118TH CONGRESS
1ST SESSION

S.

To amend the Geothermal Steam Act of 1970 to promote timely exploration for geothermal resources under geothermal leases, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. Heinrich (for himself, Mr. Risch, Mr. Lee, and Ms. Cortez Masto) introduced the following bill; which was read twice and referred to the Committee on

A BILL

To amend the Geothermal Steam Act of 1970 to promote timely exploration for geothermal resources under geothermal leases, 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 “Geothermal Energy
5 Optimization Act”.
6 SEC. 2. GEOTHERMAL PRODUCTION ON FEDERAL LAND.
8 et seq.) is amended by adding at the end the following:
“SEC. 30. GEOTHERMAL OBSERVATION TEST PROJECTS.

“(a) DEFINITIONS.—In this section:

“(1) CATEGORICAL EXCLUSION.—The term ‘categorical exclusion’ has the meaning given the term in section 111 of the National Environmental Policy Act of 1969 (42 U.S.C. 4336e).

“(2) DOWNHOLE.—The term ‘downhole’ means a well or borehole dug or drilled into the subsurface of the earth for the purposes of resource confirmation or potential use.

“(3) GEOTHERMAL OBSERVATION TEST PROJECT.—The term ‘geothermal observation test project’ means using geothermal technologies to drill a test, monitor, calibration, or other similar type of exploratory drilling process well for geothermal resources on land for which the Secretary concerned has issued a lease under this Act, that—

“(A) is carried out by the leaseholder;

“(B) causes an allowable amount of total disturbance;

“(C) does not include any permanent roads;

“(D) is developed—

“(i) with the deepest cemented casing string less than 12 inches of downhole size in diameter;
“(ii) in a manner that does not require off-road motorized access other than to and from the well site along an identified off-road route;

“(iii) with temporary road access, if needed to enable access to the geothermal observation test project location, subject to the requirement that—

“(I) construction of the temporary road access is remediated as close as reasonably practicable to original condition following completion of the geothermal observation test project work; or

“(II) the temporary road access, with any additional permanent improvements, is included as part of the full review required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) if the leaseholder intends to proceed with geothermal energy use for—

“(aa) the production of electricity;

“(bb) industrial processes;
“(ee) agricultural processes;

“(dd) brine mineral extraction;

“(ee) direct heating and cooling uses; or

“(ff) any combination of items (aa) through (ee); and

“(iv) with the use of rubber-tired digging or drilling equipment vehicles;

“(E) is completed in less than 120 days—

“(i) including the removal of any surface infrastructure from the site, unless—

“(I) the leaseholder conducting the geothermal observation test project submits to the Secretary concerned by not later than 60 days after the date of first exploration drilling an extension request for additional time to complete the observation project, in which the request provides justification indicating why granting an extension is necessary; and

“(II) the Secretary concerned grants an extension under subclause (I), if requested; or
“(ii) not including removal of any surface infrastructure from the site so long as the geothermal developer intends to proceed with resource development directly following the test phase of the project and into processes required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.); and

“(F) requires the restoration of the project site as part of any new review required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) within 3 years of the date of first exploration drilling to approximately the condition that existed at the time the project began, unless the site is subsequently used as part of energy development under the lease.

“(4) GEOTHERMAL TECHNOLOGY.—The term ‘geothermal technology’ means technology designed to extract heat from the subsurface of the earth and that is used to drill—

“(A) hydrothermal project test wells;

“(B) enhanced geothermal system monitoring wells;
“(C) closed loop geothermal system calibration wells; and

“(D) similar types of subsurface disturbances through non-production wells to assess the viability of the heat resources of the earth.

“(5) SECRETARY CONCERNED.—The term ‘Secretary concerned’ means—

“(A) the Secretary of Agriculture, with respect to National Forest System land; and

“(B) the Secretary, with respect to public lands.

“(6) SURFACE INFRASTRUCTURE.—The term ‘surface infrastructure’ means all equipment, materials, facilities, and other items used in the drilling of a geothermal observation test project.

“(7) TOTAL DISTURBANCE.—

“(A) IN GENERAL.—The term ‘total disturbance’ means a geothermal observation test project that causes not more than 10 acres of disturbance from—

“(i) soil or vegetation disruption at the location of each geothermal observation test project; and
(ii) soil or vegetation disruption during access or egress to the geothermal observation test project site.

(B) ALLOWANCE.—

(i) MULTIPLE PROJECTS.—For instances of multiple geothermal observation test projects, the acres of total disturbance allowed shall—

(I) be equal to the total number of geothermal observation test projects multiplied by 10 acres; and

(II) not exceed 100 total acres.

