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2D SESSION

S. 4759

To establish the United States-India Clean Energy and Power Transmission Partnership to facilitate renewable energy cooperation with India, to enhance cooperation with India on climate resilience and adaptation, and for other purposes.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 30 (legislative day, SEPTEMBER 29), 2020

Mr. MENENDEZ introduced the following bill; which was read twice and referred to the Committee on Foreign Relations

A BILL

To establish the United States-India Clean Energy and Power Transmission Partnership to facilitate renewable energy cooperation with India, to enhance cooperation with India on climate resilience and adaptation, 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; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “Prioritizing Clean Energy and Climate Cooperation with
6 India Act of 2020”.

1 (b) TABLE OF CONTENTS.—The table of contents for
 2 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Findings.
- Sec. 3. Definitions.

TITLE I—UNITED STATES-INDIA CLEAN ENERGY AND POWER
TRANSMISSION PARTNERSHIP

- Sec. 101. Sense of Congress on clean energy cooperation with India.
- Sec. 102. Statement of policy.
- Sec. 103. Establishment of United States-India Clean Energy and Power Transmission Partnership.
- Sec. 104. Strategy for implementation of the Clean Energy and Power Transmission Partnership.
- Sec. 105. Partnerships for cooperation on research and innovation for clean energy technologies and expanded power transmission and distribution.
- Sec. 106. Initiatives for promoting clean energy technology financing in India.
- Sec. 107. Initiatives for technical assistance for grid improvement and energy efficiency in India.
- Sec. 108. Initiatives for generation of new renewable energy in India.

TITLE II—OTHER COOPERATION MATTERS

- Sec. 201. United States-India climate change risk reduction and resilience cooperation.
- Sec. 202. Report on United States participation in Mission Innovation.

3 **SEC. 2. FINDINGS.**

4 Congress makes the following findings:

5 (1) India is the second most populous country
 6 in the world with a population of approximately
 7 1,334,000,000 people and the fifth largest economy
 8 in the world with a nominal gross domestic product
 9 of \$2,940,000,000,000.

10 (2) India is among the countries most vulner-
 11 able to climate change, with hundreds of millions of
 12 people susceptible to events exacerbated by climate
 13 change, such as the spread of infectious diseases, sea

1 level rise and extreme flooding, droughts, storms,
2 and landslides triggered by extreme weather.

3 (3) India releases approximately 2,500,000,000
4 tons (carbon dioxide equivalent) in greenhouse gases
5 annually, making it the third largest greenhouse gas
6 emitter after China and the United States. India
7 ranks seventh in the world in cumulative historical
8 emissions and is the twelfth largest greenhouse gas
9 emitter per capita.

10 (4) India has one of the largest energy markets
11 in the world, and energy capacity in India has in-
12 creased by 17.5 percent in 5 years to 365 gigawatts
13 of installed electricity capacity.

14 (5) Per capita energy consumption in India is
15 relatively low among emerging economic powers.

16 (6) Reliable access to power is crucial for the
17 storage of vaccines and antiretroviral and other life-
18 saving medical drugs, as well as for the operation of
19 modern lifesaving medical equipment.

20 (7) Access to power can also provide improved
21 information and communication technologies that
22 can greatly improve health and education outcomes,
23 as well as economic and commercial opportunities.

24 (8) In 2000, only 43 percent of the population
25 of India had access to power. That percentage has

1 more than doubled in the last 20 years, with ap-
2 proximately 700,000,000 people in India gaining ac-
3 cess to electricity between 2000 and 2018.

4 (9) Prime Minister Narendra Modi has
5 prioritized improving citizen access to electricity and
6 electrifying every household in India.

7 (10) The Power for All initiative of the Govern-
8 ment of India aims to provide electricity to all
9 households in India 24 hours a day, 7 days a week.

10 (11) Providing around-the-clock electricity will
11 require India to double its electricity output by 2030
12 at an estimated cost of \$250,000,000,000, which
13 will create more than \$30,000,000,000 in investment
14 opportunities.

15 (12) As of August 2020, coal makes up the
16 largest domestic source of energy supply and elec-
17 tricity generation for India. Renewable energy com-
18 prises approximately 35 percent of energy generation
19 in India.

20 (13) India imports 80 percent of its oil needs,
21 and that amount is projected to increase in the com-
22 ing decades due to aging oil fields and a lack of new
23 oil discoveries in India. India is increasing its oil re-
24 fining capacity to maintain supply to meet the rising
25 demand for energy.

1 (14) India is projected to surpass the People's
2 Republic of China in oil consumption by 2030.

3 (15) On September 22, 2020, the People's Re-
4 public of China announced a pledge to achieve net
5 zero carbon emissions by 2060 in its updated Na-
6 tionally Determined Contribution to the Paris Agree-
7 ment, done at Paris December 12, 2015, but given
8 the need to accelerate the reduction of global emis-
9 sions along a 2050 timeline, that pledge is propor-
10 tionally insufficient to avoid an increase of 2 degrees
11 Celsius in the global average temperature.

