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DEPARTMENT OF
ENERGY

Framework Is Needed to
Reevaluate Its Role and
Missions

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Mr. Chairman and Members of the Subcommittee:

We are pleased to testify on issues relating to proposals to abolish the Department of Energy (DOE). Our testimony today will discuss DOE's missions and priorities, whether they need to be changed, and proposals to dismantle DOE. The information included in this testimony is drawn from our ongoing management review of DOE and past work on a wide variety of DOE programs and functions. (Attached is a listing of related GAO products.)

In summary, now is an ideal time to reevaluate DOE and its missions. DOE's missions and priorities have changed so dramatically over time that the Department is now very different from what it was in 1977 when it was created in response to the nation's energy crisis. Energy research, conservation, and policy-making dominated early DOE priorities. Next, weapons production, and now environmental cleanup have overshadowed its budget. Also, new missions in science and industrial competitiveness have emerged. Criteria developed by a DOE advisory panel and the National Academy of Public Administration (NAPA) are available for systematically evaluating DOE's missions and for determining if DOE should remain a cabinet-level department. Because transferring missions and their related statutory requirements from DOE to other agencies has broad impacts, any proposal to dismantle DOE should be considered as part of an overall governmentwide restructuring effort.¹

DOE NEEDS TO CHANGE

Created to deal predominantly with the "energy crisis" of the 1970s, DOE's mission and budget priorities have changed dramatically. By the early 1980s, its nuclear weapons production activities expanded dramatically, stretching DOE to its physical and managerial limits. Following revelations about environmental mismanagement in the mid- to late-1980s, DOE's environmental budget began to grow and now overshadows all other activities. With the Cold War's end, DOE has new or expanded missions in industrial competitiveness; science education; environment, safety, and health; and nuclear arms control and verification.

Responding to changing missions and priorities within existing organizational structures, processes, and practices that had been established largely to build nuclear weapons is a daunting task. For example, DOE's contract management approach, which it has begun to change only recently, was first created during the World War II Manhattan Project. In contrast to the

¹The Comptroller General of the United States recently testified on the need for an integrated approach to government reorganization. See Government Reorganization: Issues and Principles (GAO/T-GGD/AIMD-95-166, May 17, 1995).

past practice of allowing private contractors to manage and operate billion-dollar facilities with minimal direct federal oversight (yet reimbursing them for all of their costs regardless of their actual achievements), DOE is now attempting to impose modern standards for accountability and performance. Also, because management and information systems for evaluating program performance were poor, DOE has been hindered from exercising effective oversight. In addition, DOE's elaborate and highly decentralized field structure has been slow to respond to changing conditions and priorities, fraught with communication problems, and poorly positioned to tackle difficult issues requiring a high degree of cross-cutting coordination.

Recognizing that the Department needed to change, current leadership has several efforts underway to strengthen its capacity to manage. For example, DOE is reforming its contracting practices to make them more business-like and results oriented; "total quality management" principles have been introduced to improve internal communications; and the Secretary has opened up decision-making processes to the public in an attempt to further break down DOE's long-standing culture of secrecy, which has historically shielded the Department from outside scrutiny. DOE's Strategic Plan and Strategic Alignment Initiative are a foundation for the current leadership's vision to improve the Department.

Although DOE's reforms are important and much needed, they are based on the assumption that existing missions are still valid in their present forms and that DOE is the best place to manage them. In regard to some missions such as the civilian nuclear waste program, experts have long argued that DOE is not the best place for this responsibility. In regard to other missions such as the national laboratories and environmental cleanup, changing conditions have led many policymakers (including the Congress) to seriously consider alternatives to DOE management.

A FRAMEWORK FOR EVALUATING DOE MISSIONS

We and others believe that the following two questions are a good starting point for developing a framework for evaluating the future of DOE and its missions:

- Which missions should be eliminated because they are no longer valid government functions?
- For those missions that are governmental, what is the best organizational placement of the responsibilities?

