

118TH CONGRESS
1ST SESSION

S. 2827

To require the Federal Energy Regulatory Commission to establish minimum interregional transfer capabilities, and for other purposes.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 18, 2023

Mr. HICKENLOOPER introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To require the Federal Energy Regulatory Commission to establish minimum interregional transfer capabilities, 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 “Building Integrated
5 Grids With Inter-Regional Energy Supply Act” or the
6 “BIG WIRES Act”.

7 **SEC. 2. FINDINGS.**

8 Congress finds that—

1 (1) interregional electric transmission is
2 foundational to a modern grid and a growing econ-
3 omy based on affordable and abundant energy;

4 (2) in recent decades, the interregional electric
5 grid infrastructure of North America, and of the
6 United States in particular, has stagnated;

7 (3) since 2014, the total capacity of planned or
8 newly constructed large-scale interregional trans-
9 mission in North America has amounted to less than
10 $\frac{1}{3}$ that of South America, $\frac{1}{6}$ that of Europe, and
11 $\frac{1}{30}$ that of China;

12 (4) such a shortage of interregional trans-
13 mission threatens the reliability of the electric grid
14 of the United States and its resiliency to extreme
15 weather events and cyber and physical attacks while
16 artificially inflating energy prices for the people of
17 the United States;

18 (5) the damages resulting from that inter-
19 regional transmission shortfall have been borne
20 across the United States, in part during extreme
21 weather events, including the 2022 freeze affecting
22 the majority of the United States, the 2020 and
23 2022 heat waves in California, the 2019 heat wave
24 and 2021 freeze in Texas, the 2018 cyclone on the
25 East Coast, and the 2014 polar vortex in the North-

1 east and Midwest, and those extreme weather events
2 collectively cost the people of the United States hun-
3 dreds of billions of dollars;

4 (6) new interregional transmission, and transfer
5 capability achieved by means of other technologies
6 and grid-operational practices, represents a unique
7 opportunity to fortify the critical energy infrastruc-
8 ture of the United States while lowering the cost of
9 living for families;

10 (7) studies of interregional transmission rou-
11 tinely find benefit-cost ratios as high as 2.5, in line
12 with real-world experience;

13 (8) by relieving grid congestion and promoting
14 more efficient grid planning and operation, new
15 interregional transmission presents an all-of-the-
16 above opportunity for the full energy-generating
17 portfolio of renewable, fossil, and nuclear resources
18 of the United States; and

19 (9) interregional transmission represents a 2-
20 way value proposition, with secure careers for work-
21 ers in energy communities and competitively
22 sourced, low-cost, reliable energy for industrial, com-
23 mercial, and residential energy customers nation-
24 wide.

1 **SEC. 3. MINIMUM INTERREGIONAL TRANSFER CAPABILI-**
2 **TIES AND REQUIREMENTS.**

3 (a) IN GENERAL.—Part II of the Federal Power Act
4 (16 U.S.C. 824 et seq.) is amended by adding at the end
5 the following:

6 **“SEC. 224. INTERREGIONAL RELIABILITY.**

7 “(a) DEFINITIONS.—In this section:

8 “(1) COINCIDENT INTERREGIONAL TRANSFER
9 CAPABILITY.—The term ‘coincident interregional
10 transfer capability’, with respect to an interregional
11 transmission planning region, means the ability of
12 the interconnected electrical system to coincidentally
13 move electric energy reliably between the inter-
14 regional transmission planning region in question
15 and the rest of the interconnected electrical system.

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

18 “(3) INTERREGIONAL TRANSFER CAPABILITY.—
19 The term ‘interregional transfer capability’ means
20 the ability of the interconnected electrical system to
21 move electric energy reliably between 2 or more
22 interregional transmission planning regions.

23 “(4) INTERREGIONAL TRANSMISSION PLANNING
24 REGION.—The term ‘interregional transmission plan-
25 ning region’ means a region for which electric energy
26 transmission planning is appropriate, as determined

1 by the Commission, such as a region approved by
 2 the Commission to meet the requirements of the
 3 final rule of the Commission entitled ‘Transmission
 4 Planning and Cost Allocation by Transmission Own-
 5 ing and Operating Public Utilities’ (Docket No.
 6 RM10–23).

7 “(5) MINIMUM INTERREGIONAL TRANSFER CA-
 8 PABILITY.—The term ‘minimum interregional trans-
 9 fer capability’ means, as applicable—

10 “(A) the coincident interregional transfer
 11 capability described in subsection (b)(1)(A); or

12 “(B) a higher coincident interregional
 13 transfer capability established in accordance
 14 with subsection (b)(1)(B).

