

119TH CONGRESS
2^D SESSION

S. _____

To amend the Federal Power Act to require the Federal Energy Regulatory Commission to issue a final rule relating to the interconnection of large load facilities with the transmission system, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. SCHIFF introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To amend the Federal Power Act to require the Federal Energy Regulatory Commission to issue a final rule relating to the interconnection of large load facilities with the transmission system, and for other purposes.

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. SHORT TITLE.**

4 This Act may be cited as the “Energy Cost Fairness
5 and Reliability Act of 2026”.

6 **SEC. 2. SENSE OF CONGRESS.**

7 It is the sense of Congress that—

1 (1) the United States has long been a global
2 leader in science, technology, and innovation, which
3 are essential to economic growth, national security,
4 and global competitiveness;

5 (2) artificial intelligence requires substantial
6 computing power, storage, and networking capacity
7 to train models and process data at scale;

8 (3) the rapid and significant increase in load
9 growth driven by data centers, growing electrifica-
10 tion, the onshoring of domestic manufacturing, and
11 other changes in industry and the economy poses se-
12 rious challenges to grid resource adequacy and reli-
13 ability;

14 (4) responsible and sustainable investments in
15 energy infrastructure to account for a significant in-
16 crease in load growth can strengthen the energy se-
17 curity of the United States and ensure that techno-
18 logical growth is compatible with long-term sustain-
19 ability;

20 (5)(A) electricity prices in various regions
21 across the United States have surged in recent years
22 due to the need for network upgrades and new en-
23 ergy infrastructure to serve large loads; and

1 (B) therefore, increasing load growth threatens
2 to significantly increase electricity rates for rate-
3 payers; and

4 (6) due to the unprecedented proliferation of
5 large load facilities, such as data centers seeking to
6 interconnect with the transmission system, and be-
7 cause of the implications this proliferation poses to
8 the reliability and stability of the interstate trans-
9 mission system, the energy and national security of
10 the United States, the affordability of electricity for
11 residential consumers, and the global technological
12 leadership of the United States, it is necessary for
13 Congress to address this proliferation and provide
14 direction to the Commission and the Department.

15 **SEC. 3. MANAGEMENT OF LARGE LOAD FACILITIES.**

16 Part II of the Federal Power Act (16 U.S.C. 824 et
17 seq.) is amended by adding at the end the following:

18 **“SEC. 224. MANAGEMENT OF LARGE LOAD FACILITIES.**

19 “(a) DEFINITIONS.—In this section:

20 “(1) COLOCATED.—The term ‘colocated’, with
21 respect to a large load facility, means that the large
22 load facility is physically connected to, and has con-
23 tractual arrangements to be served by, the facilities
24 of an existing or planned generating facility on the

1 generating facility's side of the point of interconnec-
2 tion to the interstate transmission system.

3 “(2) COMMISSION.—The term ‘Commission’
4 means the Federal Energy Regulatory Commission.

5 “(3) CURTAILABLE.—

6 “(A) IN GENERAL.—The term ‘curtailable’,
7 with respect to a large load customer, means
8 that the large load customer is capable of re-
9 ducing or shifting electrical demand at the ap-
10 plicable large load facility in response to a re-
11 quest from the applicable electric utility or
12 transmission provider—

13 “(i) to maintain grid reliability;

14 “(ii) to manage transmission conges-
15 tion;

16 “(iii) to meet the operational needs of
17 the transmission provider; or

18 “(iv) for other reasons, as the trans-
19 mission provider determines necessary.

20 “(B) METHODS OF REDUCING OR SHIFT-
21 ING DEMAND.—The reduction or shifting of
22 electrical demand as described in subparagraph
23 (A) may be accomplished through—

24 “(i) the deployment of on-site energy
25 storage or other technologies that allow

1 continued operations while reducing grid
2 draw; or

3 “(ii) voluntary reduction of oper-
4 ations, including shifting operations to fa-
5 cilities in other regions, during requested
6 periods.

7 “(4) DEMAND FLEXIBILITY.—The term ‘de-
8 mand flexibility’ means the capability of the elec-
9 trical load or on-site distributed energy resources of
10 a large load customer to reduce, shed, shift, or mod-
11 ulate electricity consumption or generation in re-
12 sponse to external signals, including price changes,
13 grid reliability needs, or energy availability.

14 “(5) DEPARTMENT.—The term ‘Department’
15 means the Department of Energy.

