

**Testimony of Secretary Rick Perry
U.S. Department of Energy
Before the
Energy and Natural Resources Committee
United States Senate**

March 20, 2018

Chairman Murkowski, Ranking Member Cantwell, and Members of the Committee, it is an honor to appear before you today to discuss the President's FY 2019 Budget Request for the Department of Energy ("the Department" or "DOE").

It is a privilege and an honor to serve as the 14th Secretary of Energy.

This budget represents a request to the American people through their representatives in Congress to fund the priorities of this Department.

As such, it represents a commitment from all of us at DOE– that we will honor the trust of our citizens with stewardship, accountability and service.

As Ronald Reagan reminded us in his First Inaugural, "We are a nation that has a government – not the other way around."

When I appeared before this Committee last year, I committed to modernize our nuclear weapons arsenal, protect our energy infrastructure from cyber and other attacks, achieve exascale computing, advance strong domestic energy production, and address obligations regarding nuclear waste management and the Nation's nuclear legacy.

This FY 2019 \$30.6 billion Budget Request for the Department of Energy ("Budget") delivers on these commitments.

The Department's world-leading science and technology enterprise generates the innovations to fulfill our mission. Through our 17 National Laboratories, we engage in cutting-edge research that expands the frontiers of scientific knowledge and generates new technologies to address our greatest challenges.

Our National Laboratories are doing outstanding work in many areas, and they have a rich history of innovation that has bettered the lives of millions across the globe. For example, in FY 2017, the National Laboratories won 33 of the prestigious R&D 100 Awards, including technologies regarding new materials, protecting our environment, incorporating renewable energy reliably on to our electric grid, and

sophisticated cybersecurity tools. These are but a few examples of the work the National Laboratories have done just last year to push the boundaries of research, development, and commercialization. I have had the opportunity to visit many of the Laboratories over the past year, and witness first-hand this outstanding work done by the dedicated workforce across the nation.

I am especially proud of how our National Laboratories, in working with the Department of Veteran's Affairs and other federal agencies, universities, doctors, and researchers, are harnessing the power of our world-class supercomputers to improve the health of our veterans. This work is part of DOE's proud legacy in the biosciences, and as the initiator of the Human Genome Project.

This Budget proposes over \$12 billion in early stage research and development (R&D) that will focus the intellectual prowess of our scientists and engineers on the development of technologies that the ingenuity and capital of America's entrepreneurs and businesses can convert into commercial applications and products to improve the lives and security of all Americans.

Restoring the Nuclear Security Enterprise

The security of the United States and its allies is one of our primary DOE missions.

The Budget fulfills the President's vision of rebuilding and restoring our Nation's security through robust investments in the Department's nuclear security mission. The Budget provides \$15.1 billion for the National Nuclear Security Administration (NNSA), \$2.2 billion or 16.7 percent above the FY 2017 enacted level.

The Request makes necessary investments consistent with the February 2018 Nuclear Posture Review (NPR) to modernize and rebuild a nuclear force and nuclear security enterprise; prevent, counter, and respond to nuclear proliferation and terrorism threats; and provide safe, reliable, and long-term nuclear propulsion to the Nation's Navy.

The Budget includes \$11.0 billion for Weapons Activities. This \$1.8 billion increase over the FY 2017 enacted level supports maintaining the safety, security, and effectiveness of the nuclear stockpile; continuing the nuclear modernization program; and modernizing NNSA's nuclear security infrastructure portfolio in alignment with the NPR.

The Budget includes \$1.9 billion for our ongoing Life Extension Programs (LEP)

and Major Alterations, a \$580 million increase. Funding for the W76-1 warhead LEP supports the Navy and will keep the LEP on schedule and on budget to complete production in FY 2019. An increase of \$178 million for the B61-12 LEP will keep us on schedule to deliver the First Production Unit (FPU) in FY 2020 to consolidate four variants of the B61 gravity bomb and improve the safety and security of the oldest weapon system in our nuclear arsenal.

