

119TH CONGRESS
2D SESSION

S. 4610

To promote the development and use of geothermal resources in the Pacific,
and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 20, 2026

Mr. SCHATZ (for himself, Mr. McCORMICK, Mr. CURTIS, and Mr. COONS) introduced the following bill; which was read twice and referred to the Committee on Foreign Relations

A BILL

To promote the development and use of geothermal resources
in the Pacific, 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 “Pacific Promotion of
5 Workable Energy Resources Act” or the “Pacific POWER
6 Act”.

7 **SEC. 2. DEFINITIONS.**

8 In this Act:

1 (1) APPROPRIATE COMMITTEES OF CON-
2 GRESS.—The term “appropriate committees of Con-
3 gress” means—

4 (A) the Committee on Foreign Relations,
5 the Committee on Energy and Natural Re-
6 sources, and the Committee on Appropriations
7 of the Senate; and

8 (B) the Committee on Foreign Affairs, the
9 Committee Energy and Commerce, and the
10 Committee on Appropriations of the House of
11 Representatives.

12 (2) DIRECT USE.—The term “direct use” has
13 the meaning given the term in section 616A of the
14 Energy Independence and Security Act of 2007 (42
15 U.S.C. 17195a(b)).

16 (3) GEOTHERMAL PARTNERS.—The term “geo-
17 thermal partners” means the United States allies
18 and partners selected pursuant to section 6.

19 (4) NEXT-GENERATION GEOTHERMAL.—The
20 term “next-generation geothermal” means a geo-
21 thermal power production technology that has the
22 potential to greatly expand the scale and geo-
23 graphical range of geothermal power production, in-
24 cluding—

1 (A) enhanced geothermal systems, as de-
2 fined in section 612 of the Energy Independ-
3 ence and Security Act of 2007 (42 U.S.C.
4 17191);

5 (B) closed-loop geothermal systems, mean-
6 ing systems that use one or more wells drilled
7 into hot rock with fluid circulating through a
8 closed-loop system to bring heat to the surface;

9 (C) geothermal systems which harness heat
10 from supercritical temperatures, meaning at or
11 above 375 degrees; and

12 (D) other innovative geothermal power
13 technologies.

14 (5) RELEVANT UNITED STATES AGENCIES.—

15 The term “relevant United States agencies” includes
16 the Department of Energy, the Department of the
17 Interior, the Department of Commerce, the Depart-
18 ment of the Treasury, the United States Inter-
19 national Development Finance Corporation, the Ex-
20 port-Import Bank of the United States, the United
21 States Trade and Development Agency, and the Mil-
22 lennium Challenge Corporation.

23 (6) SECRETARY.—The term “Secretary” means
24 the Secretary of State.

1 **SEC. 3. FINDINGS.**

2 Congress makes the following findings:

3 (1) The November 2025 National Security
4 Strategy prioritizes the United States having “the
5 world’s most robust, productive, and innovative en-
6 ergy sector—one capable not just of fueling Amer-
7 ican economic growth but of being one of America’s
8 leading export industries in its own right”.

9 (2) The November 2025 National Security
10 Strategy further states that “[e]xpanding our net
11 energy exports will also deepen relationships with al-
12 lies while curtailing the influence of adversaries, pro-
13 tect our ability to defend our shores, and—when and
14 where necessary—enables us to project power”.

15 (3) Numerous allies and partners in the Indo-
16 Pacific experience energy security vulnerabilities that
17 have implications for their autonomy, ability to re-
18 sist coercion, defense requirements, and democratic
19 freedoms, which could implicate United States na-
20 tional security decisions, including military deploy-
21 ments and the potential use of force, to come to
22 their assistance and otherwise promote regional sta-
23 bility.

24 (4) Taiwan relies on imports for more than 95
25 percent of its energy needs and is increasingly vul-
26 nerable to blockade from People’s Liberation Army

1 forces, with direct implications for United States
2 military operations and national security.

3 (5) According to the U.S.-China Economic and
4 Security Review Commission, the People's Republic
5 of China is a leading producer of key grid compo-
6 nents, and its growing footprint in global energy sys-
7 tems raises numerous national security concerns for
8 the United States and other countries.

9 (6) The People's Republic of China is respon-
10 sible for almost half of final geothermal energy con-
11 sumption globally by harnessing low-temperature re-
12 sources for space heating.

13 (7) The People's Republic of China is devel-
14 oping and deploying geothermal technology domesti-
15 cally, which may reach an installed geothermal
16 power generation capacity of 200 megawatts in 2030
17 and more than 1,000 megawatts in 2050.

18 (8) Key allies and partners in the Indo-Pacific
19 have both energy security vulnerabilities and geo-
20 thermal resources that could help reduce those
21 vulnerabilities.

