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U.S. Department of Energy



Energizing America for a New Century

*Results from Implementing
the President's Management Agenda
2004*

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**Results from Implementing
the President's Management Agenda**



Message from the Secretary of Energy

Three years ago President Bush challenged the Federal government to make itself more efficient, more effective, more results-oriented, and more accountable to the citizens who pay taxes and benefit from the programs and services government provides. The President recognized that “government likes to begin things – to declare grand new programs and causes and national objectives. But good beginnings are not the measure of success. What matters in the end is completion. Performance. Results. Not just making promises, but making good on promises.”



Over the past three years, the President’s Management Agenda has become the framework for organizing our efforts and focusing on the bottom line. Spurred by the President’s leadership, our 116,000 employees and contractors have transformed the Department from an organization generally thought to be one of the government’s worst managed agencies, to one of the very best. We have conducted reviews to determine whether the government or the private sector can most efficiently carry out our functions, resulting in expected savings of \$37 million. We have begun to link the allocation of resources – the budget – to an objective assessment of whether programs actually deliver tangible benefits to the public. We are streamlining and consolidating the Department’s complex financial and information technology systems, bringing 21st century efficiencies and giving managers access to timely and accurate data for making decisions. In short, the President’s Management Agenda has become the Department of Energy’s own *Results Agenda*.

These management improvements are making a difference where it counts most: in carrying out the Department’s mission to help protect America’s national and economic security. We have made major progress in moving toward a hydrogen economy, developing clean coal technologies, encouraging the next generation of nuclear power, and improving the reliability and efficiency of supplies of electricity and natural gas. We also have made our citizens more secure by reaching agreement with Russia and other countries to reduce nuclear stockpiles, improving the security at nuclear sites, and developing the means to detect nuclear materials at foreign and domestic border sites and seaports. We have accelerated the cleanup of nuclear weapons production sites, resulting in a healthier environment and tens of billions of dollars in estimated savings. And we have, for the first time, identified and begun to develop a central repository for spent nuclear waste. In short, the U.S. Department of Energy is delivering results. We are making good on our promises.

Many challenges remain. We are committed to continuing to transform the Department of Energy into the kind of organization of which all Americans can be proud.

A handwritten signature in black ink that reads "Spencer Abraham". The signature is written in a cursive style.

Spencer Abraham
Secretary of Energy

Introduction: The Department's Mission

The Department of Energy's central mission is to advance critical aspects of the Nation's security. This includes:

- ❖ promoting a diverse supply and delivery of reliable, affordable, and environmentally sound energy;
- ❖ safeguarding nuclear weapons, nuclear materials and sensitive information from terrorists and rogue states; and
- ❖ freeing current and future generations of Americans from fear of nuclear terrorism, environmental damage, and threats to their health from nuclear contamination.

“With the help of the President’s Management Agenda, DOE has established human capital, competitive sourcing and financial performance disciplines that are as desired and as good as any in the Federal government. DOE has demonstrated its strong commitment to the PMA and focus on results.”

Clay Johnson,
Deputy Director for Management,
Office of Management and Budget

The vast majority of the Nation's energy supplies and delivery infrastructure is owned and controlled by private entities. However, the Department of Energy does set energy efficiency regulations for appliances, help develop and promote new technologies, produce accurate and timely information on America's energy situation, and steward the Nation's nuclear weapons stockpile. Our energy policies are grounded in distinctively American values:

responsibility to our children and the world they will inherit; stewardship of our natural resources; faith in science, innovation, competition and entrepreneurship as the keys to progress; and compassionate responsibility for those workers whose health has suffered from Cold War nuclear programs.

The Department's responsibilities are far-ranging, from conducting basic research on the building blocks of the universe to providing grants to low-income families for home insulation and ensuring the effectiveness of our nuclear deterrent. The funds needed to carry out these responsibilities, \$24.3 billion requested for fiscal year 2005, represent a substantial investment of public treasure. Managing these resources in a wise and frugal manner presents a series of critical challenges: How can the Department's managers and the public be assured that each program accomplishes results commensurate with its expenditure of public funds? How can we know that programs are managed in such a way as to benefit citizens? How can we know that administering a particular program by a public agency, rather than by a commercial entity, yields the greatest value and efficiency to the taxpayer? Finding the answers to these questions, and managing programs on the basis of the information learned, lies at the heart of the President's Management Agenda and has been a Departmental priority since 2001.

Getting Results

The President's Management Agenda aims to make government more:

Citizen-centered. The services and programs provided by the government are intended to benefit citizens, not Federal administrators, and should be administered with the end-users in mind.

Results-oriented. We must never forget that the product, not the process, is our final destination.

Market-based. The same competitive principles that lead to success in the marketplace can also enhance performance, save the taxpayers' money and, in many cases, yield better outcomes in the world of government.

It is not, of course, unusual for an Administration, on taking office, to proclaim a new approach to conducting the business of

Council, chaired by the Deputy Secretary and consisting of the Department's top political and career officials, to oversee implementation of the President's Management Agenda. The Council meets monthly to discuss guidance from the President's Management Council (on which the Department of Energy is represented by the Deputy Secretary) and to review progress in implementing Agenda initiatives. The purpose



Deputy Secretary Kyle McSlarrow chairs meeting of the DOE Management Council

government. Typically, however, these initiatives devolve into platitudes and managerial double-speak, with little follow-through or sustained commitment within individual agencies. The President's Management Agenda is different, as is the Department of Energy's commitment to achieving fundamental and sustained management reforms that will improve America's energy security for generations to come.

The Department's commitment to the President's Management Agenda begins with the leadership of the Secretary and Deputy Secretary. From the time the Agenda was announced in 2001, the Department's senior leadership embraced its principles as an opportunity to make much-needed management reforms and to put in place a strategy for fulfilling its vision. The Secretary established a department-wide Management

of these meetings is to let senior leaders know what is expected of them, and to hold them accountable for results.