The Budget also supports the Air Force's Long-Range Stand-Off program through an increase of \$435 million from FY 2017 enacted for the W80-4 LEP, to deliver the first production unit in FY 2025 of the cruise missile warhead. We also increase funding by \$23 million for the W88 Alteration 370 to provide the scheduled first production unit in FY 2020. The request includes \$53 million for a replacement for the W78, one of the oldest warheads in the stockpile, by 2030.

The Budget for Weapons Activities also increases investments to modernize our nuclear infrastructure. For example, we include \$703 million, a \$128 million increase from FY 2017, for construction of the Uranium Processing Facility needed to replace deteriorating facilities at the Y-12 National Security Complex, as well as \$27 million for a Tritium Production Capability at Savannah River and \$19 million for a Lithium Production Capability at Y-12.

The Weapons Activities Budget request also includes \$163 million, a \$68 million increase from FY 2017 enacted, for NNSA collaboration with the Office of Science on the development of exascale computer systems, which I address below.

In the NNSA's Naval Reactors program, the Department has the ongoing responsibility to provide militarily effective nuclear propulsion plants for Navy vessels and to ensure their safe, reliable and long-lived operation. The Budget provides \$1.8 billion to support the safe and reliable operation of the Navy's nuclear-powered fleet and continuation of the *Columbia*-class submarine program, refueling of the Land-Based Prototype reactor, and the Spent Fuel Handling Recapitalization Project.

Today, over 45% of the Navy's major combatants are nuclear powered. DOE's role in propulsion plants, spent fuel handling, and recapitalization is critical to the Navy's ability to conduct its mission around the globe.

The Budget also includes \$1.9 billion for the Defense Nuclear Nonproliferation (DNN) program to reduce global threats from nuclear weapons. This critical national security program prevents the spread of nuclear and radiological materials, advances technologies that detect nuclear and radiological proliferation worldwide,

and eliminates or secures inventories of surplus materials and infrastructure usable for nuclear weapons.

The Budget continues termination activities for the Mixed Oxide Fuel Fabrication Facility project proposed in the FY 2018 Request, providing \$220 million for use toward an orderly and safe closure of the project. The Budget also includes \$59 million for the continuation of preliminary design and the initiation of long-lead procurements for the Surplus Plutonium Disposition project in support of the dilute and dispose strategy.

The Budget provides \$319 million for Nuclear Counterterrorism and Incident Response, \$47 million above FY 2017 enacted, to work domestically and around the world to improve our ability to respond to radiological or nuclear incidents, in conjunction with other agencies in a broader U.S. Government effort.

Finally, the Budget includes \$423 million for the federal workforce at the NNSA. This \$35 million increase is essential to ensuring our world-class workforce of dedicated men and women can effectively oversee NNSA's critical national security missions.

Securing against Cyber Threats

Among the most critical missions at the Department is to develop science and technology that will ensure Americans have a resilient electric grid and energy infrastructure. Protecting this infrastructure means it has to be resilient and secure to defend against the evolving threat of cyber and other attacks.

Unfortunately, cyberattacks pose an ever-increasing threat to the Nation's networks, data, facilities, and infrastructure. A reliable and resilient power grid is critical to U.S. economic competitiveness and leadership, and to the safety and security of the nation. We need to understand the increasing and evolving natural and man-made threats and develop the tools to respond to those threats across our energy infrastructure.

The Department is the sector-specific agency for the energy sector, and therefore, is the lead federal agency for the Emergency Support Function #12 that partners with the energy sector to ensure infrastructure security and resilience and to coordinate response and recovery. To elevate the Department's focus on energy infrastructure protection, the Budget Request splits the Office of Electricity Delivery and Energy Reliability, which totals \$157 million, into two offices. Doing so will increase focus on grid reliability in the Office of Electricity Delivery (OE)

and cybersecurity in the Office of Cybersecurity, Energy Security, and Emergency Response (CESER).

