

Calendar No. 615

115TH CONGRESS }
2d Session }

SENATE

{ REPORT
115-342 }

PRECISION AGRICULTURE CONNECTIVITY
ACT OF 2018

R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND
TRANSPORTATION

ON

S. 2343



OCTOBER 2 (legislative day, SEPTEMBER 28), 2018.—Ordered to be printed

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

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OCTOBER 2 (legislative day, SEPTEMBER 28), 2018.—Ordered to be printed

Mr. THUNE, from the Committee on Commerce, Science, and
Transportation, submitted the following

R E P O R T

[To accompany S. 2343]

[Including cost estimate of the Congressional Budget Office]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 2343) to require the Federal Communications Commission to establish a task force for meeting the connectivity and technology needs of precision agriculture in the United States, having considered the same, reports favorably thereon with an amendment (in the nature of a substitute) and recommends that the bill (as amended) do pass.

PURPOSE OF THE BILL

S. 2343 would require the Federal Communications Commission (“FCC” or “Commission”) to establish a task force to make recommendations to the Commission and others on gaps in broadband availability on agricultural lands and ways to close those gaps in order to support precision agriculture technologies.

BACKGROUND AND NEEDS

Precision agriculture practices allow farmers to significantly increase crop yields, eliminate overlap in operations, and reduce inputs such as seed, fertilizer, pesticides, water, and fuel. They allow farmers to collect data in real-time about their fields, automate field management, and maximize resources. These practices generally encompass the use of mobile devices, robotics, field sensors, remote monitoring, and other Internet of Things technologies. They enable farmers and growers to better manage their fields by obtaining more data about the weather, soil, air quality, crop maturity, equipment, labor costs, and resource availability. In turn, these precision agriculture technologies empower farmers to make smart-

er decisions about field management and increase the efficiency and productivity of their operations. Studies estimate that precision agriculture technologies can reduce agricultural operation costs by up to \$25 per acre and increase farm yields by up to 70 percent by 2050.¹

The critical cost savings and productivity benefits of most precision agriculture technologies cannot be realized without the availability of reliable broadband delivered to agricultural lands. Despite the growing demand for broadband on agricultural land, though, many suggest that broadband is not consistently available where needed to support precision agricultural operations.² And the Federal Government to date largely has not studied the unique broadband needs stemming from the increased use of precision agriculture. Most current Federal broadband support mechanisms focus on promoting broadband availability based on population. Ensuring broadband connectivity on agricultural lands and precision agriculture, though, may require adjustments in the way the Commission, the Department of Agriculture, and other Federal agencies review and promote broadband deployment and adoption. A task force would be useful in studying and making recommendations on these issues.

LEGISLATIVE HISTORY

S. 2343 was introduced on January 25, 2018, by Senator Wicker (for himself and Senators Klobuchar, Daines, and Tester) and was referred to the Committee on Commerce, Science, and Transportation of the Senate. Senators McCaskill, Gardner, Hoeven, Blunt, Smith, Baldwin, Thune, Fischer, King, and Heitkamp are also cosponsors of the bill. On April 25, 2018, the Committee met in open Executive Session and by voice vote ordered S. 2343 to be reported favorably with an amendment (in the nature of a substitute).

On January 25, 2018, similar legislation to S. 2343, H.R. 4881, was introduced in the House of Representatives by Representative Latta (for himself and Representative Loeb sack). On January 26, 2018, that bill was referred to the Subcommittee on Communications and Technology, Committee on Energy and Commerce of the House of Representatives. Representatives Hartzler, Luetkemeyer, Blum, Cramer, Brooks (of Indiana), Young (of Iowa), Blackburn, Griffith, and Walden are also cosponsors of that bill. On July 18, 2018, that bill was reported as amended by that committee, and on July 23, 2018, that bill was passed by the House of Representatives by a vote of 378 to 4. On July 24, 2018, that bill was referred to the Committee on Commerce, Science, and Transportation of the Senate.

¹Profiles in Innovation: Precision Farming: Cheating Malthus with Digital Agriculture, The Goldman Sachs Group, Inc., at 4 (https://docdrop.org/static/drop-pdf/GSR_agriculture-N1sH6.pdf).

²See, e.g., Ensuring Intermodal USF Support for Rural America, Testimony of Darrington Seward before the Subcommittee on Communications, Technology, Innovation and the Internet, Committee on Commerce, Science, and Transportation of the Senate, February 4, 2016, at 5 (<https://www.commerce.senate.gov/public/cache/files/86a9b24c-e124-4b4b-a701-f0fe165be074/F3297DD6CC57D51B9EA2A54F209F07E3.darrington-seward-testimony.pdf>).

ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

S. 2343—Precision Agriculture Connectivity Act of 2018

S. 2343 would direct the Federal Communications Commission (FCC) to establish the Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States and select 15 members to serve two-year terms. The task force would be required to recommend rules and steps the FCC should take to expand broadband Internet access to unserved agricultural land and to report annually to the FCC. The task force would terminate on January 1, 2025. Under the bill, the FCC and the Department of Agriculture (USDA) would be required to provide information to the task force on all federal programs and resources available for the expansion of broadband Internet access to unserved agricultural land.