16 “(6) GENERATOR INTERCONNECTION QUEUE.—
17 The term ‘generator interconnection queue’ means
18 the ordered list of valid interconnection requests
19 maintained by a transmission provider, pursuant to
20 a tariff approved by the Commission, for purposes of
21 studying, processing, and deciding whether to ap-
22 prove the interconnection of generating facilities to
23 the transmission system.

24 “(7) LABOR ORGANIZATION.—The term ‘labor
25 organization’ has the meaning given the term in sec-

1 tion 2 of the National Labor Relations Act (29
2 U.S.C. 152).

3 “(8) LABOR PEACE AGREEMENT.—The term
4 ‘labor peace agreement’ means a written agreement
5 between an employer and a labor organization
6 through which the employer guarantees that—

7 “(A) the employer will be neutral regard-
8 ing any of the employees of the employer seek-
9 ing to be represented by the labor organization;
10 and

11 “(B) if employees seek to be represented
12 by a labor organization, the employer shall rec-
13 ognize the labor organization as the exclusive
14 bargaining representative on a showing that a
15 majority of the employees choose to be rep-
16 resented by the labor organization.

17 “(9) LARGE LOAD CUSTOMER.—The term ‘large
18 load customer’ means the 1 or more entities using
19 power at a large load facility.

20 “(10) LARGE LOAD FACILITY.—The term ‘large
21 load facility’ means—

22 “(A) a facility the peak demand of which
23 exceeds 50 megawatts; or

24 “(B) an aggregation of facilities the peak
25 demand of which exceeds 50 megawatts at a

1 single site (as determined by the Commission,
2 taking into consideration ownership of the fa-
3 cilities).

4 “(11) LOAD INTERCONNECTION QUEUE.—The
5 term ‘load interconnection queue’ means the ordered
6 list of valid interconnection requests maintained by
7 a transmission provider, pursuant to a tariff ap-
8 proved by the Commission, for purposes of studying,
9 processing, and deciding whether to approve the
10 interconnection of large load facilities to the trans-
11 mission system.

12 “(12) NATIONAL LABORATORY.—The term ‘Na-
13 tional Laboratory’ has the meaning given the term
14 in section 2 of the Energy Policy Act of 2005 (42
15 U.S.C. 15801).

16 “(13) REGISTERED APPRENTICESHIP PRO-
17 GRAM.—The term ‘registered apprenticeship pro-
18 gram’ means an apprenticeship program registered
19 under the Act of August 16, 1937 (commonly known
20 as the ‘National Apprenticeship Act’) (50 Stat. 664,
21 chapter 663; 29 U.S.C. 50 et seq.).

22 “(14) SECRETARY.—The term ‘Secretary’
23 means the Secretary of Energy.

24 “(15) TRANSMISSION PROVIDER.—The term
25 ‘transmission provider’ means the applicable pro-

1 vider of transmission services, which may include an
2 Independent System Operator, a Regional Trans-
3 mission Organization, or a public utility that pro-
4 vides transmission services.

5 “(b) STANDARD INTERCONNECTION PROCEDURES.—
6 Not later than 1 year after the date of enactment of this
7 section, the Commission, in order to establish a formal
8 interconnection queue system for large loads to be regu-
9 lated by the Commission, shall issue 1 or more final rules
10 to establish standard interconnection procedures for large
11 loads requesting to interconnect to the interstate trans-
12 mission system, which shall require the following:

13 “(1) COSTS OF INTERCONNECTION STUDIES.—
14 With respect to the costs of interconnection stud-
15 ies—

16 “(A) any large load customer seeking
17 interconnection to the interstate transmission
18 system shall pay 100 percent of the costs of
19 interconnection studies; and

20 “(B) any large load customer that fails to
21 satisfy the payment obligations described in
22 subparagraph (A) shall be prohibited from
23 interconnection or receiving transmission serv-
24 ice until full compliance with that subpara-
25 graph.

1 “(2) NETWORK UPGRADES.—Network upgrades
2 shall be assigned to large load customers through
3 the interconnection study process that is part of the
4 load interconnection queue system established under
5 this subsection.

6 “(3) RELIABILITY STANDARDS.—Interconnec-
7 tion to the interstate transmission system for a large
8 load facility shall not proceed until the applicable
9 transmission provider determines that the inter-
10 connection would not cause a violation of any appli-
11 cable Commission-approved reliability standards (as
12 defined in section 215(a)).

