

ONE HUNDRED FIFTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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WASHINGTON, DC 20515-6115

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MEMORANDUM

March 12, 2018

To: Subcommittee on Energy Democratic Members and Staff

Fr: Committee on Energy and Commerce Democratic Staff

Re: Hearing on “DOE Modernization: Legislation Addressing Cybersecurity and Emergency Response”

On Wednesday, March 14, 2018, at 10:00 a.m. in room 2123 of the Rayburn House Office Building, the Subcommittee on Energy will hold a hearing entitled, “DOE Modernization: Legislation Addressing Cybersecurity and Emergency Response.”

I. CYBERSECURITY PROVISIONS OF PUBLIC LAW 114-94, FIXING AMERICA’S SURFACE TRANSPORTATION ACT

On December 4, 2015, President Obama signed the Fixing America’s Surface Transportation (FAST) Act into law, which authorized \$305 billion for long-term infrastructure planning and investment throughout the country. The Upton-Pallone amendment to the FAST Act provides the Department of Energy (DOE) with new authority to address cybersecurity threats. The amendment designates DOE as the sector-specific agency to carry out all cybersecurity responsibilities for the energy sector. The provision requires the Secretary of Energy to coordinate with the Department of Homeland Security and other related agencies to report directives, conduct incident management, and provide technical assistance to critical energy infrastructure owners and operators. DOE is also the lead agency responsible for coordinating with state and local governments, tribes, and U.S. territories. This part of the FAST Act also created the Strategic Transformer Reserve for the storage, placement, and deployment of large power transformers for use during physical attacks, cyber-attacks, electromagnetic pulses, geomagnetic disturbances, severe weather, and seismic events.¹

¹ Fixing America’s Surface Transportation Act, Pub. L. No. 114-94.

II. CYBERSECURITY PROVISIONS OF H.R. 2479, LEADING INFRASTRUCTURE FOR TOMORROW'S AMERICA ACT

Rep. Pallone (D-NJ) introduced H.R. 2479, the Leading Infrastructure for Tomorrow's America Act (LIFT America), on May 17, 2017. The bill reflects consensus views of the Democratic members of the Energy and Commerce Committee on how best to revitalize American infrastructure. Title III of H.R. 2479 addresses Clean Energy Infrastructure, and includes several provisions to improve the security of the American grid.

Section 31101 of the bill creates a program to enhance electric infrastructure resilience, reliability, and energy security through grants to States, local governments, and tribes to enable broader use of resiliency-related technologies, upgrades, and institutional measures. The program would improve preparedness and restoration time to mitigate power disturbances from physical and cyber-attacks, natural disasters, and climate change. Additionally, it would assure continued delivery of power to critical public health and safety facilities and facilitate the ongoing operation of electricity-dependent essential services.

Section 31201 directs the Secretary of Energy to establish a financial assistance program to carry out projects related to the modernization of the electric grid. Subsection (c) of this provision requires that each eligible project develop a cybersecurity plan that is written in accordance with guidelines developed by the Secretary.

Section 31401 directs the Secretary of Energy to establish a Strategic Transformer Reserve Program to reduce electric grid vulnerability to physical and cyber-attacks, natural disasters, and climate change.

III. H.R. 5174, ENERGY EMERGENCY LEADERSHIP ACT

Rep. Walberg (R-MI) and Rep. Rush (D-IL) introduced H.R. 5174, the Energy Emergency Leadership Act, on March 6, 2018.

The legislation amends Section 203(a) of the Department of Energy Organization Act to create a new DOE Assistant Secretary position with jurisdiction over all energy emergency and security functions related to energy supply, infrastructure, and cybersecurity. The bill authorizes the new Assistant Secretary to provide, upon request of a State, local, or tribal government, DOE technical assistance, and support and response capabilities with respect to energy security threats, risks, and incidents.