Once agreement is reached on the appropriate governmental missions, a practical set of criteria can be used to evaluate the best organizational structure for each mission. These criteria--

originally used by an advisory panel for evaluating DOE's civilian nuclear waste program²--allow for rating each alternative structure based on its ability to promote cost effective practices, attract technical talent, be flexible to changing conditions, and accountable to stakeholders (App. I summarizes these criteria). Using these criteria could help identify more effective ways to implement DOE missions, particularly those that could be privatized or reconfigured under alternative governmental forms.

Additionally, NAPA developed criteria that are useful for determining whether DOE should remain a cabinet-level department. These criteria, which are summarized in appendix II, pose such questions as the following: "Is there a sufficiently broad national purpose for the Department? "Are cabinet-level planning, executive attention, and strategic focus necessary to achieve DOE's mission goals?" "Would a non-cabinet level agency be able to recruit and retain sufficient technical talent to implement DOE's missions?"

Unless it responds to these and other basic mission issues in a systematic manner, DOE has little assurance that its current Strategic Plan and Strategic Alignment Initiative are the best ways to accomplish its missions. Furthermore, DOE alone cannot make these determinations--these require a cooperative effort among all stakeholders, with the Congress and the Administration responsible for deciding which missions are needed and how best to implement them.

OBSERVATIONS ON EVALUATING DOE'S MISSIONS

To gain a perspective on DOE's missions, as part of our management review, we surveyed 40 former DOE executives and experts on energy policy about how the Department's missions relate to current and future national priorities.³ Our respondents included former President Jimmy Carter (during whose administration DOE was created), four former Energy Secretaries, as well as deputy and assistant secretaries, and individuals with distinguished involvement in issues of national energy policy.

Overwhelmingly, our respondents emphasized that DOE should focus on its original core missions. These missions include energy policy, energy information, energy supply research and development, and operation of the Strategic Petroleum Reserve as an instrument of energy policy. While our respondents were

²Managing Nuclear Waste--A Better Idea, Advisory Panel on Alternative Means of Financing and Managing Radioactive Waste Facilities (Dec. 1984).

³App. III summarizes the results from our survey.

divided about evenly over whether to keep the power marketing administrations (i.e., Alaska, Bonneville, etc.) within the Department or to move them elsewhere, the majority favored moving the remaining missions from DOE or sharing them with other departments and agencies. However, there was no consensus on the nature of the realignment. Many respondents suggest moving

- basic research to the National Science Foundation, the Commerce or Interior departments, other federal agencies, or a new public-private entity;
- some multiprogram national laboratories to other federal agencies, or sharing their missions with other agencies;
- management and disposal of civilian nuclear waste to a new public-private organization, a new government agency, or the Environmental Protection Agency;
- nuclear weapons production and waste cleanup to the Department of Defense (DOD), the Environmental Protection Agency (waste cleanup only), or a new government agency;
- environment, safety, and health activities to the Environmental Protection Agency or other federal entities;
- arms control and verification to DOD, the State Department, the Arms Control and Disarmament Agency, or a new government nuclear agency;
- industrial competitiveness to the Commerce Department or a public-private organization; and
- science education to the National Science Foundation or another federal agency.

Although we have not evaluated DOE missions using the criteria developed by the DOE advisory panel and NAPA, we have some observations based on our past and current work in several of DOE's mission areas. In general, deciding the best place to manage specific DOE missions involves assessing the advantages and disadvantages of each alternative institution for its potential to achieve that mission, produce integrated policy decisions, and improve efficiency. Potential efficiency gains (or losses) that might result from moving parts of DOE to other agencies need to be balanced against the policy reasons that first led to placing that mission in DOE. While the substantial short-term costs of transfer may be offset by long-term gains in efficiency, in some cases, shifting missions would likely be a contentious exercise, especially in DOE's major responsibilities--the nuclear weapons complex and its cleanup.

