

# 270

## Energy

Budget function 270 includes funding for the nondefense programs of the Department of Energy as well as for the Tennessee Valley Authority, rural electrification loans, and the Nuclear Regulatory Commission. The programs supported by this function are intended to increase the supply of energy, encourage energy conservation, provide an emergency supply of energy, and regulate energy production. CBO estimates that discretionary outlays for function 270 will be \$3 billion in 2000, continuing recent declines in energy spending. Negative balances in mandatory spending for the function result from repayment of loans, receipts from the sale of electricity produced by federal entities, and charges for the disposal of nuclear waste.

### Federal Spending, Fiscal Years 1990-2000 (In billions of dollars)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Estimate 2000
Budget Authority (Discretionary)	5.6	5.4	5.8	5.8	6.4	6.2	4.9	4.2	3.1	2.9	2.6
Outlays											
Discretionary	4.8	4.4	5.4	5.6	6.4	6.8	6.0	4.9	3.7	3.1	3.0
Mandatory	<u>-1.4</u>	<u>-2.0</u>	<u>-0.9</u>	<u>-1.2</u>	<u>-1.2</u>	<u>-1.8</u>	<u>-3.1</u>	<u>-3.4</u>	<u>-2.4</u>	<u>-2.2</u>	<u>-3.7</u>
Total	3.3	2.4	4.5	4.3	5.2	4.9	2.8	1.5	1.3	0.9	-0.7
<b>Memorandum:</b>											
Annual Percentage Change in Discretionary Outlays		-7.4	22.4	3.0	15.1	5.7	-11.9	-17.7	-24.4	-15.7	-3.1

## 270-01 Eliminate the Department of Energy's Applied Research Programs for Fossil Fuels

Savings  
(Millions of dollars)  
Budget  
Authority Outlays

### Relative to WODI

2001	335	134
2002	419	302
2003	419	402
2004	419	419
2005	419	419
2001-2005	2,011	1,676
2001-2010	4,106	3,771

### Relative to WIDI

2001	343	137
2002	437	312
2003	445	421
2004	454	447
2005	463	456
2001-2005	2,142	1,773
2001-2010	4,603	4,195

#### SPENDING CATEGORY:

Discretionary

#### RELATED OPTIONS:

270-02, 270-03, 270-04,  
and 350-01

The Department of Energy (DOE) currently spends over \$400 million annually to improve the applied technologies for finding and using fossil fuels (petroleum, coal, and natural gas). Those programs were put into place when the prices of fossil fuels were controlled and, as a result, incentives for technology development were muted. In a world of deregulation and increasingly free energy markets, the value of federal research and development (R&D) programs in energy is questionable.

One reason for deregulating prices in energy markets is to provide suppliers with incentives to develop newer and better technology and bring it to market. The recent deregulation of electrical generation markets, for example, has already brought a great deal of low-cost generating capacity on line, displacing higher-cost power plants.

In addition, private entities are more attuned to which new technology has commercial promise than are federal officials. Federal programs in the fossil fuel area have a long history of funding technologies that, while interesting technically, had little chance of commercial feasibility, even after years of federal investment. As a result, much of the federal spending has been irrelevant to solving the nation's energy problems.

Critics of the programs argue that DOE should concentrate on basic energy research and reduce the department's involvement in applied technology development. They contend that the federal government has a comparative advantage in developing the basic science for a new energy source but a comparative disadvantage in developing and demonstrating the costly technology. DOE's basic energy science program, critics note, allows university researchers and scientists at the national laboratories to better understand the materials and other sciences underlying energy use.

Finally, because energy prices have been low, potential users of applied technology for new energy sources have had little incentive to invest in implementing it. Consequently, the technology developed by the basic energy science program sometimes sat on the shelf until it became obsolete.

Defenders of the applied research programs argue that federal R&D in those areas helps offset several existing failures in energy markets and that the programs therefore represent a sound investment for the nation. Current energy prices, they argue, do not reflect the environmental damage done by excessive reliance on fossil fuels, including the potential for global warming. In addition, current energy prices do not reflect the military and economic risks posed by reliance on Middle East oil. Although the DOE R&D programs cannot correct market failures in the short term, they may moderate the consequences of such failures over the long term.