Senior career executives have been designated to lead each of the five major government-wide management initiatives: Strategic Management of Human Capital, Competitive Sourcing, Improved Financial Performance, Expanded Electronic Government, and Budget and Performance Integration. The career executives are responsible for developing and implementing detailed long-term action plans on how to get from concept to results.

Ownership of each management initiative extends both vertically, through each level of the agency, as well as horizontally, with cooperation among different components. An inter-office task force supports the senior career "owner" of

each initiative. These task forces are the engines that drive change throughout the agency. They ensure that the entire Department, not just the management staff, is engaged. Everyone is involved. Everyone has ownership. Everyone is held accountable.

In addition, the senior career leaders of the initiatives work together as a team, avoiding the “stove-piping” so common in bureaucracies. This is essential because success in all initiatives requires broad collaboration. For example, the new integrated business system being developed at the Department involves financial management, e-government and budget/ performance integration. Systems developed and managed by different components of the Department must be integrated under a unified system. Because of the interdependencies such projects create, the initiative owners have an incentive to work together and break down the usual bureaucratic walls that separate them.

Measuring the Government’s Performance

The President holds each agency accountable for its performance in carrying out the President’s Management Agenda. He does this through quarterly scorecards issued by the Office of Management and Budget. Two rating categories are used – one for “status,” which assesses whether a department has satisfied the overall goals or long-term criteria to accomplish an initiative – and the other for “progress,” which measures the extent to which the agency has followed its plan. As with a stoplight, the scores can be red (no success), yellow (mixed success), or green (successful). Just as the President issues report cards to Federal agencies grading their progress in implementing management reforms, so does the Secretary of Energy evaluate quarterly each office’s progress toward achieving its goals.

With processes and structures in place to help drive change throughout the agency, and with a

metric for determining progress and effectiveness, we need to answer the question: Change for what?

The President directed the Department of Energy to implement sweeping changes in seven key areas, fundamentally changing the way it does business and relates to the public:

“When the President issued his management agenda in 2001, it was immediately embraced by Secretary Abraham as an opportunity to implement much-needed management reforms. Since then, the Department’s senior leadership and employees have transformed the Department into one of the government’s best managed agencies. As a result of the President’s leadership, we are seeing results and continue our progress toward making the Department performance-driven.”

Kyle McSllarrow,
Deputy Secretary

Strategic Management of Human Capital

Organizations are about people, and successful organizations have the right people with the right skills in the right places at the right time to achieve their goals. To do that, we must make sure that we recruit highly qualified individuals, reward good performance, and give employees the tools and the training they need. Too often in the past, excellence has gone unrewarded and poor performance ignored. Clearly, we can no longer afford to do business as usual. As the baby boom generation enters retirement age, agencies such as the Department of Energy will have to virtually retro-fit their entire workforce.

Competitive Sourcing

President Bush said: “Government should be market-based – we should not be afraid of competition, innovation, and choice.” Opening

up the government and its functions to competition, not only with the private sector, but with other units of government as well, will lead to better performance and better value for the taxpayer. A recent report published by the Office of Management and Budget on the Federal government's competitive sourcing program is available electronically at http://www.results.gov/agenda/cs_omb_647_report_final.pdf.



Researchers conducting experiment at the Microelectronic Development Laboratory of Sandia National Laboratory.

Improved Financial Performance

No company can be a top performer without accurate, timely, useful financial data and the systems in place to provide it. In that regard, the Federal government is no different. But instead of seeking profits, the Federal government is about providing higher quality, more efficient services for the American people. With access to reliable financial information, Federal managers can make the kinds of decisions that improve citizens' lives and achieve efficiencies.

Expanded Electronic Government

Information technology is a powerful, cost-effective tool that can make government services available to more citizens, reduce burdensome paperwork and lower costs. Although new technologies have helped the American economy become far more productive in recent decades, they have failed to produce comparable gains in

public-sector worker productivity. Too often, Federal agencies have designed information systems that have served the needs of their staffs, not the needs of citizens. And too often, agencies have used information technology to automate pre-existing processes, rather than create new and more efficient solutions.

Budget and Performance Integration

It is axiomatic that government programs are created, grow, but never die. Indeed, typically the question of whether a program is delivering the services promised in an efficient or effective manner is never even asked. At the Department, we have begun to ask those questions, and to prepare our budgets and design programs based on the answers. Put simply, we need to know: Are we getting our money's worth, and if we are not, what are we going to do to make sure the taxpayers receive the highest value and level of service?

Federal Real Property Asset Management

According to its fiscal year 2003 financial statements, the Federal Government owns hundreds of billions of dollars in real property assets. In addition, the government owns or manages one in every four acres of land in the United States. While much of the Federal government's real and personal property assets are used to support agency missions, it is not clear how many of these properties are actually being used in an efficient manner. For instance, much of the government's real property no longer serves the needs for which it was

"The President's Management Agenda is more than just "getting to green." It is not the end; it is the beginning. It's a new way of thinking about how we go about the business of producing results for our fellow citizens."

Bruce M. Carnes,
Associate Deputy Secretary

originally intended. As a result, there is a great deal of underused and unneeded real property within the Federal Government.

Research that Solves Problems

The Department of Energy’s national laboratories are a national treasure. Through the Department’s National Nuclear Security Administration, some of the country’s most advanced scientific and engineering tools are being used to ensure the safety, security and reliability of the Nation’s nuclear deterrent and provide the tools and technology to advance nonproliferation capabilities. Through its Office of Science, the Department is the single largest supporter of basic research in the physical sciences in the United States, providing nearly half of all funding for such projects. The Department’s research covers the breadth of scientific inquiry, from understanding the birth

of the universe to breakthrough research in nanotechnology and biotechnology. More than 18,000 researchers use the Department’s research facilities each year. Despite these accomplishments, the Department’s research arm could contribute even more to our energy security with added focus and clearer goals. The President’s Management Agenda tasked the Department with developing rigorous new criteria for conducting research that addresses America’s most pressing energy problems.