22 (9) According to the International Energy
23 Agency, geothermal energy is a dispatchable source
24 of power that has the potential to meet up to 15
25 percent of global electricity demand growth to 2050,

1 making it a strong candidate to help meet the grow-
2 ing energy demand from artificial intelligence and
3 other sectors.

4 (10) Despite this potential, policy support and
5 investment in geothermal energy is significantly
6 lacking compared to other energy sources globally.

7 (11) According to the Department of Energy,
8 the United States leads the world in geothermal
9 electricity generation.

10 (12) According to the International Energy
11 Agency, Indonesia, Türkiye, the Philippines, and
12 New Zealand are among the top sources of geo-
13 thermal electricity generation in addition to the
14 United States.

15 (13) According to the International Energy
16 Agency, geothermal energy already provides more
17 than 10 percent of total electricity supply in Kenya,
18 Iceland, El Salvador, New Zealand, Nicaragua, and
19 Costa Rica.

20 (14) The United States has the necessary re-
21 sources, personnel, commercial capabilities, and
22 technical expertise to assist allies and partners in
23 developing geothermal upon request.

24 **SEC. 4. SENSE OF CONGRESS.**

25 It is the sense of Congress that—

1 (1) the Indo-Pacific is critical to United States
2 national security and economic interests, particularly
3 given the rise of the People’s Republic of China as
4 a competitor, and has some of the world’s highest
5 geothermal potential;

6 (2) achieving United States foreign and na-
7 tional security policy objectives, including deterring
8 conflict and reducing vulnerability to coercion, re-
9 quires further strengthening relationships with key
10 regional allies and partners;

11 (3) the United States should expand its engage-
12 ment with key allies and partners on geothermal, in-
13 cluding through commercial partnerships and tech-
14 nical assistance to support the development of their
15 geothermal capabilities to reduce reliance on the en-
16 ergy exports of adversaries and to develop markets
17 for United States companies; and

18 (4) the United States should prioritize the pur-
19 suit of bilateral memoranda of understanding or
20 other appropriate agreements on geothermal energy
21 with key allies and partners, where doing so furthers
22 United States foreign policy and national security
23 interests.

1 **SEC. 5. GEOTHERMAL DIPLOMACY.**

2 (a) IN GENERAL.—The Secretary, in consultation
3 with the Secretary of Energy, shall work both bilaterally
4 and multilaterally to advance geothermal energy in sup-
5 port of United States interests, including to develop—

6 (1) goals to increase geothermal deployment, in-
7 cluding for electricity and direct use applications;

8 (2) forums for collective learning and research;

9 (3) risk-sharing and financial tools for geo-
10 thermal exploration and development;

11 (4) potential regulatory and power market re-
12 forms that support geothermal power production, di-
13 rect use applications, and grid interconnection; and

14 (5) technical, environmental, safety, and com-
15 munity engagement standards and best practices, in-
16 cluding—

17 (A) early and consistent community en-
18 gagement, including the free, prior, and in-
19 formed consent of Indigenous Peoples and other
20 communities;

21 (B) revenue sharing to create local eco-
22 nomic benefits;

23 (C) reservoir management;

24 (D) mitigation of seismic risk through real-
25 time monitoring, operational guardrails, and en-
26 gagement with impacted communities;

1 (E) mitigation of impacts to water re-
2 sources; and

3 (F) standardized, transparent, and secure
4 mechanisms for sharing geological and project-
5 related data.

6 (b) INDO-PACIFIC ENGAGEMENT.—The Secretary
7 shall prioritize engaging with allies and partners in the
8 Indo-Pacific on opportunities to collaborate on geothermal
9 energy and as potential geothermal partners to be selected
10 pursuant to section 6, including—

- 11 (1) Taiwan;
- 12 (2) the Philippines;
- 13 (3) Japan;
- 14 (4) Australia;
- 15 (5) Indonesia;
- 16 (6) India;
- 17 (7) New Zealand; and
- 18 (8) Papua New Guinea.

19 (c) MULTILATERAL MECHANISMS.—The Secretary,
20 in consultation with the Secretary of Energy, shall use ex-
21 isting multilateral mechanisms to advance cooperation on
22 geothermal energy, including—

- 23 (1) the Quadrilateral Dialogue, or “Quad,”
24 comprising the United States, Australia, India, and
25 Japan;

1 (2) the United States-Japan-Philippines tri-
2 lateral dialogue;

3 (3) the United States-Japan-Republic of Korea
4 trilateral dialogue;

5 (4) the Pacific Community, the principal sci-
6 entific and technical organization in the Pacific re-
7 gion;

8 (5) the International Energy Agency; and

9 (6) the Group of Seven, comprising the United
10 States, France, the United Kingdom, Germany,
11 Japan, Italy, and Canada.