For example, transferring the nuclear weapons complex to DOD, as is proposed by some, would require carefully considering many policy and management issues. Because of the declining strategic role of nuclear weapons, some experts argue that DOD might be better able to trade off resource allocations among nuclear and other types of weapons if the weapons complex were completely under its control. Others argue, however, that the need to maintain civilian agency control over nuclear weapons outweighs any other advantages and that little gains in efficiency would be achieved by employing DOD rather than DOE supervisors. In addition, placing the weapons complex under DOD may challenge its resources and capabilities. Some experts we consulted advocated creating a new federal agency for weapons production.

Similarly, moving the responsibility for cleaning up DOE's defense facilities to another agency or to a new institution, as proposed by some, requires close scrutiny. For example, a new agency concentrating its focus on cleanup exclusively would not have to allocate its resources among competing programs and could maximize research and development investments by achieving economies of scale in cleanup technology by applying them more broadly. On the other hand, separating cleanup responsibility from the agency that created the waste may limit incentives to reduce waste and promote other environmentally sensitive approaches. In addition considerable startup time and costs would accompany a new agency, at a time when the Congress is interested in downsizing the federal government.

In other cases, some missions should continue to be analyzed to determine private sector alternatives for best implementing the missions. For example, although over a decade has passed since the Congress established the repository program for disposing of nuclear waste and several billion dollars have been spent on the program, siting a repository seems no closer than when the program was first started. Last year, 39 Members of Congress called for a presidential commission to review the nuclear waste program; others have proposed legislation to change the program; and some experts, including DOE's own internal advisory panel, have called for moving the entire program to the private sector.

DOE's own task force on the future of the national laboratories (The Galvin Task Force) has suggested creating private or federal-private corporations to manage most or all of the national laboratories.⁴ The Secretary of Energy asked the

⁴The Secretary of Energy asked Robert Galvin, Chairman of Motorola Corporation, to chair a task force to analyze the national laboratories. Its report was titled Alternative Futures for the Department of Energy National Laboratories, Secretary of

task force to examine options for the future of the laboratories. The task force recommended that among other things, control of the laboratories be placed in private hands. Under this arrangement, one or more nonprofit corporations would be created to operate the laboratories under the direction of a board of trustees that would channel funding to various labs to meet the needs of both government and non-government entities. DOE would be a customer, rather than the direct manager of the labs. Although the task force provided few details about how such an alternative structure would be developed and implemented and acknowledged that several variations could be studied, its proposal raises important issues for the Congress to consider, such as the following:

- The expenditure of public funds by a privately managed and operated structure raises concerns about how to monitor and oversee the use of those taxpayer funds. How would the new structure be responsive and accountable to the Congress and to DOE?
- The laboratories have significant responsibilities for addressing environment, safety, and health problems at their facilities, some of which are governed by legal agreements between DOE, EPA, and the states. How would the new structure ensure that these responsibilities continue?
- To what extent would this new structure safeguard federal access to facilities so that national priorities are met? Most if not all of the labs perform work essential to the government, including national security missions. Considerable thought would have to be given to developing a national priority system within any alternative structure.
- Would the new structure affect the laboratories' ability to attract and retain technically competent scientists?

In addition, other organizational options proposed by experts should also be considered, including the following:

- Convert some laboratories, particularly those working closely with the private sector, into independent entities.
- Transfer the responsibility for one or more laboratories to another agency whose responsibilities and mission are closely aligned with a particular DOE laboratory.

Energy Advisory Board, Task Force on Alternative Futures for the Department of Energy National Laboratories (Feb. 1995).

- Create a "lead lab" arrangement, under which one laboratory is given a leadership role in a mission or technology area and other laboratories are selected to work in that area.
- Consolidate the responsibility for research, development, and testing on nuclear weapons within a single laboratory.

While we have not evaluated these alternatives, each has advantages and disadvantages, as does the Galvin Task Force proposal, and each needs to be evaluated in light of the laboratories' capabilities for designing nuclear weapons and pursuing other missions of national and strategic importance. Furthermore, the government may still need facilities dedicated to national and defense missions, a possibility that would heavily influence any future organizational decisions.

Redefining and/or clarifying the missions of the labs should be undertaken before deciding on the structure for managing them. For example, a decision will have to be made whether research on energy efficiency is needed before deciding where and how to fund this work.

