

119TH CONGRESS
2D SESSION

S. 3947

To amend the Federal Power Act to establish a categorical exclusion for reconductoring within existing rights-of-way, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 26, 2026

Mr. MCCORMICK (for himself and Mr. WELCH) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To amend the Federal Power Act to establish a categorical exclusion for reconductoring within existing rights-of-way, 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 “Reconductoring Exist-
5 ing Wires for Infrastructure Reliability and Expansion
6 Act” or the “REWIRE Act”.

7 **SEC. 2. DEFINITIONS.**

8 In this Act:

1 (1) ADVANCED TRANSMISSION CONDUCTOR.—

2 The term “advanced transmission conductor” means
3 a conductor, including a carbon fiber conductor, a
4 composite core conductor, a superconductor, and any
5 other conductor, that—

6 (A) has a direct current electrical resist-
7 ance at least 10 percent lower than a tradi-
8 tional ACSR conductor of a similar diameter
9 and weight;

10 (B) has a potential energy carrying capac-
11 ity at least 70 percent greater than a tradi-
12 tional ACSR conductor of a similar diameter
13 and weight; and

14 (C) has a coefficient of thermal expansion
15 at least 50 percent lower than a traditional
16 ACSR conductor of a similar diameter and
17 weight.

18 (2) ASCR CONDUCTOR.—The term “ASCR
19 conductor” means an aluminum conductor steel-rein-
20 forced cable.

21 (3) BULK-POWER SYSTEM.—The term “bulk-
22 power system” has the meaning given the term in
23 section 215(a) of the Federal Power Act (16 U.S.C.
24 824o(a)).

1 (4) COMMISSION.—The term “Commission”
2 means the Federal Energy Regulatory Commission.

3 (5) EFFECTIVE LOAD CARRYING CAPABILITY;
4 ELCC.—

5 (A) IN GENERAL.—The term “effective
6 load carrying capability” or “ELCC” means the
7 ability of a generating resource to produce elec-
8 tricity when the grid needs it, measured as the
9 additional load (or perfect replacement capac-
10 ity) that the system can supply with a par-
11 ticular generator of interest with no net change
12 in reliability.

13 (B) CLARIFICATION.—The additional load
14 (or perfect replacement capacity) referred to in
15 subparagraph (A)—

16 (i) may be measured using LOLE,
17 EUE, or other metrics; and

18 (ii) may be divided by the nameplate
19 capacity of the generating resource to yield
20 a percentage.

21 (6) ELECTRIC RELIABILITY ORGANIZATION.—
22 The term “Electric Reliability Organization” has the
23 meaning given the term in section 215(a) of the
24 Federal Power Act (16 U.S.C. 824o(a)).

1 (7) ELECTRIC UTILITY.—The term “electric
2 utility” has the meaning given the term in section
3 3 of the Federal Power Act (16 U.S.C. 796).

4 (8) EXPECTED UNSERVED ENERGY; EUE.—The
5 term “expected unserved energy” or “EUE” means
6 the cumulative amount of energy (in megawatt-
7 hours) per year that is not provided to customers
8 due to outages.

9 (9) GRID-ENHANCING TECHNOLOGY.—The term
10 “grid-enhancing technology” means any hardware or
11 software that—

12 (A) increases the capacity, efficiency, reli-
13 ability, resilience, or safety of transmission fa-
14 cilities and transmission technologies; and

15 (B) is installed in addition to transmission
16 facilities and transmission technologies—

17 (i) to give operators of the trans-
18 mission facilities and transmission tech-
19 nologies more situational awareness and
20 control over the electric grid;

21 (ii) to make the transmission facilities
22 and transmission technologies more effi-
23 cient; or

1 (iii) to increase the transfer capacity
 2 of the transmission facilities and trans-
 3 mission technologies.

4 (10) INDEPENDENT SYSTEM OPERATOR.—The
 5 term “Independent System Operator” has the mean-
 6 ing given the term in section 3 of the Federal Power
 7 Act (16 U.S.C. 796).

8 (11) INTEGRATED RESOURCE PLANNING.—The
 9 term “integrated resource planning” means mod-
 10 eling and evaluating how projected long-term elec-
 11 tricity demands (such as electricity demands over pe-
 12 riods of 5, 10, 20, or more years) within a service
 13 area can be met with a combination of electric gen-
 14 eration resources that best achieve desired metrics,
 15 such as metrics relating to reliability, resilience, and
 16 cost.