(ii) ACCESS OR EGRESS.—For soil or vegetation disruption during access or egress to a geothermal observation test project site, the acres of total soil or vegetation disruption allowed shall be equal to the acres of total disturbance allowed minus the acres of soil or vegetation disruption caused by the geothermal observation test project.

(b) CATEGORICAL EXCLUSION.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Secretary
concerned shall develop a categorical exclusion for
geothermal observation test projects.

“(2) ADMINISTRATION.—In developing and ad-
ministering the categorical exclusion under para-
graph (1), the Secretary concerned shall—

“(A) comply with the National Environ-
mental Policy Act of 1969 (42 U.S.C. 4321 et
seq.); and

“(B) apply any applicable extraordinary
circumstance under section 46.215 of title 43,
Code of Federal Regulations (or successor regu-
lations), in determining whether to use the cat-

egorical exclusion.

“(c) PROCESS.—

“(1) REQUIREMENT TO PROVIDE NOTICE.—A
leaseholder shall provide notice to the Secretary con-
cerned of the intent of the leaseholder to carry out
a geothermal observation test project at least 60
days before the start of drilling under the project.

“(2) REVIEW AND DETERMINATION.—Not later
than 30 days after receipt of a notice of intent
under paragraph (1) that contains sufficient infor-
mation to evaluate the qualifications of the project
for an applicable categorical exclusion, the Secretary
concerned shall, with respect to the project described in the notice of intent—

“(A) determine if the project qualifies for a categorical exclusion under subsection (b);

“(B) notify the leaseholder of such determination; and

“(C) administer the categorical exclusion for a geothermal observation test project, subject to the condition that—

“(i) the project meets the specified criteria for the categorical exclusion; and

“(ii) the Secretary determines that no extraordinary circumstance exists under which a normally excluded action or project may have a significant effect.

“(3) OPPORTUNITY TO REMEDY.—If the Secretary concerned determines under paragraph (2)(A) that the project does not qualify for a categorical exclusion under subsection (b), the Secretary concerned shall—

“(A) include in such notice clear and detailed findings on any deficiencies in the project that resulted in such determination; and

“(B) allow the leaseholder not less than 60 days after receiving notice under subparagraph
(A) to remedy any deficiencies and resubmit the notice of intent under paragraph (1).”.

SEC. 3. REVIEW OF GEOTHERMAL EXPLORATION OR DEVELOPMENT ACTIVITIES.

Section 390 of the Energy Policy Act of 2005 (42 U.S.C. 15942) is amended—

(1) in subsection (a)—

(A) by inserting “(30 U.S.C. 181 et seq.) or the Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.)” after “Mineral Leasing Act”; and

(B) by striking “oil or gas” and inserting “oil, gas, or geothermal energy resource well”; 

(2) in subsection (b)—

(A) in paragraph (1), by inserting “, and less than 10 acres for the purposes of geothermal,” after “less than 5 acres”; 

(B) in paragraph (2), by striking “oil or gas well” and inserting “oil, gas, or geothermal resource well”; 

(C) in paragraph (3), by striking “oil or gas well within a developed field” and inserting “oil, gas, or geothermal energy resource well within a developed field or area”;
(D) by redesignating paragraph (5) as paragraph (6); and

(E) by inserting after paragraph (4) the following:

“(5) For the purposes of geothermal, placement of an electrical transmission line or a distribution line of not more than 20 miles in length in an approved right-of-way corridor, so long as the corridor was approved within 5 years prior to the date of placement of the transmission or distribution line.”.

SEC. 4. LEASING PROCEDURES UNDER THE GEOThERMAL STEAM ACT.

Section 4 of the Geothermal Steam Act of 1970 (30 U.S.C. 1003) is amended—

(1) in subsection (b)—

(A) in paragraph (2), by striking “every 2 years” and inserting “every year”; and

(B) by adding at the end the following:

“(5) REPLACEMENT SALES.—If a lease sale under this section for a year is cancelled or delayed, the Secretary shall conduct a replacement sale during the same year.”; and

(2) in subsection (d), by adding at the end the following:
“(3) DEADLINE.—The Secretary, and the Secretary of Agriculture with respect to National Forest System land, shall issue a decision for a submitted application described in paragraph (1) not later than 60 days after the application is submitted.”.

SEC. 5. GEOThERMAL OMBUDSMAN AND STRIKE TEAM.

(a) DEFINITIONS.—In this section:

(1) DIRECTOR.—The term “Director” means the Director of the Bureau of Land Management.