12 (16) India, in contrast, is demonstrating that
13 energy security is a priority through concrete steps
14 including creating a unified national power system
15 and incorporating varied forms of renewable energy
16 to diversify its power sources.

17 (17) India's unconditional emissions target, as
18 outlined in the Intended Nationally Determined Con-
19 tribution of India to the Paris Agreement, aims to
20 reduce carbon emissions in India by 33 percent to
21 35 percent below 2005 levels by 2030.

22 (18) In its Intended Nationally Determined
23 Contribution, India set a goal of generating 175
24 gigawatts of renewable energy by 2022, which India
25 aimed to achieve by generating 100 gigawatts of

1 solar energy, 60 gigawatts of wind energy, and 15
2 gigawatts of energy from other sources such as bio-
3 mass and small hydro.

4 (19) India has pledged to increase the share of
5 its installed electricity capacity that comes from non-
6 fossil fuel sources to 40 percent by 2030.

7 (20) India is among the top 5 clean energy pro-
8 ducers globally. Installed electricity capacity from re-
9 newables in India grew by 144 percent from 2014 to
10 2020, and between 2014 and 2019 there was ap-
11 proximately \$42,000,000,000 in investment in the
12 renewable energy sector in India.

13 (21) Numerous global funds, private equity
14 firms, and multilateral finance institutions are con-
15 tinuing to invest billions of dollars in the growing re-
16 newable energy sector in India.

17 (22) India plays a critical leadership role in
18 Mission Innovation, a global initiative in which the
19 United States participates that has the goal of accel-
20 erating the pace of clean energy innovation to
21 achieve performance breakthroughs and cost reduc-
22 tions that will enable the provision of affordable and
23 reliable clean energy solutions.

24 (23) India leads the International Solar Alli-
25 ance, an 86-country initiative to mobilize

1 \$1,000,000,000,000 in solar energy investment by
2 2030, to which the United States does not belong.

3 (24) Increased ownership of appliances and
4 cooling needs could lead to a doubling or even tri-
5 pling of energy use in India by 2040. One billion air
6 conditioning units are expected to be in use in India
7 by 2050.

8 (25) Under the Kigali Amendment to the Mon-
9 treau Protocol on Substances that Deplete the Ozone
10 Layer, done at Montreal September 16, 1987, India
11 has agreed to freeze its manufacturing and con-
12 sumption of hydrofluorocarbons in 2028.

13 (26) In 2009, the United States and India es-
14 tablished a formal energy cooperation dialogue, the
15 United States-India Energy Dialogue, which in-
16 cluded the Partnership to Advance Clean Energy ini-
17 tiative focusing on research into, deployment of, and
18 access to clean energy.

19 (27) The Partnership to Advance Clean Energy
20 Research element of the Partnership to Advance
21 Clean Energy initiative, commonly referred to as
22 “PACE-R”, consists of research consortia under the
23 Joint Clean Energy Research and Development Cen-
24 ter launched in 2010 by the Department of Energy
25 and the Government of India with support from the

1 private sector. PACE–R has focused on solar power,
2 advanced biofuels, energy efficiency, and smart grids
3 and energy storage.

4 (28) The Partnership to Advance Clean Energy
5 Deployment element of the Partnership to Advance
6 Clean Energy initiative, commonly referred to as
7 “PACE–D”, funds programs to improve energy effi-
8 ciency, grid connectivity, clean energy finance, and
9 more.

10 (29) The Partnership to Advance Clean Energy
11 Access element of the Partnership to Advance Clean
12 Energy initiative, commonly referred to as
13 “PEACE”, has focused on finance and technology
14 innovation, skills development, and ecosystem
15 strengthening for clean energy.

16 (30) In 2018, the United States Government
17 established the Asia Enhancing Development and
18 Growth through Energy initiative, commonly re-
19 ferred to as “Asia EDGE”, to support sustainable
20 and secure energy markets throughout the Indo-Pa-
21 cific. Asia EDGE integrates elements of the Part-
22 nership to Advance Clean Energy initiative along
23 with new programs such as the South Asia Group
24 for Energy.

1 (31) In 2018, the Governments of India and
2 the United States established the U.S.-India Stra-
3 tegic Energy Partnership, which includes pillars of
4 cooperation on renewable energy and sustainable
5 growth.

6 **SEC. 3. DEFINITIONS.**

7 In this Act:

8 (1) ADMINISTRATOR.—The term “Adminis-
9 trator” means the Administrator of the United
10 States Agency for International Development.

11 (2) APPROPRIATE CONGRESSIONAL COMMIT-
12 TEES.—The term “appropriate congressional com-
13 mittees” means—

14 (A) the Committee on Foreign Relations
15 and the Committee on Energy and Natural Re-
16 sources of the Senate; and

17 (B) the Committee on Foreign Affairs and
18 the Committee on Energy and Commerce of the
19 House of Representatives.

