Testimony of Secretary Rick Perry
U.S. Department of Energy
Before the
U.S. House Committee on Energy and Commerce
Subcommittee on Energy

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Chairman Upton, Ranking Member Rush, and Members of the Committee, it is an honor to appear before you today on behalf of the Administration and the Department of Energy ("the Department" or "DOE").

It's been a couple of months since I last had the opportunity to testify before Congress. I thought it would be in order today to inform you of the goals we set once I was confirmed, and the progress we've made towards achieving those goals.

Upon confirmation, and during my prior testimony before both House and Senate committees, I outlined several key priorities of DOE.

Put succinctly, these priorities included refocusing the Department of Energy on its core missions:

- Promoting America's energy security;
- Spurring innovation;
- Reducing regulatory burden;
- Restoring the nuclear security enterprise and enhancing national security through the military application of nuclear science; and
- Addressing the obligation of legacy management and nuclear waste.

I'd like to discuss these goals, and our progress towards achieving them. I will say that while we are making solid progress, there is much left to be done. There is a distinct role for Congress in helping us achieve these important goals, and I look forward to our ongoing dialogue.

In my travels during my seven months as Secretary, I have seen firsthand the scientific and technical genius we have within DOE and at our national laboratories and universities, nuclear waste sites and other facilities. In particular, I have visited the Idaho, Los Alamos, Pacific Northwest, Oak Ridge and National Energy Technology (PA and WV) National Labs. I have been to the Hanford, Waste Isolation Pilot Plant (WIPP), Portsmouth Gaseous Diffusion Plant, Nevada National Security, and Yucca Mountain sites.

I have participated in the G-7 Energy Ministers Meeting in Italy, visited the Fukushima site in Japan, led the U.S. delegation to the Clean Energy Ministerial in China, participated in the International Atomic Energy Agency meeting in Austria, and traveled to Mexico for a bilateral meeting. At each of these conferences, and at meetings in Washington, DC, I have held numerous bilateral meetings with national energy ministers and other foreign government leaders. My message has been clear. America is open for business and we are a willing partner in

making this world a safer and more prosperous place for everyone. Our leadership on early-stage energy technology research and energy security policy is sorely needed, and we intend to seize every opportunity to advance freedom and opportunity for all Americans – and all our fellow travelers on this amazing planet.

FOCUSING ON AMERICA'S ENERGY SECURITY:

There could not be a more exciting time to be the Nation's Secretary of Energy. America is at the beginning of an energy Renaissance.

For forty years, the United States has set a goal of energy independence. In fact, this goal, and the price shocks of the 1970's, gave rise to the Department of Energy under the Carter Administration.

Under this Administration, we have set a farther-reaching goal. We want the United States to achieve not just energy independence, but energy dominance.

This goal has impacts domestically, and across the globe.

Let me put the 'Energy Renaissance' in context for you:

- Oil production is expected to hit a record level next year, exceeding levels we haven't seen since 1970.
- The United States is set to become a net exporter of natural gas for the first time in 60 years, with our trading partners in Asia, the Caribbean, Eastern and Western Europe being the beneficiaries of this boom.
- Coal production has risen 14% in 2017, and coal exports are up 55% compared to 2016 levels at that time.
- Wind and solar power now account for 10% of our national electricity capacity;
- The energy we use today is cleaner and emissions are falling.

Establishing reasonable and reliable energy discovery, development and delivery policies is putting the United States in a more stable and secure position to attend to its domestic needs.

Protecting Grid Resiliency

Energy security begins at home. America's energy dominance depends on a reliable, resilient electric grid powered by a diverse mix of generation resources that help mitigate disruptions and enable rapid response when disruptions occur.

This diverse resource mix includes traditional baseload generation with on-site fuel storage that can withstand fuel supply disruptions caused by natural and man-made disasters. But the resiliency of the electric grid is threatened by the retirements of these fuel-secure traditional baseload resources, including coal and nuclear.

Earlier this year, I asked the staff of the Department to study the electricity markets and electric reliability. This is what I learned from their Report. Thousands of megawatts of fuel-secure generation capacity, including environmentally compliant coal and emission-free nuclear resources, have been prematurely retired before reaching full life expectancy or will be placed

into retirement soon. If we lose this capacity, we jeopardize the resilience of the grid—specifically the ability of the grid to bounce back in times of major fuel supply disruptions.

