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

IN THE HOUSE OF REPRESENTATIVES

Ms. Castor of Florida introduced the following bill; which was referred to the Committee on __________

A BILL

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

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; DEFINITIONS.

(a) Short Title.—This Act may be cited as the “Efficient Grid Interconnection Act of 2021”.

(b) Definitions.—In this Act:

(2) Energy Storage Project.—The term “energy storage project” means equipment which receives, stores, and delivers energy using batteries, compressed air, pumped hydropower, hydrogen storage (including hydrolysis), thermal energy storage, regenerative fuel cells, flywheels, capacitors, superconducting magnets, or other technologies identified by the Secretary of Energy, and which has a capacity of not less than 5 kilowatt hours.

(3) Generation Project.—The term “generation project” means any facility—

(A) that generates electricity; and

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

(4) Generator Tie Line.—The term “generator tie line” means a dedicated transmission line that is used to transmit power from a generation project or an energy storage project to a transmission facility or a transmission system.

(5) Grid Enhancing Technology.—The term “grid enhancing technology” means any technology or equipment that increases the capacity, efficiency, or reliability of a transmission facility or transmission system, including—
(A) power flow control and transmission switching equipment;
(B) energy storage technology;
(C) topology optimization technology;
(D) dynamic line rating technology; and
(E) other advanced transmission technologies, such as composite reinforced aluminum conductors or high temperature superconductors.

(6) INTERCONNECTION CUSTOMER.—The term “interconnection customer” means a person or entity that has submitted a request to interconnect a generation project or an energy storage project that is subject to the jurisdiction of the Commission to the owner or operator of a transmission facility or a transmission system.

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

(A) any modification of, addition to, or expansion of any transmission facility or transmission system;
(B) the construction of a new facility that will become part of a transmission system;
(C) the addition of an energy storage project to a transmission facility or a transmission system; and

(D) any construction, deployment, or addition of grid enhancing technology to a transmission facility or a transmission system that eliminates or reduces the need to carry out any of the activities described in subparagraphs (A) through (C).

(8) PARTICIPANT FUNDING.—The term “participant funding” means any cost allocation method under which an interconnection customer is required to pay, without reimbursement, all or a disproportionate amount of the costs of a network upgrade that is determined to be necessary to ensure the reliable interconnection of the interconnection customer’s generation project or energy storage project.

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

(10) RENEWABLE GENERATION PROJECT.—The term “renewable generation project” means a generation project that generates electricity from a renewable energy resource, including wind, solar, geothermal, and hydropower.
(11) **Regional transmission organization;**

INDEPENDENT SYSTEM OPERATOR.—The terms “Regional Transmission Organization” and “Independent System Operator” have the meanings given such terms in section 3 of the Federal Power Act (16 U.S.C. 796).

(12) **Transmission system.**—The term “transmission system” means a network of transmission facilities used for the transmission of electric energy in interstate commerce.

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

It is the sense of Congress that—

(1) in much of the United States renewable generation projects and energy storage projects face unfair and inefficient barriers to Commission-jurisdictional interconnection with the electric grid;

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

(3) network upgrades required to be constructed to interconnect renewable generation projects and energy storage projects benefit all
transmission system customers as well as parties
that receive power delivered over such transmission
systems;

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

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

(6) by reducing the need for, and the time nec-
essary to construct, a traditional transmission up-
grade or addition, such as modifying or adding a
conductor or substation element, the deployment of
grid enhancing technologies would facilitate timely,
efficient, and cost-effective interconnections, and the
renewable generation projects and energy storage
projects dependent on those interconnections, and
the delivery of clean and reliable electricity produced
by those projects; and
(7) collectively, the development and construction of renewable generation projects, energy storage projects, and grid enhancing technologies should create tens of thousands of family-sustaining jobs, facilitate rural economic development, enhance Federal and State tax revenues, and further the timely and cost-effective delivery of clean, affordable, and reliable electricity.

SEC. 3. EQUITABLE COST ALLOCATION.

(a) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, the Commission shall issue a new regulation, or revise existing regulations, to prohibit the use of exclusive or disproportionate participant funding.