CESER will allow more coordinated preparedness and response to emerging cyber and physical threats and natural disasters and support the Department's national security responsibilities. To work toward this critical objective, the Budget provides \$96 million for the CESER office to develop tools needed to protect the U.S. energy sector against threats and hazards, mitigate the risks and the extent of damage from cyberattacks and other disruptive events, and improve resilience through the development of techniques for more rapid restoration of capabilities.

CESER will work in an integrated manner with private industry, as well as Federal, State, and Local jurisdictions and other DOE offices, to enable industry to enhance the resilience (the ability to withstand and quickly recover from disruptions and maintain critical function) and security (the ability to protect system assets and critical functions from unauthorized and undesirable actors) of the U.S. energy infrastructure.

Also, in FY 2019, the Office of Nuclear Energy's budget includes \$5 million for the Nuclear Energy Enabling Technologies (NEET) Crosscutting Technology Development (CTD) program to expand its nuclear reactor cybersecurity research to support development of intrusion-resistant systems and practices. Research will be conducted in four areas: cyber risk management, secure architectures, modeling and simulation, and supply chain cyber security assurance. NEET-CTD will also perform simulated cyber-attacks against existing and next generation control system architectures to verify attack difficulty and control efficacy, methods, and metrics.

Securing against cyber threats means we must also protect against threats to the Department's own infrastructure in science, technology, and nuclear security. This Budget takes major steps to safeguard DOE's enterprise-wide assets against cyber threats. The Budget provides funding to secure our own networks, and increases funding for the Chief Information Officer by \$16 million from the FY 2017 enacted level to modernize infrastructure and improve cybersecurity across the DOE IT enterprise. Funding for cybersecurity in the National Nuclear Security Administration is increased to \$185 million to enhance security for our nuclear security enterprise. In the Environmental Management program, we provide \$43 million for cybersecurity to ensure the security at seven cleanup sites. This Budget provides the resources we require to secure our systems and our infrastructure.

Improving Grid Resilience

As we protect our energy infrastructure from cyber threats, we also must improve resilience and reliability of the nation's electricity system. The Budget provides \$61 million for Electricity Delivery to support transmission system resource adequacy and generation diversity, move forward with new architecture approaches for the transmission and distribution system to enhance security and resilience, and advance energy storage. The Budget supports research and development at DOE's National Laboratories to develop technologies that strengthen, transform, and improve energy infrastructure so that consumers have access to reliable and secure sources of energy.

Advancing Exascale and Quantum Computing

As I discussed last year, the Department's leadership in developing and building the world's fastest computers has faced increasingly fierce global competition over the last decade. Maintaining the Nation's global primacy in high-performance computing is more critical than ever for our national security, our continuing role as a science and innovation leader, and our economic prosperity.

The Budget includes \$636 million to accelerate development of an exascale computing system, including \$473 million in the Office of Science (Science) and \$163 million in NNSA. This unprecedented investment, which is \$376 million—or 145 percent—above the FY 2017 enacted level, reflects the Department's plan to deliver an exascale machine for the Office of Science in 2021 and a second machine with a different architecture by 2022.

To achieve these goals, the Science/NNSA partnership will focus on hardware and software technologies needed to produce an exascale system, and the critical DOE applications needed to use such a platform. This world-leading exascale program will bolster our national security by supporting the nuclear stockpile, while also supporting the next generation of scientific breakthroughs not possible with today's computing systems.

We will not, however, satisfy our need for computing advances with the achievement of exascale computing alone. The FY 2019 Budget Request also includes \$105 million in quantum computing to address the emerging urgency of building our competency and competitiveness in the developing area of quantum information science. This early-stage, fundamental research will concentrate on accelerating progress toward application of quantum computing techniques and quantum sensing to grand challenge science questions.

