

116TH CONGRESS
2D SESSION

S. _____

To use proceeds from spectrum auctions to support supply chain innovation and multilateral security.

IN THE SENATE OF THE UNITED STATES

Mr. WARNER (for himself, Mr. BURR, Mr. RUBIO, Mr. MENENDEZ, Mr. CORNYN, and Mr. BENNET) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To use proceeds from spectrum auctions to support supply chain innovation and multilateral security.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. DEFINITIONS.**

4 In this Act:

5 (1) 3GPP.—The term “3GPP” means the
6 Third Generation Partnership Project.

7 (2) 5G NETWORK.—The term “5G network”
8 means a radio network as described by 3GPP Re-
9 lease 15 or higher.

1 (3) COMMISSION.—The term “Commission”
2 means the Federal Communications Commission.

3 (4) NTLA ADMINISTRATOR.—The term “NTLA
4 Administrator” means the Assistant Secretary of
5 Commerce for Communications and Information.

6 (5) O-RAN.—The term “O-RAN” means the
7 Open Radio Access Network approach to standard-
8 ization adopted by the O-RAN Alliance, Telecom
9 Infra Project, or 3GPP, or any similar set of open
10 standards for multi-vendor network equipment inter-
11 operability.

12 (6) RELEVANT COMMITTEES OF CONGRESS.—
13 The term “relevant committees of Congress”
14 means—

15 (A) the Select Committee on Intelligence of
16 the Senate;

17 (B) the Committee on Foreign Relations of
18 the Senate;

19 (C) the Committee on Homeland Security
20 and Governmental Affairs of the Senate;

21 (D) the Committee on Armed Services of
22 the Senate;

23 (E) the Committee on Commerce, Science,
24 and Transportation of the Senate;

1 (F) the Permanent Select Committee on
2 Intelligence of the House of Representatives;

3 (G) the Committee on Foreign Affairs of
4 the House of Representatives;

5 (H) the Committee on Homeland Security
6 of the House of Representatives;

7 (I) the Committee on Armed Services of
8 the House of Representatives; and

9 (J) the Committee on Energy and Com-
10 merce of the House of Representatives.

11 **SEC. 2. COMMUNICATIONS TECHNOLOGY SECURITY FUNDS.**

12 (a) USE OF SPECTRUM AUCTION PROCEEDS.—Not-
13 withstanding section 309(j)(8)(A) of the Communications
14 Act of 1934 (47 U.S.C. 309(j)(8)(A)) or any other provi-
15 sion of law, with respect to any proceeds from the use of
16 a competitive bidding system by the Commission to grant
17 a license, permit, or other rights for the use of electro-
18 magnetic spectrum during the 5-year period beginning on
19 the date of this Act that would otherwise be deposited in
20 the Treasury, the Commission shall deposit—

21 (1) 5 percent of the proceeds or \$750,000,000,
22 whichever is greater, in the Public Wireless Supply
23 Chain Innovation Fund established under subsection
24 (b) of this section; and

1 (2) \$500,000,000 in the Multilateral Tele-
2 communications Security Fund established under
3 subsection (c) of this section.

4 (b) PUBLIC WIRELESS SUPPLY CHAIN INNOVATION
5 FUND.—

6 (1) ESTABLISHMENT.—

7 (A) IN GENERAL.—There is established in
8 the Treasury of the United States a trust fund
9 to be known as the “Public Wireless Supply
10 Chain Innovation Fund” (referred to in this
11 subsection as the “R&D Fund”).

12 (B) AVAILABILITY.—

13 (i) IN GENERAL.—Amounts deposited
14 in the R&D Fund shall remain available
15 through the end of the tenth fiscal year be-
16 ginning after the date of enactment of this
17 Act.

18 (ii) REMAINDER TO TREASURY.—Any
19 amounts remaining in the R&D Fund after
20 the end of the tenth fiscal year beginning
21 after the date of enactment of this Act
22 shall be deposited in the general fund of
23 the Treasury.

