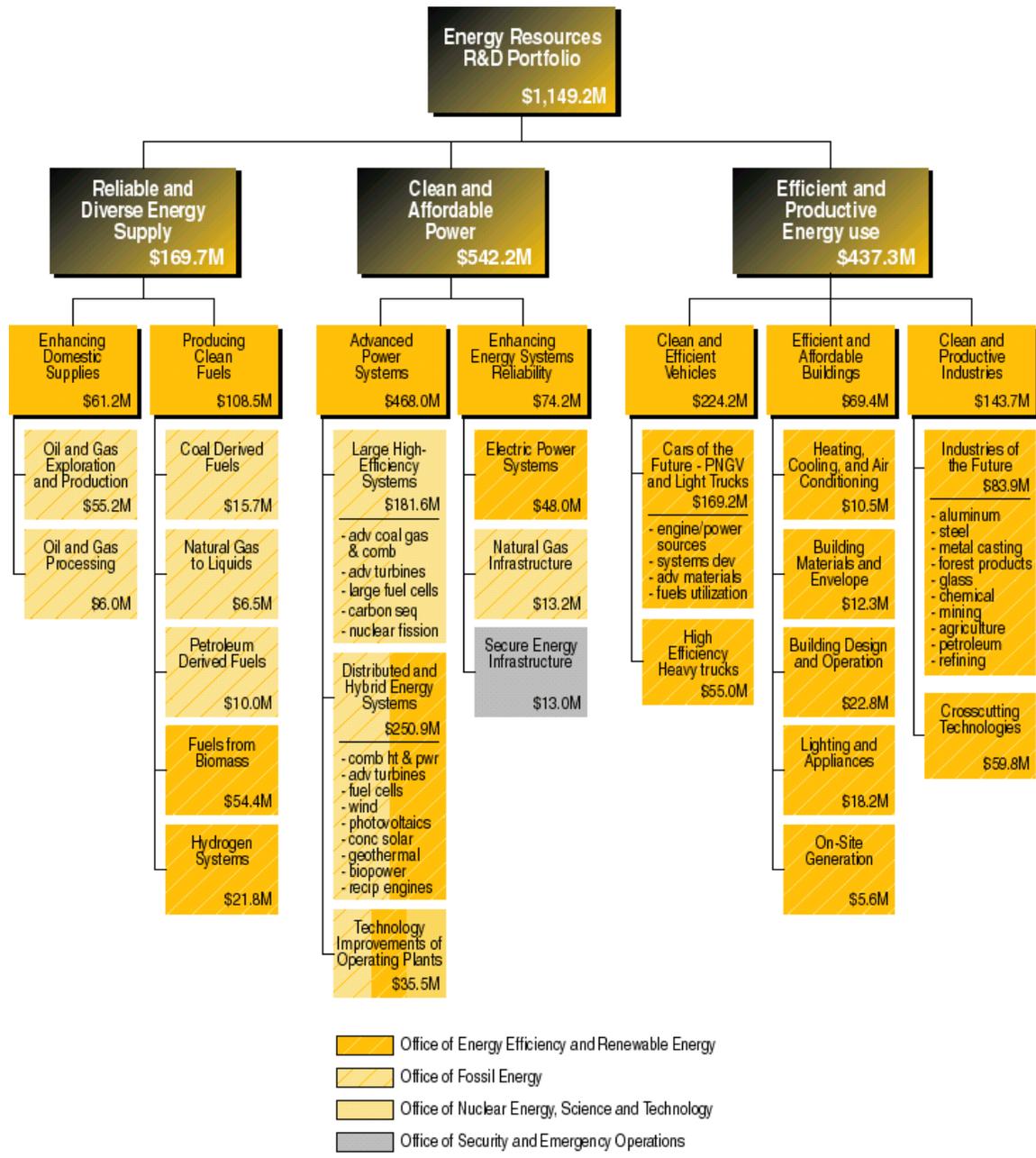


Appendix Budget Profiles



\$ = FY 2001 Congressional Budget Request

Appendix

Budget Profiles (000\$)