Addressing the Imperative of Nuclear Waste Management

As I mentioned to this Committee last year, we must move ahead in fulfilling the Federal Government's responsibility to dispose of the Nation's nuclear waste. The Budget includes \$120 million, including \$30 million in defense funds, to resume licensing for the nuclear waste repository at Yucca Mountain and implement a robust interim storage program.

The Budget devotes \$110 million for DOE to support the Nuclear Regulatory Commission (NRC) licensing proceeding for the nuclear waste repository at Yucca Mountain, including funding for technical, scientific, legal and other support.

In addition, the Budget includes \$10 million to implement a robust interim storage program to ensure earlier acceptance of spent nuclear fuel and accelerate removal from sites in 39 states across the country. Interim storage capability also adds flexibility to the system that will move materials from sites across the country to its ultimate disposition.

By restarting the long-stalled licensing process for Yucca Mountain and committing to establishing interim storage capability for near-term acceptance of spent nuclear fuel, our Budget demonstrates the Administration's commitment to nuclear waste management and will help accelerate fulfillment of the Federal Government's obligations to address nuclear waste, enhance national security, and reduce future burdens on taxpayers. This also will increase public confidence in the safety and security of nuclear energy, thus helping nuclear energy to remain a significant contributor to the country's energy needs for generations to come.

Fulfilling Legacy Cleanup Responsibilities

The Budget also includes \$6.6 billion for Environmental Management (EM), \$182 million above the FY 2017 enacted level, to address its responsibilities for the cleanup and disposition of excess facilities, radioactive waste, spent nuclear fuel, and other materials resulting from five decades of nuclear weapons development and production and Government-sponsored nuclear energy research.

To date, EM has completed cleanup activities at 91 sites in 30 states and Puerto Rico, and is responsible for cleaning up the remaining 16 sites in 11 states—some of the most challenging sites in the cleanup portfolio.

The Budget continues funding of \$150 million to address specific high-risk contaminated excess facilities at the Y-12 National Security Complex and the

Lawrence Livermore National Laboratory.

The Budget includes \$1.4 billion for the Office of River Protection at the Hanford Site, for continued work at the Hanford Tank Farms and to make progress on the Waste Treatment and Immobilization Plant. This budget will continue progress toward important cleanup required by the Consent Decree and Tri-Party Agreement to include a milestone to complete hot commissioning of the Low Activity Waste Facility by December 31, 2023. The Budget also includes \$747 million to continue cleanup activities at Richland, including continued K-Area decontamination and decommissioning remediation and the K-West Basin sludge removal project. For Savannah River, the Budget provides \$1.7 billion, \$287 million above enacted FY 2017, to support activities at the site. This will include the Liquid Tank Waste Management Program, completing commissioning and beginning operation of the Salt Waste Processing Facility, continued construction of the Saltstone Disposal Unit #7, a start to construction of the Saltstone Disposal Units #8/9, and support for facilities that receive and store nuclear materials.

The Waste Isolation Pilot Plant (WIPP) is essential for the disposition of transuranic defense-generated waste across the DOE complex, and the Budget provides \$403 million to safely continue waste emplacement at WIPP. The Budget Request will continue WIPP operations, including waste emplacements, shipments, and maintaining enhancements and improvements, and progress on critical infrastructure repair/replacement projects, including \$84 million for the Safety Significant Confinement Ventilation System and \$1 million for the Utility Shaft (formerly Exhaust Shaft). These steps will increase airflow in the WIPP underground for simultaneous mining and waste emplacement operations.

The Budget includes \$359 million to continue cleanup projects at the Idaho site, such as the Integrated Waste Treatment Unit, and to process, characterize, and package transuranic waste for disposal at offsite facilities. It provides \$409 million for Oak Ridge to continue deactivation and demolition of remaining facilities at the East Tennessee Technology Park, continue preparation of Building 2026 to support processing of the remaining U-233 material at the Oak Ridge National Laboratory, and support construction activities for the Outfall 200 Mercury Treatment Facility at the Y-12 National Security Complex.