## 270-02 Eliminate the Department of Energy's Applied Research for Energy Conservation

Savings  
(Millions of dollars)  
Budget  
Authority Outlays

### Relative to WODI

2001	461	115
2002	577	398
2003	577	531
2004	577	571
2005	577	577
2001-2005	2,769	2,192
2001-2010	5,654	5,077

### Relative to WIDI

2001	470	118
2002	598	408
2003	609	552
2004	621	603
2005	632	620
2001-2005	2,930	2,301
2001-2010	6,266	5,577

#### SPENDING CATEGORY:

Discretionary

#### RELATED OPTIONS:

270-01, 270-03, 270-04, 270-08,  
and 350-01

In 2000, the Department of Energy (DOE) will spend \$577 million on programs to develop energy conservation technology. Those efforts include the Partnership for the Next Generation Vehicles (discussed in option 270-08) for automobile research as well as industrial and residential energy-efficiency research. Involvement of federal agencies in the selection and development of near-commercial technologies raises questions about the appropriateness of the current division of labor between the public and private sectors in this area.

Opponents of federal spending for energy conservation research and development (R&D) make several arguments. Generally, they argue that the federal government should stay out of applied energy technology development and concentrate on basic research in the science underlying those areas. Specifically, they note that many projects funded through this research effort are small and discrete enough—and, in many cases, have a clear enough market—to warrant private investment. In such instances, DOE may be crowding out or preempting private-sector firms. In other instances, such programs conduct R&D that the intended recipients are likely to ignore—often because it is too expensive or esoteric to implement.

Critics of the programs also note that other federal policies encourage the introduction of some of the technologies. Utilities, for instance, are encouraged to subsidize consumers' purchases of conservation technologies by underwriting the purchase of efficient home appliances. In addition, the tax code favors investments in conservation technology. Thus, federal government R&D programs may be duplicative given such other avenues of support.

Defenders of the programs argue that federal R&D in the energy conservation area helps offset several existing failures in energy markets. Current energy prices, they argue, do not reflect the damage to the environment from excessively relying on fossil fuels, including the potential for global warming. In addition, current energy prices do not reflect the military and economic risks posed by relying on Middle East oil. Although DOE's R&D programs for energy conservation cannot correct market failures in the short term, they can moderate the consequences of those market failures over the long run.

One advantage such programs have had over other DOE R&D efforts in the energy technology area is that many of the individual programs are small. Over the years, many of the best outcomes of the research efforts, such as thin films to make windows more energy efficient, have come from small research investments.

(Because energy conservation R&D and the Partnership for the New Generation Vehicles overlap, the savings from eliminating both programs would be less than the sum of the two options. In addition to its own energy conservation program, DOE separately provides grants to state and local agencies for energy conservation. Those grants are discussed in option 270-04.)

## 270-03 Eliminate the Department of Energy's Applied Research for Solar and Renewable Energy Sources

Savings  
(Millions of dollars)  
Budget  
Authority Outlays

### Relative to WODI

2001	248	186
2002	310	295
2003	310	310
2004	310	310
2005	310	310
2001-2005	1,488	1,411
2001-2010	3,038	2,961

### Relative to WIDI

2001	253	190
2002	321	304
2003	327	326
2004	333	332
2005	339	338
2001-2005	1,573	1,490
2001-2010	3,364	3,274

#### SPENDING CATEGORY:

Discretionary

#### RELATED OPTIONS:

270-01, 270-02, 350-01, and  
REV-35

In 2000, the Department of Energy (DOE) will spend \$310 million on research and development (R&D) for solar and other renewable energy sources. The largest technology development efforts by far are those for developing alternative liquid fuels from biomass and electricity from photovoltaic cells. Smaller efforts involve electric energy storage and wind energy systems. Phasing out the research would save \$1.4 billion over the 2001-2005 time frame.

Opponents of federal support for such research argue that the federal government should stay out of applied energy technology development and concentrate on basic research in the science underlying those areas. Federally sponsored researchers lack the complex market feedback that helps researchers in private companies realize when their technologies become too esoteric or expensive for the market.