**Department of Energy:
Meeting the Management Challenge**

The Department is meeting the President’s challenge to change its approach to managing its people and its resources. When the first scorecard was issued in 2002, the Department of Energy was graded red in all areas, making it one of the Federal government’s lowest-rated agencies. Two years later, in February 2004, the Office of Management and Budget ranked the Department of Energy among the top Cabinet agencies in implementing the President’s Management Agenda. On the most recent scorecard (July 2004), Energy received three green and two yellow “status” ratings, which assess whether the criteria associated with each President’s Management Agenda initiative have been accomplished, and five green “progress” scores, which gauge whether the Department is on track to achieve the Agenda goals. This accomplishment is a source of pride to all



Genome Research at Lawrence Berkeley National Laboratory.

“The President’s Management Agenda has provided the first truly aggressive modernization of Government-wide business operations in the last two decades.”

Theresa Tyner
Administrative Officer,
NNSA

Department employees, who have demonstrated by their actions that they have made the President's Management Agenda their own.

"For the first time, there has been an understandable vision on the expected improvements. The President's Management Agenda brought focus to these changes followed up with a disciplined approach from the very highest levels of the organization to ensure its implementation."

John Sullivan,
Deputy Assistant Secretary,
Office of Energy Efficiency and
Renewable Energy

Some of the Department's accomplishments include:

- ❖ Training employees in needed project management skills and rewarding individuals who achieve project management certification and then prove they can manage projects successfully.
- ❖ Establishing competitive sourcing as a sound management practice, including the streamlining of financial services operations to save \$31 million over five years.
- ❖ More responsibly accounting for the people's money by issuing audited financial statements in an accelerated timeframe and providing assurances that the Department's financial management meets high standards of integrity.
- ❖ Integrating its multiple management systems into a unified system - I-MANAGE - that will integrate financial, procurement, personnel, and programmatic data and provide managers with accurate and timely

information they can use to manage programs better.

- ❖ Addressing deficiencies in program performance and establishing good measures to assess performance on an on-going basis.
- ❖ Implementing the National Nuclear Security Administration's Facilities and Infrastructure Recapitalization Program Ten-Year Comprehensive Site Plan Process, which was highly praised by other Federal agencies.

Innovation in Managing Human Capital

Each of the Department's major components has analyzed the employee skills needed to do its business, identified gaps in those skills, and is designing the means to address them. They also have assessed their administrative structures, and achieved efficiencies through eliminating duplicative efforts and centralizing administrative operations. For example, within the National Nuclear Security Administration, all business and administrative support functions from three former operations offices are being consolidated into a single Service Center. This will improve responsiveness and efficiency, while eliminating the need for about 200 duplicative positions.

The Department has restructured its performance management system to link achievement with mission accomplishment and developed comprehensive workforce and succession management plans. A project management certification program has been launched to ensure that employees managing multi-million dollar projects have the skills they need to manage projects on cost, on schedule and within performance targets. The Department has also improved its efficiency by eliminating duplicative layers of bureaucracy. Overall, the number of Federal employees at the Department has been reduced by 6.6 percent, from 14,688 in 2001 to 13,707 in 2004. The number of Senior Executive Service (SES) employees has been cut

by 5.5 percent, from 432 to 408, and non-SES senior staff by 6.8 percent, from 4,585 to 4,273. Within the Department, the National Nuclear Security Administration has achieved notable efficiencies, reducing headquarters staffing devoted to the weapons program by 30 percent.

“The President’s Management Agenda has put the focus on sound management in government. First among the initiatives is Human Capital. It all comes down to the right people, in the right place, at the right time. None of the other PMA initiatives can be addressed without the best workforce.”

Diane Cochran,
 Director,
 Office of Strategic Imperatives,
 Office of Environmental Management

Innovation in Competitive Sourcing

The Department conducted comparative studies of four programmatic areas: graphics, financial services, civil rights review, and National Nuclear Security Administration logistics. The studies pitted Federal employees in a head-to-head competition with the private sector. The Department’s in-house team won three of these competitions, including a large project to deliver financial services. In that bid, major re-engineering and consolidation of transaction processing allow for a reduction of required staff from 181 to 118, yielding a savings of \$31 million over the next five years.

One of the best ways to instill the principle of competition into the government’s work is to make more and better use of the talents of small businesses, the backbone of America. From fiscal year 2001 to 2003, the value of the Department’s prime contracts with small businesses grew by 53 percent, from \$511 million to \$783 million. The number and value of subcontracts with small businesses also

increased. Aiding this process is a new database of 4,000 small business vendors. The database is available to the Department’s program offices, procurement personnel and prime contractors to help identify potential new contractors.

Innovation in Financial Performance

Financial data is now used routinely by the Department to make major decisions about major programs and projects, worth hundreds of millions of dollars. For example, Environmental Management is establishing cost, schedule, and technical baselines for its entire cleanup program with life-cycle costs over \$100 billion. The National Nuclear Security Administration extracts obligation and cost data from the Department’s Financial Data Warehouse, and summarizes the data monthly for the agency’s senior officials as a key management tool for program evaluation.

Monthly reports are now compiled using cost, schedule and performance data provided by the contractors and program offices. These reports, which are provided to the Secretary, Deputy Secretary and Under Secretaries, flag projects that are under-performing, behind schedule, or significantly over projected cost parameters. The Associate Deputy Secretary meets with the senior leaders responsible for the under-performing projects to discuss strategies to get them back on track.