As an example, the Report looked at the recent Polar Vortex—a band of very cold weather spread across much of the eastern United States in 2014. What happened is a lesson and a warning for us all. As the Committee well knows, the Polar Vortex created record-high winter peak electric demand for heating and equally high demand for natural gas for residential heating. The market operator for much of the northeast, PJM Interconnection, struggled to meet demand for electricity because a significant amount of generation was not available to run at a time when natural gas was in equally high demand for home heating. The loss of generation capacity could have been catastrophic, but a substantial number of coal plants that were scheduled for retirement were dispatched to meet the need for electricity. Likewise, the Staff Report noted, nuclear power plants "performed extremely well during the Polar Vortex."

Sixty-five million people within the PJM footprint could have been affected if these traditional baseload units were not available. The 2014 Polar Vortex was a warning that the current and scheduled retirements of these fuel-secure units could threaten the reliability and resiliency of the electric grid. In America, no one should have to choose between keeping their family warm and keeping the lights on. We need to be ready for the next Polar Vortex or any other shock to the system that could come our way at any time.

The DOE Staff Report warns that the continued closure of traditional baseload power plants, especially coal and nuclear, means that "States and regions are accepting increased risks that could affect the future reliability and resilience of electricity delivery for consumers in their regions." In light of this assessment, the DOE Staff Report calls for prompt action. One of the DOE Staff Report's chief policy recommendations is to correct distortions in price formation in the FERC-approved organized markets. Specifically, the Report states, FERC should "expedite its efforts" to improve energy price formation in centrally organized wholesale electricity markets.

In light of this recommendation, I recently exercised my authority under section 403 of the Department of Energy Organization Act by making a concrete proposal to FERC for pricing reform in the Commission-approved organized markets. Under the proposal, FERC would direct the organized markets to fully value the grid resiliency benefits provided by traditional baseload resources with on-site fuel storage capability.

In plain English, fuel security is valuable—to families, businesses, and national security. I asked FERC to change the market rules to make sure that fuel-secure generation is valued for what it is worth to our Nation – not forced into early retirement leaving the grid at risk during the next disaster. FERC has been studying these issues for years, and DOE's own study confirms the need for prompt action.

Our proposal has attracted much interest and support. In particular, I would like to note the September 29th statement of Ralph Izzo, Chairman, President and CEO of the New Jersey-based Public Service Enterprise Group in responding to my proposal to FERC. "PSEG has long supported a national policy that would recognize the valuable benefits that nuclear power provides to our customers. We applaud Secretary Perry's leadership and sense of urgency in announcing this initiative today to help ensure the viability of nuclear energy by recognizing the contribution it provides to the reliability and resiliency of the grid. This is an important step

toward helping ensure consumers can continue to benefit from nuclear power," Chairman Izzo said.

This proposal is just a first step in seeking to ensure that we truly have an energy policy that first and foremost protects the interests and needs of the American people. Following the recommendations of the Staff Report, the Department is continuing to study these issues and, if necessary, will be prepared to make a series of additional recommendations to improve the reliability and resiliency of the electric grid.

For years, our fuel-secure generation resources have been strangled by regulation and squeezed by pricing rules that under-value grid security. These resources must be revived, not reviled. I am taking and will continue to take action as needed to keep our diverse generation mix in place.

Our electricity supply powers our economy, lights our streets, heats our homes, and supports our way of life. As Secretary of Energy, I will not sit idly by when I see a threat to that reliability, or a reasonable course of action that is within my authority to mitigate it.

FOCUSING ON INNOVATION:

The position of energy security we Americans enjoy—and take for granted—would not have been possible without American ingenuity, and a clear focus on innovation. I am very proud of the advancements that DOE research and development has spurred. I am confident that legacy of innovation will only grow in the coming years.

Despite all the rules, red tape, misguided policies and regulations that have emanated from Washington, DC over the past 40 years, there have been two bright spots that have continued to drive American energy innovation: DOE-funded R&D, including work at the Department's national laboratories, and the dedicated workforce in each of the Department's program offices.

DOE's laboratories have engaged in cutting-edge research that expands the frontiers of scientific knowledge and improves the lives of millions. While most of this innovation is in the energy field, DOE also collaborates with the health sector in conducting analytical research—including a recently launched cooperative endeavor funded by the Department of Veterans Affairs to apply our supercomputing ability to improve the quality of health care for our nation's veterans. DOE laboratories have contributed some funding to this effort.