CONCLUSION

In conclusion Mr. Chairman, now is an ideal time to fundamentally reevaluate DOE and its missions. While current reform efforts, especially those in contract reform and strategic alignment, will strengthen DOE's management capacity, these efforts may not make DOE an effective, integrated department--because of the problems inherent in managing so many disparate missions. None of the former DOE executives or energy experts we surveyed favored keeping the Energy Department as it is today.

On the bases of our survey of expert opinions, and on other reports we have issued, many of DOE's missions could be performed either by private institutions or by other government agencies. The extent to which some DOE missions might best be implemented by other federal entities will depend on a careful evaluation of the costs and effects of such changes that would have to be made, including the effects on the agency gaining the new missions. For this reason, any proposal to dismantle DOE should ideally be considered as part of an overall government restructuring effort.

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This concludes our prepared statement, Mr. Chairman. We would be pleased to respond to any questions that you or other Members of the Subcommittee may have.

CRITERIA FOR EVALUATING DOE'S MISSIONS

The following criteria, adapted from a former DOE Advisory Panel that examined DOE's civilian nuclear waste program, offers a useful framework for evaluating alternative ways to manage missions.⁵ These criteria were created to judge the potential value of several different organizational arrangements that included an independent federal commission, a mixed government-private corporation, and a private corporation.

- Mission orientation and focus: Will the institution be able to focus on its mission(s), or will it be encumbered by other priorities? Which organizational structure will provide the greatest focus on its mission(s)?
- Credibility: Will the organizational structure be credible, thus gaining public support for its action?
- Stability and continuity: Will the institution be able to plan for its own future without undue concern for its survival?
- Programmatic authority: Will the institution be free to exercise needed authority to accomplish its mission without excessive oversight and control from external sources?
- Accessibility: Will stakeholders (both federal and state overseers as well as the public) have easy access to senior management?
- Responsiveness: Will the institution be structured to be responsive to all its stakeholders?
- Internal flexibility: Will the institution be able to change its internal systems, organization, and style to adapt to changing conditions?
- Political accountability: How accountable will the institution be to political sources, principally the Congress and the President?
- Immunity from political interference: Will the institution be sufficiently free from excessive and destructive political forces?

⁵Managing Nuclear Waste--A Better Idea, Advisory Panel on Alternative Means of Financing and Managing Radioactive Waste Facilities (Dec. 1984).

- Ability to stimulate cost-effectiveness: How well will the institution be able to encourage cost-effective solutions?
- Technical excellence: Will the institution attract highly competent people?
- Ease of transition: What will be the costs (both financial and psychological) of changing to a different institution?