The financial data now being used in the context of programmatic and policy decisions is superior in quality and timeliness to that used previously. The timeline for issuing financial statements was trimmed from 149 days to 76 days after the end of the fiscal year, and the Department plans to further accelerate this timetable by an additional 30 days for fiscal year 2004 statements. Early in fiscal year 2005, the Department plans to implement a new, modernized accounting and reporting system that will improve our ability to provide program and project managers with comprehensive, timely and reliable financial information.

Innovation in Electronic Government

Sweeping changes have been made in how the Department of Energy senior leadership thinks about its annual \$2.7 billion information technology portfolio and its role in managing the Department. Rather than considering information technology as an end in itself, the President's Management Agenda has refocused information technology as a business investment that supports the accomplishment of the Department's mission. Before a new information technology project is launched, staff systematically think through the purpose and cost of the project and decide whether it will help the Department achieve its strategic goals.

A flagship initiative was launched two years ago to build an integrated business management system – I-MANAGE. The first components of this complex system, a data warehouse and a finance/accounting system, are scheduled to become operational in the fall of 2004. Because of I-MANAGE, the Office of Management and Budget tapped the Department of Energy, along with the Department of Labor, to lead a government-wide initiative to identify a cross-agency financial management solution that improves performance and reduces the 120 overlapping financial management systems now operating.

The Department cooperates with other Federal agencies to take advantage of economies of scale and the tremendous purchasing power of the Federal government by consolidating similar systems used by different agencies and avoiding duplication. For example, the Department supported the e-Payroll initiative by moving its payroll function to the Defense Finance and Accounting Service system, resulting in greater efficiency. The Department is also working with 20 agencies to produce a cost-effective, standardized and integrated human resources information system that will reduce the overlap of government's 70-plus human resource systems. Nineteen other agencies, along with the Energy Department, are developing a

consolidated system to provide access to grant opportunities for some 900 grant programs.

Cyber security has become an increasingly important priority for the Department. Network security compromises were reduced by 70 percent over a one-year period. Following a thorough review of the security status of the Department's information systems, about 90 percent of the systems have been fully accredited as secure.



Technicians working at the fastest operational unclassified supercomputer in the United States, at DOE's Pacific Northwest National Laboratory.

Innovation in Integrating Budget and Performance

To better focus its efforts, the Department published a new Strategic Plan in 2003. The previous plan was an unwieldy 124 pages. The current 36-page document aligns the Department with its fundamental national and economic security goals and greatly enhances employees' understanding of how their work directly supports the agency's mission. All of the work performed and every dollar spent in each of the Department's programs must support the Department's overall mission. For each program, the Department developed a 10-15 year plan that bridges the gap between annual budget requests and the long-term goals outlined in the Strategic Plan. These plans answer the questions: How do we get there from here, and how do we know that we are on track to achieve our goals?

The Department now tracks approximately 250 annual performance targets for its programs.

Progress is assessed quarterly, and failure to achieve milestones is reported as an “early warning” to senior management so that corrective actions may be taken immediately. Addressing small problems before they can grow into large ones saves money, limits schedule slippages, and improves the safety of the workforce and the public.

Another way in which the Department integrates performance assessments and budget decisions is through the Office of Management and Budget’s PART (Program Assessment Rating Tool) process. In-depth reviews of two-thirds of the Department’s programs have been conducted and the results are being used to make better informed programmatic, policy, budget and management decisions.

The National Nuclear Security Administration has made significant progress in integrating budget and performance. The NNSA has implemented its new Planning, Programming, Budgeting and Evaluation process, which integrates program and resource information to help NNSA officials make better informed resource and management decisions.

Innovation in Federal Real Property Management

The Department of Energy owns or controls a real estate portfolio worth billions of dollars. Taxpayers have a right to expect that the Department use sound business practices to manage this significant resource. The Department is inventorying its real property assets and will use the inventory as a basis for determining which property should be maintained, cost-effectively repaired, or qualified for disposal.

New Criteria for Conducting Research and Development

The costs and benefits of proposed research and development investments are being evaluated according to a new set of rigorous criteria. These criteria - Relevance, Quality and

Performance - are used not only when justifying projects and initiatives within the Department, but also in the PART process and in budget proposals to the Office of Management and Budget and the Congress.

“The Department’s Information Technology Council, with representatives from across the DOE complex, reviews major investments quarterly to ensure that they are producing the promised results within cost and schedule. And if the investments are not on track, the Council directs and monitors remediation by the investment owner.”

Theanne Gordon,
Deputy Associate
Chief Information Officer

Delivering Results

The President’s Management Agenda is not the end; it is a means to an end. If the Department’s only legacy from implementing the President’s Management Agenda is a manual of meaningless new procedures, superfluous meetings, added paperwork, and a new set of management buzz words, we will have failed the American people. The measures of our effectiveness can only be in greater value to the public, more efficient delivery of programs and services, and other tangible results that enhance our energy and national security. By that yardstick, the Department has achieved impressive results over the past three years:

Accelerated cleanup of nuclear weapons facilities

- ❖ Senior officers of the Department reassessed prior approaches to the cleanup of nuclear weapons facilities, and found them to be inadequate, too costly, and too slow. An alternative, accelerated strategy is being implemented to clean up the environmental

legacy of the Cold War 35 years faster than previously planned, reducing lifecycle cleanup costs from \$192 billion to \$142 billion, a savings of \$50 billion to the taxpayer.



The USS Albuquerque surfaces in the Atlantic Ocean.

