

Calendar No. 272

116TH CONGRESS }
1st Session }

SENATE

{ REPORT
{ 116-151

SMART BUILDING ACCELERATION ACT OF 2019

—————
OCTOBER 24, 2019.—Ordered to be printed
—————

Ms. MURKOWSKI, from the Committee on Energy and Natural Resources, submitted the following

R E P O R T

[To accompany S. 2335]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 2335) to accelerate smart building development, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

PURPOSE

The purpose of S. 2335 is to accelerate smart building development.

BACKGROUND AND NEED

The building sector uses more than 40 percent of the energy of the nation, but it has been challenging to reduce energy use in this sector for two reasons. First, buildings are designed to stand for decades, and individual owners have little incentive to make energy efficiency improvements that yield benefits beyond their period of ownership. Second, builders and building owners often pass on the energy costs to the buyer or tenants, so owners have little incentive to make energy efficiency improvements to reduce energy costs.

However, emerging energy monitoring and control technologies are enabling a transition of the building sector to “smart” buildings that have dramatically reduced energy use and improved quality of service to occupants. S. 2335 seeks to accelerate the transition to smart buildings by supporting research and by documenting the costs and benefits of emerging technologies in private-sector and Federal government buildings. By expanding the use of smart tech-

nology, this legislation aims to lower energy use and lower energy bills for taxpayer-funded buildings around the country.

LEGISLATIVE HISTORY

S. 2335 was introduced by Senators Cantwell and Smith on July 30, 2019.

Companion legislation, H.R. 2044, was introduced in the House of Representatives by Representatives Welch (D-VT) and Kinzinger (R-IL) on April 3, 2019, and referred to the Energy and Commerce Committee, which reported the measure by voice vote on July 17, 2019.

In the 115th Congress, a similar bill, S. 2447, was introduced by Senators Cantwell and Smith on February 15, 2018. The measure was also included as section 1113 in S. 1460, the Energy and Natural Resources Act of 2017. S. 1460 was introduced by Senators Murkowski and Cantwell on June 28, 2017, and placed directly on the Legislative Calendar (Cal. 162).

Companion legislation, H.R. 5069, was introduced in the House of Representatives by Representatives Welch and Kinzinger on February 16, 2018.

In the 114th Congress, a similar bill, S. 1046, was introduced by Senator Cantwell on April 22, 2015. Senator Murkowski was later added as a cosponsor. The Energy and Natural Resources Committee held a hearing on S. 1046 on April 30, 2015 (S. Hrg. 114-166). The measure was also included as section 1014 in S. 2012, the Energy Policy Modernization Act of 2016. An original bill, S. 2012 was reported by the Committee on Energy and Natural Resources on July 30, 2015, and passed by the Senate, as amended, on April 26, 2016, by a vote of 85-12.

Companion legislation, H.R. 2654, was introduced in the House of Representatives by Representatives Welch and Kinzinger on May 21, 2015.

The Senate Committee on Energy and Natural Resources met in open business session on September 25, 2019, and ordered S. 2335 favorably reported.

COMMITTEE RECOMMENDATION

The Senate Committee on Energy and Natural Resources, in open business session on September 25, 2019, by a majority voice vote of a quorum present, recommends that the Senate pass S. 2335.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 provides a short title.

Sec. 2. Findings

Section 2 provides findings.

Sec. 3. Definitions

Section 3 defines key terms.

Sec. 4. Federal smart building program

Section 4(a) directs the Secretary of Energy (Secretary), within one year of enactment, to establish the “Federal Smart Building Program” to implement smart building technology and demonstrate the costs and benefits of smart buildings.

Subsection (b) requires the Secretary to select at least one building from among each of several key Federal agencies (including the Departments of the Army, Navy, Air Force, Energy, Interior, Veterans Affairs, and General Services Administration) for the implementation of smart building technologies in order to ensure a diverse selection of buildings based on size, type, and geographic location. Buildings that are Federally owned and commercially operated may be included.

Subsection (c) directs the Secretary, within 18 months of enactment, to establish targets for the number of smart buildings to be commissioned and evaluated by key Federal agencies by three years and six years after enactment.

Subsection (d) specifies the Federal agencies from which the Secretary is to select buildings pursuant to subsection (b).

Subsection (e) requires the Secretary to leverage existing financing mechanisms to implement the program.

Subsection (f) requires the Secretary to use Federal Energy Management Program (FEMP) guidelines relating to whole-building evaluation to evaluate the costs and benefits of each building selected under subsection (b), including an identification of which advanced building technologies are more cost-effective, and those that show the most promise for increasing energy savings; increasing service performance; reducing environmental impacts; and establishing cybersecurity.

Subsection (g) authorizes the Secretary to expand awards made under FEMP and the Better Building Challenge to recognize agency achievements in accelerating smart building technology adoption.

Sec. 5. Survey of private sector smart buildings

Section 5(a) directs the Secretary to conduct a survey of privately owned smart buildings throughout the country.

Subsection (b) requires the Secretary to select at least one building each from the smart buildings surveyed in subsection (a) in order to ensure an appropriate range of building sizes, types, and geographic locations.

Subsection (c) requires the Secretary to use FEMP guidelines relating to whole-building evaluation to evaluate costs and benefits of each building selected under subsection (b), including an identification of which advanced building technologies are more cost-effective, and those that show the most promise for increasing energy savings; increasing service performance; reducing environmental impacts; and establishing cybersecurity.

Sec. 6. Leveraging existing programs

Section 6 (a) requires the Secretary, as a part of the Better Building Challenge, to develop smart building accelerators to demonstrate innovative policies and approaches that will accelerate the transition to smart buildings in the public, institutional, and commercial building sectors.

Subsection (b) directs the Secretary to conduct research and development (R&D) to address key barriers to the integration of advance building technologies and to accelerate the transition to smart buildings. The subsection further specifies the areas the R&D must include, such as achieving whole-building, systems-level efficiency through smart system and component integration; reducing costs of key components; data management; cybersecurity protection; consumer and utility protections; and other areas the Secretary determines appropriate.

Sec. 7. Report

Section 7 requires the Secretary to submit a report to Congress on the establishment of the Federal Smart Building Program and the evaluation of Federal smart buildings under section 4, the survey and evaluation of private sector smart building under section 5, and any recommendation of the Secretary to further accelerate the transition to smart buildings. The report is due within two years of enactment, and every two years thereafter until a total of three reports have been submitted to Congress.

COST AND BUDGETARY CONSIDERATIONS

The Congressional Budget Office estimate of the costs of this measure has been requested but was not received at the time the report was filed. When the Congressional Budget Office completes its cost estimate, it will be posted on the internet at www.cbo.gov.

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out S. 2335. The bill is not a regulatory measure in the sense of imposing Government-established standards or significant economic responsibilities on private individuals and businesses.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

Little, if any, additional paperwork would result from the enactment of S. 2335, as ordered reported.

CONGRESSIONALLY DIRECTED SPENDING

S. 2335, as ordered reported, does not contain any congressionally directed spending items, limited tax benefits, or limited tariff benefits as defined in rule XLIV of the Standing Rules of the Senate.

EXECUTIVE COMMUNICATIONS

Executive views on S. 2335 were not requested by the Committee.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee notes that no changes in existing law are made by S. 2335 as ordered reported.

