

AMENDMENT NO. \_\_\_\_\_ Calendar No. \_\_\_\_\_

Purpose: To require the Secretary of Commerce to award grants to States for the construction of microelectronics manufacturing and advanced research and development facilities, to authorize the Secretary of Defense and the Director of National Intelligence to fund the construction of microelectronics manufacturing facilities for national security needs, and to authorize additional amounts for microelectronics research and development.

**IN THE SENATE OF THE UNITED STATES—116th Cong., 2d Sess.**

**S. 4049**

To authorize appropriations for fiscal year 2021 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes.

Referred to the Committee on \_\_\_\_\_ and  
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mr. COTTON (for  
himself and Mr. SCHUMER)

Viz:

- 1 At the appropriate place in title X, insert the fol-
- 2 lowing:

1 **SEC. \_\_\_\_\_ . GRANTS FOR CONSTRUCTION OF MICROELEC-**  
2 **TRONICS MANUFACTURING AND RESEARCH**  
3 **AND DEVELOPMENT FACILITIES, AND WORK-**  
4 **FORCE DEVELOPMENT.**

5 (a) GRANTS FOR STATES WITH DEMONSTRATED IN-  
6 TEREST IN CONSTRUCTING MICROELECTRONICS MANU-  
7 FACTURING AND ADVANCED RESEARCH AND DEVELOP-  
8 MENT FACILITIES.—

9 (1) IN GENERAL.—Not later than 180 days  
10 after the date of the enactment of this Act, the Sec-  
11 retary of Commerce, in consultation with the Sec-  
12 retary of Defense, shall commence carrying out a  
13 program on the award of grants to States described  
14 in paragraph (2) to assist in financing the construc-  
15 tion, expansion, or modernization (including acquisi-  
16 tion of equipment and intellectual property) of  
17 microelectronics fabrication, assembly, test, ad-  
18 vanced packaging, or advanced research and develop-  
19 ment facilities.

20 (2) STATES DESCRIBED.—A State described in  
21 this paragraph is a State that demonstrates to the  
22 Secretary of Commerce the following:

23 (A) Documented interest from a microelec-  
24 tronics company, that has a demonstrated abil-  
25 ity to build and operate microelectronics fab-  
26 rication, assembly, test, advanced packaging, or

1 advanced research and development facilities, in  
2 constructing, expanding, or modernizing a com-  
3 mercial microelectronics fabrication, assembly,  
4 test, advanced packaging, or advanced research  
5 and develop facility, or documented interest  
6 from a public-private consortium that has a  
7 demonstrated ability to build and operate an  
8 advanced research and development facility in  
9 the State.

10 (B) Documented interest from a private  
11 entity to provide funding to support the con-  
12 struction, expansion, or modernization of the  
13 facility that is the subject of the interest docu-  
14 mented under subparagraph (A).

15 (C) Commitments from such microelec-  
16 tronics company or consortia to worker and  
17 community investment, including—

18 (i) training and education benefits  
19 paid for by the company; and

20 (ii) programs to expand employment  
21 opportunity for economically disadvantaged  
22 individuals.

23 (D) Commitments from regional edu-  
24 cational and training entities and institutions of  
25 higher education to develop curriculum or en-

1            gage in workforce training, including program-  
2            ming for training and job placement of eco-  
3            nomically disadvantaged individuals.

4            (E) Guaranteed State-level economic incen-  
5            tives for the construction, expansion, or mod-  
6            ernization of the facility described in subpara-  
7            graph (B), such as site development, tax incen-  
8            tives, job-training programs and State-level  
9            funding for microelectronics research and devel-  
10          opment.

11          (3) LIMITATION ON GRANT AMOUNT.—A State  
12          may not be awarded more than \$3,000,000,000  
13          under paragraph (1).

14          (4) USE OF FUNDS .—

15          (A) IN GENERAL.—A State receiving a  
16          grant under paragraph (1) may only use the  
17          amount of the grant to finance—

18                  (i) the construction, expansion, or  
19                  modernization of a state-of-the-art micro-  
20                  electronics fabrication, assembly, test, ad-  
21                  vanced packaging, or advanced research  
22                  and development facility with respect to  
23                  which the State demonstrated to the Sec-  
24                  retary documented interest under para-  
25                  graph (2), or for similar uses in state of

1 practice and legacy facilities as deemed  
2 necessary by the Secretary for national se-  
3 curity and economic competitiveness;

4 (ii) to support workforce development  
5 for such facility; or

6 (iii) to support site development for  
7 such facility.