CRITERIA FOR EVALUATING CABINET LEVEL STATUS

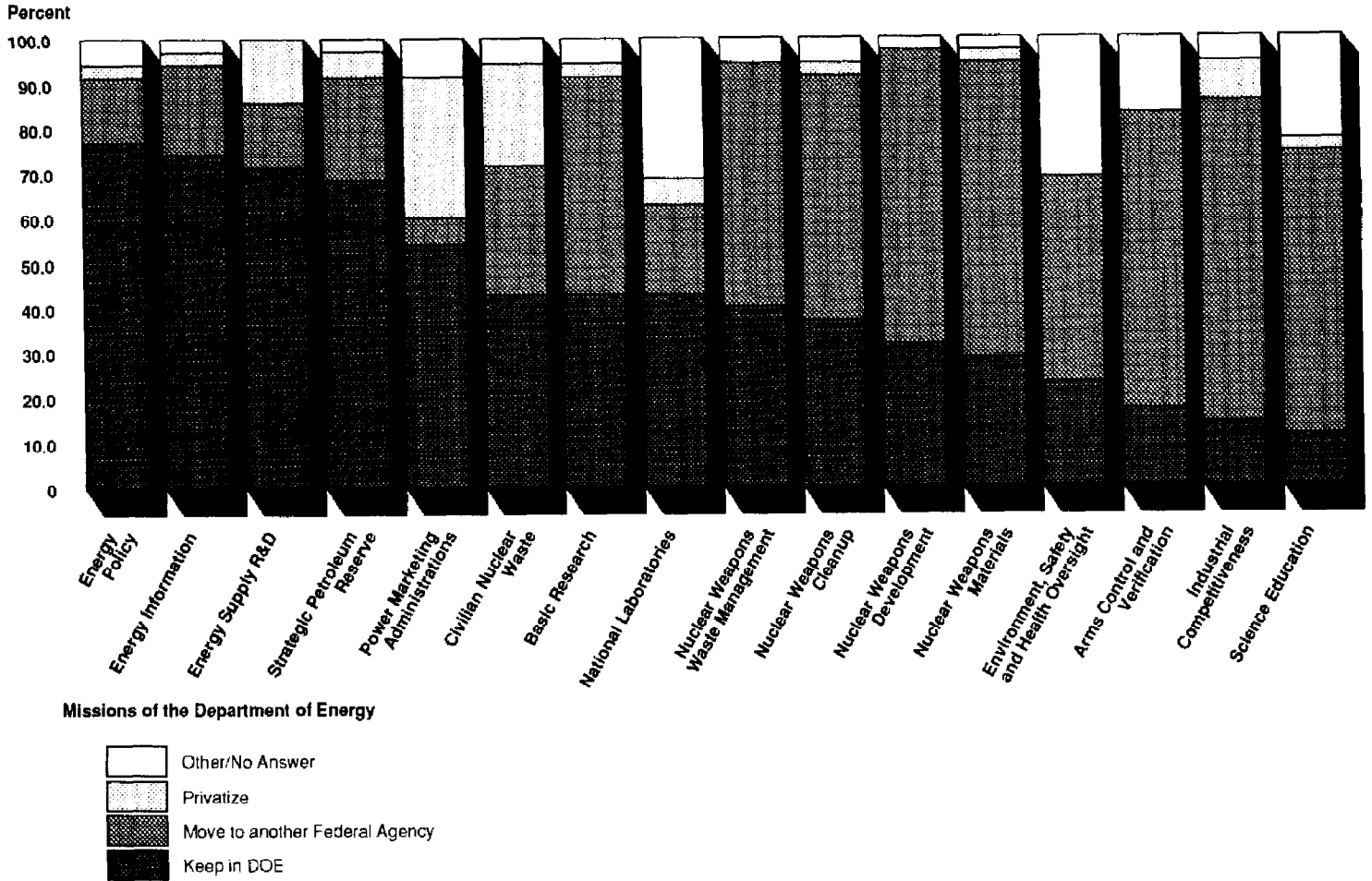
The following criteria were developed by the National Academy of Public Administration as an aid to deciding whether a government organization should function as a cabinet department.⁶

1. Does the agency or set of programs serve a broad national goal or purpose not exclusively identified with a single class, occupation, discipline, region, or sector of society?
2. Are there significant issues in the subject area that (1) would be better assessed or met by elevating the agency to a department and (2) are not now adequately recognized or addressed by the existing organization, the President, or the Congress?
3. Is there evidence of impending changes in the type and number of pressures on the institution which would be better addressed if it were made a department? Are such changes expected to continue into the future?
4. Would a department increase the visibility and thereby substantially strengthen the active political and public support for actions and programs to enhance the existing agency's goals?
5. Is there evidence that becoming a department would provide better analysis, expression, and advocacy of the needs and programs which constitute the agency's responsibilities?
6. Is there evidence that elevation to a Cabinet department would improve the accomplishment of the existing agencies goals?
7. Is a department required to better coordinate or consolidate programs and functions which are now scattered throughout other agencies in the executive branch of government?
8. Is there evidence that a department--with increased centralized political authority--would result in a more effective balance within the agency, between integrated central strategic planning and resource allocation, and with the direct participation in management decisions by the line officers who are responsible for directing and managing agency programs?

⁶Evaluation of Proposals to Establish a Department of Veterans Affairs (Mar. 1988).

