

117TH CONGRESS
1ST SESSION

H. R. 4027

To facilitate the generation and delivery of power from affordable and reliable renewable generation projects and energy storage projects.

IN THE HOUSE OF REPRESENTATIVES

JUNE 22, 2021

Ms. CASTOR of Florida (for herself, Mr. PETERS, Mr. CASTEN, Mr. HUFFMAN, Ms. BROWNLEY, Ms. SCHAKOWSKY, Ms. ESCOBAR, and Ms. BONAMICI) introduced the following bill; which was referred to the Committee on Energy and Commerce

A BILL

To facilitate the generation and delivery of power from affordable and reliable renewable generation projects and energy storage projects.

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; DEFINITIONS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “Efficient Grid Interconnection Act of 2021”.

6 (b) DEFINITIONS.—In this Act:

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

1 (2) ENERGY STORAGE PROJECT.—The term
2 “energy storage project” means equipment which re-
3 ceives, stores, and delivers energy using batteries,
4 compressed air, pumped hydropower, hydrogen stor-
5 age (including hydrolysis), thermal energy storage,
6 regenerative fuel cells, flywheels, capacitors, super-
7 conducting magnets, or other technologies identified
8 by the Secretary of Energy, and which has a capac-
9 ity of not less than 5 kilowatt hours.

10 (3) GENERATION PROJECT.—The term “gen-
11 eration project” means any facility—

12 (A) that generates electricity; and

13 (B) the interconnection request of which is
14 subject to the jurisdiction of the Commission.

15 (4) GENERATOR TIE LINE.—The term “gener-
16 ator tie line” means a dedicated transmission line
17 that is used to transmit power from a generation
18 project or an energy storage project to a trans-
19 mission facility or a transmission system.

20 (5) GRID ENHANCING TECHNOLOGY.—The term
21 “grid enhancing technology” means any technology
22 or equipment that increases the capacity, efficiency,
23 or reliability of a transmission facility or trans-
24 mission system, including—

- 1 (A) power flow control and transmission
2 switching equipment;
- 3 (B) energy storage technology;
- 4 (C) topology optimization technology;
- 5 (D) dynamic line rating technology; and
- 6 (E) other advanced transmission tech-
7 nologies, such as composite reinforced alu-
8 minum conductors or high temperature super-
9 conductors.

10 (6) INTERCONNECTION CUSTOMER.—The term
11 “interconnection customer” means a person or entity
12 that has submitted a request to interconnect a gen-
13 eration project or an energy storage project that is
14 subject to the jurisdiction of the Commission to the
15 owner or operator of a transmission facility or a
16 transmission system.

17 (7) NETWORK UPGRADE.—The term “network
18 upgrade” means—

- 19 (A) any modification of, addition to, or ex-
20 pansion of any transmission facility or trans-
21 mission system;
- 22 (B) the construction of a new facility that
23 will become part of a transmission system;

1 (C) the addition of an energy storage
2 project to a transmission facility or a trans-
3 mission system; and

4 (D) any construction, deployment, or addi-
5 tion of grid enhancing technology to a trans-
6 mission facility or a transmission system that
7 eliminates or reduces the need to carry out any
8 of the activities described in subparagraphs (A)
9 through (C).

10 (8) PARTICIPANT FUNDING.—The term “partic-
11 ipant funding” means any cost allocation method
12 under which an interconnection customer is required
13 to pay, without reimbursement, all or a dispropor-
14 tionate amount of the costs of a network upgrade
15 that is determined to be necessary to ensure the reli-
16 able interconnection of the interconnection cus-
17 tomer’s generation project or energy storage project.

18 (9) PUBLIC UTILITY.—The term “public util-
19 ity” has the meaning given such term in section
20 201(e) of the Federal Power Act (16 U.S.C. 824(e)).

21 (10) RENEWABLE GENERATION PROJECT.—The
22 term “renewable generation project” means a gen-
23 eration project that generates electricity from a re-
24 newable energy resource, including wind, solar, geo-
25 thermal, and hydropower.

1 (11) REGIONAL TRANSMISSION ORGANIZATION;
2 INDEPENDENT SYSTEM OPERATOR.—The terms
3 “Regional Transmission Organization” and “Inde-
4 pendent System Operator” have the meanings given
5 such terms in section 3 of the Federal Power Act
6 (16 U.S.C. 796).