Improved the design of nuclear reactors for the next generation of ships

- ❖ One of the Department's national security responsibilities is to provide the Navy with militarily effective nuclear propulsion plants while ensuring their continued safe and reliable operation. Through its Naval Reactors Program, the Department maintains cradle-to-grave responsibility for 104 operating naval reactor plants. Naval Reactors is continuing the design of a high-energy reactor for the Navy's next generation aircraft carriers. This reactor will provide greater than 25 percent more energy than the reactors found in the operational carriers of today, but will require just half the number of sailors to operate and will be easier to maintain. Additionally, Naval Reactors is continuing to design a nuclear propulsion core using transformation technology for its newest class of attack submarines. The end result will be a submarine with a life-of-the-ship core that offers greater operational ability, flexibility and avoids costly refueling. The Department's efforts will continue to provide two million miles per year of "safe steaming" on nuclear power for the U.S. Navy.

Reduced the threat of nuclear, biological and chemical weapons

- ❖ The Department has been working to improve the security at nuclear facilities around the world, particularly in Russia. The Department has accelerated completion of these security improvements by over two years since 2001. In addition, last year 84 metric tons of nuclear material had been secured, 17 percent more than had been secured in all previous years.
- ❖ The Department cooperated with Russia to upgrade security at 31 Russian nuclear sites.
- ❖ A global nuclear material detection initiative was launched focused on major seaports shipping large volumes of container traffic to the United States.
- ❖ Some 13,000 former weapons scientists at 180 institutes across the former Soviet Union were engaged in peaceful and sustainable commercial pursuits, attracting \$125 million in private sector matching funds and \$96 million in venture capital.
- ❖ The Department developed and demonstrated new remote sensing techniques for detecting nuclear proliferation, and tested new systems for detecting chemical and biological agents in the Washington Metro system and at the 2002 Winter Olympics in Salt Lake City.
- ❖ The Department played a major role in verifying the dismantlement of Libya's nuclear program.

Provided a robust nuclear deterrent

- ❖ Using the scientific and engineering tools of the Stockpile Stewardship Program, the directors of NNSA's laboratories and the Commander of the United States Strategic Command have been able to certify to the Secretaries of Energy and Defense, and they to the President, that the Nation's nuclear

deterrent is safe, secure and reliable and that there is no need to return to underground testing.

- ❖ The Department has completed more than 90 percent of the Life Extension Program for the W-87 ICBM warhead for the U.S. Air Force. The W-87 is the first warhead to be refurbished by the Stockpile Stewardship Program.
- ❖ The Department awarded a \$240 million contract to build two supercomputers to model the behavior of aging nuclear weapons. These and future computational modeling and simulation enhancements are a major part of our nuclear weapons Stockpile Stewardship Program which ensures the safety, security and reliability of U.S. nuclear weapons without the need for underground nuclear testing.
- ❖ The Department reversed the neglect of the nuclear weapons complex through vigorous use of the Facilities and Infrastructure Recapitalization Program. As a result, the deferred maintenance backlog will soon be stabilized and begin to decrease.
- ❖ Working with U.S. computer manufacturers (IBM, Cray, Hewlett Packard and Intel),



D5 missile carrying W-76/W-88 warheads

the Department's Advanced Simulation and Computing program has delivered five large supercomputers to the weapons laboratories. These machines are providing important data in support of the nuclear weapons deterrent. Two new machines, the world's fastest, are slated for delivery in 2005 from Cray and IBM.

- ❖ The Nevada Test Site is using the Joint Actinide Shock Physics Experimental Research (JASPER) facility. Experiments at JASPER are under way, providing critical data on the unique material properties of plutonium.

Designated the first national repository for nuclear waste

- ❖ President Bush designated Nevada's Yucca Mountain site as suitable for development of a first-ever permanent repository for high-level waste and spent nuclear fuel. The repository will be designed to keep the stored waste safe and stable for thousands of years.

Improved security at critical energy facilities

- ❖ In December 2003, the Department created a new Office of Security and Safety Performance Assurance to promote more effective security throughout the Department's facilities. In May 2004, the Secretary of Energy announced sweeping new initiatives to bolster protection for the Department's sensitive information and facilities housing special nuclear material and to heighten the effectiveness of the protective forces that guard the Department's strategic defense installations.
- ❖ To increase the level of security, in May 2003, the Department issued a revised Design Basis Threat, which sets new, more rigorous standards for protecting the Department's national security assets.

Modernized the energy infrastructure

- ❖ Last year, the Department created the Office of Electric Transmission and Distribution to lead a national effort to modernize and

expand the electricity delivery system and reduce the likelihood and impact of power disruptions and blackouts. The Department helped arrange private sector financing for construction of new facilities across the Path 15 transmission bottleneck in California that factored heavily in the 2001 West Coast energy crisis.

- ❖ The Federal Columbia River Power System, which provides approximately half of the Northwest's electric generating capacity, substantially increased the efficiency of the system. The forced outage rate for generating units decreased from six percent in 1995 to just three percent in 2003. The result was reduced maintenance costs, improved system reliability and better value for consumers of electric power in the Northwest.

“Budget and Performance Integration challenges the Department to begin with the end in mind. The Department now develops budget requests in terms of expected performance and corresponding outcomes. It helps us map our progress towards the goals in the Strategic Plan and demonstrate real progress in achieving our mission.”

Diane Wade,
Senior Program Analyst,
Office of Program Analysis
and Evaluation

Weatherized low-income families' homes

- ❖ An effective partnership with the States and local governments is enabling low-income families to permanently reduce their energy bills by making their homes more energy efficient – an estimated annual savings of \$218 per household. Since 2001, over 275,000 homes were weatherized, with an additional 94,450 homes expected to be weatherized during 2004.

These improvements will save over \$1.2 billion in Americans' heating and cooling bills.