20 (3) CLEAN ENERGY TECHNOLOGIES.—The term
21 “clean energy technologies” means any process or
22 product, or system of processes or products, that—

23 (A) is applied at any stage of the energy
24 cycle, including production, transmission, and
25 consumption; and

1 (B) generates, contributes to the genera-
 2 tion of, or transmits energy that—

3 (i) produces zero greenhouse emis-
 4 sions; or

5 (ii) significantly mitigates or captures
 6 greenhouse gas emissions from existing
 7 power production.

8 (4) CLIMATE SECURITY.—The term “climate
 9 security” means accounting for and guarding
 10 against the challenges and harms that are scientif-
 11 ically attributable to the effects of climate change
 12 on—

13 (A) United States national security and
 14 subnational, national, and regional political sta-
 15 bility; and

16 (B) overseas security and conflict situa-
 17 tions that are potentially exacerbated by dy-
 18 namic environmental factors and events, includ-
 19 ing—

20 (i) the intensification and frequency of
 21 droughts, floods, wildfires, tropical storms,
 22 and other extreme weather events;

23 (ii) changes in historical severe weath-
 24 er, drought, and wildfire patterns;

1 (iii) the expansion of geographical
 2 ranges of droughts, floods, and wildfires
 3 into regions that had not regularly experi-
 4 enced such phenomena;

5 (iv) global sea level rise patterns and
 6 the expansion of geographical ranges af-
 7 fected by drought; and

8 (v) changes in marine environments
 9 that affect critical geostrategic waterways,
 10 such as the Arctic Ocean, the Bay of Ben-
 11 gal, the Indian Ocean, the South China
 12 Sea, the South Pacific Ocean, the Barents
 13 Sea, and the Beaufort Sea.

14 (5) SECRETARY.—Except as otherwise specifi-
 15 cally provided, the term “Secretary” means the Sec-
 16 retary of State.

17 **TITLE I—UNITED STATES-INDIA**
 18 **CLEAN ENERGY AND POWER**
 19 **TRANSMISSION PARTNER-**
 20 **SHIP**

21 **SEC. 101. SENSE OF CONGRESS ON CLEAN ENERGY CO-**
 22 **OPERATION WITH INDIA.**

23 It is the sense of Congress that—

24 (1) robust cooperation on the development and
 25 deployment of clean energy technologies should be a

1 priority in relations between the United States and
2 India and the top priority in the countries' energy
3 diplomacy;

4 (2) the collaboration of the United States and
5 India on the development and deployment of clean
6 energy technologies has resulted in innovative new
7 technologies that have helped significantly lower the
8 carbon emissions of the power sector in India;

9 (3) demand for energy in India will increase
10 with the expansion of the economy and middle class
11 of India, and it is in the interest of United States
12 national security and global security for the United
13 States to support India in growing the energy sector
14 of India in environmentally and socially responsible
15 ways that mitigate greenhouse gas emissions and
16 improve the climate security of India;

17 (4) the United States and India should continue
18 collaborating on research and development of new
19 clean energy technologies, as well as deployment of
20 those technologies, so people across India can access
21 power generated from clean energy technologies;

22 (5) the United States, through the Bureau of
23 Energy Resources of the Department of State, the
24 United States International Development Finance
25 Corporation, the Department of Energy, the Export-

1 Import Bank of the United States, the International
2 Trade Administration, and the United States Agency
3 for International Development, should encourage
4 private sector investment in and financing for the
5 development and deployment of clean energy tech-
6 nologies in India;

7 (6) the United States should support the Power
8 for All initiative created by the Government of India
9 through technical and other forms of assistance;

10 (7) the United States should support the ambi-
11 tious renewable energy generation goals set by the
12 Government of India through technical and other
13 forms of assistance;

14 (8) Mission Innovation, in which India plays a
15 critical leadership role, represents an unmatched op-
16 portunity to make clean energy technologies more af-
17 fordable and accessible by increasing funding for
18 clean energy innovation;

19 (9) the United States should increase its par-
20 ticipation in and contributions to Mission Innova-
21 tion;

22 (10) the International Solar Alliance led by
23 India will play a key role in mobilizing significant
24 international investment in solar energy;

1 (11) the United States should join and con-
2 tribute to the International Solar Alliance led by
3 India;

4 (12) India has implemented several new policies
5 to promote the production and use of electric vehi-
6 cles in India;

7 (13) the United States should promote re-
8 search, development, and private sector cooperation
9 on the production of electric vehicles and the plan-
10 ning and execution of an expansive charging station
11 network to support extensive use of electric vehicles;

12 (14) increased demand for refrigeration and air
13 conditioning in India, and the adoption of the Kigali
14 Amendment to the Montreal Protocol, done at Mon-
15 treau September 16, 1987, are driving innovation
16 and investments in next-generation refrigeration
17 equipment and refrigerants in India; and

18 (15) enhanced United States-India bilateral co-
19 operation and engagement on the development of
20 technologies and chemicals that are compliant with
21 the Kigali Amendment are in the interest of United
22 States industry leaders in the refrigeration and
23 chemical coolant industries.