15 “(6) MINIMUM INTERREGIONAL TRANSFER RE-
 16 QUIREMENT.—The term ‘minimum interregional
 17 transfer requirement’ means any requirement to
 18 meet or maintain a minimum interregional transfer
 19 capability.

20 “(b) ESTABLISHMENT OF MINIMUM INTERREGIONAL
 21 TRANSFER CAPABILITIES.—

22 “(1) IN GENERAL.—Not later than 18 months
 23 after the date of enactment of this section, the Com-
 24 mission shall promulgate a final rule that—

1 “(A) requires each interregional trans-
2 mission planning region to establish or increase
3 interregional transfer capabilities such that the
4 coincident interregional transfer capability of
5 each interregional transmission planning region
6 is not less than the lesser of—

7 “(i) 30 percent of its own present-day
8 coincident peak load; and

9 “(ii) the sum obtained by adding—

10 “(I) the present-day coincident
11 interregional transfer capability of the
12 interregional transmission planning
13 region; and

14 “(II) 15 percent of its own
15 present-day coincident peak load;

16 “(B) on a showing of net benefits, may re-
17 quire 1 or more interregional transmission plan-
18 ning regions to meet or maintain a coincident
19 interregional transfer capability that exceeds
20 the applicable minimum interregional transfer
21 capability described in subparagraph (A);

22 “(C) based on the applicable minimum
23 interregional transfer capability, shall govern
24 the establishment of minimum interregional
25 transfer requirements for interconnections be-

1 tween interregional transmission planning re-
2 gions;

3 “(D) calculates the present-day coincident
4 interregional transfer capabilities of the inter-
5 regional transmission planning regions by—

6 “(i) defining the present-day coinci-
7 dent interregional transfer capability of
8 each interregional transmission planning
9 region as being equal to the greater of—

10 “(I) the coincident import capa-
11 bility of the interregional transmission
12 planning region; and

13 “(II) the coincident export capa-
14 bility of the interregional transmission
15 planning region;

16 “(ii) defining the coincident import
17 capability of each interregional trans-
18 mission planning region as being equal to
19 the absolute value of the first $\frac{1}{10}$ of the
20 first percentile (0.1th percentile) of the co-
21 incident hourly electrical transfers of that
22 interregional transmission planning region;

23 “(iii) defining the coincident export
24 capability of the interregional transmission
25 planning region as being equal to the abso-

1 lute value of the last $\frac{1}{10}$ of the 99th per-
2 centile (99.9th percentile) of the coincident
3 hourly electrical transfers of that inter-
4 regional transmission planning region;

5 “(iv) defining the coincident hourly
6 electrical transfers of each interregional
7 transmission planning region as being
8 equal to the sum obtained by adding, with
9 respect to each hour, the hourly electrical
10 transfers of all balancing authorities that,
11 in the determination of the Commission,
12 most closely correspond to the inter-
13 regional transmission planning region in
14 question using data from Form EIA-930
15 of the Energy Information Administration
16 for the 5-year period ending on—

17 “(I) for each plan described in
18 subparagraph (G) that is required to
19 be submitted by the date described in
20 that subparagraph, the date that is 1
21 year before the date of enactment of
22 this section; and

23 “(II) for each plan submitted
24 under paragraph (4)(A) and each up-
25 dated plan submitted under para-

1 graph (4)(B), the date that is 1 year
2 before the deadline for submission of
3 that plan; and

4 “(v) defining the hourly electrical
5 transfers of each interregional trans-
6 mission planning region as being equal to,
7 for each hour—

8 “(I) the hourly exports of that
9 interregional transmission planning
10 region; minus

11 “(II) the hourly imports of that
12 interregional transmission planning
13 region;

14 “(E) calculates the present-day coincident
15 peak loads of the interregional transmission
16 planning regions by—

17 “(i) defining the present-day coinci-
18 dent peak load of each interregional trans-
19 mission planning region as being equal to
20 the last $\frac{1}{10}$ of the 99th percentile (99.9th
21 percentile) of the coincident hourly load of
22 that interregional transmission planning
23 region; and

24 “(ii) defining the coincident hourly
25 load of each interregional transmission

1 planning region as being equal to the sum
2 obtained by adding, with respect to each
3 hour, the hourly loads of all balancing au-
4 thorities that, in the determination of the
5 Commission, most closely correspond to
6 the interregional transmission planning re-
7 gion in question using data from Form
8 EIA-930 of the Energy Information Ad-
9 ministration for the 5-year period ending
10 on—