Addressed our dependence on foreign oil

- ❖ In early 2003, the President announced a \$1.2 billion Hydrogen Fuel Initiative, designed to reduce America's growing dependence on foreign oil by developing technology for clean hydrogen production and hydrogen-powered fuel cells. This initiative dovetails with the FreedomCAR Partnership, which includes key automakers and energy companies working to accelerate the development of hydrogen fuel cell vehicles and the infrastructure to refuel them. Stressing cost-reduction, recent progress in reducing the platinum catalyst required in fuel cells has cut their cost by one-third. Hydrogen technology has the potential to save 11 million barrels of oil per day.
- ❖ Although reserves of fossil fuels are finite, plants are renewable and a promising source of energy. Cost-shared research with two of the world's largest enzyme manufacturers has led to a 10-fold reduction in the cost of the enzymes needed to convert cellulose to glucose for producing ethanol from plant material.
- ❖ The Department is sponsoring, with international and private-sector partners, a \$1 billion demonstration project - FutureGen - to create the world's first coal-based, zero-emissions electricity and hydrogen power plant.
- ❖ Nuclear power is inexhaustible, and can be made safer and more efficient through advanced technology. Two years ago, the Department unveiled the Nuclear Power 2010 Initiative, a partnership with industry to resolve barriers to building new nuclear power facilities. The Department also began a new program to encourage research universities to invest in their research reactor and nuclear engineering programs while establishing strategic partnerships with other

universities, national laboratories and industry. The Department's Advanced Fuel Cycle Initiative aims to develop advanced proliferation-resistant fuel cycle technologies that extract more energy from fuel and reduce spent fuel volume.

- ❖ On March 9, 2004, Secretary Abraham launched a national public service advertising campaign designed to make children and their parents aware of energy efficient behavior through a new "Spokesvillain," the Energy Hog. The campaign will raise public awareness of the benefits of making smart energy choices at home and will give children an appreciation for energy efficiency, information to make smart energy choices, and will encourage their parents to do the same.
- ❖ The Energy Star program, which promotes protection of the environment through energy efficiency, is saving businesses and consumers more than \$5 billion a year in energy costs.

Sponsored break-through scientific research

- ❖ In April 2003, the sequencing of the human genome was completed with major contributions from research sponsored by the Department. This research opens the way to developing new, innovative treatments for cancer and other life-threatening diseases.
- ❖ In 2003, construction began on the first of an eventual five Energy Department Nanoscale Science Research Centers. Nanoscale technology is truly revolutionary. It is based on the principle of building small functional structures, both organic and inorganic, at the atomic level. Nanoscale technology promises tremendous advances in science, biology and medicine.
- ❖ Research has developed new phosphors which soon will be incorporated into fluorescent lighting products, creating immediate energy

savings of 5-10 percent per lamp. Potentially, as much as 340 trillion Btu's could be saved as a result of this innovation.

- ❖ The advances in supercomputing brought about, in part, by the Advanced Simulation Computing Program, are being applied to other sectors of the economy, such as automobile and aircraft manufacturing, medical technology, materials science, and space engineering.
- ❖ The National Ignition Facility (NIF) will ultimately be the world's most powerful laser and is producing data to help maintain the nuclear weapons stockpile without underground testing. NIF is scheduled for completion in 2008. Although it is still under construction, four of NIF's 192 laser beams are already operating and being used to conduct experiments in high-energy-density physics, the area of science that deals with



Secretary Abraham at the Freedom Fuel Event Press Conference.

materials at conditions of temperature and pressure found in the interior of stars. NIF will be used to achieve fusion ignition for the first time in a laboratory in 2010.

Improved worker safety and environmental protection

- ❖ The Department has made safety of its workers a top priority. As a result, over the last six years, two leading indicators of employee safety - lost workday cases and total recordable cases - have been cut in half and are now less than 50 percent of private industry rates.

Roadmap to the Future

The President's Management Agenda has already helped the Department of Energy to achieve tangible results, results that are developing new, safe and dependable sources of energy, protecting the environment, and safeguarding our energy security. But the real benefits will be seen in the future, as the new emphasis on results lays the foundation for a revitalized Department. Some of the milestones we intend to reach in the near term include the following:

"By applying the principles of the President's Management Agenda to the operations of the Federal Columbia River Power System we have improved operations and maintenance and capital management, driving our forced outage rate down by half."

Steve Wright,
Administrator/CEO
Bonneville Power Administration

Protecting our citizens

- ❖ Americans' safety is our paramount concern. We intend to demonstrate strong support for efforts to reduce and prevent the proliferation of nuclear materials, including

the implementation of the 2002 Moscow Treaty signed by Presidents Bush and Putin and ratified by both the U.S. Congress and the Russian Parliament to reduce the number of operationally deployed strategic nuclear warheads for each side from today's level of about 6,000 to between 1,700 and 2,200 by 2012.

- ❖ New technologies will be developed to enhance our ability to detect weapons of mass destruction and terrorist threats. Enhanced security measures for nuclear facilities will be instituted.
- ❖ The Department will help lead an international effort to better account for and secure radiological sources that could be used to produce radiological dispersal devices, or "dirty" bombs. We will implement an aggressive initiative to detect nuclear materials within shipping containers at 15 major international seaports, reducing the threat of terrorist acts on American soil.

Increasing the supply of dependable energy.

- ❖ We will ensure that the Strategic Petroleum Reserve, with its 700 million barrel capacity, contains sufficient resources to protect America's security in the event of a major interruption in the energy supply. We will strengthen efforts to develop alternative fuel sources, such as hydrogen fuel cells and fusion power, and renewable energy sources as wind, geothermal and solar power.
- ❖ Nuclear power should play an important role - perhaps an increasingly important role - in America's energy future. Nuclear power plants emit virtually none of the pollutants associated with the burning of fossil fuels. To ensure a dependable supply of clean energy, we will lead the international community in pursuit of advanced nuclear technology. Even maintaining its 20 percent electrical generation share will require building more nuclear power plants as demand for electricity grows.