24 (2) BORROWING AUTHORITY.—

1 (A) IN GENERAL.—The NTIA Adminis-
2 trator may borrow from the Treasury of the
3 United States an amount not to exceed
4 \$750,000,000 to use for grants under this sub-
5 section.

6 (B) DEPOSIT OF FUNDS.—Any amounts
7 borrowed under subparagraph (A) shall be de-
8 posited in the R&D Fund.

9 (3) USE OF FUND.—

10 (A) GRANTS.—

11 (i) IN GENERAL.—Except as provided
12 in subparagraph (B), amounts deposited in
13 the R&D Fund shall be available to the
14 NTIA Administrator to make grants under
15 this subsection in such amounts as the
16 NTIA Administrator determines appro-
17 priate, subject to clause (ii) of this sub-
18 paragraph.

19 (ii) LIMITATION ON GRANT
20 AMOUNTS.—The amount of a grant award-
21 ed under this subsection to a recipient for
22 a specific research focus area may not ex-
23 ceed \$20,000,000.

24 (B) REIMBURSEMENT OF TREASURY.—As
25 proceeds are deposited in the R&D Fund under

1 subsection (a)(1), the Commission shall first
2 use those proceeds to reimburse the general
3 fund of the Treasury for any amounts borrowed
4 under paragraph (2)(A) of this subsection.

5 (4) ADMINISTRATION OF FUND.—The NTLA
6 Administrator, in consultation with the Commission,
7 the Director of the National Institute of Standards
8 and Technology, the Secretary of Homeland Secu-
9 rity, the Director of the Defense Advanced Research
10 Projects Agency (commonly known as “DARPA”),
11 and the Director of the Intelligence Advanced Re-
12 search Projects Activity of the Office of the Director
13 of National Intelligence, shall establish criteria for
14 grants awarded under this subsection, and admin-
15 ister the R&D Fund, to support research and the
16 commercial application of that research, including in
17 the following areas:

18 (A) Promoting the development of tech-
19 nology, including software, hardware, and
20 microprocessing technology, that will enhance
21 competitiveness in the fifth-generation (com-
22 monly known as “5G”) and successor wireless
23 technology supply chains.

24 (B) Accelerating development and deploy-
25 ment of open interface standards-based compat-

1 ible, interoperable equipment, such as equip-
2 ment developed pursuant to the standards set
3 forth by organizations such as the O-RAN Alli-
4 ance, the Telecom Infra Project, 3GPP, the O-
5 RAN Software Community, or any successor or-
6 ganizations.

7 (C) Promoting compatibility of new 5G
8 equipment with future open standards-based,
9 interoperable equipment.

10 (D) Managing integration of multi-vendor
11 network environments.

12 (E) Objective criteria to define equipment
13 as compliant with open standards for multi-ven-
14 dor network equipment interoperability.

15 (F) Promoting development and inclusion
16 of security features enhancing the integrity and
17 availability of equipment in multi-vendor net-
18 works.

19 (G) Promoting the application of network
20 function virtualization to facilitate multi-vendor
21 interoperability and a more diverse vendor mar-
22 ket.

23 (5) TIMING.—Not later than 1 year after the
24 date of enactment of this Act, the NTIA Adminis-

1 trator shall begin awarding grants under this sub-
2 section.

3 (6) FEDERAL ADVISORY BODY.—

4 (A) ESTABLISHMENT.—The NTIA Admin-
5 istrator shall establish a Federal advisory com-
6 mittee, in accordance with the Federal Advisory
7 Committee Act (5 U.S.C. App.), composed of
8 government and private sector experts, to ad-
9 vise the NTIA Administrator on the adminis-
10 tration of the R&D Fund.

11 (B) COMPOSITION.—The advisory com-
12 mittee established under subparagraph (A) shall
13 be composed of—

14 (i) representatives from—

15 (I) the Commission;

16 (II) the Defense Advanced Re-
17 search Projects Administration;

18 (III) the Intelligence Advanced
19 Research Projects Activity of the Of-
20 fice of the Director of National Intel-
21 ligence;

22 (IV) the National Institute of
23 Standards and Technology;

24 (V) the Department of State;

1 (VI) the National Science Foun-
2 dation; and

3 (VII) the Department of Home-
4 land Security; and

5 (ii) other representatives from the pri-
6 vate and public sectors, at the discretion of
7 the NTIA Administrator.