8 (B) RETURN OF FUNDS.—A State awarded  
9 a grant under paragraph (1) shall return any  
10 unused funds to the Treasury of the United  
11 States on an agreed-upon timeframe determined  
12 by the Secretary prior to issuing the funds.

13 (C) RECOVERY OF CERTAIN FUNDS.—If a  
14 microelectronics entity receiving grant funds  
15 under this subsection engages in increased lev-  
16 els of joint research and development, tech-  
17 nology licensing or transfer, or investment in-  
18 volving sensitive technologies with entities  
19 under the foreign ownership, control, or influ-  
20 ence (FOCI) of the Government of the People’s  
21 Republic of China or other foreign adversary  
22 during the period of the grant, as determined  
23 by the Secretary as part of a periodic review of  
24 whether a microelectronics entity participating  
25 in the program specified in this subsection is

1 under foreign ownership, control, or influence,  
2 the Secretary shall recover the amounts pro-  
3 vided by the Secretary under this subsection.

4 (5) PROHIBITION.—If pursuant to the periodic  
5 review of foreign ownership, control, or influence  
6 specified in paragraph (4)(C), the Secretary deter-  
7 mines that a microelectronics entity is under the for-  
8 eign ownership, control or influence of the Govern-  
9 ment of the People’s Republic of China or other for-  
10 eign adversary during the period of the grant, such  
11 entity shall be prohibited from participating in the  
12 program specified in this subsection.

13 (6) NONRELOCATION BETWEEN STATES.—

14 (A) PROHIBITION.—A State may not use  
15 any amount of a grant awarded under this sub-  
16 section to induce the relocation or the move-  
17 ment of existing jobs from one State to another  
18 State in competition for those jobs.

19 (B) REMEDIES.—In the event that the  
20 Secretary determines an amount of a grant  
21 awarded to a State under this subsection was  
22 used in violation of subparagraph (A), the Sec-  
23 retary may pursue appropriate enforcement ac-  
24 tions, including—

1 (i) suspension of disbursements of the  
2 grant awarded; and

3 (ii) termination of the grant awarded,  
4 which may include the establishment of a  
5 debt requiring the recipient of the grant to  
6 reimburse the amount of the grant.

7 (7) IMPLEMENTATION.—The Secretary shall  
8 carry out this section acting through the Director of  
9 the National Institute of Standards and Technology.

10 (8) REPORTS AND NOTICES.—

11 (A) SECRETARY OF COMMERCE.—

12 (i) REPORT ON IMPLEMENTATION  
13 PLAN.—Not later than 90 days after the  
14 date of the enactment of this Act, the Sec-  
15 retary shall submit to Congress a report on  
16 the plans of the Secretary to carry out the  
17 program required by paragraph (1).

18 (ii) NOTICE OF PENDING AWARD.—

19 (I) IN GENERAL.—Not later than  
20 30 days before awarding a grant to a  
21 State under this subsection, the Sec-  
22 retary shall submit to Congress a no-  
23 tice of the intended award.

24 (II) CONTENTS.—Each notice  
25 submitted under subclause (I) shall

1 include a description of the State to  
2 which the Secretary intends to award  
3 a grant under this subsection, the  
4 project or projects for which the  
5 amount of the grant is intended to be  
6 used, specifics on the planned use of  
7 the amounts of the grant for that  
8 project, and the rationale of the Sec-  
9 retary for awarding the grant.

10 (B) COMPTROLLER GENERAL OF THE  
11 UNITED STATES.—

12 (i) BIENNIAL REPORT.—Not later  
13 than 1 year after the date on which the  
14 Secretary of Commerce submits the report  
15 under subparagraph (A)(i) and not less  
16 frequently than once every 2 years there-  
17 after, the Comptroller General of the  
18 United States shall submit to Congress a  
19 report on the activities carried out under  
20 this subsection during the previous year.

21 (ii) CONTENTS.—Each report sub-  
22 mitted under clause (i) shall include, at a  
23 minimum, assessments of the following:

24 (I) How the program is being  
25 carried out and how recipients of

1 grants are being selected under the  
2 program.

3 (II) How other Federal programs  
4 are leveraged for manufacturing, re-  
5 search, and training to complement  
6 the grants awarded to States under  
7 this subsection.