Enhancing Domestic Supplies Research Areas	FY 1999 Appropriated	FY 2000 Appropriated	FY 2001 Request
Oil and Gas Exploration and Production	60,757	69,967	55,219
Diagnostics and Imaging	19,294	20,269	15,456
Drilling, Completion, and Stimulation	7,720	8,916	7,700
Reservoir Life Extension	24,514	28,164	21,840
Drilling and Production Env. Management	8,737	9,624	8,923
Gas Hydrates	492	2,960	2,000
Oil and Gas Processing	6,225	6,015	6,015
Low Quality Gas Upgrading	1,925	1,615	1,615
Air Emissions Detection and Control	4,300	4,400	4,400
Total	66,982	77,948	61,234

Producing Clean Fuels Research Areas	FY 1999 Appropriated	FY 2000 Appropriated	FY 2001 Request
Coal-Derived Fuels	16,710	13,575	15,700
Transportation Fuels and Chemicals	9,955	7,075	9,000
Solid Fuels and Feedstocks	5,006	4,300	4,500
Advanced Research	1,749	2,200	2,200
Natural Gas-to-Liquids	6,650	6,300	6,500
Ceramic Membrane Reactor Systems	5,350	5,000	5,200
Thermoacoustic Natural Gas Liquefaction	600	600	600
Novel Conversion and Syngas Processes	700	700	700
Petroleum-Derived Fuels	0	3,300	10,000
Biodesulfurization of Diesel Fuel	0	3,300	0
Ultra-Clean Transportation Fuels Initiative	0	0	10,000
Fuels from Biomass	41,236	38,800	54,441
Feedstock Production	2,800	3,000	4,500
Ethanol Production	35,436	30,050	36,941
Renewable Diesel Alternatives	750	750	1,000
Regional Biomass Energy Program	2,250	2,000	3,500
Integrated Bioenergy Technology R&D	0	3,000	8,500
Hydrogen Systems	21,976	22,198	21,830
Hydrogen Production	6,259	8,510	7,910
Hydrogen Storage and Use	2,692	4,843	5,110
Technology Validation	10,856	6,365	6,330
Analysis and Outreach	2,169	2,480	2,480
<i>Total</i>	86,572	84,173	108,471

Advanced Power Systems Research Areas	FY 1999 Appropriated	FY 2000 Appropriated	FY 2001 Request
Large High Efficiency Systems	176,279	190,219	181,590
Advanced Coal Gasification & Combustion Systems	65,491	69,923	58,890
- <i>Advanced Coal Combustion</i>	20,967	9,010	2,000
- <i>Pressurized Fluidized Bed Combustion</i>	14,356	12,202	11,185
- <i>Gasification Technologies</i>	30,168	48,711	45,705
Advanced Gas Turbine Systems	43,398	44,188	26,000
Advanced Large-Scale Fuel Cell Power Systems	43,069	44,499	42,200
Carbon Sequestration	5,825	9,217	19,500
Nuclear Fission Systems	18,496	22,392	35,000
Distributed and Hybrid Systems	224,081	201,826	250,890
Industrial Combined Heat and Power Systems	200	3,000	1,000
Buildings Cooling Heating and Power Systems	0	0	3,000
Advanced Industrial Turbine Systems	49,403	22,300	13,300
Hydrogen Fuel Cell Systems	0	5,530	8,770
Wind Energy Systems	34,076	32,481	50,500
Photovoltaic Systems	70,561	65,912	82,000
Concentrating Solar Power Technology	16,791	15,168	15,000
Geothermal Energy	21,734	23,600	27,000
- <i>Geothermal Exploration</i>	5,400	6,000	6,000
- <i>Geothermal Drilling and Completion</i>	4,934	5,500	5,500
- <i>Geothermal Reservoir Technology</i>	5,400	6,000	5,500
- <i>Geothermal Energy Conversion Systems</i>	6,000	6,100	10,000
Biopower Energy Systems	30,816	31,835	48,000
Reciprocating Engines	500	2,000	2,320
Technology Improvement of Operating Plants	22,199	31,543	35,550
Aging Effects in Key Components	6,066	7,000	7,350
Nuclear Power Plants (NEPO)	0	4,976	5,000
Regulatory Compliance	12,923	14,646	18,200
Hydropower Turbines	3,210	4,921	5,000
<i>Total [Advanced Power Systems]</i>	422,559	423,588	468,030