17 (12) LOSS OF LOAD EXPECTATION; LOLE.—

18 (A) IN GENERAL.—The term “loss of load
 19 expectation” or “LOLE” means the expected
 20 number of days per year that the available gen-
 21 eration capacity is less than the system load for
 22 the applicable power grid region or service area.

23 (B) CLARIFICATION.—As of November
 24 2023, a commonly acceptable value for loss of
 25 load expectation is 0.1 days per year, as de-

scribed in the standard of the North American Electric Reliability Corporation entitled “Planning Resource Adequacy Analysis, Assessment and Documentation” and numbered BAL–502–RF–03.

(13) NATIONAL LABORATORY.—The term “National Laboratory” has the meaning given the term in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801).

(14) PLANNING RESERVE MARGIN.—

(A) IN GENERAL.—The term “planning reserve margin” means the quotient, expressed as a percentage, obtained by dividing—

(i) the difference between—

(I) deliverable electric system supply capacity for a power grid region or service area; and

(II) net demand in that power grid region or service area; by

(ii) net demand in that power grid region or service area.

(B) CLARIFICATION.—As of November 2023, a reserve margin falling within the range from 15 percent to 25 percent is typical for a power grid region or service area.

1 (15) POWER GRID.—The term “power grid”
 2 means that portion of an Interconnection (as defined
 3 in section 215(a) of the Federal Power Act (16
 4 U.S.C. 824o(a))) that is located within the United
 5 States, including the relevant portion of each of the
 6 following:

7 (A) The Eastern Interconnection.

8 (B) The Western Interconnection.

9 (C) The Texas Interconnection.

10 (16) POWER GRID REGION.—The term “power
 11 grid region” means a geographic area—

12 (A) located within a power grid; and

13 (B) for which a regional entity (as defined
 14 in subsection (a) of section 215 of the Federal
 15 Power Act (16 U.S.C. 824o)) has enforcement
 16 authority under that section.

17 (17) PROBABILISTIC MODELING.—

18 (A) IN GENERAL.—The term “probabilistic
 19 modeling” means a modeling approach that
 20 uses statistics to simulate and quantify the like-
 21 lihood of achieving desired metrics, taking into
 22 consideration all modeled uncertainties, for de-
 23 termination of the optimal resource portfolio,
 24 such as a modeling approach consistent with
 25 the document of the North American Electric

1 Reliability Corporation entitled “Probabilistic
2 Assessment Technical Guideline Document”
3 and dated August 2016, including the rec-
4 ommendations described in that document.

5 (B) INCLUSION.—The term “probabilistic
6 modeling” includes modeling that can identify
7 the most important parameters that impact a
8 simulated metric for further characterization or
9 optimization.

10 (18) REGIONAL TRANSMISSION ORGANIZA-
11 TION.—The term “Regional Transmission Organiza-
12 tion” has the meaning given the term in section 3
13 of the Federal Power Act (16 U.S.C. 796).

14 (19) RELIABILITY STANDARD.—The term “reli-
15 ability standard” has the meaning given the term in
16 section 215(a) of the Federal Power Act (16 U.S.C.
17 824o(a)).

18 (20) RESOURCE ADEQUACY.—The term “re-
19 source adequacy” means the adequate supply and
20 provision of electricity from various electric genera-
21 tion resources to meet projected electricity demands
22 in a particular power grid region or service area.

23 (21) SECRETARY.—The term “Secretary”
24 means the Secretary of Energy.

1 (22) SERVICE AREA.—The term “service area”
2 means the area or region served by—

3 (A) an electric utility;

4 (B) a Regional Transmission Organization;

5 or

6 (C) an Independent System Operator.

7 (23) STATE REGULATORY AUTHORITY.—The
8 term “State regulatory authority” has the meaning
9 given the term in section 3 of the Federal Power Act
10 (16 U.S.C. 796).

11 **SEC. 3. CATEGORICAL EXCLUSION FOR RECONDUCTORING.**

12 Part II of the Federal Power Act (16 U.S.C. 824 et
13 seq.) is amended by inserting after section 216 the fol-
14 lowing:

15 **“SEC. 216A. GRID CAPACITY EXPANSION IN EXISTING**
16 **RIGHTS-OF-WAY.**

17 “(a) DEFINITION OF PREVIOUSLY DISTURBED OR
18 DEVELOPED.—In this section, the term ‘previously dis-
19 turbed or developed’ has the meaning given the term in
20 section 1021.102(g)(1) of title 10, Code of Federal Regu-
21 lations (or a successor regulation).