(2) GEOThERMAL OMBUDSMAN.—The term “Geothermal Ombudsman” means the Geothermal Ombudsman appointed under subsection (b).

(3) GEOThERMAL STRIKE TEAM.—The term “Geothermal Strike Team” means the Geothermal Strike Team established under subsection (c).

(4) SECRETARY.—The term “Secretary” means the Secretary of the Interior.

(b) GEOThERMAL OMBUDSMAN.—

(1) APPOINTMENT.—Not later than 60 days after the date of enactment of this Act, the Secretary shall appoint within the Bureau of Land Management a Geothermal Ombudsman to report directly to the Director.

(2) DUTIES.—The Geothermal Ombudsman shall—
(A) act as a liaison between the individual field offices of the Bureau of Land Management and the Director;

(B) improve—

(i) the performance of the permitting process for geothermal energy resource wells; and

(ii) regional coordination of the field offices of the Bureau of Land Management;

(C) provide dispute resolution services between the individual field offices of the Bureau of Land Management and applicants for drilling geothermal energy resource wells;

(D) help Federal, State, and Tribal departments and agencies make the permitting and leasing process for geothermal energy resource wells efficient, orderly, and responsive;

(E) develop best practices and templates for the permitting and leasing process for geothermal energy resource wells;

(F) coordinate with the Federal Permitting Improvement Steering Council established by section 41002 of the FAST Act (42 U.S.C.
and other task forces, as needed, on overlapping duties and responsibilities; and

(G) identify potential statutory and regulatory changes based on input from the individual field offices of the Bureau of Land Management, the Geothermal Strike Team, and other stakeholders, as determined by the Secretary.

(3) LIMITATION.—

(A) SUPPORT.—In carrying out the duties of the Geothermal Ombudsman under paragraph (2), the Geothermal Ombudsman shall use personnel, funding, logistics, and other resources of the Bureau of Land Management, to the extent determined by the Director.

(B) EFFECT.—Nothing in this subsection replaces, alters, or diminishes the activities of any ombudsman or similar office of any other agency.

(c) GEOTHERMAL STRIKE TEAM.—

(1) ESTABLISHMENT.—Not later than 60 days after the date of enactment of this Act, the Secretary shall establish within the Bureau of Land Management a task force, to be known as the “Ge-
thermal Strike Team”, which shall report directly to
the Director.

(2) DUTIES.—The Geothermal Strike Team
shall support the Geothermal Ombudsman—

(A) with implementation and continuous
improvement of best practices relating to per-
mitting for and leasing of geothermal energy re-
source wells;

(B) with providing direct technical assist-
ance to applicants in field offices of the Bureau
of Land Management, as requested; and

(C) with coordinating with Federal, State,
Tribal, and local governments, and among State
agencies, on project review, permitting, and ap-
provals for geothermal energy resource wells.

(3) MEMBERS.—The Geothermal Strike Team
shall be composed of members of the Bureau of
Land Management selected by the Director, in con-
sultation with the Secretary, who may consult
with—

(A) institutions of higher education (as de-
defined in section 101(a) of the Higher Education
Act of 1965 (20 U.S.C. 1001(a)));
(B) members from the National Laboratories (as defined in section 2 of the Energy Policy Act of 2005 (42 U.S.C. 15801));

(C) private entities, as determined by the Director, with expertise in data modeling and analysis; and

(D) other experts, as determined by the Director.

(4) LIMITATION.—

(A) SUPPORT.—In carrying out the duties of the Geothermal Strike Team under paragraph (2), the Geothermal Strike Team may use personnel, funding, logistics, and other resources of the Bureau of Land Management, to the extent determined by the Director.

(B) EFFECT.—Nothing in this subsection replaces, alters, or diminishes the activities of any similar office of any Federal agency.

(d) REPORTS.—

(1) ANNUAL REPORT.—The Geothermal Ombudsman and the Geothermal Strike Team shall jointly submit to the Committee on Energy and Natural Resources of the Senate, the Committee on Energy and Commerce of the House of Representatives, and the Director an annual report that de-
scribes the activities and evaluates the effectiveness of the Geothermal Ombudsman and Geothermal Strike Team during the preceding 1-year period.

(2) ADDITIONAL REPORTS.—In addition to the annual report required under paragraph (1), the Geothermal Ombudsman and Geothermal Strike Team shall submit to the Director any additional reports, as determined by the Director.

(3) REQUEST.—The Geothermal Ombudsman and the Geothermal Strike Team shall, on request, submit the reports described in paragraphs (1) and (2) to any Member of Congress.