For Portsmouth, the Budget includes \$415 million, \$33 million above FY 2017 enacted, to continue progress on the deactivation and decommissioning project at the Portsmouth Gaseous Diffusion Plant, safe operation of the Depleted Uranium Hexafluoride Conversion Facility, and construction activities at the On-Site Waste Disposal facility. At Paducah, the Budget includes \$270 million to continue

ongoing environmental cleanup and depleted uranium hexafluoride (DUF6) conversion facility operations at the Paducah site. In addition, the FY 2019 Budget Request supports activities to continue the environmental remediation and further stabilize the gaseous diffusion plant.

Together, these investments for Environmental Management will make significant progress in fulfilling our cleanup responsibilities while also starting to address our high-risk excess facilities at NNSA sites.

Focusing Priorities on Core Missions

The Budget continues to focus the Department's energy and science programs on early-stage research and development at our National Laboratories to advance American primacy in scientific and energy research in an efficient and cost-effective manner.

Also, in line with Administration priorities, the Budget terminates the Advanced Research Projects Agency-Energy, known as ARPA-E, and the Department's Loan Programs, while maintaining necessary federal staff to oversee existing awards and loans. Termination of these programs will save over \$300 million in FY 2019 alone while significantly reducing financial risk to the taxpayer moving forward.

Advancing American Energy Dominance

The Budget requests \$2.1 billion for the applied energy programs. Within these offices, the FY 2019 Budget focuses resources on early-stage, cutting-edge R&D conducted by the scientists and engineers at our 17 National Laboratories who continually develop the next great innovations that can transform society and foster American economic competitiveness and then on transitioning these breakthroughs to the private marketplace.

The Budget consolidates programs focused on bringing technologies to the market in the Office of Technology Transitions, requesting a 23% increase from FY 2017. Through concerted effort and coordination with our labs, this will reduce costs to the taxpayer while at the same time providing a robust technology transfer program to transfer breakthroughs from the National Laboratories to the private sector.

Nuclear Energy

Nuclear energy provides 20 percent of our electricity baseload, and 60 percent of our carbon-free generated electricity. The Budget provides \$757 million for the

Office of Nuclear Energy to continue innovating new and improved nuclear energy technologies. The budget focuses funding on early-stage research and development, such as the Nuclear Energy Enabling Technologies program, that enables the research and development of innovative and crosscutting nuclear energy technologies to resolve fundamental nuclear technology challenges.

The FY 2019 Budget includes \$163 million for the Reactor Concepts Research, Development and Demonstration program. Within this total, \$128 million is for early-stage R&D on advanced reactor technologies, including \$54 million for a new Advanced Small Modular Reactor R&D subprogram. This new subprogram is a one-time effort to fund cost-shared early-stage design-related technical assistance and R&D, the results of which are intended to be widely applicable and employed by nuclear technology development vendors for the purpose of accelerating the development of their advanced SMR designs. The Budget also provides \$15 million within Reactor Concepts for early-stage R&D and pre-conceptual design work related to Versatile Advanced Fast Test Reactor concept.

Within the Fuel Cycle Research and Development program, the Budget provides \$40 million to support the development of one or more light water reactor fuel concepts with significantly enhanced accident tolerance.

Finally, the Budget for Nuclear Energy also supports robust safeguards and security funding of \$136 million—a \$7 million increase—for protection of our nuclear energy infrastructure and robust infrastructure investments at INL facilities.

Fossil Energy Research and Development

The Fossil Energy Research and Development (FER&D) program advances transformative science and innovative technologies which enable the reliable, efficient, affordable, and environmentally sound use of fossil fuels. Fossil energy sources currently constitute over 81 percent of the country's total energy use and are critical for the nation's security, economic prosperity, and growth. The FY 2019 Budget focuses \$502 million on cutting-edge fossil energy research and development to secure energy dominance, further our energy security, advance strong domestic energy production, and support America's coal industry through innovative clean coal technologies.