8 (C) DUTIES.—The advisory committee es-
9 tablished under subparagraph (A) shall advise
10 the NTIA Administrator on technology develop-
11 ments to help inform—

12 (i) the strategic direction of the R&D
13 Fund; and

14 (ii) efforts of the Federal Government
15 to promote a more secure, diverse, sustain-
16 able, and competitive supply chain.

17 (7) REPORTS TO CONGRESS.—

18 (A) INITIAL REPORT.—Not later than 180
19 days after the date of enactment of this Act,
20 the NTIA Administrator shall submit to the rel-
21 evant committees of Congress a report with—

22 (i) additional recommendations on
23 promoting the competitiveness and sustain-
24 ability of trusted suppliers in the wireless
25 supply chain; and

1 (ii) any additional authorities needed
2 to facilitate the timely adoption of open
3 standards-based equipment, including au-
4 thority to provide loans, loan guarantees,
5 and other forms of credit extension that
6 would maximize the use of designated
7 funds.

8 (B) ANNUAL REPORT.—For each fiscal
9 year for which amounts in the R&D Fund are
10 available under this subsection, the NTIA Ad-
11 ministrators shall submit to Congress a report
12 that—

13 (i) describes how, and to whom,
14 amounts in the R&D Fund have been de-
15 ployed;

16 (ii) details the progress of the NTIA
17 Administrator in meeting the objectives de-
18 scribed in paragraph (4); and

19 (iii) includes any additional informa-
20 tion that the NTIA Administrator deter-
21 mines appropriate.

22 (c) MULTILATERAL TELECOMMUNICATIONS SECUR-
23 ITY FUND.—

24 (1) ESTABLISHMENT OF FUND.—

1 (A) IN GENERAL.—There is established in
2 the Treasury of the United States a trust fund
3 to be known as the “Multilateral Telecommuni-
4 cations Security Fund”.

5 (B) USE OF FUND.—Amounts deposited in
6 the Multilateral Telecommunications Security
7 Fund shall be available to the Secretary of
8 State to make expenditures under this sub-
9 section in such amounts as the Secretary of
10 State determines appropriate.

11 (C) AVAILABILITY.—

12 (i) IN GENERAL.—Amounts deposited
13 in the Multilateral Telecommunications Se-
14 curity Fund—

15 (I) shall remain available through
16 the end of the tenth fiscal year begin-
17 ning after the date of enactment of
18 this Act; and

19 (II) may only be allocated upon
20 the Secretary of State reaching an
21 agreement with foreign government
22 partners to participate in the common
23 funding mechanism described in para-
24 graph (2).

1 (ii) REMAINDER TO TREASURY.—Any
2 amounts remaining in the Multilateral
3 Telecommunications Security Fund after
4 the end of the tenth fiscal year beginning
5 after the date of enactment of this Act
6 shall be deposited in the general fund of
7 the Treasury.

8 (2) ADMINISTRATION OF FUND.—The Secretary
9 of State, in consultation with the NTIA Adminis-
10 trator, the Secretary of Homeland Security, the Sec-
11 retary of the Treasury, the Director of National In-
12 telligence, and the Commission, shall establish a
13 common funding mechanism, in coordination with
14 foreign partners, that uses amounts from the Multi-
15 lateral Telecommunications Security Fund to sup-
16 port the development and adoption of secure and
17 trusted telecommunications technologies.