Another criticism shared by DOE's conservation R&D programs (discussed in option 270-02) is that many of the research projects funded by the renewable energy program are sufficiently small and discrete and have a clear enough market to attract private funding. (Of course, many of those alternative energies were simply not economical during the long period when oil prices were low.)

The biggest single solar energy program—photovoltaics—has largely succeeded, and program opponents might argue that it may now be time for an orderly withdrawal of federal support. Several large factories are producing photovoltaic cells, mainly for the export market, or are under construction. After nearly three decades of federal support, the market may well be becoming a purely private concern, and the government may wish to withdraw its funding. Foreign firms, critics note, are likely to dominate the market because of their countries' higher domestic energy prices and consequent higher likely demand for alternative energy sources. U.S. consumers may let foreign companies and governments bear the cost of developing the energy sources and then buy the technology when it is cheap and perfected.

For liquid fuels derived from renewable resources, especially biomass, the federal tax code already provides incentives for developing the technology. Ethanol fuels receive special treatment under the federal highway tax (see option REV-35). Furthermore, federal regulations authorized by many different statutes favor alcohol fuels, which now usually mean those that are corn based. Such fuels could be derived from other biomass sources, however, with the right technology.

Defenders of the programs argue that energy markets are still far from perfect. The energy prices consumers pay fail to incorporate both the environmental and national security risks posed by the nation's dependence on fossil fuels. Furthermore, the United States also plays the role of international R&D laboratory for less developed countries, which often have much higher energy costs.

## 270-04 Eliminate Energy Conservation Grant Programs

Savings  
(Millions of dollars)  
Budget  
Authority Outlays

### Relative to WODI

2001	134	34
2002	168	116
2003	168	155
2004	168	166
2005	168	168
2001-2005	806	639
2001-2010	1,644	1,479

### Relative to WIDI

2001	149	37
2002	174	126
2003	177	163
2004	181	176
2005	184	181
2001-2005	865	683
2001-2010	1,836	1,637

#### SPENDING CATEGORY:

Discretionary

#### RELATED OPTIONS:

270-01, 270-02, 270-03, 300-15, and 600-12

#### RELATED CBO PUBLICATIONS:

*Should the Federal Government Sell Electricity?* (Study),  
November 1997.

*Electric Utilities: Deregulation and Stranded Costs* (Paper),  
October 1998.

Weatherization assistance grants supported by the Department of Energy's (DOE's) Office of State and Community Programs help low-income households reduce their energy bills by funding such activities as installing weather stripping, storm windows, and insulation. Institutional conservation grants supported by the office help reduce the use of energy in educational and health care facilities by adding federal funds to private and local public spending to encourage local investment in building improvements. The Office of State and Community Programs also supports the energy conservation programs of states and municipal governments that, for example, establish energy-efficiency standards for buildings and promote public transportation and carpooling. Critics of those programs question whether they actually produce any savings and whether the conservation actions they provide are not already promoted by other programs or laws, such as the Clean Air Act Amendments of 1990. The DOE programs are independent of a similar block-grant activity, the Low Income Home Energy Assistance Program, administered by the Department of Health and Human Services.

This option would halt new appropriations for the block-grant programs that support energy conservation activities by the states. It would save \$1.5 billion in outlays from 2001 through 2010.

Arguments supporting this option include diminished concern about energy security, questions about the efficacy of the program, and duplication with other programs or laws. Federal grants to promote less energy consumption reflect the widespread concerns about energy-supply security—for all sources, including oil, natural gas, and coal—prevalent in the mid-1970s. Today, those concerns are more correctly focused on imported oil supplies. State grant programs that help reduce residential and institutional demand for natural gas and coal-generated electricity have little benefit for the cause of oil-supply security. And although the government has urged the reduction of energy use for environmental reasons, federal support for reducing the use of gas and coal through conservation grants for security or environmental needs conflicts with other federal policies that promote the production and use of those fuels.

Proponents of continuing the grant programs claim that eliminating them could impose hardships on states that wish to continue their energy conservation efforts but are financially stressed. Many states still rely heavily on such grants to help low-income households and public institutions. In addition, the voluntary energy savings those programs effect are an important part of the President's Climate Change Action Plan for reducing greenhouse gas emissions. Such considerations may result in continued federal support for the energy conservation grants.

