

[H.R. 1268, Energy Efficient Government Technology Act](#)

FLOOR SITUATION

On Monday, March 14, 2016, the House will consider [H.R. 1268](#), the Energy Efficient Government Technology Act, under suspension of the rules. H.R. 1268 was introduced on March 4, 2015, by Rep. Anna Eshoo (D-CA) and was referred to the Committee on Energy and Commerce, which ordered the bill reported by voice vote on February 25, 2016.

SUMMARY

H.R. 1268 requires several federal agencies¹ to coordinate to develop an implementation strategy for the maintenance, purchase, and use of energy-efficient and energy saving information technologies in an attempt to reduce energy consumption at federal government data centers. The bill requires the Office of Management and Budget (OMB) to track and report on each agency's progress. The bill also requires the Department of Energy (DOE) to establish an open data initiative to help share best practices and support further innovation, and develop a metric that measures data center energy efficiency.

BACKGROUND

Data centers are facilities that are used to store, manage, and disseminate electronic information for a computer network. They house servers, which are computers used to perform network-management functions such as data storage and processing, and communications equipment and devices to connect the servers with the network.² According to estimates, there is more than 1.8 trillion gigabytes of digital information created globally each year.³ Data centers usually draw their power from the electric grid, but they may also contain specialized power conversion and backup

¹ The agencies include Office of Management and Budget (OMB), Department of Energy (DOE), and the Environmental Protection Agency (EPA).

² See CRS Report, "[Department of Defense Implementation of the Federal Data Center Consolidation Initiative: Implications for Federal Information Technology Reform Management](#)," April 23, 2013.

³ See New York Times Article, "[Power, Pollution and the Internet](#)," September 22, 2012.

equipment to maintain reliable power. Power consumption varies greatly among data centers but is typically many times higher than for other kinds of buildings.⁴

According to reports, digital warehouses worldwide use about 30 billion watts of electricity, roughly equivalent to the output of 30 nuclear power plants.⁵ “In 2013, U.S. data centers consumed an estimated 91 billion kilowatt-hours of electricity -- enough electricity to power all the households in New York City twice over -- and are on-track to reach 140 billion kilowatt-hours by 2020.”⁶ This amounts to roughly 2 percent of all electricity in the U.S. each year.⁷ Federal data centers are responsible for at least 10 percent of all U.S. data center energy use.⁸

The fraction of a computer’s brainpower being used on computations is called “utilization.” According to recent survey information, typical utilization rates range from 7 to 12 percent, meaning that the vast majority of energy being used at data centers is being used to run servers idly so they are ready for spikes in user activity.⁹ H.R. 1268 directs several federal agencies to coordinate together to identify and implement energy efficient technologies at federal data centers in an attempt to reduce energy consumption.

According to the bill sponsor, “Every two days, the world generates more data than in all of human history prior to 2003. That data is stored and processed in vast, highly inefficient data centers. With federal data centers accounting for 10 percent of all U.S. data center energy use, government should lead by example in improving energy efficiency. The rising importance of data centers in our everyday lives goes unnoticed, but the importance of energy efficiency should not.”¹⁰

COST

A Congressional Budget Office (CBO) cost estimate is currently not available.

STAFF CONTACT

For questions or further information please contact [John Huston](#) with the House Republican Policy Committee by email or at 6-5539.

⁴ See CRS Report, [“Department of Defense Implementation of the Federal Data Center Consolidation Initiative: Implications for Federal Information Technology Reform Management.”](#) April 23, 2013.

⁵ See New York Times Article, [“Power, Pollution and the Internet.”](#) September 22, 2012.

⁶ See Natural Resources Defense Council, [America's Data Centers Consuming and Wasting Growing Amounts of Energy](#)

⁷ See New York Times Article, [“Power, Pollution and the Internet.”](#) September 22, 2012.

⁸ See Natural Resources Defense Council Website, [Updated Energy Efficiency Bill](#)

⁹ See New York Times Article, [“Power, Pollution and the Internet.”](#) September 22, 2012.

¹⁰ See Rep. Anna Eshoo Press Release, [“Latta, Issa, Eshoo, Matsui Introduce Bipartisan Wi-Fi Innovation Act.”](#) July 21, 2014.