11 “(I) for each plan described in
12 subparagraph (G) that is required to
13 be submitted by the date described in
14 that subparagraph, the date that is 1
15 year before the date of enactment of
16 this section; and

17 “(II) for each plan submitted
18 under paragraph (4)(A) and each up-
19 dated plan submitted under para-
20 graph (4)(B), the date that is 1 year
21 before the deadline for submission of
22 that plan;

23 “(F) for purposes of determining the ade-
24 quacy of a plan described in subparagraph (G)
25 to provide for the achievement of the minimum

1 interregional transfer capability applicable to an
2 interregional transmission planning region, de-
3 scribes and employs a clear methodology for
4 calculating anticipated changes to the coinci-
5 dent peak load and coincident interregional
6 transfer capability of an interregional trans-
7 mission planning region designed to correspond
8 approximately to what would be reasonably ex-
9 pected to be calculated under subparagraphs
10 (D) and (E) at a future date based on—

11 “(i) the construction or modification
12 of new or existing transmission facilities,
13 including facilities built between inter-
14 regional transmission planning regions and
15 facilities within interregional transmission
16 planning regions that impact the ability of
17 the interregional transmission planning re-
18 gions to move electric energy between
19 themselves and neighboring interregional
20 transmission planning regions;

21 “(ii) the use of nontransmission alter-
22 natives, including grid-enhancing tech-
23 nologies;

24 “(iii) changes to generation or load
25 within interregional transmission planning

1 regions, including energy efficiency and de-
2 mand response programs; and

3 “(iv) other changes to the bulk-power
4 system (as defined in section 215(a)) or
5 the operation of the bulk-power system
6 that are expected to meaningfully alter co-
7 incident peak loads or coincident inter-
8 regional transfer capabilities, as deter-
9 mined by the Commission;

10 “(G) establishes a process for each inter-
11 regional transmission planning region to sub-
12 mit, jointly with each other interregional trans-
13 mission planning region with which the inter-
14 regional transmission planning region has, or
15 plans to establish, an interregional transfer ca-
16 pability, not later than 2 years after the effec-
17 tive date of the final rule, a plan that—

18 “(i) designates 1 or more entities for
19 construction of new facilities or modifica-
20 tion of existing facilities to achieve the ap-
21 plicable minimum interregional transfer ca-
22 pability in an efficient and timely manner
23 for the benefit of ultimate consumers;

24 “(ii) allocates the costs of the facilities
25 described in clause (i); and

1 “(iii) includes a timeline for the con-
2 struction of the facilities described in
3 clause (i)—

4 “(I) by December 31, 2035; or

5 “(II) if any construction will ex-
6 tend beyond that date, that includes
7 an explanation of the reasons for that
8 construction extending beyond that
9 date; and

10 “(H) explains how the Commission will
11 designate 1 or more entities to construct or
12 modify, and how the Commission will allocate
13 the costs of, the facilities described in clause (i)
14 of subparagraph (G) in the event that an inter-
15 regional transmission planning region fails to
16 submit a plan in accordance with that subpara-
17 graph.

18 “(2) PRESUMPTIONS; CONSULTATION.—In es-
19 tablishing the methodology under paragraph (1)(F),
20 the Commission may—

21 “(A) establish and use simplified, rebutta-
22 ble presumptions relating to the extent to which
23 coincident interregional transfer capabilities or
24 coincident peak loads will be anticipated to be
25 altered by facilities, technologies, or programs

1 described in clauses (i) through (iv) of that
2 paragraph; and

3 “(B) consult with appropriate officials of
4 the Department of Energy.

5 “(3) CONSIDERATIONS.—In carrying out para-
6 graph (1), the Commission shall consider and deter-
7 mine the role of transfer capabilities between inter-
8 regional transmission planning regions and other
9 electrical systems in North America in meeting the
10 requirements of that paragraph.

11 “(4) PLANS.—

12 “(A) NEW INTERREGIONAL TRANSMISSION
13 PLANNING REGIONS.—Not later than 2 years
14 after the establishment of any new interregional
15 transmission planning region, the new inter-
16 regional transmission planning region and each
17 interregional transmission planning region with
18 which the new interregional transmission plan-
19 ning region has, or plans to establish, an inter-
20 regional transfer capability, shall jointly submit
21 to the Commission a plan described in para-
22 graph (1)(G) to meet the minimum inter-
23 regional transfer capability applicable to that
24 new interregional transmission planning region.