(b) ALLOCATION OF COSTS.—

(1) IN GENERAL.—In prohibiting the use of exclusive or disproportionate participant funding under subsection (a), the Commission shall, except as provided in paragraph (4), require that each public utility—

(A) may not allocate the costs of a network upgrade solely to the requesting interconnection customer; and
(B) shall reasonably allocate such costs to parties that—

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

(ii) take electricity from the transmission facility or the transmission system;

or

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

(2) INTERCONNECTION TO MULTIPLE TRANSMISSION SYSTEMS.—With respect to a network upgrade that is associated with a generation project or an energy storage project that has a significant impact on two or more transmission systems, the costs for such a network upgrade shall be allocated pursuant to a methodology designed jointly by the impacted transmission systems to ensure that all such costs are equitably shared by the parties that benefit from such network upgrade.

(3) DETERMINATION OF BENEFITTING PARTIES.—In determining which parties benefit for purposes of paragraph (1)(B)(iii) and paragraph (2), the Commission shall consider all material benefits of the network upgrade, including—
(A) those that cannot be directly quantified, including resilience benefits; and

(B) environmental benefits, including reduced and avoided emissions of greenhouse gases and conventional air pollutants.

(4) GENERATOR TIE LINES.—A public utility may require an interconnection customer to pay for the costs of construction of any generator tie lines that will be used to transmit power from the interconnection customer’s generation project or energy storage project, as applicable, to the transmission facility or the transmission system.

(5) VOLUNTARY PAYMENT.—

(A) IN GENERAL.—An interconnection customer may pay upfront some or all of the costs of a network upgrade at the transmission facility or transmission system to which they plan to interconnect their generation project or energy storage project in accordance with subparagraph (B).

(B) REPAYMENT.—Any interconnection customer that pays costs under subparagraph (A) shall be refunded such costs allocable to other parties pursuant to the Commission’s regulations issued or revised under this section,
over a period that is not longer than 10 years beginning on the date on which the interconnection customer’s interconnection is complete.

(6) UPDATING PROCEDURES.—Not later than the date that is 3 months after the date on which the Commission issues or revises regulations as required under subsection (a), each public utility shall make a filing pursuant to section 205 of the Federal Power Act (16 U.S.C. 824d) to amend their interconnection procedures to comply with such regulations.

SEC. 4. DEPLOYMENT OF GRID ENHANCING TECHNOLOGIES.

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

(1) CONSULTATION.—

(A) IN GENERAL.—With respect to processing a request to interconnect a generation project or an energy storage project, the Regional Transmission Organization, Independent System Operator, or transmission planning coordinator, as applicable, shall—

(i) consult with the relevant owner of the transmission facility or transmission
system, and the interconnection customer, regarding deploying grid enhancing technology in addition to, or as a substitute to, carrying out a traditional transmission upgrade or addition, such as modifying or adding a conductor or substation element; and

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

(B) UNCONNECTED TRANSMISSION FACILITIES.—With respect to a request to interconnect a generation project or an energy storage project to a transmission facility that is not connected to a transmission system, the owner or operator of such a facility shall—

(i) consult with the interconnection customer regarding deploying grid enhancing technology in addition to, or as a substitute to, carrying out a traditional transmission upgrade or addition, such as modifying or adding a conductor or substation element; and
(ii) study the efficacy of deploying grid enhancing technology for the purposes described in clause (i).

(2) DEPLOYMENT.—

(A) IN GENERAL.—An interconnection customer that is consulted with under paragraph (1) may request that grid enhancing technology that was the subject of such consultation be deployed.

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

(C) APPEAL.—

(i) IN GENERAL.—An interconnection customer that requests deployment of grid enhancing technology under subparagraph (A) may submit to the Commission a request for a hearing to appeal the decision under subparagraph (B) to not deploy grid enhancing technology.

(ii) EFFECT OF APPEAL.—After a hearing under clause (i), the Commission may order the owner of the transmission
facility or transmission system to deploy
the grid enhancing technology requested
under subparagraph (A).

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