13 “(4) REQUIREMENTS FOR INTERCONNEC-
14 TION.—

15 “(A) IN GENERAL.—Interconnection to the
16 transmission system shall not be approved for a
17 large load customer unless the large load cus-
18 tomer satisfies the following criteria:

19 “(i) DEMAND FLEXIBILITY AND
20 CURTAILABILITY.—The large load cus-
21 tomer—

22 “(I) is technically capable of ex-
23 ercising demand flexibility and being
24 curtailable, as evidenced by satisfac-
25 tion of—

1 “(aa) the minimum criteria
2 established under subparagraph
3 (B); and

4 “(bb) any minimum tech-
5 nical standards established or ap-
6 proved under subparagraph (C);
7 and

8 “(II) enters into a binding agree-
9 ment with the transmission provider
10 to exercise demand flexibility and be
11 curtailable.

12 “(ii) NEW GENERATING RE-
13 SOURCES.—The large load customer dem-
14 onstrates and guarantees that the large
15 load customer or the operator of the appli-
16 cable new large load facility will construct,
17 arrange to have constructed, or otherwise
18 arrange for new generating facilities, which
19 may include power produced or made avail-
20 able by distributed energy resources (in-
21 cluding virtual power plants) that the large
22 load customer has created or has worked
23 with the transmission provider to arrange
24 or coordinate, to supply the power needed
25 by the new large load facility, with such

1 power being deliverable to the large load
2 facility and temporally matching its capac-
3 ity needs.

4 “(B) MINIMUM CRITERIA FOR DEMAND
5 FLEXIBILITY AND CURTAILABILITY.—The Com-
6 mission shall issue standards or guidelines, or
7 otherwise approve standards proposed by the
8 applicable transmission provider through a tar-
9 iff to be reviewed by the Commission, to estab-
10 lish minimum criteria necessary for a large load
11 facility or category of large load facilities to
12 qualify as sufficiently capable of exercising de-
13 mand flexibility and sufficiently curtailable for
14 purposes of subparagraph (A)(i)(I).

15 “(C) MINIMUM TECHNICAL STANDARDS.—
16 If the Commission determines necessary, the
17 Commission shall establish minimum technical
18 standards, or approve minimum technical
19 standards established by transmission pro-
20 viders, for system-protection facilities and auto-
21 mated load-shedding equipment necessary to
22 verify and execute the capabilities to exercise
23 demand flexibility and be curtailable, as de-
24 scribed in subparagraph (A)(i)(I).

1 “(5) PRIORITIZATION WITHIN LOAD INTER-
2 CONNECTION QUEUES.—

3 “(A) IN GENERAL.—Within a load inter-
4 connection queue, an interconnection request
5 from a large load customer shall be prioritized
6 if the large load customer satisfies any 1 or
7 more of the following criteria:

8 “(i) BATTERY BACKUP.—The large
9 load customer demonstrates and guaran-
10 tees that the large load customer or the
11 operator of the applicable new large load
12 facility will implement a battery energy
13 storage system to use as primary backup
14 generation for the large load facility, with
15 sufficient capacity to meet the backup
16 needs of the large load facility during peri-
17 ods of outages or curtailments.

18 “(ii) CONSTRUCTION.—The large load
19 customer demonstrates and guarantees
20 that, in the construction of the applicable
21 new large load facility and any new energy
22 supply resource that the large load facility
23 brings to the electric grid—

24 “(I) all laborers and mechanics
25 employed by the large load customer

1 and contractors and subcontractors of
2 the large load customer in the per-
3 formance of construction are paid
4 wages at rates not less than those
5 prevailing on projects of a character
6 similar in the locality in which the
7 construction project is located, as
8 most recently determined by the Sec-
9 retary of Labor in accordance with
10 subchapter IV of chapter 31 of title
11 40, United States Code; and

12 “(II) all contractors and sub-
13 contractors of the large load customer
14 use registered apprentices partici-
15 pating in registered apprenticeship
16 programs.

17 “(iii) LABOR PEACE AGREEMENT.—
18 The large load customer ensures that each
19 owner or operator of a new energy supply
20 resource that the applicable new large load
21 facility brings to the electric grid has
22 agreed to enter into a labor peace agree-
23 ment with respect to the operation and
24 maintenance of the energy supply resource.