## 270-05 Eliminate Electrification and Telephone Credit Subsidies Provided by the Rural Utilities Service

Savings  
(Millions of dollars)  
Budget  
Authority Outlays

### Relative to WODI

2001	15	1
2002	15	2
2003	15	6
2004	15	11
2005	15	13
2001-2005	75	33
2001-2010	150	103

### Relative to WIDI

2001	15	1
2002	15	2
2003	16	6
2004	16	11
2005	16	14
2001-2005	78	34
2001-2010	161	111

#### SPENDING CATEGORY:

Discretionary

#### RELATED OPTIONS:

270-06, 270-07, 450-01, REV-42, and REV-43

#### RELATED CBO PUBLICATIONS:

*Should the Federal Government Sell Electricity?* (Study), November 1997.

*Electric Utilities: Deregulation and Stranded Costs* (Paper), October 1998.

The Rural Utilities Service (RUS) is an agency within the Department of Agriculture that, among other activities, offers financial assistance through subsidized loans and grants to electric and telephone companies serving primarily rural areas. Because that purpose has been largely accomplished, questions have arisen as to whether those subsidies should continue to be offered. This option addresses only the credit subsidies provided through loans for electrification and telephone service that were previously administered by the Rural Electrification Administration (REA). The former REA programs were combined with other loan and grant programs in 1994 to form the RUS. (Additional potential savings from cutting other RUS programs are described in option 450-01.)

For 2000, RUS subsidies to electric and telephone companies total about \$15 million. In addition, the agency spends nearly \$31 million per year administering those programs. Eliminating the credit subsidies for loans made or guaranteed by the RUS would reduce outlays by an estimated \$103 million between 2001 and 2010.

The savings shown in the table could result from either of two scenarios: discontinue lending and require RUS borrowers to use private sources of capital for all of their loan needs, or continue a federal loan program but eliminate subsidies. A loan program with no subsidy costs would require raising the interest rates on loans to rural electric and telephone companies to the level of the Treasury's cost of borrowing; it would also mean charging small loan origination fees to cover the cost of defaults for certain classes of loans. In addition to savings in subsidy costs, some savings in administrative costs could result if all such lending was discontinued. Some of the nearly \$31 million per year in current salaries and expenses would be required to administer existing loans, but those costs could be gradually reduced under a no-new-lending option. Additional administrative savings over the 2001-2010 period could be achieved by eliminating the program, but those additional savings are not counted in this option.

The loan program for rural electrification and telephone service has largely fulfilled its original goal of making those services available in rural communities. Most of the communities that the RUS subsidizes are now much larger than the original service area requirement of no more than 1,500 inhabitants. RUS borrowers serve about 10 percent of U.S. electricity customers and 4 percent of telephone customers. In addition, more than 95 percent of rural America has electric service. Moreover, most RUS borrowers already use some private financing. Because the cost of interest accounts for only a small percentage of the typical customer's bill, eliminating the remaining federal subsidy would have little effect on the utility rates that most borrowers charge their customers.

Proponents of the RUS claim that many borrowers still depend on federal loans to maintain and expand those utilities. Increasing the interest rates or charging origination fees on some loans would raise the rates that such borrowers charge their customers, especially in the rural regions that are most affected. Borrowers argue that they need some level of subsidization to keep their service and utility rates comparable with those in urban areas.

## 270-06 Restructure the Power Marketing Administrations to Charge Higher Rates

	Savings (Millions of dollars)	
	Budget Authority	Outlays
2001	0	0
2002	130	130
2003	130	130
2004	130	130
2005	130	130
2001-2005	520	520
2001-2010	1,170	1,170

### SPENDING CATEGORY:

Mandatory

### RELATED OPTIONS:

270-05, 270-07, REV-42,  
and REV-43

### RELATED CBO PUBLICATION:

*Should the Federal Government  
Sell Electricity?* (Study),  
November 1997.

The three smallest power marketing administrations (PMAs) of the Department of Energy sell about 1 percent of the nation's electricity: the Western Area Power Administration, the Southwestern Power Administration, and the Southeastern Power Administration. Those PMAs sell power at below-market rates, a practice that some observers find inconsistent with improving the efficiency of energy markets, which is a generally accepted goal of energy policy.