1 **SEC. 102. STATEMENT OF POLICY.**

2 It is the policy of the United States to increase en-
3 gagement and cooperation with the Government of India,
4 the Indian diaspora community in the United States, and
5 the private sector and civil society in both the United
6 States and India in a concerted effort—

7 (1) to support the ambitious goals of India—

8 (A) to expand renewable energy production
9 in India;

10 (B) to improve access of the general popu-
11 lation to electricity; and

12 (C) to provide reliable, around-the-clock
13 power service to all communities;

14 (2) to help improve the energy security of India
15 and decrease the dependence of India on imported
16 fossil fuels;

17 (3) to foster innovation through academic and
18 research partnerships and mutually beneficial ar-
19 rangements relating to technology transfers and pro-
20 tection of intellectual property;

21 (4) to facilitate United States private sector in-
22 vestment in projects to expand power transmission
23 and distribution capacity and territorial coverage in
24 India to increase the number of people, households,
25 and communities with access to power;

(5) to provide technical assistance and advice as appropriate, and solely at the request and with the consent of the relevant national and local authorities and stakeholders, on—

(A) reforms of power production, delivery, and pricing;

(B) reducing aggregate technical and commercial energy losses in India's energy transmission and distribution systems;

(C) regulatory reforms; and

(D) long-term, market-based power generation and distribution;

(6) to support efforts to lower India's greenhouse gas emissions by promoting United States private investment in—

(A) renewable energy production;

(B) electric vehicle technology;

(C) measures to improve the efficiency of existing electricity generation units; and

(D) electricity transmission projects to improve—

(i) the affordability of electricity;

(ii) grid reliability;

(iii) the number of citizens and households with access to electricity;

1 (iv) rural electrification; and
 2 (v) electric vehicle charging infra-
 3 structure;

4 (7) to improve the climate security of India and
 5 reduce vulnerability to the effects of climate change,
 6 with an emphasis on protecting the health and safe-
 7 ty of the most vulnerable and underserved commu-
 8 nities in India; and

9 (8) to strengthen India's resilience capacities
 10 that ensure people, households, communities, institu-
 11 tions, and systems can assess, anticipate, prevent,
 12 adapt to, cope with, and recover from shocks and
 13 stresses associated with the effects of climate
 14 change.

15 **SEC. 103. ESTABLISHMENT OF UNITED STATES-INDIA**
 16 **CLEAN ENERGY AND POWER TRANSMISSION**
 17 **PARTNERSHIP.**

18 (a) PURPOSE.—The purpose of this title is—

19 (1) to advance cooperation between the United
 20 States and India on, and private sector engagement
 21 and investment in, the development and deployment
 22 of clean energy technologies;

23 (2) to improve power transmission reliability
 24 and grid capacity in India; and

1 (3) to enhance citizen access to electricity
2 across India.

3 (b) UNITED STATES-INDIA CLEAN ENERGY AND
4 POWER TRANSMISSION PARTNERSHIP.—The purposes de-
5 scribed in subsection (a) shall be advanced through the
6 development and execution of bilateral initiatives under an
7 initiative to be known as the “United States-India Clean
8 Energy and Power Transmission Partnership” (in this
9 title referred to as the “Clean Energy and Power Trans-
10 mission Partnership”).

11 (c) FUNCTIONS.—The Clean Energy and Power
12 Transmission Partnership shall serve as—

13 (1) the primary forum for cooperation between
14 the United States and India on clean energy tech-
15 nologies and energy transmission; and

16 (2) the mechanism through which such coopera-
17 tion is funded.

18 **SEC. 104. STRATEGY FOR IMPLEMENTATION OF THE CLEAN**
19 **ENERGY AND POWER TRANSMISSION PART-**
20 **NERSHIP.**

21 (a) IN GENERAL.—Not later than 120 days after the
22 date of the enactment of this Act, the Administrator and
23 the Secretary, in coordination with the Secretary of En-
24 ergy, shall submit to the appropriate congressional com-
25 mittees a comprehensive, integrated, multi-year strategy

1 for implementing the Clean Energy and Power Trans-
2 mission Partnership.

3 (b) FLEXIBILITY AND RESPONSIVENESS.—The strat-
4 egy required by subsection (a) shall maintain sufficient
5 flexibility and responsiveness to technological innovation
6 in the power sector of India.