Using information from the FCC, CBO estimates that implementing S. 2343 would cost \$1 million over the 2018–2023 period for the agency to oversee and appoint members to serve on the task force and to produce the required reports. However, under current law, the FCC is authorized to collect fees sufficient to offset the costs of its regulatory activities each year; therefore, CBO estimates that the net cost to the FCC to implement the bill would be negligible, assuming appropriation actions consistent with that authority. CBO estimates that the costs to USDA to coordinate with the task force and produce the required report would not be significant.

Enacting S. 2343 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

CBO estimates that enacting S. 2343 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

S. 2343 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act.

The CBO staff contact for this estimate is Stephen Rabent. The estimate was reviewed by H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

NUMBER OF PERSONS COVERED

The bill would have no effect on the number or types of individuals and businesses regulated in the United States.

ECONOMIC IMPACT

S. 2343, as reported, is not expected to have a negative impact on the Nation's economy.

PRIVACY

S. 2343, as reported, is not expected to have an adverse impact on the personal privacy of individuals.

PAPERWORK

While the Committee does not anticipate a major increase in paperwork burdens resulting from the passage of this legislation, the Committee notes that the task force created by the legislation could recommend new data collection requirements for the FCC to adopt. The task force also would be directed to collaborate with the Secretary of Agriculture and others to identify and measure gaps in broadband access on agricultural land. The legislation also would direct the task force created by the bill to submit a report to the FCC regarding its activities.

CONGRESSIONALLY DIRECTED SPENDING

In compliance with paragraph 4(b) of rule XLIV of the Standing Rules of the Senate, the Committee provides that no provisions contained in the bill, as reported, meet the definition of congressionally directed spending items under the rule.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

This section provides that this bill may be cited as the “Precision Agriculture Connectivity Act of 2018.”

Section 2. Findings

This section includes findings regarding the benefits of precision agriculture and the need for broadband Internet access service in unserved and underserved agriculture land in order to further those benefits. The findings would further note that broadband service is not consistently available where needed for agricultural operations in the United States. Finally, the section would find that the FCC has an important role to play in the deployment of broadband Internet access service.

Section 3. Task Force

Subsection (a) of this section would set out definitions used in the bill. In particular, it would provide that the term “broadband Internet access service” has the meaning given the term in section 8.2 of title 47, Code of Federal Regulations, or any successor regulation.

Subsection (b) of this section would direct the FCC to establish, within a year of enactment, the Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States (Task Force).

Subsection (c) of this section would set out the duties of the Task Force. Specifically, the Task Force, in consultation with the Secretary of Agriculture (or designee), and in collaboration with public and private stakeholders, would be required to do the following: (1) identify and measure current gaps in the availability of broadband Internet access service on agricultural land; (2) develop policy recommendations to promote the rapid, expanded deployment of

broadband Internet access service on unserved agricultural land, with a goal of achieving reliable capabilities on 95 percent of agricultural land in the United States by 2025; (3) promote effective policy and regulatory solutions that encourage the adoption of broadband Internet access service on farms and ranches and promote precision agriculture; (4) recommend rules or amendments to rules of the Commission to achieve the bill's goals and purposes; (5) recommend specific steps that the Commission should take to obtain reliable and standardized data measurements of the availability of broadband Internet access service as may be necessary to target broadband funding support, from existing or future programs of the Commission dedicated to the deployment of broadband Internet access service, to unserved agricultural land; and (6) recommend specific steps that the Commission should consider to ensure that the expertise of the Secretary and available farm data are reflected in existing or future programs of the Commission dedicated to the infrastructure deployment of broadband Internet access service and to direct available funding to unserved agricultural land where needed.

Subsection (c) would further require that the Commission, in performing duties under this section, ensure that no provider of broadband Internet access service be required to provide duplicates of data that the provider is already required to report.

Subsection (c) also would direct the Task Force and the Commission not to interpret the phrase "future programs of the Commission" as used in this section to include future operations of extant universal service programs of the Commission established under section 254 of the Communications Act of 1934.

Subsection (c) also would require the Secretary of Agriculture (or a designee), to make available to the Task Force, the expertise, data mapping information, and resources of the Department of Agriculture. Further, it would require that, within 180 days of enactment, the Secretary and the Commission jointly submit to the Task Force a list of all Federal programs or resources available for the expansion of broadband Internet access service on unserved agricultural land.

Subsection (d) of this section would set forth various operational specifics for the Task Force. It would be composed of not more than 15 voting members who would be selected by the FCC Chairman and would be required to include representatives of various named stakeholder groups. The subsection also would specify that the Task Force should be fairly balanced in terms of technologies, points of view, and fields represented on the Task Force. The Committee recommends, given the responsibilities of the Task Force, that the FCC Chairman consider including representatives on the Task Force with relevant expertise in broadband network data collection, geospatial analysis, and coverage mapping. Finally, the subsection would specify the treatment of appointments to and vacancies on the Task Force, including persons who would serve as ex officio members of the Task Force.

Subsection (e) of this section would require that, not later than 1 year after it is established, and annually thereafter, the Task Force submit to the FCC Chairman a report on its activities, which would be made public not later than 30 days after its receipt. The report would detail the following: (1) the status of fixed and mobile

broadband Internet access service coverage of agricultural land; (2) the projected future connectivity needs of agricultural operations, farmers, and ranchers; and (3) the steps being taken to accurately measure the availability of broadband Internet access service on agricultural land and the limitations of current measurement processes.

Subsection (f) of this section would require that the Commission renew the Task Force every 2 years until the Task Force terminates on January 1, 2025.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee states that the bill as reported would make no change to existing law.