- ❖ The Department will enhance the Nation's energy security by transforming the Idaho National Laboratory into one of the world's preeminent nuclear energy research, development, and demonstration laboratories.
- ❖ In 2002, the Department launched the FreedomCAR Partnership in cooperation with the automotive industry. The goal of FreedomCAR is to develop the component technologies necessary to provide a full range of emissions-free, affordable cars and light trucks.
- ❖ The President announced his Hydrogen Fuel Initiative in the 2003 State of the Union Address. The National Energy Roadmap describes the Department's research and development priorities to create a hydrogen infrastructure comparable to that which now provides gasoline through the corner service station. This is the first step toward the creation of a revolutionary new hydrogen infrastructure that could one day be used to fuel not just cars and light trucks, but buses, ships and perhaps even trains, with virtually no polluting emissions.



Watts Bar Nuclear Power Plant.

Safeguarding the environment and public health

- ❖ Protecting the environment *and* increasing the supply of dependable energy need not be an either/or tradeoff. Saddling our children with the continued existence of toxic nuclear sites that endanger their health is unacceptable. We will accelerate the Department's environmental cleanup program from 2070 to 2035, saving the taxpayers over \$50 billion in program costs. For example, cleanup at the Fernald site is on track for completion in 2006. We will implement reform initiatives that reduce project risk and utilize cost-plus incentive fee contracting to save \$323 million at the Fernald and Mound sites.
- ❖ We will submit an application to the Nuclear Regulatory Commission to begin construction on the permanent high-level waste and spent nuclear fuel repository by 2007 and begin to accept waste by 2010. Consolidation of waste and spent fuel at Yucca Mountain, Nevada, products that now are stored at 127 sites in 39 states, will significantly reduce the threat from potential accidents or acts of terrorism. It also will reduce the potential environmental, safety and health risks for the 160 million Americans who currently live within 75 miles of one or more of the sites.
- ❖ President Bush has committed the United States to an aggressive strategy to cut greenhouse gas intensity by 18 percent between 2002 and 2012 — a first step to eventually stopping and then reversing greenhouse gas growth. This will mean eliminating more than 500 million metric tons of greenhouse gas emissions. In addition, the President proposed his Clear Skies initiative, which would cut dramatically power plant emissions of three dangerous pollutants by 2018. The initiative would cut sulfur dioxide emissions by 73 percent, nitrogen oxides

emissions by 67 percent, and mercury emissions by 69 percent.

- ❖ We will make significant progress toward a carbon-free society, while ensuring continued use of our 250-year domestic supply of coal. The Department will develop and demonstrate technologies to remove most mercury and carbon from emissions. We will continue work on a \$1 billion cost-shared project to dramatically reduce air pollution from coal-fueled electricity generation plants, generate hydrogen, and capture and store greenhouse gases.
- ❖ Carbon sequestration technologies, which capture and isolate carbon dioxide from power plants, are among the most promising new approaches. The Department will set up a nationwide network of regional sequestration partnerships. By 2015, we will develop a carbon sequestration technology that can safely capture and store carbon without increasing energy production costs by more than 10 percent.
- ❖ The Department intends to achieve a reduction of the price of a vehicle-sized hybrid battery to economical levels by 2006, and demonstrate a high efficiency zero-emission engine by 2008.



Tampa Electric's Polk Power Station, Florida.

- ❖ We will continue to look for ways to produce a plentiful energy supply of hydrogen. FutureGen and the Department's Nuclear Hydrogen Initiative are focused on achieving operation of a commercial-scale hydrogen production system using nuclear energy by the middle of the next decade.

Protecting our energy infrastructure

- ❖ Continued economic growth requires that we upgrade our federal energy infrastructure. The Department will implement the Critical Infrastructure Protection Plan, which entails working through the four regional Power Marketing Administrations to improve the protection of their 33,000 miles of electricity transmission lines.
- ❖ Two new electricity grid transmission and reliability initiatives will help develop an electricity transmission and distribution system that is more efficient, reliable and robust, supported by the establishment of a new Office of Electric Transmission and Distribution to oversee these critical programs.

Providing our military with a safe, secure and reliable nuclear deterrent

- ❖ Over the next several years, the Department's National Nuclear Security Administration will begin Life Extension work on the B61, W76, and W80 warheads. Once completed, these warheads will be able to serve as part of the Nation's deterrent for up to 30 additional years.
- ❖ In April 2003, Los Alamos National Laboratory manufactured the first certifiable W88 plutonium pit (the pit is part of the "trigger" for a nuclear weapon, without which the nuclear weapon will not function) for the Nation's nuclear deterrent, a critical step in restoring the ability of the weapons complex to meet all the Nation's nuclear deterrent needs.

- ❖ The Advanced Concepts Initiative was reestablished at weapons laboratories to provide nuclear weapons options that could be considered for future production and deployment in the post-Cold War environment.
- ❖ To further improve the security of nuclear materials across the weapons complex, the Department's National Nuclear Security Administration will begin in September 2004 a campaign to remove approximately fifty percent of the remaining special nuclear material at Los Alamos' Technical Area-18. To date, more than a metric ton of material has already been removed from the site.

Bringing cutting-edge science to bear on critical national energy priorities

- ❖ The President said (February 2002): “When we make decisions, we want to make sure we do so on sound science; not on what sounds good, but what is real.” We will apply science to enhancing our national security, and in particular to the problem of keeping nuclear weapons from terrorists and rogue states.
- ❖ Research will continue on the Solid-state Lighting Initiative, which promises to revolutionize the way in which we light our homes and offices and reduce energy outputs.
- ❖ One of the most exciting new areas of technological research is in Nanoscience, the study of matter at the atomic and molecular level. Over the next several years, several state-of-the-art Nanoscale Science Research Centers will be constructed in conjunction with the national laboratories.