The power generated by the PMAs comes largely from hydropower facilities that the Army Corps of Engineers and the Bureau of Reclamation have built and continue to operate. Current law requires that those sales be made at cost—a situation intended to ultimately reimburse taxpayers for a share of the costs of construction, costs of current operations, and interest on the portion of total costs that has not been repaid. Interest charges are generally below the government's cost of borrowing, which, along with the low cost of generating electricity from hydropower, results in power rates for federal customers that are significantly below the rates that other utilities charge. Current law also requires that PMAs first offer that power to rural electric cooperatives, municipal utilities, and other publicly owned utilities.

Restructuring would require that those three PMAs sell electricity at market rates to any wholesale buyer. Implementing higher rate charges would bring in about \$130 million in 2002 and increase total receipts by about \$500 million through 2005 relative to the 2000 level.

The rationale for federal power subsidies is not as strong as it once was. The market power of private utilities is checked by federal and state regulation of the power supply, by federal antitrust laws, and, increasingly, by competition from independent power sources. In addition, the disparity between incomes in different regions of the country has diminished. In many cases, neighboring communities—some receiving federal power and some not—have no discernible differences. For households in the regions that the three PMAs serve, federal sales of power meet only a small share of their total power needs; therefore, the impact of increased federal rates on average costs is small. In addition, the prospect of significant future costs of producing electricity from hydropower further supports the case for increasing power rates now. Such costs are for long-deferred maintenance and upgrades and for addressing the environmental needs of threatened species. The opportunity to earn additional revenues from federal power sales may be short-lived: new power sources are becoming increasingly competitive with federal power.

The current beneficiaries of the federal power program believe that restructuring could greatly increase electric utility rates for the many small and rural communities served by PMAs. They also argue that continuing low-cost federal power is necessary to counter the uncompetitive practices of investor-owned utilities and to support the economies of certain regions of the country.

## 270-07 Sell the Southeastern Power Administration and Related Power Generation Equipment

	Savings (Millions of dollars)	
	Budget Authority	Outlays
2001	0	0
2002	0	0
2003	1,700	1,700
2004	-161	-161
2005	-164	-164
2001-2005	1,375	1,375
2001-2010	511	511

### SPENDING CATEGORY:

Mandatory (excludes discretionary savings for operations)

### RELATED OPTIONS:

270-05, 270-06, REV-42, and REV-43

### RELATED CBO PUBLICATIONS:

*Should the Federal Government Sell Electricity?* (Study), November 1997.

*Electric Utilities: Deregulation and Stranded Costs* (Paper), October 1998.

The Southeastern Power Administration (SEPA) of the Department of Energy sells electricity that comes from hydropower facilities that the Army Corps of Engineers has constructed and operates. SEPA pays private transmission companies to deliver that power to over 300 wholesale customers: rural cooperatives, municipal utilities, and other publicly owned utilities. Selling federal power assets would be consistent with the policy goal of increasing efficiency in energy markets.

SEPA power rates are designed to recover for taxpayers a share of the costs of construction, costs of current operations, and a nominal interest charge on the portion of total costs that have not yet been recovered. The average revenues from SEPA power (for sales other than to the Tennessee Valley Authority) are about 2.7 cents per kilowatt-hour (kWh), compared with average revenues in the region of 4.7 cents per kWh.

Selling assets that directly support the production of SEPA electricity would save about \$1.4 billion over the 2001-2005 period. That estimate reflects sale proceeds of about \$1.7 billion minus a loss of budgetary receipts for that period of about \$160 million annually. Those figures do not include discretionary budgetary savings of about \$75 million annually from ending appropriations to SEPA and the Corps for operations. The estimate of sale proceeds is based on recent sales of hydroelectric assets in the United States. Corps assets to be transferred would include equipment, such as turbines and generators, but not the dams, reservoirs, or waterside property. The sale would also include rights of access to that equipment and to the water flows necessary for power generation, subject to the constraints of competing uses of water.