7 (c) ELEMENTS.—The strategy required by subsection
8 (a) shall include—

9 (1) a general description, developed in collabo-
10 ration with the Government of India and local and
11 regional authorities in India, of the goals and ongo-
12 ing efforts in India—

13 (A) to increase power production;

14 (B) to build and maintain resilient elec-
15 trical transmission and distribution infrastruc-
16 ture;

17 (C) to expand electrical transmission and
18 distribution infrastructure in order to provide
19 equitable household and community access to
20 electricity;

21 (D) to implement regulatory reform, re-
22 gional interoperability, and transparent and ac-
23 countable governance and oversight;

24 (E) to strengthen the reliability and re-
25 gional interoperability of the electrical grid; and

1 (F) for electricity service providers—

2 (i) to provide affordable and reliable
3 power;

4 (ii) to reduce technical and nontech-
5 nical losses;

6 (iii) to collect fees for services; and

7 (iv) to expand service to underserved
8 communities;

9 (2) an assessment of how the initiatives in-
10 cluded in the Clean Energy and Power Transmission
11 Partnership will support achievement of the clean
12 energy and expanded energy access goals of India,
13 including—

14 (A) an analysis of the state of distributed
15 renewable energy in India;

16 (B) a description of market barriers to the
17 deployment of clean energy technologies, includ-
18 ing distributed renewable energy technologies
19 both on- and off-grid in India;

20 (C) an analysis of the efficacy of efforts by
21 the Department of State, the United States
22 Trade Representative, the United States Inter-
23 national Development Finance Corporation, and
24 the United States Agency for International De-
25 velopment to facilitate the financing of the im-

1 portation, distribution, sale, leasing, and mar-
2 keting of clean energy technologies in India;
3 and

4 (D) a description of how bolstering distrib-
5 uted renewable energy can enhance the overall
6 effort to increase power access in India;

7 (3) a description of existing programs or initia-
8 tives that—

9 (A) meet the requirements for initiatives
10 under sections 105 through 108; and

11 (B) can be integrated into the Clean En-
12 ergy and Power Transmission Partnership;

13 (4) a list of programs that exist as of the date
14 of the submittal of the strategy that will be inte-
15 grated into the Clean Energy and Power Trans-
16 mission Partnership;

17 (5) recommendations on the establishment of
18 any new programs to meet the requirements for ini-
19 tiatives under sections 105 through 108; and

20 (6) a plan describing which parts of the United
21 States Government shall serve as the lead for which
22 components of the Clean Energy and Power Trans-
23 mission Partnership.

1 **SEC. 105. PARTNERSHIPS FOR COOPERATION ON RE-**
2 **SEARCH AND INNOVATION FOR CLEAN EN-**
3 **ERGY TECHNOLOGIES AND EXPANDED**
4 **POWER TRANSMISSION AND DISTRIBUTION.**

5 (a) PURPOSE.—The purpose of this section is—

6 (1) to promote and accelerate the pace of inno-
7 vation and deployment of clean energy technologies;
8 and

9 (2) to expand community and household access
10 to power in India.

11 (b) RESEARCH AND DEVELOPMENT PARTNER-
12 SHIPS.—

13 (1) IN GENERAL.—The Secretary, in coordina-
14 tion with the Secretary of Energy and the Adminis-
15 trator and only with the cooperation of the Govern-
16 ment of India, shall promote partnerships between
17 entities in the United States and India on research,
18 development, demonstration, and commercial appli-
19 cation of clean energy technologies as part of the
20 Clean Energy and Power Transmission Partnership.

21 (2) EXCHANGES; SHARING.—The partnerships
22 described in paragraph (1) shall include—

23 (A) exchanges between United States clean
24 energy university centers of excellence des-
25 ignated under paragraph (4) and institutions of

1 higher education in India described in para-
2 graph (5);

3 (B) exchanges between research labora-
4 tories of the Government of the United States
5 and the Government of India; and

6 (C) lawful sharing of intellectual property
7 between the United States and India, including
8 between private sector entities in the two coun-
9 tries, with respect to—

10 (i) renewable energy technology;

11 (ii) air conditioning technology; and

12 (iii) refrigeration systems technology.

13 (3) FUNCTIONS.—United States clean energy
14 university centers of excellence designated under
15 paragraph (4) and research laboratories of the Gov-
16 ernment of the United States, in collaboration with
17 their respective partner institutions of higher edu-
18 cation in India under paragraph (5) and research
19 laboratories of the Government of India, shall be re-
20 sponsible for—

21 (A) assessing different potential techno-
22 logical, development, policy, and technical solu-
23 tions to address existing and emerging energy
24 production and transmission capacity con-
25 straints in India;

1 (B) facilitating engagements between en-
2 ergy authorities in India and private sector
3 clean energy technology suppliers and project
4 developers that could provide solutions to en-
5 ergy capacity challenges;

6 (C) ensuring that local stakeholders and
7 host communities in India where projects are
8 being developed are adequately engaged and
9 given due consideration in the development of
10 energy projects supported by the partnership;

11 (D) arranging for the appropriate and law-
12 ful sharing of prototyping, technology transfer
13 activities, and production facilities for clean en-
14 ergy technologies, including assistance to clean
15 energy technology start-up ventures;

16 (E) promoting job training opportunities in
17 the deployment and operation of clean energy
18 technologies and energy transmission; and

19 (F) performing such other duties and pro-
20 viding such reports as the Secretary may re-
21 quire.

22 (4) UNITED STATES CLEAN ENERGY UNIVER-
23 SITY CENTERS OF EXCELLENCE.—

24 (A) DESIGNATION.—The Secretary, in co-
25 ordination with the Secretary of Energy, shall

1 designate up to 10 institutions of higher edu-
2 cation in the United States, to be known as
3 “United States clean energy university centers
4 of excellence”, to participate in partnerships
5 under this section.