7 (12) TRANSMISSION SYSTEM.—The term
8 “transmission system” means a network of trans-
9 mission facilities used for the transmission of elec-
10 tric energy in interstate commerce.

11 **SEC. 2. SENSE OF CONGRESS.**

12 It is the sense of Congress that—

13 (1) in much of the United States renewable
14 generation projects and energy storage projects face
15 unfair and inefficient barriers to Commission-juris-
16 dictional interconnection with the electric grid;

17 (2) legislation is needed to accelerate the timely
18 and efficient interconnection of renewable generation
19 projects and energy storage projects, and to ensure
20 that individual interconnection customers are not
21 forced to bear disproportionate amounts of shared
22 network upgrade costs;

23 (3) network upgrades required to be con-
24 structed to interconnect renewable generation
25 projects and energy storage projects benefit all

1 transmission system customers as well as parties
2 that receive power delivered over such transmission
3 systems;

4 (4) the practice of exclusive or disproportionate
5 participant funding, whereby the costs of network
6 upgrades are assigned solely or disproportionately to
7 individual interconnection customers, is unduly dis-
8 criminatory, harmful to consumers, and not in the
9 public interest;

10 (5) in certain cases, the deployment of grid en-
11 hancing technologies can substitute for, and thereby
12 reduce the need for, time required, or cost to con-
13 struct, a traditional transmission upgrade or addi-
14 tion, such as modifying or adding a conductor or
15 substation element, that otherwise would be required
16 to interconnect a new generation project or energy
17 storage project;

18 (6) by reducing the need for, and the time nec-
19 essary to construct, a traditional transmission up-
20 grade or addition, such as modifying or adding a
21 conductor or substation element, the deployment of
22 grid enhancing technologies would facilitate timely,
23 efficient, and cost-effective interconnections, and the
24 renewable generation projects and energy storage
25 projects dependent on those interconnections, and

1 the delivery of clean and reliable electricity produced
2 by those projects; and

3 (7) collectively, the development and construc-
4 tion of renewable generation projects, energy storage
5 projects, and grid enhancing technologies should cre-
6 ate tens of thousands of family-sustaining jobs, fa-
7 cilitate rural economic development, enhance Federal
8 and State tax revenues, and further the timely and
9 cost-effective delivery of clean, affordable, and reli-
10 able electricity.

11 **SEC. 3. EQUITABLE COST ALLOCATION.**

12 (a) IN GENERAL.—Not later than 180 days after the
13 date of enactment of this Act, the Commission shall issue
14 a new regulation, or revise existing regulations, to prohibit
15 the use of exclusive or disproportionate participant fund-
16 ing.

17 (b) ALLOCATION OF COSTS.—

18 (1) IN GENERAL.—In prohibiting the use of ex-
19 clusive or disproportionate participant funding under
20 subsection (a), the Commission shall, except as pro-
21 vided in paragraph (4), require that each public util-
22 ity—

23 (A) may not allocate the costs of a network
24 upgrade solely to the requesting interconnection
25 customer; and

1 (B) shall reasonably allocate such costs to
2 parties that—

3 (i) use the transmission facility or the
4 transmission system;

5 (ii) take electricity from the trans-
6 mission facility or the transmission system;

7 or

8 (iii) otherwise benefit from a network
9 upgrade of the transmission facility or the
10 transmission system.

11 (2) INTERCONNECTION TO MULTIPLE TRANS-
12 MISSION SYSTEMS.—With respect to a network up-
13 grade that is associated with a generation project or
14 an energy storage project that has a significant im-
15 pact on two or more transmission systems, the costs
16 for such a network upgrade shall be allocated pursu-
17 ant to a methodology designed jointly by the im-
18 pacted transmission systems to ensure that all such
19 costs are equitably shared by the parties that benefit
20 from such network upgrade.

21 (3) DETERMINATION OF BENEFITTING PAR-
22 TIES.—In determining which parties benefit for pur-
23 poses of paragraph (1)(B)(iii) and paragraph (2),
24 the Commission shall consider all material benefits
25 of the network upgrade, including—

1 (A) those that cannot be directly quan-
2 tified, including resilience benefits; and

3 (B) environmental benefits, including re-
4 duced and avoided emissions of greenhouse
5 gases and conventional air pollutants.