1 “(B) REQUIREMENT.—A transmission pro-
2 vider shall endeavor to complete the inter-
3 connection study process for a large load cus-
4 tomer that satisfies the criteria for
5 prioritization under this paragraph before other
6 large load customers that do not satisfy the cri-
7 teria for such prioritization.

8 “(6) NON-FIRM TRANSMISSION ACCESS ON AN
9 AS-AVAILABLE BASIS.—Transmission providers shall
10 provide to colocated large load facilities non-firm
11 transmission access to the transmission system for
12 the purpose of withdrawing electric energy from the
13 transmission network on an as-available basis, sub-
14 ject to the condition that such non-firm transmission
15 service shall be—

16 “(A) subject to curtailment or interruption
17 before firm network or point-to-point trans-
18 mission service, in accordance with the open ac-
19 cess and reliability standards of the Commis-
20 sion; and

21 “(B) priced to reflect the non-firm nature
22 of such service.

23 “(7) INJECTION RIGHTS ON A NON-FIRM
24 BASIS.—Transmission providers offer to colocated
25 large load facilities injection rights without the need

1 for deliverability studies if the injection will occur on
2 a non-firm basis.

3 “(c) PROTECTION OF GRID RELIABILITY.—The Com-
4 mission shall require transmission provider tariffs pro-
5 vided to the Commission to specify the following:

6 “(1) An existing generating facility operated by
7 an interconnection customer may not, as a result of
8 any request of the interconnection customer to mod-
9 ify its interconnection service level for such existing
10 generating facility, withdraw any of its capacity to
11 begin serving a large load facility if the withdrawal
12 of capacity from the existing generating facility to
13 serve a large load facility would result in a loss of
14 capacity to serve customers other than the large load
15 facility without a new generation resource being
16 interconnected to the grid to compensate for such
17 loss of capacity.

18 “(2) An existing generating facility operated by
19 an interconnection customer may not, as a result of
20 any request of the interconnection customer to mod-
21 ify its interconnection service level for such existing
22 generating facility, withdraw any of its capacity to
23 begin serving a large load facility until all modifica-
24 tions to interconnection facilities and network up-
25 grades that the transmission provider determines to

1 be necessary to maintain reliability for existing cus-
2 tomers are carried out and placed in commercial op-
3 eration.

4 “(d) COST RECOVERY.—

5 “(1) NETWORK UPGRADES.—

6 “(A) IN GENERAL.—Not later than 1 year
7 after the date of enactment of this section, the
8 Commission shall issue a final rule requiring
9 transmission providers to ensure that a large
10 load customer seeking interconnection to the
11 interstate transmission system shall be respon-
12 sible for 100 percent of the network upgrades
13 that are assigned to the large load customer
14 pursuant to 1 or more interconnection studies,
15 including any additions, modifications, or up-
16 grades to the interstate transmission system at
17 or beyond the point of interconnection that, in
18 the determination of the transmission provider,
19 are required—

20 “(i) to accommodate the interconnec-
21 tion; or

22 “(ii) to maintain the reliability or
23 operational integrity of the transmission
24 system.

1 “(B) NONREFUNDABLE PAYMENTS.—All
2 payments made by a large load customer to
3 cover the costs of network upgrades described
4 in subparagraph (A) shall be nonrefundable.

5 “(C) PROHIBITION.—The Commission
6 shall not approve any tariff submitted to the
7 Commission for review to include any crediting
8 mechanism, refund, or offset that allows for the
9 costs of network upgrades described in subpara-
10 graph (A) to be—

11 “(i) recovered from any transmission
12 customer other than the applicable large
13 load customer described in that subpara-
14 graph; or

15 “(ii) credited against future trans-
16 mission or retail service charges.

17 “(D) COMMISSION-JURISDICTIONAL PAY-
18 MENT MECHANISM.—

19 “(i) IN GENERAL.—The costs of net-
20 work upgrades described in subparagraph
21 (A) shall be directly assigned to the appli-
22 cable large load customer through a Com-
23 mission-jurisdictional payment mechanism,
24 such as—

1 “(I) a non-refundable upfront
2 payment;

3 “(II) a structured surcharge that
4 may be paid over time; or

5 “(III) any other cost-assignment
6 mechanism that is within the jurisdic-
7 tion of the Commission.