The original reasons for establishing SEPA—marketing low-cost power to promote competition and fostering economic development—are no longer compelling to many people because of the small amount of power SEPA sells and because of competitive and regulatory constraints on power rates. Also, selling federal facilities does not mean transferring all water resource functions. The Corps could retain direct responsibility for managing water flows for all uses, including the upkeep of basic physical structures and surrounding properties. Or, as with other nonfederal dams, the terms of the federal license to operate the facility (issued by the Federal Energy Regulatory Commission) could dictate the management of water flows for competing purposes.

Proponents of maintaining federal ownership believe that nonfederal entities lack the proper incentives to perform all of SEPA's functions. Many Corps facilities serve multiple purposes, for example, managing water resources for navigation, flood control, or recreation as well as for power generation. Proponents also argue that increased power rates could accompany selling SEPA. SEPA sales meet only about 1 percent of the total power needs in the 11 states where it operates; however, for a few communities, dependence on SEPA is great.

## 270-08 Eliminate Federal Funding for the Partnership for New Generation Vehicles

Savings  
(Millions of dollars)  
Budget  
Authority Outlays

### Relative to WODI

2001	187	51
2002	227	153
2003	227	205
2004	227	221
2005	227	223
2001-2005	1,095	853
2001-2010	2,230	1,973

### Relative to WIDI

2001	190	53
2002	234	158
2003	239	212
2004	243	233
2005	247	240
2001-2005	1,153	896
2001-2010	2,450	2,159

#### SPENDING CATEGORY:

Discretionary

#### RELATED OPTION:

270-02

The Partnership for New Generation Vehicles (PNGV) is a joint federal/private research effort that performs cooperative, precompetitive automotive research, mainly focusing on energy-efficient vehicles. The program raises the issue of the appropriateness of federal support for commercial technology. The partnership draws on the resources of five federal agencies, most notably the Department of Energy (DOE). Within DOE, the partnership primarily falls under energy conservation, where it received \$135 million for 2000. (Because the PNGV and the energy conservation programs—option 270-02—are related, the savings from eliminating both of them would be less than the sum of the two options.)

Critics of the PNGV argue that instead of using general tax revenues to support applied research, the federal government could more fairly increase the efficiency of the nation's automotive fleet by raising gasoline taxes, user fees, or both for vehicles that get low mileage per gallon of fuel. Critics further point out that the program may not reach its goal of creating a production-ready vehicle by 2004. Although the latest National Academy of Sciences evaluation of the program "believes the near-term and long-term technologies the PNGV has focused on have the potential to meet the program's objectives," representatives of the automakers involved in the PNGV have downplayed the prospects for near-term commercialization of the technological advances achieved so far. Competitive pressures also raise doubts about the PNGV's usefulness. Both Honda and Toyota have either begun marketing high-mileage cars in the United States or plan to do so in 2000. If those efforts succeed, then domestic automakers should have sufficient commercial incentive to continue their research and hence should no longer need federal support. Finally, critics contend that because the federal contribution to PNGV has, to date, accounted for only a small fraction of total spending on research and development by participating automakers, those firms could probably finance such efforts privately.

Proponents of the PNGV argue that continuing imperfections in energy markets and environmental considerations make the development of these technologies a public policy matter. Although sports utility vehicles, minivans, and pickups have more than doubled their 1983 market share, claiming 46 percent of the U.S. market in 1999, the PNGV program conducts research that could contribute to the production of high-mileage vehicles. Given the uncertainty surrounding energy prices and environmental issues, levying taxes or user fees to reduce current fuel consumption could impose a burden on consumers that outweighs eventual benefits. From that perspective, federal funding for PNGV is a low-cost option today that will facilitate domestic production of efficient vehicles at a later date. If low-income consumers were more likely to purchase older, inefficient vehicles, research subsidies would then avoid regressive gasoline taxes, user fees, or both.

## 270-09 Sell Oil from the Strategic Petroleum Reserve

	Savings (Millions of dollars)	
	Budget Authority	Outlays
2001	217	217
2002	266	266
2003	273	273
2004	280	280
2005	287	287
2001-2005	1,323	1,323
2001-2010	1,372	1,372

### SPENDING CATEGORY:

Mandatory

### RELATED CBO PUBLICATION:

*Rethinking Emergency Energy Policy* (Study), December 1994.