12 **SEC. 6. ESTABLISHMENT OF INTERNATIONAL GEO-**
13 **THERMAL PROGRAM AND COUNTRY SELEC-**
14 **TION.**

15 (a) ASSESSMENT.—Not later than 180 days after the
16 date of the enactment of this Act, the Secretary, in coordi-
17 nation with relevant United States agencies, shall develop
18 and submit to the appropriate congressional committees
19 a report that—

20 (1) assesses global geothermal resources, in-
21 cluding mapping the areas of highest potential for
22 geothermal development based on factors, such as—

23 (A) existing geothermal generation;

24 (B) subsurface data;

1 (C) proximity of geothermal resources to
2 existing or potential energy infrastructure;

3 (D) regulatory and economic conditions,
4 including financial incentives for geothermal;

5 (E) current and projected energy mix and
6 demand;

7 (F) workforce;

8 (G) supply chains, including the distribu-
9 tion of assets relative to projected demand; and

10 (H) energy reliability conditions;

11 (2) assesses countries, regions, and other loca-
12 tions in which geothermal development or expansion
13 is most beneficial to United States national security
14 and economic interests, including in support of
15 United States Indo-Pacific strategy; and

16 (3) explains the strategy for addressing the
17 challenges to geothermal energy development or ex-
18 pansion in the countries, regions, and other locations
19 most beneficial to United States national security
20 and economic interests.

21 (b) CONSULTATION.—In preparing the report re-
22 quired in subsection (a), the Secretary and relevant agen-
23 cies shall consult with—

1 (1) Department of Energy National Labora-
2 tories (as defined in section 2 of the Energy Policy
3 Act of 2005 (42 U.S.C. 15801));

4 (2) institutions of higher education (as defined
5 in section 101(a) of the Higher Education Act of
6 1965 (2 U.S.C. 1001(a)));

7 (3) nonpartisan and nonprofit organizations;

8 (4) the International Energy Agency;

9 (5) the advisory group established pursuant to
10 subsection (g); and

11 (6) the appropriate committees of Congress.

12 (c) ESTABLISHMENT.—Not later than one year after
13 the date of the enactment of this Act, the Secretary, in
14 coordination with the Secretary of Energy, shall establish
15 the International Geothermal Program (the “Program”)
16 for international collaboration on geothermal exploration
17 and development to carry out section 5 and to pursue bi-
18 lateral and multilateral partnerships as described in sub-
19 section (d) to further United States foreign policy and na-
20 tional security interests.

21 (d) PROGRAM.—The Program established pursuant
22 to subsection (c) shall include public-private partnerships
23 for the exploration and development of geothermal re-
24 sources and next-generation geothermal systems, includ-
25 ing—

- 1 (1) to support large-scale geothermal deploy-
2 ment, including for next-generation geothermal tech-
3 nologies and direct use applications;
- 4 (2) to conduct research of next-generation geo-
5 thermal technologies, including through coordination
6 with existing international research initiatives;
- 7 (3) to conduct geothermal resource exploration
8 and characterization;
- 9 (4) to support the integration of geothermal en-
10 ergy into energy system planning and regulations;
- 11 (5) to identify opportunity zones where geo-
12 thermal could meet industrial, heating and cooling,
13 agricultural, and electricity needs;
- 14 (6) to support the workforce and supply chains
15 necessary for geothermal deployment;
- 16 (7) to support community engagement and edu-
17 cation;
- 18 (8) to assist in the development and implemen-
19 tation of risk-sharing mechanisms and other finan-
20 cial tools for the cost of geothermal exploration and
21 development;
- 22 (9) to assist in the development of predictable
23 siting and permitting processes for partners selected
24 pursuant to subsection (e);

1 (10) to create financial incentives for invest-
2 ment in geothermal energy; and

3 (11) to identify investment and export opportu-
4 nities for United States companies.

5 (e) SELECTION OF GEOTHERMAL PARTNERS.—Con-
6 current with the establishment of the Program pursuant
7 to subsection (c), the Secretary, in coordination with rel-
8 evant United States agencies, and in consultation with the
9 appropriate congressional committees, shall select at least
10 five geothermal partners that—

11 (1) include—

12 (A) not fewer than three countries in the
13 Indo-Pacific;

14 (B) not fewer than one country that cur-
15 rently does not produce or consume geothermal
16 energy at commercial scale; and

17 (C) not fewer than one country that dem-
18 onstrates significant potential to expand exist-
19 ing capacity for geothermal energy generation,
20 such as through recent success in adding more
21 geothermal energy to its grid and through the
22 inclusion of geothermal in utility resource plans;
23 and

24 (2) are informed by the report required under
25 subsection (a).