22 “(b) ESTABLISHMENT OF CATEGORICAL EXCLU-
23 SION.—Activities to increase the capacity of the electric
24 grid within existing rights-of-way or on previously dis-
25 turbed or developed land are a category of actions des-

1 ignated as being categorically excluded from the prepara-
 2 tion of an environmental assessment or an environmental
 3 impact statement under the National Environmental Pol-
 4 icy Act of 1969 (42 U.S.C. 4321 et seq.).

5 “(c) INCLUSIONS.—The activities to which the cat-
 6 egorical exclusion established by subsection (b) shall apply
 7 include any repair, maintenance, replacement, upgrade,
 8 modification, optimization, or minor relocation of, addition
 9 to, or addition of energy storage at or near, an existing
 10 electric transmission or distribution facility or associated
 11 infrastructure, including electrical substations, within an
 12 existing right-of-way or on otherwise previously disturbed
 13 or developed land, including reconductoring and installa-
 14 tion of grid-enhancing technologies.”.

15 **SEC. 4. RETURN ON EQUITY FOR ADVANCED TRANS-**
 16 **MISSION CONDUCTORS.**

17 Section 219 of the Federal Power Act (16 U.S.C.
 18 824s) is amended—

19 (1) in subsection (a), by striking “Not later
 20 than 1 year after the date of enactment of this sec-
 21 tion, the” and inserting “The”;

22 (2) in subsection (b), in the matter preceding
 23 paragraph (1), by inserting “issued under subsection
 24 (a)” after “rule”;

25 (3) in subsection (c)—

1 (A) in the second sentence, by striking
2 “The Commission” and inserting the following:
3 “(2) RECOVERABLE COSTS.—The Commission”;
4 and

5 (B) in the first sentence, by striking “In
6 the rule issued under this section” and insert-
7 ing the following:

8 “(1) IN GENERAL.—In the rule issued under
9 subsection (a)”;

10 (4) in subsection (d), by striking “All rates ap-
11 proved under the rules adopted pursuant to this sec-
12 tion, including any revisions to the rules, are” and
13 inserting “Any rate approved under a rule issued
14 pursuant to this section (including a revision to a
15 rule) shall be”; and

16 (5) by adding at the end the following:

17 “(e) ADVANCED TRANSMISSION CONDUCTORS.—

18 “(1) RETURN ON EQUITY.—Not later than 1
19 year after the date of enactment of the REWIRE
20 Act, the Commission shall promulgate new, or revise
21 existing, rules under this section to improve the re-
22 turn on equity for investments in advanced trans-
23 mission conductors (as defined in section 2 of that
24 Act).

1 “(2) CONSUMER PROTECTIONS.—The Commis-
 2 sion shall ensure that all rates approved under the
 3 rules promulgated or revised under this subsection
 4 (including any subsequent revisions to those rules)
 5 are just and reasonable and not unduly discrimina-
 6 tory or preferential, as required by subsection (d).”.

7 **SEC. 5. STATE ENERGY PROGRAMS.**

8 Section 362(c)(7)(B) of the Energy Policy and Con-
 9 servation Act (42 U.S.C. 6322(c)(7)(B)) is amended by
 10 inserting “, including reconductoring with advanced trans-
 11 mission conductors (as defined in section 2 of the RE-
 12 WIRE Act) and the installation of grid-enhancing tech-
 13 nologies (as defined in that section)” before the semicolon
 14 at the end.

15 **SEC. 6. NATIONAL LABORATORY MODELING AND EVALUA-**
 16 **TION PROGRAM.**

17 (a) IN GENERAL.—The Secretary, acting through 1
 18 or more National Laboratories, in consultation with the
 19 Commission and the Electric Reliability Organization,
 20 shall establish a program to model and evaluate the per-
 21 formance of the electric grid.

22 (b) REQUIREMENTS.—In carrying out the program
 23 established under subsection (a), the Secretary shall de-
 24 velop 1 or more probabilistic models for transmission plan-

1 ning, resource adequacy modeling, and integrated resource
2 planning that—

3 (1) reflect the specific needs, resources, and at-
4 tributes of a given power grid region or service area;

5 (2) ensure consistent methods based on best
6 practices;

7 (3) include consideration of uncertainties relat-
8 ing to—

9 (A) transmission systems and infrastruc-
10 ture;

11 (B) the impact of weather (such as the im-
12 pact of temperature on transmission facilities,
13 including line ratings);

14 (C) congestion and thermal overload; and

15 (D) the costs of new or modified trans-
16 mission infrastructure, including reconductoring
17 with advanced transmission conductors and the
18 deployment of grid-enhancing technologies; and

19 (4) include consideration of other relevant
20 transmission uncertainties, including those which
21 may be unique to a given power grid region or serv-
22 ice area, as determined by the Secretary in consulta-
23 tion with the Commission.