9. Is there evidence of significant structural, management, or operational weaknesses in the existing organization that could be better corrected by elevation to a department?
10. Is there evidence that there are external barriers and impediments to timely decisionmaking and executive action that could be detrimental to improving the efficiency of the existing agency's programs? Would elevation to a department remove or mitigate these impediments?
11. Would elevation to a department help recruit and retain better qualified leadership within the existing agency?
12. Would elevation to a department promote more uniform achievement of broad, cross-cutting national policy goals?
13. Would elevation to a department strengthen the Cabinet and the Executive Office of the President as policy and management aids for the President?
14. Would elevation to a department have a beneficial or detrimental effect upon the oversight and accountability of the agency to the President and the Congress?

SUMMARY OF SURVEY RESPONSES ON THE BEST LOCATION FOR
ACCOMPLISHING DOE'S MISSIONS



GAO PRODUCTS

Department of Energy: Alternatives for Clearer Missions and Better Management at the National Laboratories (GAO/T-RCED-95-128, Mar. 9, 1995).

Nuclear Weapons Complex: Establishing a National Risk-Based Strategy for Cleanup (GAO/T-RCED-95-120, Mar. 6, 1995).

Department of Energy: National Priorities Needed for Environmental Agreements (GAO/RCED-95-1, Mar. 3, 1995).

Department of Energy: Research and Agency Missions Need Reevaluation (GAO/T-RCED-95-105, Feb. 13, 1995).

Department of Energy: National Laboratories Need Mission Focus and More Effective Departmental Management (GAO/RCED-95-10, Jan. 27, 1995).

Department of Energy: Need to Reevaluate Its Role and Missions (GAO/T-RCED-95-85, Jan. 18, 1995).

Nuclear Waste: Comprehensive Review of the Disposal Program Is Needed (GAO/RCED-94-299, Sept. 27, 1994).

Energy Policy: Ranking Options to Improve the Readiness of and Expand the Strategic Petroleum Reserve (GAO/RCED-94-259, Aug. 18, 1994).

Department of Energy: Management Changes Needed to Expand Use of Innovative Cleanup Technologies (GAO/RCED-94-205, Aug. 10, 1994).

Fossil Fuels: Lessons Learned in DOE's Clean Coal Technology Program (GAO/RCED-94-174, May 26, 1994).

Department of Energy: Challenges to Implementing Contract Reform (GAO/RCED-94-150; March 24, 1994).

DOE's National Laboratories: Adopting New Missions and Managing Effectively Pose Significant Challenges (GAO/T-RCED-94-113, Feb. 3, 1994).

Financial Management: Energy's Material Financial Management Weaknesses Require Corrective Action (GAO/AIMD-93-29, Sept. 30, 1993).

Department of Energy: Management Problems Require a Long-Term Commitment to Change (GAO/RCED-93-72, Aug. 31, 1993).

Energy Policy: Changes Needed to Make National Energy Planning More Useful (GAO/RCED-93-29, Apr. 27, 1993).

Energy Management: High-Risk Area Requires Fundamental Change
(GAO/T-RCED-93-7, Feb. 17, 1993).

Nuclear Weapons Complex: Issues Surrounding Consolidating Los Alamos and Livermore National Laboratories (GAO/T-RCED-92-98, Sept. 24, 1992).

Department of Energy: Better Information Resources Management Needed to Accomplish Missions (GAO/IMTEC-92-53, Sept. 29, 1992).

Naval Petroleum Reserve: Limited Opportunities Exist to Increase Revenues From Oil Sales in California (GAO/RCED-94-126, May 5, 1994).

High-Risk Series: Department of Energy Contract Management
(GAO/HRD-93-9, Dec. 1992).

Comments on Proposed Legislation to Restructure DOE's Uranium Enrichment Program (GAO/T-RCED-92-14, Oct. 29, 1991).

Nuclear Waste: Operation of Monitored Retrievable Storage Facility Is Unlikely by 1998 (GAO/RCED-91-194, Sept. 24, 1991).

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