FER&D will support early-stage research in advanced technologies, such as materials, sensors, and processes, to expand the knowledge base upon which industry can improve

the efficiency, flexibility, and resilience of the existing fleet of coal fired power plants. The request also focuses funding on early-stage research that enables the next generation of high efficiency and low emission coal fired power plants that can directly compete with other sources of electricity in the market and provide low cost reliable power 24/7.

Funding is also provided to support competitive awards with industry, National Laboratories and academia focused on innovative early-stage R&D to improve the reliability, availability, efficiency, and environmental performance of advanced fossil-based power systems. For example, the Advanced Energy Systems subprogram will focus on the following six activities: 1) Advanced Combustion/Gasification Systems, 2) Advanced Turbines, 3) Solid Oxide Fuel Cells, 4) Advanced Sensors and Controls, 5) Power Generation Efficiency, and 6) Advanced Energy Materials. While the primary focus is on coal-based power systems, improvements to these technologies will result in spillover benefits that can reduce the cost of converting other carbon-based fuels, such as natural gas, biomass, or petroleum coke into power and other useful products in an environmentally-sound manner.

Energy Efficiency and Renewable Energy

The Energy Efficiency and Renewable Energy budget funds \$696 million to maintain America's leadership in transformative science and emerging energy technologies in sustainable transportation, renewable power, and energy efficiency. Knowledge generated by early-stage R&D enables U.S. industries, businesses and entrepreneurs to develop and deploy innovative energy technologies and gives them the competitive edge needed to excel in the rapidly changing global energy economy.

Energy storage is an important area of focus, and the Request includes \$36 million for battery R&D as well as \$90 million for a new "Beyond Batteries" R&D initiative. As part of grid modernization efforts, "Beyond Batteries" considers energy storage holistically, and focuses on advances in controllable loads, hybrid systems, and new approaches to energy storage, which are essential to increasing the reliability and resiliency of our energy systems.

Advances in these areas, as well as in battery technologies, will allow for loads to be combined with generation from all sources to optimize use of existing assets to provide grid services, and increase grid reliability. The FY 2019 also invests in advanced combustion engines, and new science and technology for developing biofuels. The Budget funds research into the underpinnings of future generations of solar photovoltaic technology, into the design and manufacturing of low-specific

power rotors for tall wind applications, and on wind energy grid integration and infrastructure challenges.

The Budget also funds early-stage R&D for advanced manufacturing processes and materials technologies. These efforts, combined with the research that leverages the unique high-performance computing assets in the National Laboratories, can drive the breakthroughs that will promote economic growth and manufacturing jobs in the United States.

Leading World-Class Scientific Research

The Department of Energy is the Nation's largest Federal supporter of basic research in the physical sciences, and the President's FY 2019 Budget provides \$5.4 billion for the Office of Science to continue and strengthen American leadership in scientific inquiry. By focusing funding on early-stage research, this Budget will ensure that the Department's National Laboratories continue to be the backbone of American science leadership by supporting cutting-edge basic research, and by building and operating the world's most advanced scientific user facilities—which will be used by over 22,000 researchers in FY 2019.

We provide \$899 million for Advanced Scientific Computing Research, an increase of \$252 million above the FY 2017 enacted level. This funding will continue supporting our world-class high-performance computers that make possible cutting-edge basic research, while devoting \$472 million in the Office of Science to reflect the Department's plan to achieve exascale computing by 2021. This focused effort will drive the innovations necessary for computing at exascale speeds, resulting in computing systems at unprecedented speeds at Argonne National Laboratory in 2021 and Oak Ridge National Laboratory in 2022. The FY 2019 Request also supports quantum computing R&D and core research in applied mathematics and computer science, and high-performance computer simulation and modeling.