18 (3) ANNUAL REPORT TO CONGRESS.—Not later
19 than 1 year after the date of enactment of this Act,
20 and annually thereafter for each fiscal year during
21 which amounts in the Multilateral Telecommuni-
22 cations Security Fund are available, the Secretary of
23 State shall submit to the relevant committees of
24 Congress a report on the status and progress of the

1 funding mechanism established under paragraph (2),
2 including—

3 (A) any funding commitments from foreign
4 partners, including each specific amount com-
5 mitted;

6 (B) governing criteria for use of the Multi-
7 lateral Telecommunications Security Fund;

8 (C) an account of—

9 (i) how, and to whom, funds have
10 been deployed;

11 (ii) amounts remaining in the Multi-
12 lateral Telecommunications Security Fund;

13 and

14 (iii) the progress of the Secretary of
15 State in meeting the objective described in
16 paragraph (2); and

17 (D) additional authorities needed to en-
18 hance the effectiveness of the Multilateral Tele-
19 communications Security Fund in achieving the
20 security goals of the United States.

21 **SEC. 3. PROMOTING UNITED STATES LEADERSHIP IN**
22 **INTERNATIONAL ORGANIZATIONS AND COM-**
23 **MUNICATIONS STANDARDS-SETTING BODIES.**

24 (a) IN GENERAL.—The Secretary of State, the Sec-
25 retary of Commerce, and the Chairman of the Commis-

1 sion, or their designees, shall prioritize the use of Federal
2 funds to enhance representation of the United States at
3 international forums that set standards for 5G networks
4 and for future generations of wireless communications
5 networks, including—

6 (1) the International Telecommunication Union
7 (commonly known as “ITU”);

8 (2) the International Organization for Stand-
9 ardization (commonly known as “ISO”);

10 (3) the Inter-American Telecommunications
11 Commission (commonly known as “CITEL”); and

12 (4) the voluntary standards organizations that
13 develop protocols for wireless devices and other
14 equipment, such as the 3GPP and the Institute of
15 Electrical and Electronics Engineers (commonly
16 known as “IEEE”).

17 (b) ANNUAL REPORT.—The Secretary of State, the
18 Secretary of Commerce, and the Chairman of the Commis-
19 sion shall jointly submit to the relevant committees of
20 Congress an annual report on the progress made under
21 subsection (a).

22 **SEC. 4. HARMONIZATION.**

23 Without unduly constraining the leadership of the
24 United States in spectrum allocations and services, to the
25 extent practicable and consistent with other provisions of

1 law, the Commission and the NTIA Administrator shall
2 seek to harmonize new spectrum allocations with global
3 spectrum allocations that can be used for deployment of
4 5G networks or successor technologies to—

5 (1) ensure international coordination of policies;

6 (2) promote greater economies of scale in the
7 domestic and international market for secure and re-
8 silient communications network equipment; and

9 (3) incentivize more efficient use of spectrum.

10 **SEC. 5. COMPATIBILITY WITH OPEN NETWORK ARCHITEC-**
11 **TURES.**

12 (a) DEVELOPMENT OF CRITERIA.—

13 (1) IN GENERAL.—The Commission shall estab-
14 lish a requirement, as part of the equipment author-
15 ization program of the Commission, to obtain a cer-
16 tification that advanced mobile network equipment is
17 in compliance with O-RAN network architectures.

18 (2) PRIVATE SECTOR TESTING AND CERTIFI-
19 CATION.—A certification described in paragraph (1)
20 may be obtained through appropriate private sector
21 testing and certification programs.

22 (3) INDEPENDENT TESTING LABORATORIES.—
23 The Commission, in consultation with the National
24 Institute of Standards and Technology, may estab-
25 lish qualifications for independent testing labora-

1 tories to certify compliance of advanced mobile net-
2 work equipment under paragraph (1).

3 (b) CONDITION ON FUNDING.—The Commission may
4 not provide any amounts to support the purchase of 5G
5 network equipment to replace unsecure equipment or serv-
6 ices provided by any company posing a national security
7 threat to integrity of communications networks or the
8 communications supply chain, as identified by the Com-
9 mission through the process under section 54.9 of title 47,
10 Code of Federal Regulations, unless the recipient submits
11 to the Commission a plan to begin, within 7 years, to tran-
12 sition to open standards-based compatible equipment, such
13 as equipment developed pursuant to the standards set
14 forth by organizations such as the O-RAN Alliance, the
15 Telecom Infra Project, 3GPP, or any successor organiza-
16 tions, to ensure forward compatibility and open, multi-ven-
17 dor network equipment interoperability.