1 (f) AGREEMENTS.—The Secretary shall pursue
2 memoranda of understanding or other appropriate agree-
3 ments with countries selected pursuant to subsection (e)
4 and that are willing to work with the United States to
5 implement the Program.

6 (g) ENGAGEMENT WITH THE PRIVATE SECTOR AND
7 NONPROFITS.—The Secretary, in coordination with rel-
8 evant agencies, shall establish an advisory mechanism to
9 engage United States geothermal developers, equipment
10 manufacturers, financial institutions, industry associa-
11 tions, and nonprofit organizations with geothermal exper-
12 tise in the implementation of the Program, including to—

13 (1) identify export opportunities for United
14 States geothermal technology and services in geo-
15 thermal partner countries;

16 (2) advise on technical standards, data, policy,
17 supply chain development, and workforce needs; and

18 (3) facilitate connections between United States
19 companies and organizations and geothermal invest-
20 ment opportunities.

21 **SEC. 7. IMPLEMENTATION OF THE INTERNATIONAL GEO-**
22 **THERMAL PROGRAM.**

23 (a) STRATEGY.—Not later than 180 days after the
24 establishment of the Program and selection of geothermal
25 partners pursuant to section 6, the Secretary, in coordina-

1 tion with relevant United States agencies, shall submit to
2 the appropriate congressional committees a report that de-
3 scribes the United States strategy for advancing geo-
4 thermal energy with each of the geothermal partners.

5 (b) ELEMENTS.—The strategy submitted pursuant to
6 subsection (a) shall include the estimated personnel and
7 assistance resources required on an annual basis for suc-
8 cessful implementation of such strategy, and the identi-
9 fication of opportunities for—

10 (1) supporting regional partnerships on geo-
11 thermal energy;

12 (2) strengthening the resilience of geothermal
13 supply chains, including—

14 (A) equipment and services related to geo-
15 thermal resource exploration, characterization,
16 and production; and

17 (B) through partnerships with domestic
18 and allied manufacturers;

19 (3) leveraging existing and developing new mul-
20 tilateral financing tools to support geothermal en-
21 ergy;

22 (4) conducting geothermal-specific feasibility
23 studies and other support by the United States
24 Trade and Development Agency; and

1 (5) the United States Export-Import Bank, the
2 Millennium Challenge Corporation, and the United
3 States International Development Finance Corpora-
4 tion to provide financial support to geothermal part-
5 ners that meet the eligibility requirements of the
6 agencies.

7 (c) IMPLEMENTATION.—The implementation of the
8 Program established in section 6 shall be led by the Under
9 Secretary of State for Economic Growth, Energy, and the
10 Environment and coordinated with the leadership of the
11 Office of International Affairs and the Geothermal Tech-
12 nologies Office.

13 (d) ANNUAL REPORT.—The Secretary, in coordina-
14 tion with relevant United States agencies, shall submit a
15 report to the appropriate congressional committees that
16 includes—

17 (1) a summary of United States activities and
18 engagement with each geothermal partner, including
19 the status of negotiations to establish memoranda of
20 understanding or other agreements pursuant to sec-
21 tion 6(f);

22 (2) any changes to the strategy required by
23 subsection (a) for each geothermal partner;

24 (3) the number of personnel assigned to imple-
25 mentation of the Program, by operating unit; and

1 (4) assistance provided to implement the Pro-
2 gram to date by operating unit, amount, account,
3 and purpose.

4 (e) TECHNICAL AND FINANCIAL ASSISTANCE.—The
5 Secretary is authorized to work with relevant United
6 States agencies to promote and coordinate the develop-
7 ment and underwriting of grants, loans, loan guarantees,
8 and other technical and financial assistance to geothermal
9 partners and United States companies that work with geo-
10 thermal partners through the Program established in sec-
11 tion 6.

12 (f) COORDINATION.—In preparing the strategy re-
13 quired under subsection (a) and the annual report re-
14 quired under subsection (d), and implementing the Pro-
15 gram established in section 6, the Under Secretary of
16 State for Economic Growth, Energy, and the Environment
17 shall convene relevant agencies and the advisory group es-
18 tablished in section 6(g) and brief the appropriate commit-
19 tees of Congress not less than twice per year.

20 (g) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to the Secretary such
22 sums as necessary to carry out section 6 for fiscal years
23 2027 to 2031.

24 (h) TRANSFER AUTHORITY.—Funds authorized to be
25 appropriated to the Department of State pursuant to sub-

1 section (g) are authorized to be transferred to the relevant
2 United States agencies if the Secretary determines and re-
3 ports to the appropriate committees of Congress that to
4 do so is necessary to carry out this Act, and concurrently
5 notifies such committees detailing the intended use of such
6 funds, not later than 15 days in advance of the transfer
7 of such funds.

○