6 (B) ELIGIBILITY.—To be eligible for des-
7 ignation as a United States clean energy uni-
8 versity center of excellence under subparagraph
9 (A), an institution of higher education shall be
10 an organization that is described in section
11 501(c) of the Internal Revenue Code of 1986
12 and exempt from taxation under section 501(a)
13 of that Code.

14 (C) APPLICATION.—An institution of high-
15 er education seeking designation as a United
16 States clean energy university center of excel-
17 lence under this section shall submit an applica-
18 tion to the Secretary containing, at a minimum,
19 the following:

20 (i) A description of all entities within
21 the institution that would comprise the
22 United States clean energy university cen-
23 ter of excellence (in this subparagraph re-
24 ferred to as “component entities”).

1 (ii) Any appropriate information on
 2 the qualifications of individuals in key
 3 management positions in the institution
 4 and the component entities.

5 (iii) A full description of the govern-
 6 ance structure and management processes
 7 of the institution and the component enti-
 8 ties, including a conflict of interest policy.

9 (iv) A description of the policies and
 10 procedures of the institution and the com-
 11 ponent entities for managing new intellec-
 12 tual property created by a partnership
 13 under this section.

14 (v) A description of how the institu-
 15 tion would carry out the functions de-
 16 scribed in paragraph (3).

17 (vi) Recommendations on—

18 (I) the scope of work for the ini-
 19 tial year of activities of the institution
 20 under the Clean Energy and Power
 21 Transmission Partnership; and

22 (II) focuses for future program-
 23 ming.

24 (D) SELECTION PROCESS.—The Secretary,
 25 in coordination with the Secretary of Energy,

1 shall select institutions of higher education for
2 designation as United States clean energy uni-
3 versity centers of excellence under this section
4 through an open and competitive process.

5 (E) SELECTION CRITERIA.—The Secretary,
6 in coordination with the Secretary of Energy,
7 shall establish criteria for selecting institutions
8 of higher education for designation as United
9 States clean energy university centers of excel-
10 lence under this section based on—

11 (i) an evaluation of—

12 (I) the strength of the govern-
13 ance structure of the institution and
14 the component entities;

15 (II) the expertise and experience
16 of key research management and aca-
17 demic personnel of the institution;

18 (III) the demonstrated knowledge
19 of the institution with respect to—

20 (aa) energy markets in
21 India;

22 (bb) regulatory frameworks
23 and energy policies in India;

24 (cc) power service providers
25 in India;

1 (dd) applied energy tech-
2 nologies in India; and

3 (ee) energy challenges, in-
4 cluding capacity constraints, in
5 India; and

6 (IV) the capability of the institu-
7 tion to conduct regional energy mar-
8 ket analyses and assessments of the
9 practicality of applying various clean
10 energy technologies to address various
11 energy challenges in India;

12 (ii) commitments of co-funding from
13 non-Federal sources;

14 (iii) the capability of the institution to
15 attract matching funds from both non-Fed-
16 eral and nongovernmental sources for fol-
17 low-on investments in widespread applica-
18 tion of successful projects; and

19 (iv) the capability and experience of
20 the institution in managing technology
21 transfer programs.

22 (F) SELECTION PRIORITY.—The Secretary,
23 in coordination with the Secretary of Energy,
24 shall select institutions of higher education for
25 designation as United States clean energy uni-

1 versity centers of excellence under this section
2 in a manner that represents the geographic di-
3 versity of the United States.

4 (5) PARTNER INSTITUTIONS IN INDIA.—

5 (A) IN GENERAL.—The Secretary, in col-
6 laboration with the appropriate ministries of the
7 Government of India, shall support the estab-
8 lishment of partnerships between United States
9 clean energy university centers of excellence
10 designated under this section and institutions of
11 higher education in India.

12 (B) ELIGIBILITY AND SELECTION.—The
13 Secretary shall encourage the Government of
14 India to select institutions described in subpara-
15 graph (A) for participation in partnerships
16 under this section based on criteria similar to
17 the criteria for eligibility and selection of
18 United States clean energy university centers of
19 excellence described in paragraph (4).

20 (C) PAIRING.—The Secretary, in collabora-
21 tion with the relevant ministries of the Govern-
22 ment of India, shall pair selected United States
23 clean energy university centers of excellence
24 designated under this section and institutions of
25 higher education in India according to the

1 strength and similarities of the respective appli-
 2 cations.

3 (6) PRIVATE SECTOR INVOLVEMENT.—United
 4 States clean energy university centers of excellence
 5 participating in partnerships under this section are
 6 encouraged to, in collaboration with their respective
 7 partner institutions of higher education in India
 8 under paragraph (5)—

9 (A) collaborate with private sector energy
 10 and technology companies; and

11 (B) identify private sector entities that will
 12 contribute resources to the initiatives and
 13 projects developed through partnerships under
 14 this section.

