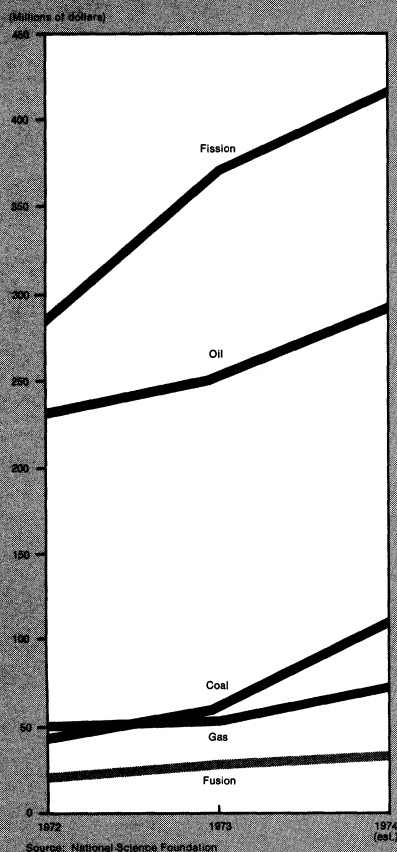




THIRD CLASS
Bulk Rate

Energy R&D In Industrial Labs Tops \$1 Billion in 1974

Industrial R&D Expenditures for Energy, 1972-74



Energy-related research and development performed by industry totaled \$874 million in 1973 and is expected to rise to over \$1 billion in 1974. These data were compiled from the first national, full-scale industrial survey dealing with energy R&D activities which was recently conducted under the auspices of NSF.

The major portion of these expenditures was for nuclear fission and oil research and development. In 1973, research and development related to these two sources of energy accounted for 42 percent and 29 percent, respectively, of total energy research and development undertaken in company laboratories. Though well below the amount spent for research and development in nuclear fission and oil, coal research and development has shown a much more rapid growth—61 percent in 1973—and is expected to rise another 68 percent in 1974. By comparison, nuclear fission R&D expenditures rose by 28 percent, and oil R&D funds increased 10 percent in 1973; 1974 is expected to see increases of 7 percent and 16 percent for nuclear fission and oil research and development, respectively.

Company funds for energy-related research and development exceeded Federal funds by a 2 to 1 ratio in 1972 and 1973. In both years, the major portion of company R&D funds was concentrated in oil. Company funds accounted for over 99 percent of total research and development in this area in 1972 and 98 percent in 1973. Nuclear fission ranked second, well behind oil, in terms

of company R&D funding; two-thirds of all fission R&D support came from the Federal Government. Nuclear fission research and development comprised 85 percent of all Federal energy-related R&D support in 1973. Nuclear fusion accounted for only one-tenth of the Government funds for fission research and development.

The petroleum industry was the leading performer of energy research and development in 1973 with nearly two-thirds of its total R&D effort being directed to energy. This industry's total of \$325 million represented an 11-percent increase over 1972. Companies in

the electrical equipment industry spent \$244 million on energy research and development—26 percent over 1972. Together, those two industries accounted for more than two-thirds of all industrial energy R&D expenditures in 1972 and 1973.

These data were supplied by some 1,400 companies and cover R&D expenditures for product- and process-oriented projects relating to the exploration, extraction, transportation, processing, storage, generation (including conversion), distribution, conservation, etc., of present, new, or improved forms of primary energy sources.

Industrial R&D expenditures for energy, by primary source, 1972-74
(Dollars in millions)

Primary energy source	Total R&D funds			Company R&D funds		Federal R&D funds	
	1972	1973	1974 ¹	1972	1973	1972	1973
Total	\$714	\$874	\$1,034	\$489	\$593	\$224	\$282
Fossil fuel	367	421	532	359	412	7	9
Oil	230	252	292	229	246	1	6
Gas	49	51	70	47	50	1	1
Shale	9	11	14	"	"	"	"
Coal	41	66	111	38	61	3	5
Other	37	42	44	"	"	"	"
Nuclear	305	392	420	91	129	213	263
Fission	285	366	392	89	125	196	240
Fusion	19	26	28	2	3	18	24
Geothermal	1	1	2	"	"	"	"
Solar	2	2	3	"	"	"	"
All other	40	58	76	37	50	3	9

¹ Estimated.

² Not separately available, but included in total.

SOURCE: National Science Foundation.