Concluding Message

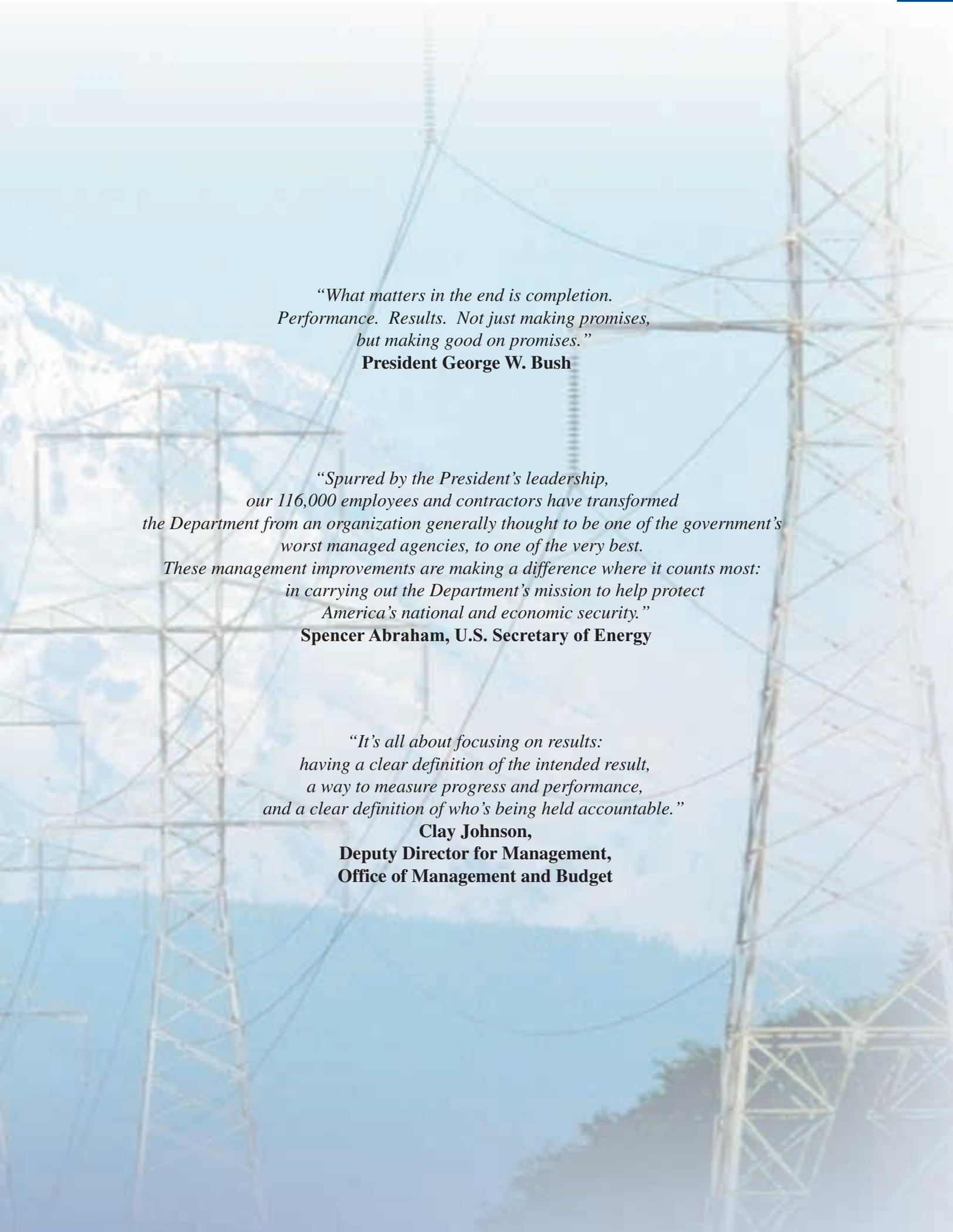
The President's Management Agenda at the U.S. Department of Energy is, at its core, an agenda for results; results not just for the American

people and their economic and energy security, but for the Department's employees as well. Two years ago, when the Office of Management and Budget issued its first “scorecards” on Federal agencies, the Department of Energy was judged to be among the lowest-performing agencies. In its most recent scorecard, we were one of the very best. That translates into an America that reduces greenhouse gas emissions, that provides for greater safeguards against the proliferation of nuclear weapons, and that is at the forefront of developing the next generation of clean, sustainable energy that will power America into the next century and beyond. It also translates into a Departmental workforce that is better trained, more highly motivated, and possessive of a better understanding of what the Department is trying to accomplish and what each employee needs to do to help achieve it.

The President's Management Agenda – the Department of Energy's Results Agenda – is but a means to an end. Its success or failure will depend upon each member of the Department of Energy family maintaining an unwavering commitment to the bottom line, to results for America. Armed with such a commitment, our Department will be able to meet the energy challenges we face and will continue to face in the coming decades.



A Student “Watching” Electricity.



*“What matters in the end is completion.
Performance. Results. Not just making promises,
but making good on promises.”*

President George W. Bush

*“Spurred by the President’s leadership,
our 116,000 employees and contractors have transformed
the Department from an organization generally thought to be one of the government’s
worst managed agencies, to one of the very best.*

*These management improvements are making a difference where it counts most:
in carrying out the Department’s mission to help protect
America’s national and economic security.”*

Spencer Abraham, U.S. Secretary of Energy

*“It’s all about focusing on results:
having a clear definition of the intended result,
a way to measure progress and performance,
and a clear definition of who’s being held accountable.”*

**Clay Johnson,
Deputy Director for Management,
Office of Management and Budget**

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