6 (4) GENERATOR TIE LINES.—A public utility
7 may require an interconnection customer to pay for
8 the costs of construction of any generator tie lines
9 that will be used to transmit power from the inter-
10 connection customer's generation project or energy
11 storage project, as applicable, to the transmission fa-
12 cility or the transmission system.

13 (5) VOLUNTARY PAYMENT.—

14 (A) IN GENERAL.—An interconnection cus-
15 tomer may pay upfront some or all of the costs
16 of a network upgrade at the transmission facil-
17 ity or transmission system to which they plan
18 to interconnect their generation project or en-
19 ergy storage project in accordance with sub-
20 paragraph (B).

21 (B) REPAYMENT.—Any interconnection
22 customer that pays costs under subparagraph
23 (A) shall be refunded such costs allocable to
24 other parties pursuant to the Commission's reg-
25 ulations issued or revised under this section,

1 over a period that is not longer than 10 years
2 beginning on the date on which the interconnec-
3 tion customer's interconnection is complete.

4 (6) UPDATING PROCEDURES.—Not later than
5 the date that is 3 months after the date on which
6 the Commission issues or revises regulations as re-
7 quired under subsection (a), each public utility shall
8 make a filing pursuant to section 205 of the Federal
9 Power Act (16 U.S.C. 824d) to amend their inter-
10 connection procedures to comply with such regula-
11 tions.

12 **SEC. 4. DEPLOYMENT OF GRID ENHANCING TECH-**
13 **NOLOGIES.**

14 Not later than 180 days after the date of enactment
15 of this Act, the Commission shall issue a new regulation,
16 or revise existing regulations, to require the following:

17 (1) CONSULTATION.—

18 (A) IN GENERAL.—With respect to proc-
19 essing a request to interconnect a generation
20 project or an energy storage project, the Re-
21 gional Transmission Organization, Independent
22 System Operator, or transmission planning co-
23 ordinator, as applicable, shall—

24 (i) consult with the relevant owner of
25 the transmission facility or transmission

1 system, and the interconnection customer,
2 regarding deploying grid enhancing tech-
3 nology in addition to, or as a substitute to,
4 carrying out a traditional transmission up-
5 grade or addition, such as modifying or
6 adding a conductor or substation element;
7 and

8 (ii) study the efficacy of deploying
9 grid enhancing technology for the purposes
10 described in clause (i).

11 (B) UNCONNECTED TRANSMISSION FACILI-
12 TIES.—With respect to a request to inter-
13 connect a generation project or an energy stor-
14 age project to a transmission facility that is not
15 connected to a transmission system, the owner
16 or operator of such a facility shall—

17 (i) consult with the interconnection
18 customer regarding deploying grid enhanc-
19 ing technology in addition to, or as a sub-
20 stitute to, carrying out a traditional trans-
21 mission upgrade or addition, such as modi-
22 fying or adding a conductor or substation
23 element; and

1 (ii) study the efficacy of deploying
2 grid enhancing technology for the purposes
3 described in clause (i).

4 (2) DEPLOYMENT.—

5 (A) IN GENERAL.—An interconnection cus-
6 tomer that is consulted with under paragraph
7 (1) may request that grid enhancing technology
8 that was the subject of such consultation be de-
9 ployed.

10 (B) DETERMINATION.—The owner of the
11 transmission facility or transmission system to
12 which such technology would be deployed shall
13 determine whether to deploy such technology,
14 subject to an appeal under subparagraph (C).

15 (C) APPEAL.—

16 (i) IN GENERAL.—An interconnection
17 customer that requests deployment of grid
18 enhancing technology under subparagraph
19 (A) may submit to the Commission a re-
20 quest for a hearing to appeal the decision
21 under subparagraph (B) to not deploy grid
22 enhancing technology.

23 (ii) EFFECT OF APPEAL.—After a
24 hearing under clause (i), the Commission
25 may order the owner of the transmission

1 facility or transmission system to deploy
2 the grid enhancing technology requested
3 under subparagraph (A).

4 (3) UPDATING PROCEDURES.—Not later than
5 the date that is 3 months after the date on which
6 the Commission issues or revises regulations as re-
7 quired under this section, each public utility shall
8 make a filing pursuant to section 205 of the Federal
9 Power Act (16 U.S.C. 824d) to amend their inter-
10 connection procedures to comply with such regula-
11 tions.

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