15 (c) AUTHORIZATION OF APPROPRIATIONS.—

16 (1) IN GENERAL.—There is authorized to be
 17 appropriated \$5,000,000 for each of fiscal years
 18 2021 through 2025 for the Joint Clean Energy Re-
 19 search and Development Center established by the
 20 Department of Energy and the Government of India.

21 (2) USE OF FUNDS.—Amounts authorized to be
 22 appropriated under paragraph (1) may be used only
 23 for renewable energy projects.

24 (d) CLEAN ENERGY AND POWER TRANSMISSION
 25 PARTNERSHIP.—All initiatives established or continued

1 under the authorities of this section shall be part of the
2 Clean Energy and Power Transmission Partnership.

3 **SEC. 106. INITIATIVES FOR PROMOTING CLEAN ENERGY**
4 **TECHNOLOGY FINANCING IN INDIA.**

5 (a) IN GENERAL.—The Secretary, in consultation
6 with the Chief Executive Officer of the United States
7 International Development Finance Corporation and the
8 Administrator and only with the cooperation of the Gov-
9 ernment of India, shall encourage private investment by
10 United States entities in the clean energy technology mar-
11 ket in India through new initiatives or initiatives in exist-
12 ence as of the date of the enactment of this Act, as appro-
13 priate.

14 (b) STREAMLINED FINANCING PROCEDURES.—Not
15 later than 180 days after the date of the enactment of
16 this Act, the United States International Development Fi-
17 nance Corporation shall, as appropriate, simplify and
18 streamline the application, approval, and post-approval
19 processes for insurance, financing, investment, or reinsur-
20 ance for clean energy technology projects or subprojects
21 in India for which the total support of the Corporation
22 is less than \$20,000,000—

23 (1) by expediting the review and consideration
24 of, and determinations with respect to, applications
25 for insurance, financing, investment, or reinsurance,

1 consistent with investment best practices, including
 2 appropriate risk management, for such projects and
 3 subprojects; and

4 (2) by reducing the burdens of project manage-
 5 ment for, and eliminating duplicative or unnecessary
 6 oversight of, such projects and subprojects after ap-
 7 proval of insurance, financing, investment, or rein-
 8 surance for projects or subprojects.

9 (c) CLEAN ENERGY AND POWER TRANSMISSION
 10 PARTNERSHIP.—All initiatives established or continued
 11 under the authorities of this section shall be part of the
 12 Clean Energy and Power Transmission Partnership.

13 **SEC. 107. INITIATIVES FOR TECHNICAL ASSISTANCE FOR**
 14 **GRID IMPROVEMENT AND ENERGY EFFI-**
 15 **CIENCY IN INDIA.**

16 (a) IN GENERAL.—The Administrator, only with the
 17 cooperation of the Government of India or regional au-
 18 thorities within India, shall support initiatives, including
 19 new initiatives and initiatives in existence as of the date
 20 of the enactment of this Act, as appropriate, to provide
 21 technical assistance and expertise on electricity grid and
 22 energy efficiency improvements in India for the following
 23 purposes:

24 (1) Expanding the electricity grid to reach all
 25 regions and populations.

1 (2) Developing microgrids in areas in which
2 connection to the larger electricity grid is chal-
3 lenging.

4 (3) Increasing the integration of renewable en-
5 ergy into the electricity grid.

6 (4) Enhancing the interconnectivity of elec-
7 tricity grids across states of India.

8 (5) Boosting the storage capacity of the elec-
9 tricity grid.

10 (6) Developing standards for clean energy tech-
11 nologies, smart buildings, and data centers.

12 (7) Increasing deployment of smart meters and
13 other energy efficiency technology.

14 (8) Increasing the energy efficiency of buildings
15 and appliances.

16 (9) Improving pollution controls and the effi-
17 ciency of fossil fuel electric generating units.

18 (b) AUTHORIZATION OF APPROPRIATIONS.—There
19 are authorized to be appropriated such sums as may be
20 necessary to carry out this section.

21 (c) CLEAN ENERGY AND POWER TRANSMISSION
22 PARTNERSHIP.—All initiatives established or continued
23 under the authorities of this section shall be part of the
24 Clean Energy and Power Transmission Partnership.

1 **SEC. 108. INITIATIVES FOR GENERATION OF NEW RENEW-**
2 **ABLE ENERGY IN INDIA.**

3 (a) IN GENERAL.—The Administrator, only with the
4 approval of the Government of India, shall support initia-
5 tives, including new initiatives and initiatives in existence
6 as of the date of the enactment of this Act, as appropriate,
7 to develop new renewable energy generation capacity in
8 India.

9 (b) SELECTION OF INITIATIVES.—In selecting initia-
10 tives to support under subsection (a), the Administrator
11 shall take into account the priorities of the Government
12 of India, including the renewable energy generation goals
13 established by the Intended Nationally Determined Con-
14 tribution of India to the Paris Agreement, done at Paris
15 December 12, 2015.