The Budget also provides \$1.8 billion for Basic Energy Sciences, supporting core research activities in ultrafast chemistry and materials science and the Energy Frontier Research Centers. We will continue construction of the Linac Coherence Light Source-II at SLAC National Accelerator Laboratory and the Advanced Photon Source Upgrade at the Argonne National Laboratory, and initiate the Advanced Light Source Upgrade project at the Lawrence Berkeley National Laboratory, and the Linac Coherence Light Source-II High Energy project at SLAC. The operations of the light sources across the DOE science complex and supporting research across the

Nation will ensure our continued world leadership in light sources and the science they make possible.

The Budget also provides \$770 million for High Energy Physics, including \$113 million for construction of the Long Baseline Neutrino Facility and Deep Underground Neutrino Experiment at Fermilab, \$63 million above the enacted FY 2017 level. We will continue to fund ongoing major items of equipment projects, and initiate three new projects at the Large Hadron Collider, the High Luminosity Large Hadron Collider Accelerator Project, and the High Luminosity ATLAS and CMS detector upgrade projects. By supporting the highest priority activities and projects identified by the U.S. high energy physics community, this program will continue cutting-edge pursuit to understand how the universe works at its most fundamental level.

The Budget for the Office of Science provides \$340 million for Fusion Energy Sciences, including \$265 million for domestic research and fusion facilities and \$75 million for the ITER project. For Nuclear Physics, the budget provides \$600 million to discover, explore, and understand nuclear matter, including \$75 million for continued construction of the Facility for Rare Isotope Beams and operations of facilities, including the newly-upgraded Continuous Electron Beam Accelerator Facility. For Biological and Environmental Research, the Budget includes \$500 million to support foundational genomic sciences, including the Bioenergy Research Centers and to focus on increasing the sensitivity and reducing the uncertainty of earth and environmental systems predictions.

Strategic Petroleum Reserve

In addition to our nuclear security responsibilities, the Department of Energy ensures the Nation's energy security. The Strategic Petroleum Reserve (SPR), one component of that effort, protects the U.S. economy from disruptions in critical petroleum supplies and meets the U.S. obligations under the International Energy Program. The Budget includes \$175.1 million, \$47.5 million below the FY 2017 enacted level, to support the Reserve's operational readiness and drawdown capabilities. The Request also includes a drawdown and sale of up to 1 million barrels of crude oil from the SPR to provide funding for Congressionally-mandated crude oil sales and emergency drawdown operations.

The Budget continues the sale of SPR oil for the Energy Security and Infrastructure Modernization Fund authorized by the Bipartisan Budget Act of 2015 to support an effective modernization program for the SPR.

Finally, as the Northeast Gasoline Supply Reserve (NGSR) is operationally ineffective and not cost-efficient as a regional product reserve, the President's Budget proposes to liquidate the NGSR and sell its one million barrels of refined petroleum product in FY 2019, resulting in an estimated \$77 million in receipts.

Power Marketing Administrations

Finally, the Budget includes \$77 million for the Power Marketing Administrations (PMAs). The Budget proposes the sale of the transmission assets of the Western Area Power Administration (WAPA), the Bonneville Power Administration (BPA), and the Southwestern Power Administration (SWPA) and to reform the laws governing how the PMAs establish power rates to require the consideration of market based incentives, including whether rates are just and reasonable. The Budget also proposes to repeal the \$3.25 billion borrowing authority for WAPA authorized by the American Recovery and Reinvestment Act of 2009.

Conclusion

In conclusion, I reaffirm my commitment to ensure that the Department of Energy, along with its national laboratories, will continue to support the world's best enterprise of scientists and engineers who create innovations to drive American prosperity, security and competitiveness. The President's FY 2019 Budget Request for the Department of Energy positions us to take up that challenge and delivers on the high-priority investments I proposed to you last year.

As we move forward over the coming weeks and months, I look forward to working with you and your colleagues in Congress on the specific programs mentioned in this testimony and throughout the Department. Congress has an important role in the path forward on spending decisions for the taxpayer, and I will, in turn, ensure DOE is run efficiently, effectively, and we accomplish our mission driven goals. Thank you, and I look forward to answering your questions.