1 (c) USE OF MODELING.—The Secretary shall ensure
 2 that the models developed pursuant to the program estab-
 3 lished under subsection (a) may be used, at a minimum—

4 (1) to simulate and quantify desired metrics,
 5 taking into consideration the relevant uncertainties
 6 described in paragraphs (3) and (4) of subsection
 7 (b), which may be used to assist in transmission
 8 planning and the determination of the optimal re-
 9 source portfolio for the applicable power grid region
 10 or service area, including—

11 (A) loss of load expectation;

12 (B) expected unserved energy;

13 (C) effective load carrying capability (also
 14 known as “capacity value”);

15 (D) planning reserve margin;

16 (E) electricity transmission losses;

17 (F) congestion; and

18 (G) cost;

19 (2) to identify the parameters and processes
 20 considered under subsection (b) that—

21 (A) have the most impact on the mag-
 22 nitude or uncertainty of the applicable simu-
 23 lated metrics; and

24 (B) can be further characterized or opti-
 25 mized to improve the modeling and determina-

1 tion of the optimal resource portfolio and trans-
2 mission system for the applicable power grid re-
3 gion or service area; and

4 (3) to identify areas where the deployment of
5 advanced transmission technologies, such as ad-
6 vanced transmission conductors or grid-enhancing
7 technologies, may improve electric grid performance.

8 (d) REGIONAL COLLABORATIVES.—

9 (1) IN GENERAL.—In carrying out the program
10 under subsection (a), the Secretary shall establish
11 regional collaboratives between the National Labora-
12 tories and institutions of higher education.

13 (2) CONSIDERATIONS.—The Secretary shall, to
14 the maximum extent practicable, prioritize estab-
15 lishing regional collaboratives under paragraph (1)
16 that—

17 (A) are between regional institutions of
18 higher education and National Laboratories
19 that are owned and operated by the Federal
20 Government;

21 (B) include institutions of higher education
22 with existing demonstration capability, such as
23 field-scale systems of not less than 100 kilovolt-
24 amperes or laboratory capabilities of not less
25 than 10 kilovolt-amperes, to support technology

validation, utility adoption, industry engagement, and workforce development;

(C) demonstrate rural grid planning models (including transmission and distribution co-simulation and digital twin capabilities); or

(D) utilize existing active data sharing and joint modeling programs between institutions of higher education and participating utilities at a statewide scale.

**SEC. 7. TECHNICAL ASSISTANCE RELATING TO THE USE OF
ADVANCED TRANSMISSION CONDUCTORS.**

(a) DEFINITIONS.—In this section:

(1) DEVELOPER.—The term “developer” means a developer of electric transmission facilities or technologies that pays to install a high-voltage transmission conductor.

(2) ELIGIBLE ENTITY.—The term “eligible entity” means—

(A) a developer;

(B) an electric utility;

(C) a State;

(D) a Regional Transmission Organization or Independent System Operator; or

(E) any other relevant entity, as determined by the Secretary.

1 (b) TECHNICAL ASSISTANCE AND APPLICATION
2 GUIDE.—

3 (1) APPLICATION GUIDE.—Not later than 1
4 year after the date of enactment of this Act, the
5 Secretary shall establish an application guide for eli-
6 gible entities seeking to implement—

7 (A) advanced transmission conductors, in-
8 cluding through reconductoring with advanced
9 transmission conductors; and

10 (B) grid-enhancing technologies.

11 (2) UPDATES.—The guide established under
12 paragraph (1) shall be reviewed and updated annu-
13 ally.

14 (3) TECHNICAL ASSISTANCE.—

15 (A) IN GENERAL.—On request of an eligi-
16 ble entity using the guide established under
17 paragraph (1), the Secretary shall provide tech-
18 nical assistance to that eligible entity with re-
19 spect to the use of advanced transmission con-
20 ductors and grid-enhancing technologies for
21 particular applications.

22 (B) CLEARINGHOUSE.—In carrying out
23 subparagraph (A), the Secretary shall establish
24 a clearinghouse of previously completed projects

1 that the Secretary and eligible entities may use
2 to identify issues and solutions relating to—

3 (i) the use of advanced transmission
4 conductors;

5 (ii) reconductoring with advanced
6 transmission conductors; and

7 (iii) the use of grid-enhancing tech-
8 nologies.

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