8 (III) Outcomes of projects sup-  
9 ported by grants under this sub-  
10 section, including the construction, ex-  
11 pansion, or modernization of a micro-  
12 electronics fabrication, assembly, test,  
13 advanced packaging, or advanced re-  
14 search and development facilities, re-  
15 search and development, workforce  
16 training, employment, wages, and hir-  
17 ing of economically disadvantaged  
18 populations.

19 (9) AUTHORIZATION OF APPROPRIATIONS.—  
20 There is authorized to be appropriated to carry out  
21 this subsection \$15,000,000,000 for fiscal year  
22 2021, with such amount to remain available for such  
23 purpose until September 30, 2031.

1 (b) CREATION, EXPANSION, OR MODERNIZATION OF  
2 MICROELECTRONICS MANUFACTURING FACILITIES AND  
3 CAPABILITIES FOR NATIONAL SECURITY NEEDS.—

4 (1) INCENTIVES AUTHORIZED.—The Secretary  
5 of Defense and the Director of National Intelligence,  
6 in consultation with the Secretary of Commerce,  
7 may jointly enter into arrangements with private  
8 sector entities or consortia thereof to provide incen-  
9 tives for the creation, expansion, or modernization of  
10 one or more commercially competitive and sustain-  
11 able microelectronics manufacturing or advanced re-  
12 search and development facilities capable of pro-  
13 ducing measurably secure and specialized microelec-  
14 tronics for use by the Department of Defense, the  
15 intelligence community, critical infrastructure sec-  
16 tors of the United States economy, and other na-  
17 tional security applications.

18 (2) COMMERCIAL MANUFACTURING.—A facility  
19 constructed, expanded, or modernized with an incen-  
20 tive provided under paragraph (1) may—

21 (A) be principally oriented toward commer-  
22 cial manufacturing; or

23 (B) devote surplus manufacturing capacity  
24 to the production of commercial microelec-  
25 tronics.

1           (3) RISK MITIGATION REQUIREMENTS.—A facil-  
2           ity constructed, expanded, or modernized with an in-  
3           centive provided under paragraph (1), or the compo-  
4           nents thereof, shall—

5                   (A) have the potential to perform fabrica-  
6                   tion, assembly, package, test, or advanced re-  
7                   search and development functions for classified  
8                   and export-controlled microelectronics;

9                   (B) include management processes to iden-  
10                  tify and mitigate supply chain security risks;  
11                  and

12                  (C) be able to produce microelectronics  
13                  consistent with applicable trusted supply chain  
14                  and operational security standards established  
15                  under section 224 of the National Defense Au-  
16                  thorization Act for Fiscal Year 2020 (Public  
17                  Law 116–92).

18           (4) NATIONAL SECURITY REQUIREMENTS.—In  
19           the provision of incentives under paragraph (1), the  
20           Secretary of Defense and the Director of National  
21           Intelligence shall jointly give preference to private  
22           sector entities and consortia that—

23                   (A) have participated in previous programs  
24                   and projects of the Department of Defense or

1 the Office of the Director of National Intel-  
2 ligence, including—

3 (i) the Trusted Integrated Circuit pro-  
4 gram of the Intelligence Advanced Re-  
5 search Projects Activity;

6 (ii) trusted and assured microelec-  
7 tronics projects, as administered by the  
8 Department of Defense; or

9 (iii) the Electronics Resurgence Initia-  
10 tive (ERI) program of the Defense Ad-  
11 vanced Research Projects Agency;

12 (B) have demonstrated an ongoing com-  
13 mitment to performing contracts for the De-  
14 partment of Defense and the intelligence com-  
15 munity;

16 (C) are approved by the Defense Counter-  
17 intelligence and Security Agency or the Office  
18 of the Director of National Intelligence as pre-  
19 senting an acceptable security risk, taking into  
20 account supply chain assurance vulnerabilities,  
21 counterintelligence risks, and any risks pre-  
22 sented by companies whose owners are located  
23 outside the United States; and

24 (D) are evaluated periodically for foreign  
25 ownership, control, or influence, consistent with

1           the determinations in paragraphs (4)(C) and  
2           (5) of subsection (a).

3           (5) USE OF INCENTIVES.—Incentives may be  
4           provided under paragraph (1) for the construction,  
5           expansion, or modernization of a facility that was  
6           constructed, expanded, or modernized with funds  
7           from a grant awarded under subsection (a).