I have had the pleasure of personally visiting 5 of our National Labs, and I look forward to visiting each of these amazing facilities during my time as Secretary. In short, our National Labs have put a distinctly *American* stamp on the last century of science. We support better coordination, communication, and collaboration between the Labs, and DOE program offices will continue to push the envelope in energy research and development.

Fossil Energy Research and Development

The FY18 Budget focuses $280 million on cutting-edge fossil energy research and development to further our energy security, advance strong domestic energy production, and develop innovative clean coal technologies.

Energy Efficiency and Renewable Energy

The FY 2018 Budget funds $636 million to support research at our national laboratories to drive energy innovations in renewable energy, next-generation transportation, and energy efficiency.

Nuclear Energy

DOE remains committed to providing domestic sources of clean energy and enhancing our national security. The FY 2018 Budget provides $703 million for Nuclear Energy to support early-stage research and development and infrastructure to the continued innovation of new and improved nuclear energy technologies.

Electricity Delivery and Energy Reliability

DOE serves as the lead agency for Emergency Support Function 12 (ESF-12) under the National Response Framework. As the lead for ESF-12, DOE is responsible for facilitating the restoration of damaged energy infrastructure. This is a top priority function of the Department.

During Hurricanes Harvey, Irma and Maria, and the weeks following these unfortunate events, we have worked with industry and Federal, state, and local partners to facilitate response and recovery. At the height of our recovery efforts after Harvey and Irma, our industry partners had more than 60,000 personnel from all 50 states in the field.

Currently, we are involved in the restoration efforts in the Virgin Islands and Puerto Rico. More than two dozen technicians from DOE and the Western Area Power Administration have been in the Virgin Islands, restoring critical power supplies to hospitals, airports and ports, and we have additional personnel in Puerto Rico. We will continue to support the work needed to restore power to the Virgin Islands and Puerto Rico until the job is finished.

Regardless of the event that threatens to disrupt the electric power system, DOE and its dedicated partners in private industry will be there to help.

Protecting the electric grid also entails dealing with man-made threats.

The Budget also includes $42 million for energy delivery system cybersecurity in the Office of Electricity Delivery and Energy Reliability, with a renewed focus to take steps to make a difference within two years in the cybersecurity of our Nation's power grid. Our budget funds early stage activities that improve cybersecurity and resilience of the grid in order to harden and evolve critical grid infrastructure. We focus on early stage R&D at national laboratories to develop the next generation control systems and components, devices and systems with engineered-in cybersecurity features; and we fund a new activity to develop a continuous monitoring capability that will significantly increase our awareness and ability to prevent and respond to these types of events.

Additionally, all power generation, regardless of the fuel, relies on the power grid to delivery electricity to our homes and businesses around the nation. The Budget provides $120 million to support research and development at the national laboratories to develop technologies that strengthen, transform, and improve energy infrastructure so that consumers have access to reliable, secure, and clean sources of energy.

In addition to R&D, the Department examined grid reliability and resiliency in detail in the *Staff Report on Electricity Markets and Reliability* made public in August. We continue to engage FERC, NERC and other stakeholders on these issues.

REDUCING REGULATORY BURDEN:

On January 30, 2017, the President issued EO 13771, which directed agencies to be prudent and financially responsible in the expenditure of funds, from both public and private sources, and to alleviate unnecessary regulatory burden placed on the American people. In addition to the management of the direct expenditure of taxpayer dollars through the budgeting process, it is essential to manage the costs associated with the governmental imposition of private expenditures required to comply with Federal regulations.

Subsequently, on February 24, 2017, the President issued EO 13777, which directed agencies to lower regulatory burdens by implementing and enforcing regulatory reform and to establish Regulatory Reform Councils chaired by a Regulatory Reform Officer (RRO) to oversee implementation of EO 13777 at the agency. DOE has established a Regulatory Reform Officer to oversee the implementation of regulatory reform initiatives and policies to ensure that the agency effectively carries out regulatory reforms, consistent with applicable law. And on March 28, 2017, the President issued EO 13783, which directs agencies to review all agency actions in the interest of promoting the clean and safe development of our Nation's vast energy resources with particular attention to spurring the development of oil, natural gas, coal, and nuclear energy resources.

In order to meet these Administration-wide deregulatory commitments, the agency is currently reviewing all existing regulations, orders, guidance documents, policies, and any other similar agency actions. DOE is also committed in the long term to take a continuous look at regulation in order to lower regulatory burdens on the American people.

ENHANCING NATIONAL SECURITY:

As a participant on the National Security Council, the Department has a unique role in our Nation's security. I undertake these responsibilities with the utmost gravity.