IV. H.R. 5175, PIPELINE AND LNG FACILITY CYBERSECURITY PREPAREDNESS ACT

Rep. Upton (R-MI) and Rep. Loebsack (D-IA) introduced H.R. 5175, the Pipeline and LNG Facility Cybersecurity Preparedness Act, on March 6, 2018. The bill requires the Secretary of Energy to carry out a program to establish policies and procedures that would improve the physical and cyber security of natural gas transmission and distribution pipelines, hazardous liquid pipelines, and liquefied natural gas (LNG) facilities.

Under this program, the Secretary would establish a program to coordinate Federal agencies, States, and the energy sector to ensure security and resiliency of pipelines and LNG facilities. The Secretary would coordinate response to, and recovery from, physical and cyber incidents affecting the energy sector. The Secretary would also develop advanced cybersecurity technologies, perform pilot demonstration projects, and establish workforce development security curricula for pipelines and LNG facilities. Finally, the Secretary would provide mechanisms to help the energy sector evaluate, prioritize, and improve security capabilities for such facilities.

V. H.R. 5239, CYBER SENSE ACT OF 2018

Rep. Latta (R-OH) and Rep. McNerney (D-CA) introduced H.R. 5239, the Cyber Sense Act of 2018, on March 9, 2018.

H.R. 5239 requires the Secretary of Energy to establish the Cyber Sense Program. This voluntary program would identify cyber-secure products that could be used in the bulk-power system. In addition to making DOE responsible for promoting cyber-secure products, this legislation requires DOE to determine a testing process for Cyber Sense products and establish a cybersecurity vulnerability reporting process and database.

Additionally, the bill requires DOE provide technical assistance to electric utilities, manufacturers, and other relevant stakeholders related to cybersecurity vulnerabilities in products under the Cyber Sense program. The bill requires all cyber-secure products to be reviewed biennially to determine how such products respond to and prevent cyber threats. This legislation also requires DOE to solicit public comment before establishing or altering the Cyber Sense Program.

VI. H.R. 5240, ENHANCING GRID SECURITY THROUGH PUBLIC-PRIVATE PARTERSHIPS ACT

On March 9, 2018, Rep. McNerney (D-CA) and Rep. Latta (R-OH) introduced H.R. 5240, the Enhancing Grid Security Through Public-Private Partnerships Act. This legislation contains provisions to address the physical and cyber security of electric utilities.

H.R. 5240 directs the Secretary of Energy, in consultation with States, other Federal agencies, and industry stakeholders, to create and implement a program to enhance the physical and cyber security of electric utilities. Among other things, this program would develop voluntary implementation of methods for assessing security vulnerabilities. It would provide cybersecurity training to electric utilities, advance the cybersecurity of utility third-party vendors, and promote sharing best practices and data collection in the electric sector. The bill further directs the Secretary of Energy to submit a report to Congress on cybersecurity and distribution systems.

Finally, the bill instructs the Secretary of Energy to update the Interruption Cost Estimate (ICE) Calculator not less than once every two years. The ICE Calculator, developed by DOE's Lawrence Berkley Lab and Nexant, Inc., is an electric reliability planning tool for estimating electricity interruption costs and the benefits associated with reliability improvements.²

VII. WITNESSES

The following witnesses have been invited to testify:

Panel I

The Honorable Mark Menezes

Undersecretary of Energy
Department of Energy

Panel II

Scott Aaronson

Vice President, Security and Preparedness
Edison Electric Institute

Mark Engel

Senior Enterprise Security Advisor
Dominion Energy

Kyle Pitsor

Vice President of Government Relations
National Electrical Manufacturers Association

Zach Tudor

Associate Laboratory Director for National and Homeland Security
Idaho National Laboratory

Tristan Vance

Director, Office of Energy Development
State of Indiana
On Behalf of the National Association of State Energy Officials

² Department of Energy, Interruption Cost Estimate Calculator (www.icecalculator.com) (accessed Mar. 10, 2018).