25 “(B) UPDATES.—

1 “(i) IN GENERAL.—The Commission
2 shall require each plan submitted in ac-
3 cordance with paragraph (1)(G) or sub-
4 paragraph (A) to be updated, and the up-
5 dated plan submitted to the Commission,
6 every 5 years after the deadline for sub-
7 mission of the initial plan.

8 “(ii) REQUIREMENT.—An updated
9 plan submitted in accordance with clause
10 (i) shall, at a minimum, account for any
11 changes in regional coincident peak load
12 since the most recent previous submission.

13 “(C) REVIEW.—The Commission shall re-
14 view each plan submitted in accordance with
15 paragraph (1)(G) or subparagraph (A) or (B)
16 in a manner consistent with—

17 “(i) the principles described in sub-
18 section (g); and

19 “(ii) sections 205 and 206, with re-
20 spect to the requirement that all rates,
21 charges, terms, and conditions be just and
22 reasonable and not unduly discriminatory
23 or preferential.

24 “(c) EQUAL APPLICATION.—In carrying out this sec-
25 tion, including with respect to the imposition of, and as-

1 sessing compliance with, any minimum interregional
2 transfer requirement, the Commission shall apply all pro-
3 visions of this section, and any regulations promulgated
4 under this section, equally to all interregional transmission
5 planning regions, including by using the same terms, defi-
6 nitions, and standards with respect to each interregional
7 transmission planning region.

8 “(d) COMMISSION JURISDICTION.—The Commission
9 shall have jurisdiction within the United States over all
10 transmitting utilities for the purposes of establishing min-
11 imum interregional transfer capabilities in accordance
12 with this section and establishing and enforcing compli-
13 ance with minimum interregional transfer requirements.

14 “(e) ELECTRIC RELIABILITY COUNCIL OF TEXAS.—

15 “(1) IN GENERAL.—The Public Utility Commis-
16 sion of Texas may, at its sole discretion, choose to
17 support the reliability and affordability of the
18 ERCOT system by voluntarily complying with a
19 minimum interregional transfer requirement relating
20 to a coincident interregional transfer capability that
21 is equal to a percentage, determined by ERCOT, of
22 the coincident peak load of ERCOT.

23 “(2) SAVINGS CLAUSE.—

24 “(A) IN GENERAL.—The construction or
25 operation of an interregional facility, or the al-

1 location of costs for that construction, to meet
2 a minimum interregional transfer capability
3 shall not affect the jurisdiction of the Commis-
4 sion with respect to—

5 “(i) ERCOT; or

6 “(ii) any ERCOT utility.

7 “(B) NOT PUBLIC UTILITIES.—The con-
8 struction or operation of a facility described in
9 subparagraph (A), or the allocation of costs for
10 that construction, shall not render ERCOT or
11 any ERCOT utility a public utility.

12 “(f) DATA QUALITY.—

13 “(1) IN GENERAL.—Not later than 180 days
14 after the date of enactment of this section, the Ad-
15 ministrator of the Energy Information Administra-
16 tion shall submit to the Commission an updated
17 version of the data from Form EIA–930 for use in
18 accordance with subparagraphs (D) and (E) of sub-
19 section (b)(1).

20 “(2) ERRORS.—In updating the Form EIA–930
21 data for purposes of paragraph (1), the Adminis-
22 trator of the Energy Information Administration, to
23 the maximum extent practicable, shall control for
24 the quality of the data by—

1 “(A) identifying any suspected erroneous
2 values; and

3 “(B) removing those suspected erroneous
4 values or overwriting those suspected erroneous
5 values with data that, in the determination of
6 the Administrator, is likely to be more accurate.

7 “(g) REQUIREMENT.—In carrying out this section,
8 the Commission shall endeavor—

9 “(1) to improve the reliability and resilience of
10 the electric grid of the United States, including dur-
11 ing—

12 “(A) extreme weather scenarios;

13 “(B) physical attacks; and

14 “(C) cyber attacks; and

15 “(2) to reduce the cost of delivered power to ul-
16 timate consumers by increasing access to low-cost
17 generating resources.”.

18 (b) CONFORMING AMENDMENTS.—Section 201 of the
19 Federal Power Act (16 U.S.C. 824) is amended—

20 (1) in subsection (b)(2)—

21 (A) in the first sentence—

22 (i) by striking “section 201(f)” and
23 inserting “subsection (f)”; and

24 (ii) by striking “and 222” and insert-
25 ing “222, and 224”; and

1 (B) in the second sentence, by striking “or
2 222” and inserting “222, or 224”; and
3 (2) in subsection (e)—
4 (A) by striking “206(f),”; and
5 (B) by striking “or 222” and inserting
6 “222, or 224”.

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