8 “(ii) INCLUSION IN OPEN ACCESS
9 TRANSMISSION TARIFF.—The Commission
10 may require that payments to cover costs
11 described in clause (i) be included in each
12 applicable open access transmission tariff.

13 “(iii) SAVINGS PROVISION.—The pay-
14 ment of network upgrade costs described
15 in clause (i) through a Commission-juris-
16 dictional payment mechanism described in
17 that clause shall not preempt the authority
18 of a State commission to regulate the retail
19 rates, terms, or conditions of electric serv-
20 ice provided to the applicable load by a re-
21 tail utility.

22 “(2) COLOCATED LARGE LOAD FACILITIES.—
23 For a colocated large load facility—

24 “(A) the applicable large load customer
25 shall be assessed charges on a gross-demand

1 basis for ancillary services and black start serv-
2 ice provided through the interstate transmission
3 system if the colocated generating facility is
4 interconnected to the interstate transmission
5 system, even if the colocated large load facility
6 withdraws zero net energy from the interstate
7 transmission system; and

8 “(B) the existence of on-site generation,
9 energy storage, or other behind-the-meter re-
10 sources shall not relieve a colocated large load
11 facility of cost responsibility under subpara-
12 graph (A) if the facility remains interconnected
13 with, synchronized to, or reliant upon the inter-
14 state transmission system for reliability, backup
15 service, or ancillary services.

16 “(3) REVIEW OF COST ALLOCATION METH-
17 ODOLOGIES.—In determining the justness and rea-
18 sonableness of any rate, charge, term, or condition
19 of a tariff or tariff amendment filed under section
20 205, the Commission shall, consistent with State au-
21 thority, review the cost allocation methodologies to
22 ensure that the costs of transmission services, net-
23 work upgrades, or related facilities necessitated by
24 the interconnection or operation of large load facili-
25 ties are not shifted to other customers, including by

1 taking into account the ultimate impact of rates
2 under the jurisdiction of the Commission on down-
3 stream retail ratepayers.

4 “(4) COMPENSATION FOR CERTAIN GENERA-
5 TION.—Energy generated by a colocated generating
6 facility that is in excess of the amount consumed by
7 the colocated large load facility and that is injected
8 into the interstate transmission system shall be com-
9 pensated at the applicable wholesale locational mar-
10 ginal price or the avoided cost rate, in accordance
11 with the relevant tariff of the transmission provider
12 that has been filed with and approved by the Com-
13 mission.

14 “(e) QUEUE MANAGEMENT BEST PRACTICES.—

15 “(1) IN GENERAL.—Not later than 1 year after
16 the date of enactment of this section, the Commis-
17 sion shall initiate a rulemaking to revise the pro-
18 forma Large Generator Interconnection Procedures
19 promulgated pursuant to section 35.28(f) of title 18,
20 Code of Federal Regulations (or a successor regula-
21 tion), to require public utility transmission providers
22 to share and employ, as appropriate, queue manage-
23 ment best practices with respect to the use of com-
24 puting technologies, such as artificial intelligence,
25 machine learning, or automation, in evaluating and

1 processing generating facility interconnection re-
2 quests within a generator interconnection queue, in
3 order to expedite study results with respect to those
4 requests.

5 “(2) TECHNICAL ASSISTANCE.—Subject to the
6 availability of appropriations, the Secretary shall
7 provide to transmission providers technical assist-
8 ance with respect to the implementation of any best
9 practices established by the Commission under para-
10 graph (1), as the Secretary determines to be appro-
11 priate.

12 “(f) LARGE LOAD FORECASTING.—The Commission
13 shall require that, in at least 1 category of load forecast
14 utilized by a transmission provider for estimating future
15 energy demand or making grid planning decisions, a large
16 load facility may be included in the forecast only if the
17 large load facility is able to provide proof of viable dem-
18 onstration of commercial or operational commitment pur-
19 suant to objective criteria set forth in a Commission-ap-
20 proved tariff, which may include—

21 “(1) an energy or transmission service agree-
22 ment;

23 “(2) credit or collateral support;

24 “(3) significant infrastructure investment;

1 “(4) a long-term generation supply commit-
2 ment; or

3 “(5) any other comparable demonstration of
4 commitment approved by the Commission.