Enhancing Energy System Reliability Research Areas	FY 1999 Appropriated	FY 2000 Appropriated	FY 2001 Request
Transmission Reliability	3,019	2,455	8,000
Real Time System Control	1,169	855	3,000
Distributed Resource Integration	900	800	2,000
Reliability and Markets	950	800	3,000
Distributed Power	1,200	3,500	3,000
Strategic Research	200	500	700
System integration	732	2,700	2,000
Regulatory and Institutional Issues	300	300	300
Energy Storage Systems	4,445	3,429	5,000
Integration	2,170	1,640	2,500
Components	1,384	1,000	1,600
Analysis	891	789	900
Superconductivity in Power Systems	32,100	31,408	32,000
The Superconductivity Partnership Initiative	14,500	14,000	14,000
The Second Generation Wire Initiative	8,000	8,000	8,000
Strategic Research	9,600	9,408	10,000
Natural Gas Infrastructure	975	1,000	13,200
Gas Storage Technology	975	1,000	2,200
Enhancing Pipeline System Reliability	0	0	5,000
International Infrastructure Integrity	0	0	6,000
Secure Energy Infrastructures	0	2,100	13,000
Analysis and Risk Management	0	2,100	10,300
Protection and Mitigation Technologies	0	0	2,700
Total	41,739	43,892	74,200

Clean and Efficient Vehicles Research Areas	FY 1999 Appropriated	FY 2000 Appropriated	FY 2001 Request
Cars of the Future - PNGV and Light Trucks	147,338	155,300	169,220
Engine/Power Sources	94,320	109,700	123,420
- <i>Advanced Combustion Engine R&D</i>	33,476	39,700	41,920
- <i>Fuel Cells</i>	32,909	37,000	41,500
- <i>High-Power Batteries for Hybrid-Electric Vehicles</i>	12,520	14,000	18,300
- <i>Power Electronics and Electric Machines</i>	6,751	10,000	12,000
- <i>Electric Vehicle Batteries</i>	8,664	9,000	9,700
Systems Development	24,408	16,600	16,800
Advanced Materials	22,265	22,000	21,000
Fuels Utilization	6,345	7,000	8,000
High Efficiency Heavy Trucks	30,679	50,200	55,000
Heat Engine R&D	3,500	8,100	12,000
Systems Development	1,500	7,000	9,000
Advanced Materials	14,551	20,500	17,500
Fuels Utilization	11,128	14,600	16,500
<i>Total</i>	178,017	205,500	224,220

Efficient and Affordable Buildings Research Areas	FY 1999 Appropriated	FY 2000 Appropriated	FY2001 Request
Heating, Cooling, and Air Conditioning	15,379	10,905	10,533
Geothermal Heat Pumps	6,500	0	0
Absorption Technologies	5,910	6,365	6,260
Desiccants	2,480	4,040	4,273
Furnaces and Boilers	489	500	0
Building Materials and Envelope	10,723	11,723	12,325
Windows and Glazings	6,829	6,929	7,325
Walls, Roofs, and Foundations	3,894	4,794	5,000
Building Design and Operation	12,970	19,163	22,790
Commercial Buildings	5,200	7,700	9,610
Residential Buildings	7,770	11,463	13,180
Lighting and Appliances	11,791	13,745	18,175
Lighting	5,394	6,000	6,360
Refrigeration	2,797	4,245	4,230
Heat Pump Water Heater and Appliances	0	1,500	2,085
Solar Water Heating	3,600	2,000	5,500
On-site Generation	1,750	3,550	5,550
Fuel Cells	1,750	3,550	5,550
<i>Total</i>	52,613	59,086	69,373

Clean and Productive Industries Research Areas	FY 1999 Appropriated	FY 2000 Appropriated	FY 2001 Request
Industries of the Future	56,447	66,000	83,900
Aluminum	7,925	11,178	11,000
Steel	10,308	10,627	10,900
Metal Casting	5,675	5,797	5,800
Forest Products	11,753	12,076	17,100
Glass	4,701	4,830	4,800
Chemical	12,123	12,492	12,500
Mining	1,981	3,000	4,000
Agriculture	1,981	4,000	13,000
Petroleum	0	2,000	3,000
Supporting Industries	0	0	1,800
Crosscutting Technologies	48,038	53,600	59,800
Enabling Technologies	18,881	22,500	22,000
Technical Assistance	18,645	19,750	25,800
Financial Assistance	10,512	11,350	12,000
<i>Total</i>	104,485	119,600	143,700