The Strategic Petroleum Reserve (SPR) is a government-owned stock of crude oil that was first authorized in 1975 to help safeguard the nation against the threat of a severe disruption of oil supplies. The SPR consists of four underground sites along the Gulf of Mexico that together have the capacity to store 680 million barrels of oil. The SPR currently holds about 575 million barrels of oil. The Department of Energy (DOE) can sustain a maximum drawdown of about 4 million barrels per day (20 percent of the nation's current petroleum use) for 90 days. The department has released oil from the SPR in emergency circumstances only once—17 million barrels during the Persian Gulf War. The government's net investment in the SPR is about \$16 billion for oil and about \$4 billion for storage and transportation facilities. At a price of \$20 per barrel, the value of that oil would be about \$12 billion.

This option would require DOE to reduce the size and excess capacity of the SPR by closing the smallest storage site, Bayou Choctaw, and selling the site's 68 million barrels of oil over a five-year period. It would place at least 10 million but no more than 20 million barrels on the market each year to minimize the impact of reducing the SPR on world oil prices. The Congressional Budget Office estimates that receipts from the oil sales would total \$1.3 billion over the 2001-2005 period, and appropriations for operating the reserve could be reduced after the site is decommissioned toward the end of the decade. The option conforms with past Congressional actions: in 1996 and 1997, the Congress directed DOE to sell SPR oil to offset spending on the SPR and other programs and has authorized DOE to reduce its excess capacity by leasing it to foreign governments or private entities. Thus far, however, efforts to lease excess capacity have not succeeded.

The argument for reducing the SPR is supported by changes in program benefits and costs since 1975. Structural changes in energy markets and the economy at large have reduced the potential cost of disrupting oil supplies and consequently the benefits from releasing oil in a crisis. The increasing diversity of world oil supplies and the growing integration of the economies of oil-producing and oil-consuming nations lessen the risk of such disruptions. Moreover, the experience of DOE in its Persian Gulf War sale and in recent sales indicates that the process of deciding to release oil and the sales mechanism can contribute to market uncertainty, further diminishing the benefits of release. The rising costs of maintaining the SPR also strengthen the case for reducing it: many of the SPR's facilities are aging and have required unanticipated spending for repairs to maintain drawdown capabilities.

Arguments against closing the site and selling the oil stress logistical and pricing concerns. Closing Bayou Choctaw could reduce DOE's flexibility in distributing oil if a drawdown occurred, especially in the Mississippi Valley region. Another argument against this option concerns the effect of selling SPR oil on domestic oil producers, which prompted the Congress to repeal legislation in 1998 requiring oil to be sold.

## 270-10 Eliminate the Analysis Function of the Energy Information Administration

Savings  
(Millions of dollars)  
Budget  
Authority Outlays

### Relative to WODI

2001	8	5
2002	10	9
2003	10	10
2004	10	10
2005	10	10
2001-2005	48	44
2001-2010	98	94

### Relative to WIDI

2001	8	5
2002	11	10
2003	11	11
2004	11	11
2005	11	11
2001-2005	52	48
2001-2010	114	110

#### SPENDING CATEGORY:

Discretionary

#### RELATED OPTION:

350-01

The Energy Information Administration (EIA), created by the Congress in 1977, is an independent statistical agency of the Department of Energy. EIA's mission is to develop data and analyses on energy resources and reserves, production, demand, and technologies as well as related financial and statistical information on the adequacy of energy resources necessary to meet U.S. energy demand. Questions about the appropriateness and current need for those activities underlie this option. Eliminating the analysis function, which includes energy forecasting, would save \$5 million in 2001 and reduce outlays by \$94 million through 2010 relative to the 2000 funding level.

The Congress created EIA when many people thought that the United States would deplete its reserve of fossil fuels. Because that concern has been alleviated, some argue that eliminating EIA's analysis function is appropriate. Furthermore, some critics of EIA assert that analysis that supports policy decisions is already done by academicians, the Department of Energy's Policy Office, the Congressional Research Service, and the General Accounting Office. In addition, some critics note that industry's willingness to fund specific research activities through trade associations, such as the American Petroleum Institute and the Edison Electric Institute, suggests that EIA is providing a service that the private sector would perform on its own.