8           (6) NONTRADITIONAL DEFENSE CONTRACTORS  
9           AND COMMERCIAL ENTITIES.—The arrangements  
10          entered into under paragraph (1) shall be in the  
11          form the Secretary of Defense and the Director of  
12          National Intelligence determine to be appropriate to  
13          encourage industry participation of nontraditional  
14          defense contractors or commercial entities and may  
15          include a contract, a grant, a cooperative agreement,  
16          a commercial agreement, the use of other trans-  
17          action authority under section 2371 of title 10,  
18          United States Code, or another such arrangement.

19          (7) REPORTS.—

20                 (A) REPORT BY SECRETARY OF DEFENSE  
21                 AND DIRECTOR OF NATIONAL INTELLIGENCE.—

22                 Not later than 90 days after the date of the en-  
23                 actment of this Act, the Secretary of Defense  
24                 and the Director of National Intelligence shall  
25                 jointly submit to Congress a report on the plans

1 of the Secretary and the Director to provide in-  
2 centives under paragraph (1).

3 (B) BIENNIAL REPORTS BY COMPTROLLER  
4 GENERAL OF THE UNITED STATES.—Not later  
5 than 1 year after the date on which the Sec-  
6 retary submits the report required by subpara-  
7 graph (A) and not less frequently than once  
8 every 2 years thereafter, the Comptroller Gen-  
9 eral of the United States shall submit to Con-  
10 gress a report on the activities carried out  
11 under this subsection.

12 (8) AUTHORIZATION OF APPROPRIATIONS.—  
13 There is authorized to be appropriated to carry out  
14 this subsection \$5,000,000,000 for fiscal year 2021,  
15 with such amount to remain available for such pur-  
16 pose until September 30, 2031.

17 (c) ADDITIONAL AMOUNTS FOR ENSURING THE FU-  
18 TURE OF UNITED STATES LEADERSHIP IN MICROELEC-  
19 TRONICS.—

20 (1) AUTHORIZATION OF APPROPRIATIONS.—  
21 There is authorized to be appropriated  
22 \$2,000,000,000 for fiscal year 2021, with such  
23 amount to remain available until September 30,  
24 2031, to expand the Electronics Resurgence Initia-  
25 tive of the Defense Advanced Research Projects

1 Agency to develop advanced disruptive microelec-  
2 tronics technology, including research and develop-  
3 ment to enable production at a volume required to  
4 sustain a robust domestic microelectronics industry  
5 and mitigate parts obsolescence.

6 (2) AUTHORIZATION OF APPROPRIATIONS.—  
7 There is authorized to be appropriated to carry out  
8 microelectronics research at the National Science  
9 Foundation \$1,500,000,000 for fiscal year 2021,  
10 with such amount to remain available for such pur-  
11 pose until September 30, 2031.

12 (3) AUTHORIZATION OF APPROPRIATIONS.—  
13 There is authorized to be appropriated to carry out  
14 microelectronics research at the Department of En-  
15 ergy \$1,250,000,000 for fiscal year 2021, with such  
16 amount to remain available for such purpose until  
17 September 30, 2031.

18 (4) AUTHORIZATION OF APPROPRIATIONS.—  
19 There is authorized to be appropriated to carry out  
20 microelectronics research at the National Institute of  
21 Standards and Technology \$250,000,000 for fiscal  
22 year 2021, with such amount to remain available for  
23 such purpose until September 30, 2031.

24 (5) SUPPLEMENT, NOT SUPPLANT.—The  
25 amounts authorized to be appropriated under para-

1 graphs (1) through (4) shall supplement and not  
2 supplant amounts already appropriated to carry out  
3 the purposes described in such paragraphs.

4 (6) DOMESTIC PRODUCTION REQUIREMENTS.—  
5 The heads of executive agencies receiving funding  
6 under this section shall develop policies to require  
7 domestic production, to the extent possible, for any  
8 intellectual property resulting from microelectronics  
9 research and development conducted as a result of  
10 these funds and domestic control requirements to  
11 protect any such intellectual property from foreign  
12 adversaries.

13 (7) SENSE OF CONGRESS.—Congress supports  
14 and encourages efforts by the heads of executive  
15 agencies receiving funding under this subsection to  
16 co-invest in industry-led microelectronics investment  
17 consortiums to increase private capital investment in  
18 the domestic microelectronics industry.

19 (d) NATIONAL MICROELECTRONICS RESEARCH AND  
20 DEVELOPMENT PLAN.—

21 (1) IN GENERAL.—The President shall establish  
22 a standing subcommittee of the President's Office of  
23 Science and Technology's National Science and  
24 Technology Council for interagency efforts relating  
25 to microelectronics policy.