16 (c) SOURCES OF RENEWABLE ENERGY.—The initia-
17 tives supported under subsection (a) may include initia-
18 tives for the generation of electricity from the following
19 sources:

20 (1) Solar power, to include rooftop solar gen-
21 eration and utility-scale solar generation.

22 (2) Wind power, to include offshore wind power
23 generation.

24 (3) Geothermal power.

25 (4) Biofuels.

1 (d) AUTHORIZATION OF APPROPRIATIONS.—There
 2 are authorized to be appropriated such sums as may be
 3 necessary to carry out this section.

4 (e) CLEAN ENERGY AND POWER TRANSMISSION
 5 PARTNERSHIP.—All initiatives established or continued
 6 under the authorities of this section shall be part of the
 7 Clean Energy and Power Transmission Partnership.

8 **TITLE II—OTHER COOPERATION** 9 **MATTERS**

10 **SEC. 201. UNITED STATES-INDIA CLIMATE CHANGE RISK** 11 **REDUCTION AND RESILIENCE COOPERATION.**

12 (a) IN GENERAL.—The Government of the United
 13 States shall work cooperatively with the Government of
 14 India on integrating scientifically supported climate
 15 change risk reduction and building resilience capacities in
 16 India.

17 (b) PRIORITY.—Advancing the risk reduction and re-
 18 silience capacities described in subsection (a) shall be a
 19 priority for United States diplomatic, security, and devel-
 20 opment programs within the United States mission to
 21 India.

22 (c) COORDINATION.—The Secretary, in collaboration
 23 with the Administrator, shall coordinate the efforts of
 24 agencies with direct international development programs
 25 and investments—

1 (1) to bolster resilience capacities to the effects
 2 of climate change in India by supporting efforts in
 3 India to help assure that climate risk assessments
 4 and security planning in India adequately evaluate
 5 and account for risks and vulnerabilities associated
 6 with effects of climate change using best-available
 7 climate change data, forecasts, tools, and informa-
 8 tion;

9 (2) to use shared knowledge, data, forecasts,
 10 tools, information, frameworks, and lessons learned
 11 in incorporating climate change resilience program-
 12 ming, planning, projects, investments, and related
 13 funding decisions; and

14 (3) to work with civil society and local leaders,
 15 as appropriate—

16 (A) to identify risks associated with the ef-
 17 fects of climate change in India; and

18 (B) to encourage and support efforts in
 19 India to enhance resilience to the effects of cli-
 20 mate change.

21 (d) DEFINITIONS.—In this section:

22 (1) AGENCIES WITH DIRECT INTERNATIONAL
 23 DEVELOPMENT PROGRAMS AND INVESTMENTS.—The
 24 term “agencies with direct international development
 25 programs and investments” means—

- 1 (A) the Department of State;
2 (B) the Department of Agriculture;
3 (C) the Department of the Interior;
4 (D) the United States Agency for Inter-
5 national Development;
6 (E) the Millennium Challenge Corporation;
7 (F) the United States International Devel-
8 opment Finance Corporation;
9 (G) the Trade and Development Agency;
10 and
11 (H) other relevant agencies and entities.

12 (2) RESILIENCE.—The term “resilience” means
13 the ability of an individual, household, community,
14 country, or region to withstand, to adapt, and to
15 quickly recover from shocks and stresses associated
16 with the effects of climate change.

17 **SEC. 202. REPORT ON UNITED STATES PARTICIPATION IN**
18 **MISSION INNOVATION.**

19 (a) IN GENERAL.—Not later than 90 days after the
20 date of the enactment of this Act, the President shall sub-
21 mit to the appropriate congressional committees a report
22 detailing the scope and nature of United States participa-
23 tion in Mission Innovation, including—

- 24 (1) who has represented the United States at
25 the third and fourth Mission Innovation ministerial

1 meetings, including the agency, office, and title of
2 the each relevant individual;

3 (2) what the agenda of the United States has
4 been at past Mission Innovation ministerial meet-
5 ings;

6 (3) the partnerships and project collaborations
7 the United States has established or announced
8 through Mission Innovation;

9 (4) how the United States has leveraged Mis-
10 sion Innovation to develop or foster investment in
11 new technologies or technology transfer arrange-
12 ments between United States private sector partners
13 and foreign entities;

14 (5) how the United States has attracted private
15 sector entities to contribute and participate in Mis-
16 sion Innovation;

17 (6) the total amount of funding provided by the
18 United States Government to Mission Innovation
19 each year since the establishment of Mission Innova-
20 tion; and

21 (7) a strategic engagement plan and set of ob-
22 jectives for delivering new energy technology innova-
23 tion outcomes through Mission Innovation.

24 (b) DEFINITION OF MISSION INNOVATION.—In this
25 section, the term “Mission Innovation” means the global

- 1 initiative led by India that has the goal of accelerating
- 2 the pace of clean energy innovation to achieve performance
- 3 breakthroughs and cost reductions that will enable the
- 4 provision of affordable and reliable clean energy solutions.