EIA supporters claim that an independent party should collect, analyze, and disseminate information. They claim that access to information is important to a competitive market. Although concerns about energy supplies have been alleviated, the Congress is now addressing such issues as global warming. Without independent analysis, the Congress would have to choose among conflicting analyses done by the Administration, environmental groups, and industry sources.

Additional savings could be obtained by eliminating some of EIA's data collection or moving EIA's data collection responsibilities to other agencies such as the Federal Energy Regulatory Commission. Much of the information collected and distributed by the EIA is available through newspapers and trade sources. Natural gas and electricity futures prices are traded on the New York Mercantile Exchange, among others, and are published daily in the *Wall Street Journal*. Although EIA conducts its own statistical surveys, it also develops reports based on information collected by the Federal Energy Regulatory Commission.

## 270-11 Require the Tennessee Valley Authority to Accelerate the Repayment of Deferred Nuclear Assets and Limit Its Future Borrowing

	Outlay Savings (Millions of dollars)
2001	0
2002	275
2003	275
2004	275
2005	275
2001-2005	1,100
2001-2010	2,475

### SPENDING CATEGORY:

Mandatory

### RELATED OPTIONS:

270-05, 270-06, 270-07, REV-42, and REV-43

### RELATED CBO PUBLICATION:

*Should the Federal Government Sell Electricity?* (Study), November 1997.

The Tennessee Valley Authority (TVA), a federal agency, is one of the largest electric utilities in the nation. Under current law, TVA sets rates for the electricity that it sells so that over time, receipts from its sales will be sufficient to pay for the program's routine operations, capital projects, and certain nonpower activities. TVA finances some of those costs by borrowing from the public, subject to a limit of \$30 billion on the amount of its outstanding debt at any given time. Currently, TVA's outstanding debt totals about \$26 billion, an amount that the agency and others suggest may be too high in today's increasingly competitive electricity market. Of particular concern is the agency's ability to repay \$6.3 billion that it has invested in building nuclear power plants whose completion has been deferred.

This option would amend laws governing TVA's financial operations in two ways. First, it would require the agency to pay off its \$6.3 billion investment in deferred nuclear assets within the next 10 years. (Those payments would be in addition to the agency's regular depreciation of its other assets.) Second, the option would lower the limit on TVA's outstanding debt to \$26 billion for fiscal year 2001 and periodically reduce that limit further so that the borrowing cap equals \$18 billion by the end of 2010. The Congressional Budget Office estimates that those changes would reduce TVA's net outlays by an average of about \$275 million a year beginning in 2002. Savings over the 2001-2005 period would total about \$1.1 billion.

In addition to those savings, CBO expects TVA to retire substantial amounts of its debt under current law. In 1997, the agency announced a series of actions aimed at cutting its debt in half by 2007. Despite those initiatives, however, TVA has paid off less debt over the past two years than it planned, largely because of additional spending on new power plants and emission controls. CBO projects that under current law, TVA's outstanding debt will decline to about \$20.5 billion by the end of 2010. The savings from this option could result from reductions in spending, increases in power revenues, or some combination of the two.

This option would address several concerns about TVA operations. Adopting a statutory timetable for repaying TVA's investment in deferred assets would allay concerns about taxpayers—rather than the TVA system—being saddled with those costs if TVA has to reduce its prices in the future to stay competitive. Indeed, a key rationale for reducing TVA's debt-related costs is to increase the agency's flexibility in setting rates so that it can remain a viable competitor in the future. Lowering the debt limit would bring the statutory ceiling in line with TVA's long-term plans, giving customers greater assurance that debt-related costs could not climb in the future unless authorized by the Congress.

Advocates for the status quo argue that such restrictions are unnecessary and could impair TVA's ability to manage its \$6-billion-a-year electricity business efficiently. They point to the initiatives that the agency announced in 1997 as evidence that market forces, rather than new government controls, will lead TVA to lower its debt and restrain its spending. They also argue that this option could force TVA to keep prices higher than anticipated, at least in the near term.