1           (2) NATIONAL MICROELECTRONICS RESEARCH  
2           PLAN.—

3                   (A) IN GENERAL.—The subcommittee es-  
4           tablished under paragraph (1) shall develop a  
5           national microelectronics research and develop-  
6           ment plan to guide and coordinate funding for  
7           breakthroughs in next-generation microelec-  
8           tronics research and technology, strengthen the  
9           domestic microelectronics workforce, and en-  
10          courage collaboration between government, in-  
11          dustry, and academia.

12                   (B) UPDATES.—Not less frequently than  
13          once each year, the subcommittee established  
14          under paragraph (1) shall update the plan de-  
15          veloped under subparagraph (A) of this para-  
16          graph.

17           (e) INDUSTRY ADVISORY COMMITTEE.—The Presi-  
18          dent shall establish a standing subcommittee of the Presi-  
19          dent’s Council of Advisors on Science and Technology to  
20          advise the United States Government on matters relating  
21          to microelectronics policy.

22           (f) MULTILATERAL EXPORT CONTROL PLAN.—Not  
23          later than 180 days after the date of the enactment of  
24          this Act, the Secretary of State, the Secretary of the  
25          Treasury, and the Secretary of Commerce, in consultation

1 with the Director of National Intelligence, the Secretary  
2 of Homeland Security, the Secretary of Defense, and the  
3 Secretary of Energy, shall jointly develop and submit to  
4 Congress a plan to coordinate with foreign government  
5 partners on establishing common microelectronics export  
6 control and foreign direct investment screening measures  
7 to align with national and multilateral security priorities.

8 (g) PROHIBITION RELATING TO FOREIGN ADVER-  
9 SARIES.—None of the funds appropriated pursuant to an  
10 authorization in this section may be provided to an enti-  
11 ty—

12 (1) under the foreign ownership, control, or in-  
13 fluence of the Government of the People’s Republic  
14 of China or the Chinese Communist Party, or other  
15 foreign adversary; or

16 (2) determined to have beneficial ownership  
17 from foreign individuals subject to the jurisdiction,  
18 direction, or influence of foreign adversaries.

19 (h) REQUIREMENTS FOR SOURCING FROM DOMESTIC  
20 MICROELECTRONICS DESIGN AND FOUNDRY SERVICES.—

21 (1) REQUIREMENTS REQUIRED.—Not later  
22 than 1 year after the date of the enactment of this  
23 Act, the Secretary of Defense shall establish require-  
24 ments, and a timeline for enforcement of such re-  
25 quirements, to the extent possible, for domestic

1 sourcing for microelectronics design and foundry  
2 services by programs, contractors, subcontractors,  
3 and other recipients of funding from the Department  
4 of Defense.

5 (2) PROCESSES FOR WAIVERS.—The require-  
6 ments established under paragraph (1) shall include  
7 processes to permit waivers for specific contracts or  
8 transactions for domestic sourcing requirements  
9 based on cost, availability, severity of technical and  
10 mission requirements, emergency requirements and  
11 operational needs, other legal or international treaty  
12 obligations, or other factors.

13 (3) UPDATES.—Not less frequently than once  
14 each year, the Secretary shall—

15 (A) update the requirements and timelines  
16 established under paragraph (1) and the proc-  
17 esses under paragraph (2); and

18 (B) submit to Congress a report on the up-  
19 dates made under subparagraph (A).

20 (i) DEFINITIONS.—In this section:

21 (1) BENEFICIAL OWNER; BENEFICIAL OWNER-  
22 SHIP.—The terms “beneficial owner” and “beneficial  
23 ownership” have the meanings given such terms in  
24 section 847 of the National Defense Authorization  
25 Act for Fiscal Year 2020 (Public Law 116–92).

1           (2) ENTITY; COMPANY.—The terms “entity”  
2           and “company” mean any corporation, company,  
3           limited liability company, limited partnership, busi-  
4           ness trust, business association, or other similar en-  
5           tity.

6           (3) FOREIGN OWNERSHIP, CONTROL, OR INFLU-  
7           ENCE.—The term “foreign ownership, control, or in-  
8           fluence” has the meaning given such term in section  
9           847 of the National Defense Authorization Act for  
10          Fiscal Year 2020 (Public Law 116–92).

11          (4) INTELLIGENCE COMMUNITY.—In this sec-  
12          tion, the term “intelligence community” has the  
13          meaning given such term in section 3 of the Na-  
14          tional Security Act of 1947 (50 U.S.C. 3003).