

119TH CONGRESS
2D SESSION

H. R. 7697

To establish an international strategy for AI research and development to improve outdated electrical grids, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 25, 2026

Mr. HERNÁNDEZ (for himself, Mr. LICCARDO, and Mrs. GRIJALVA) introduced the following bill; which was referred to the Committee on Foreign Affairs

A BILL

To establish an international strategy for AI research and development to improve outdated electrical grids, and for other purposes.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 “International AI En-
5 ergy Grid Modernization Strategy Act”.

6 **SEC. 2. FINDINGS; SENSE OF CONGRESS.**

7 (a) FINDINGS.—Congress finds the following:

8 (1) Electrical grids around the world are facing
9 increasing challenges due to aging infrastructure,

1 growing energy demands, and accelerating climate-
2 related risks.

3 (2) Many electrical grids lack the resilience and
4 flexibility needed to withstand natural disasters, ex-
5 treme weather events, or long-term climate disrup-
6 tions.

7 (3) The threat of cyber attacks on critical en-
8 ergy infrastructure is escalating, with adversarial ac-
9 tors targeting electrical grid operations, data sys-
10 tems, and control networks that were not originally
11 designed for modern digital threats.

12 (4) Artificial Intelligence (AI) technologies
13 present a transformative opportunity to modernize
14 electrical grids by enabling predictive maintenance,
15 real-time monitoring, anomaly detection, autono-
16 mous system restoration, and the integration of dis-
17 tributed energy resources.

18 (5) International collaboration in the research,
19 development, and responsible deployment.

20 (6) Advancing these innovations is not only
21 vital to energy security and climate adaptation but
22 also critical to global economic development, public
23 health, and national security.

24 (b) SENSE OF CONGRESS.—It is the sense of Con-
25 gress that the United States should actively engage with

1 international organizations, such as the International En-
2 ergy Agency and the International Renewable Energy
3 Agency, to support global coordination on AI applications
4 for secure, resilient, and sustainable advanced energy tech-
5 nologies for electrical grids, including AI-enabled grid
6 management tools, which can accelerate global grid mod-
7 ernization, enhance grid resilience, and establish shared
8 cybersecurity protocols.

9 **SEC. 3. INTERNATIONAL STRATEGY FOR ARTIFICIAL INTEL-**
10 **LIGENCE ENERGY GRID MODERNIZATION.**

11 (a) DEVELOPMENT.—The Secretary of State, in co-
12 ordination with the heads of other relevant Federal de-
13 partments and agencies, shall develop and implement a
14 comprehensive international strategy to advance the re-
15 search, development, and deployment of AI-enabled tech-
16 nologies for the modernization and resilience of electrical
17 grids worldwide. Such strategy shall include measures
18 to—

19 (1) strengthen partnerships with allied and
20 partner countries, academic institutions, and private-
21 sector stakeholders to modernize and digitalize elec-
22 trical grids;

23 (2) accelerate the development, testing, and de-
24 ployment of AI-enabled grid technologies to improve
25 reliability, enhance grid resilience, detect and re-

1 spond to cyber threats, and integrate renewable en-
2 ergy resources and distributed energy resources;

3 (3) promote equitable access to advanced grid
4 modernization tools in developing and vulnerable re-
5 gions, including natural disaster-prone areas;

6 (4) support workforce development and tech-
7 nical training related to AI, cybersecurity, and
8 smart-grid operations; and

9 (5) facilitate coordination across relevant Fed-
10 eral departments and agencies as appropriate, in-
11 cluding the Department of Homeland Security, De-
12 partment of Energy, and Department of Commerce.

13 (b) AUTHORIZATION.—To carry out the objectives de-
14 scribed in paragraphs (1) through (5) of subsection (a),
15 the Secretary of State is authorized to support programs,
16 projects, and activities that—

17 (1) facilitate international research partnerships
18 focused on AI applications that enhance the sta-
19 bility, flexibility, and resilience of electrical grids;

20 (2) promote demonstration and validation of
21 AI-enabled grid management systems capable of
22 real-time monitoring, predictive analytics, and au-
23 tonomous system restoration;

1 (3) launch pilot projects to evaluate the secu-
2 rity, scalability, and performance of AI tools for grid
3 modernization in diverse environments;

4 (4) encourage public-private partnerships to
5 commercialization and deployment of advanced en-
6 ergy technologies for electrical grids; and

7 (5) provide technical assistance, education, and
8 workforce training to strengthen local capacity for
9 AI-enabled grid operations.

10 (c) INTERNATIONAL COOPERATION.—The Secretary
11 of State, in consultation with the heads of relevant Federal
12 departments and agencies, shall seek to establish coopera-
13 tive agreements with allied and partner countries to sup-
14 port joint research, technology transfer, capacity-building,
15 and deployment of AI-enabled grid modernization tools,
16 provided that such agreements—

17 (1) further the international strategy described
18 under subsection (a);

19 (2) involve only research not requiring access to
20 classified information or military-specific AI sys-
21 tems; and

22 (3) comply with all applicable United States ex-
23 port-control laws, including the Export Administra-
24 tion Regulations (parts 730 through 774 of title 15,
25 Code of Federal Regulations) and the International

1 Traffic in Arms Regulations (subchapter M of chap-
2 ter I of title 22, Code of Federal Regulations).

3 **SEC. 4. REPORT.**

4 Not later than 540 days after the date of the enact-
5 ment of this Act, and annually thereafter for 5 years, the
6 Secretary of State shall submit to the Committee on For-
7 eign Affairs of the House of Representatives and the Com-
8 mittee on Foreign Relations of the Senate a report de-
9 scribing progress made in implementing the strategy de-
10 veloped pursuant to section 3, including—

11 (1) partnerships established under such strat-
12 egy, including the number, type, and participating
13 countries or organizations;

14 (2) research, development, and demonstration
15 activities conducted under such strategy, including
16 AI-enabled grid technologies developed, tested, or de-
17 ployed;

18 (3) outcomes of pilot projects, including assess-
19 ments of security, scalability, performance, and any
20 measurable improvements to grid reliability or resil-
21 ience;

22 (4) advancements in AI-enabled cybersecurity
23 tools, including capabilities for intrusion detection,
24 anomaly detection, and system restoration;

1 (5) technical assistance, workforce development,
2 or capacity-building activities, including the number
3 of trainings conducted and the number of personnel
4 trained;

5 (6) progress on the integration of renewable en-
6 ergy resources and distributed energy resources
7 through AI-enabled systems;

8 (7) international cooperation agreements nego-
9 tiated or implemented under the strategy;

10 (8) any challenges encountered in implementing
11 the strategy;

12 (9) recommendations for improving such imple-
13 mentation; and

14 (10) metrics evaluating changes in the resil-
15 ience of electrical grids as a result of such imple-
16 mentation, to the extent data is available.

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