5 “(g) INTERCONNECTION AND STUDY PROCESS DIS-
6 CIPLINE.—

7 “(1) IN GENERAL.—Notwithstanding any other
8 provision of law, the Commission shall require each
9 transmission provider, as a condition of accepting
10 and processing an interconnection request, trans-
11 mission service request, or comparable request from
12 a large load facility, to impose—

13 “(A) study deposits sufficient to cover the
14 costs of system impact, facilities, or comparable
15 studies;

16 “(B) readiness or milestone payments tied
17 to progression through the study and inter-
18 connection process; and

19 “(C) withdrawal penalties designed to en-
20 sure that a large load facility that withdraws
21 from such process bears an appropriate share of
22 the costs imposed on the transmission provider
23 and other customers.

24 “(2) REQUIREMENT.—The requirements estab-
25 lished under paragraph (1) shall be designed—

1 “(A) to discourage speculative requests;
2 and

3 “(B) to reduce study delays and restudies.

4 “(h) TARIFF REVISIONS; TRANSITION PERIOD.—

5 “(1) TARIFF REVISIONS.—Not later than 180
6 days after the effective date of each final rule issued
7 under subsection (b), each transmission provider
8 subject to the jurisdiction of the Commission shall
9 submit to the Commission for approval any tariff
10 amendments necessary to effectuate the rule.

11 “(2) TRANSITION PERIOD.—As part of each
12 rulemaking proceeding required of the Commission
13 under this section, the Commission shall ensure that
14 there is a reasonable transition period for affected
15 entities (as determined by the Commission), while
16 seeking to avoid disruptions to existing projects or
17 projects that are significantly underway.

18 “(3) REQUIREMENT.—On and after the effec-
19 tive date of the final rules issued under subsection
20 (b) to establish the load interconnection queue sys-
21 tem described in that subsection, a large load facility
22 may only interconnect with the interstate trans-
23 mission system once it has been approved through
24 the applicable load interconnection queue system.

25 “(i) DOE DATA COLLECTION.—

1 “(1) IN GENERAL.—The Secretary, in accord-
2 ance with section 13 of the Federal Energy Adminis-
3 tration Act of 1974 (15 U.S.C. 772), may require
4 owners or operators of data centers to submit to the
5 Secretary such data as is necessary to enable the
6 Secretary—

7 “(A) to identify trends in new data center
8 requests and commissioning;

9 “(B) to identify trends in energy and
10 water performance, including cooling and on-
11 site generation, and flexibility in operations;

12 “(C) to assess actual energy use associated
13 with artificial intelligence activities, including
14 the training of artificial intelligence models and
15 inference operations;

16 “(D) to establish benchmarks of—

17 “(i) current data center energy and
18 water use by data center type and func-
19 tion; and

20 “(ii) the operational flexibility of load
21 by data center type;

22 “(E) to engage in quarterly tracking of
23 trends in data center energy demand relating to
24 artificial intelligence; and

1 “(F) to support the development of refined
2 models for projecting future energy needs and
3 load shapes associated with data center work-
4 loads.

5 “(2) DATA PROTECTION.—

6 “(A) IN GENERAL.—The Secretary shall
7 protect any confidential business information
8 that is submitted by a data center owner as re-
9 quired under paragraph (1).

10 “(B) FOIA EXEMPTION.—Information de-
11 scribed in subparagraph (A) shall be exempt
12 from disclosure under—

13 “(i) section 552(b)(4) of title 5,
14 United States Code (commonly known as
15 the ‘Freedom of Information Act’); and

16 “(ii) any provision of State, Tribal, or
17 local freedom of information law, open gov-
18 ernment law, open meetings law, open
19 records law, sunshine law, or similar law
20 requiring disclosure of information or
21 records.

22 “(j) DOE ARTIFICIAL INTELLIGENCE TESTBED.—

23 “(1) ESTABLISHMENT.—Not later than 180
24 days after the date of enactment of this section, the
25 Secretary shall establish a data-center-scale artificial

1 intelligence testbed at a National Laboratory that
2 shall be complementary to, but distinct from, the
3 current set of high-performance computing facilities
4 operated by Department.

