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(Original Signature of Member)

116TH CONGRESS
1ST SESSION

H. R. 5000

To amend the National Telecommunications and Information Administration Organization Act to provide for the establishment of an electromagnetic spectrum sharing prototyping program and an integrated spectrum automation enterprise strategy, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

November 8, 2019

Mr. MICHAEL F. DOYLE of Pennsylvania (for himself and Mr. LATTA) introduced the following bill; which was referred to the Committee on Energy and Commerce.

A BILL

To amend the National Telecommunications and Information Administration Organization Act to provide for the establishment of an electromagnetic spectrum sharing prototyping program and an integrated spectrum automation enterprise strategy, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Studying How to Harness Airwave Resources Efficiently Act of 2019'' or the ''SHARE Act''.

SEC. 2. NTIA ELECTROMAGNETIC SPECTRUM SHARING PROTOTYPING PROGRAM AND AUTOMATION STRATEGY.

Part A of the National Telecommunications and Information Administration Organization Act (47 U.S.C. 901 et seq.) is amended by adding at the end the following:

''SEC. 106. ELECTROMAGNETIC SPECTRUM SHARING PROTOTYPING PROGRAM AND AUTOMATION STRATEGY.

''(a) PROTOTYPING PROGRAM.—

''(1) IN GENERAL.—Not later than 1 year after the date of the enactment of the Studying How to Harness Airwave Resources Efficiently Act of 2019, the Assistant Secretary, in consultation with the Commission, shall establish a program to facilitate the prototyping of innovative technologies and techniques that facilitate the sharing of the same covered electromagnetic spectrum by more than one Federal entity.

''(2) SHARING TEST BED.—Not later than 15 months after the date of the enactment of the

Studying How to Harness Airwave Resources Efficiently Act of 2019, the Assistant Secretary, in consultation with the Commission, shall, under the program established under paragraph (1), establish at least one test bed to demonstrate the potential for the dynamic sharing of the same covered electromagnetic spectrum by more than one Federal entity.

''(b) DEVELOPMENT OF INTEGRATED SPECTRUM AUTOMATION ENTERPRISE STRATEGY.—

''(1) IN GENERAL.—Not later than 18 months after the date of the enactment of the Studying How to Harness Airwave Resources Efficiently Act of 2019, the Assistant Secretary, in consultation with the Commission, shall, under the program established under subsection (a)(1), propose, after notice and opportunity for comment, an integrated spectrum automation enterprise strategy to address the management of covered electromagnetic spectrum in order to facilitate the sharing of such spectrum by more than one Federal entity.

''(2) MATTERS ENCOMPASSED.—In developing the strategy under paragraph (1), the Assistant Secretary shall consider, at a minimum, whether to propose in the strategy—

''(A) changes in policy or to the law, including legislative and regulatory changes; and

''(B) using—

''(i) databases;

''(ii) artificial intelligence;

''(iii) spectrum management processes;

''(iv) public-facing application programming interfaces and online tools;

''(v) automatic frequency coordination systems, including standard interfaces and data exchange formats and requirements;

''(vi) spectrum enforcement requirements;

''(vii) listen-before-talk;

''(viii) environmental sensing capabilities; and

''(ix) electromagnetic spectrum compatibility analyses.

''(3) UPDATES TO STRATEGY.—Not later than 2 years after the strategy under paragraph (1) is proposed, and every 2 years thereafter, the Assistant Secretary shall update such strategy.

''(c) BIANNUAL REPORT.—Not later than 18 months after the date of the enactment of the Studying How to

Harness Airwave Resources Efficiently Act of 2019, and in the last quarter of each even numbered calendar year thereafter, the Assistant Secretary, in consultation with the Commission, shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report containing the status and results of the program established under subsection (a), including the status and results of the test bed established under paragraph (2) of such subsection and the strategy developed under subsection (b).

''(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Assistant Secretary to carry out this section $50,000,000. Such amounts are authorized to remain available until expended.

''(e) DEFINITIONS.—In this section:

''(1) COVERED ELECTROMAGNETIC SPECTRUM.—The term 'covered electromagnetic spectrum' means electromagnetic spectrum allocated for exclusive or primary use by Federal entities.

''(2) FEDERAL ENTITY.—The term 'Federal entity' has the meaning given such term in section 113(l).''.

SEC. 3. FCC AND NTIA REPORT ON EXPANDING SPECTRUM SHARING TECHNIQUES AND SHARING STRATEGIES.

(a) REPORT.—Not later than 1 year after the conclusion of the first auction of Priority Access Licenses in the 3.5 gigahertz band, the Federal Communications Commission and the Assistant Secretary of Commerce for Communications and Information, in consultation with the Director of the National Institute of Standards and Technology, after notice and opportunity for comment, shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report that assesses and provides recommendations for expanding upon and improving spectrum sharing techniques developed for use in the 3.5 gigahertz band, or other spectrum sharing strategies, that includes the following considerations:

(1) How to promote an ecosystem of devices employing such sharing techniques or such other sharing strategies.

(2) How to incentivize spectrum users to employ such sharing techniques or such other sharing strategies.

(3) How to ensure that any Federal protection zones and corresponding technical rules and power levels are no more protective than necessary.

(4) The applicability of such sharing techniques or such other sharing strategies to frequencies between 3100 megahertz and 3550 megahertz, inclusive, and frequencies between 7125 megahertz and 8400 megahertz, inclusive, to the extent any portion of such frequencies cannot be cleared in a reasonable amount of time.

(b) RULE OF CONSTRUCTION.—Nothing in subsection (a)(4) may be construed to require that every spectrum sharing technique developed for use in the 3.5 gigahertz band be recommended for use in other bands.