For more than 70 years, a cornerstone of our national security strategy has been our nuclear deterrent. By any measure, the strategy of nuclear deterrence has served us and our allies well. It facilitated the collapse of the Soviet empire, and with it, the dire threat it posed to freedom, stability, and peace.

Under the leadership of the President, the Department of Energy through the National Nuclear Security Administration (NNSA), and in partnership with the Department of Defense, seeks to strengthen our deterrence capabilities. We aim to make these capabilities more robust, flexible, and resilient than ever, so we can meet 21st century challenges.

We are currently working to advance key programs designed to extend the life of existing U.S. nuclear warheads by replacing them with systems that use modern technologies. Our work will also help us replace our aging nuclear security infrastructure – our extensive network of

laboratories, plants, and sites. Some of these sites date back to the Eisenhower Administration and are in need of updates.

At the same time, through its non-proliferation and naval reactors efforts, NNSA is a leader in our nation's efforts to ensure these weapons do not fall into the hands of rogue regimes or terrorists and maintains the superiority of propulsion systems for our Navy's submarines and aircraft carriers.

In short, through our work we'll seek to deter those who are not friendly to the United States, while convincing our friends to put their full trust and confidence in us as steadfast allies.

ADDRESSING THE OBLIGATION OF LEGACY MANAGEMENT AND NUCLEAR WASTE:

Fulfilling Legacy Cleanup Responsibilities

Every Secretary of Energy, upon confirmation, is met with the magnitude of the Department's cleanup mission.

It is our obligation to clean up the environmental legacy of the very weapons and programs, sites and communities that helped us win World War II and the Cold War.

We have made great progress, and I've seen this first hand at several of our Environmental Management sites this year.

There is no more plutonium on the Hanford site in the State of Washington. All 20 tons of leftover plutonium have been shipped out of Hanford.

Significant progress has been made on key sections of the Waste Treatment plant, and demolition of the Plutonium Finishing Plant is scheduled for completion this year or early next year.

Seventeen (17) billion gallons of contaminated groundwater have been treated.

Work along the Columbia River has advanced to a level that a portion of land no longer needed by the Department has been transferred to the community.

There is much more work to be done, and we will need your help to achieve this important environmental management goal.

My direction has been to put DOE on a final path to achieving the cleanup mission across our enterprise sooner, safer, and at less cost to taxpayers.

We will continue to press forward with tackling excess facilities at Portsmouth, Ohio; Paducah. Kentucky; and Oak Ridge, Tennessee.

We will continue our progress on the sections of the Hanford Waste Treatment Plant necessary for the Direct Feed Low Activity Waste (DFLAW) approach, which is vital to beginning tank waste treatment at Hanford.

We will commission and start up clean-up operations at the Savannah River Site on the South Carolina-Georgia border, as well as complete design and begin construction of the Oak Ridge Mercury Treatment Facility.

Addressing the Imperative of Nuclear Waste Management

The Department of Energy has another obligation - to advance solutions for the long term and secure storage of spent nuclear fuel and high-level waste. There are more than 110 sites around the country that are storing these materials.

We have a national security obligation to come up with a long-term solution, finding the safest repository or facilities available. The recent natural disasters and the ongoing threat of terrorism should heighten our resolve to secure this material in the safest possible facilities and as expeditiously as possible. The American people deserve a solution to this problem and we can no longer kick this can down the road.

In addressing all of our cleanup and storage obligations, we also have a compelling responsibility to American taxpayers. Therefore, the Administration proposes to terminate the Mixed Oxide (MOX) Fuel Fabrication Facility project. There is another approach – dilute and dispose – that is less expensive, has far lower risks, and can be implemented decades sooner than the MOX approach. I urge this Committee to help us make this important transition.

Conclusion

Mr. Chairman, and all the members of the Committee, I want to thank you once again for inviting me to share my vision about how we can make America more prosperous and energy secure.

Americans have always come together to meet the great challenges of our time. We all want to protect the environment. We all want to prosper economically. I am here to tell you, from my experience as the Governor of Texas for 14 years, that we can – and will – have both. Similarly, we at the Department of Energy are coming together with our many stakeholders to find solutions to the many challenges before us.

I look forward to working with every member of this Committee and the entire Congress to realize the President's vision of energy dominance, support the creation of more high-paying jobs for American workers, and produce more reliable and affordable energy for all Americans.

Thank you very much and I look forward to answering any of your questions.