5 “(2) REQUIREMENT.—The testbed established
6 under paragraph (1) shall allow researchers from the
7 National Laboratories, academia, and industry to
8 collaborate in the development and assessment of
9 various aspects of artificial intelligence, including—

10 “(A) algorithms for energy-efficient or en-
11 ergy-flexible artificial intelligence training and
12 inference to advance the artificial intelligence
13 capabilities of the United States and build on
14 the success of comparable public-private efforts
15 that have accelerated advances in high-perform-
16 ance computing;

17 “(B) technology hardware and control sys-
18 tems relating to power supply, cooling, and
19 computing system configuration;

20 “(C) grid integration, load flexibility, effi-
21 cient grid management, and strategies for pro-
22 tecting or enhancing grid reliability, resource
23 adequacy, or energy affordability; and

1 “(D) advancing or de-risking new tech-
2 nologies to advance the efforts described in sub-
3 paragraphs (A) through (C).

4 “(3) REPORT.—

5 “(A) IN GENERAL.—Not later than 1 year
6 after the date of enactment of this section, the
7 Secretary shall submit to Congress and the
8 Commission a report compiled using knowledge
9 gained and lessons learned from—

10 “(i) the testbed established under
11 paragraph (1); and

12 “(ii) any other relevant projects that
13 are ongoing at the Department and the
14 National Laboratories.

15 “(B) COLLABORATION.—In compiling the
16 report under subparagraph (A), the Secretary
17 shall work with—

18 “(i) the National Laboratories;

19 “(ii) Federal partners, such as the
20 Commission;

21 “(iii) academia; and

22 “(iv) industry.

23 “(C) ASSESSMENTS.—The report under
24 subparagraph (A) shall assess—

1 “(i) the scale of load growth being
2 driven by the proliferation of data center
3 infrastructure, including significant re-
4 gional differences;

5 “(ii) how that load growth will affect
6 grid reliability, resource adequacy, and na-
7 tional security;

8 “(iii) how electric utilities and regu-
9 lators obtain information to verify when
10 and whether prospective large load facili-
11 ties will reach commercial operation;

12 “(iv)(I) how utilities and regulators
13 determine and apply consistent and objec-
14 tive screening criteria for interconnection
15 requests; and

16 “(II) how utilities and regulators are
17 attempting to deter speculative or duplica-
18 tive interconnection requests for large
19 loads;

20 “(v) innovative technologies for—

21 “(I) the reduction of power and
22 water utilized by data centers;

23 “(II) the utilization of waste
24 heat, including for heating residential
25 homes; and

1 “(III) facility-level electricity sup-
2 ply; and

3 “(vi) the usage and ability of demand
4 response and demand flexibility by data
5 center facilities to alleviate stresses on grid
6 resource adequacy.

7 “(D) RECOMMENDATIONS.—The report
8 under subparagraph (A) shall provide rec-
9 ommendations for—

10 “(i) how load forecasting can be im-
11 proved to more accurately determine how
12 the actual electricity consumption of a
13 large load facility will compare to its re-
14 quested level of interconnection service;

15 “(ii) how to ensure that large load
16 interconnection requests—

17 “(I) are subject to consistent and
18 objective screening criteria; and

19 “(II) are not double-counted;

20 “(iii) hardware and algorithmic im-
21 provements to further reduce energy con-
22 sumption relating to artificial intelligence,
23 including for developing energy-efficient
24 methods for training and inference of large

1 language models and other large artificial
2 intelligence models;

3 “(iv) policy changes or actions that
4 the Federal Government may take to en-
5 sure quick and efficient buildout of data
6 infrastructure while ensuring a buildout
7 that maintains grid reliability and energy
8 affordability; and

9 “(v) how the National Laboratories
10 can facilitate collaboration and informa-
11 tion-sharing to accelerate innovation.

12 “(E) COMMISSION CONSIDERATION.—Not
13 later than 180 days after receiving the report
14 under subparagraph (A), the Commission
15 shall—

16 “(i) decide whether to implement any
17 recommendations or act on any findings in
18 that report; and

19 “(ii) initiate a rulemaking proceeding
20 or take other appropriate action, if applica-
21 ble.

22 “(F) PUBLICATION OF TOPLINE DATA.—

23 “(i) IN GENERAL.—The Secretary
24 shall publish on the website of the Depart-
25 ment aggregated topline data and conclu-

1 sions from the report under subparagraph
2 (A).

3 “(ii) REQUIREMENT.—In carrying out
4 clause (i), the Secretary shall ensure that
5 no data that could be attributed to a single
6 private entity is made available to the pub-
7 lic.

8 “(k) SAVINGS PROVISION.—Nothing in this section
9 shall be construed to authorize the Commission to regulate
10 retail electricity rates, charges, or terms of service, which
11 shall remain subject to the jurisdiction of the States.”.