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U.S. GOVERNMENT
INFORMATION
GPO

Calendar No. 129

113TH CONGRESS, *1st Session* | SENATE | REPORT 113–72

GEOTHERMAL PRODUCTION EXPANSION

JULY 15, 2013.—Ordered to be printed

Mr. WYDEN, from the Committee on Energy and Natural Resources, submitted the following

R E P O R T

[To accompany S. 363]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 363) to expand geothermal production, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

PURPOSE

The purpose of S. 363 is to expand geothermal production, and for other purposes.

BACKGROUND AND NEED

The development of geothermal resources on public lands and National Forest System lands is governed by the Geothermal Steam Act of 1970, as amended by the Energy Policy Act of 2005 (30 U.S.C. 1001, et seq.). The Bureau of Land Management (BLM) has the responsibility of managing the geothermal leasing program on lands under the jurisdiction of the Department of the Interior and the Forest Service (FS) with the involvement of the FS on National Forest System lands.

In order to explore and develop geothermal resources on such lands, the developer must obtain a lease from BLM. Pursuant to section 7 of the Geothermal Steam Act (30 U.S.C. 1006), a geothermal lease is not to exceed more than 5,120 acres. Interested parties can nominate available lands for leasing. With limited exceptions, the law requires that all areas to be leased be offered for lease on a competitive basis (30 U.S.C. 1002a(b)). BLM must hold a competitive lease sale every two years. If bids are not received for the lands offered, BLM must offer the lands on a noncompeti-

tive basis for two years. Leases are issued for 10 years, and lessees are required to pay a royalty calculated as a percentage of gross proceeds from the sale of the electricity produced, or in the case of direct use geothermal, based on a fee schedule. Leasing and development can occur only if consistent with the relevant Federal land use plan and after compliance with the National Environmental Policy Act (NEPA).

In the case of Federal lands adjoining proven geothermal properties, issues have arisen with respect to the requirement that Federal lands to be leased be subject to competitive leasing. First, with respect to this narrow category of lands, the requirement of competitive leasing can cause delay in the expansion of production of already-identified geothermal resources. Secondly, the competitive leasing requirement for these lands can allow speculative bidders who have no interest in actually developing geothermal resources to lease the lands adjoining proven resources. For this reason, geothermal developers may be reluctant to nominate these adjacent lands, so that this geothermal energy is not produced.

BLM manages 818 leases on BLM and FS land, with 59 producing leases. Production from these leases accounts for over 40 percent of U.S. geothermal energy capacity. According to BLM, these leases generated more than 4600 gigawatts of electrical power during 2011 and also provided heat sources for direct-use commercial businesses. Geothermal potential exists in 11 western states and Alaska. A Programmatic Environmental Impact Statement relating to the Federal Geothermal Leasing Program was finalized in 2008, and served as the basis for amending Federal land use plans to facilitate geothermal leasing.

S. 363 would amend the Geothermal Steam Act of 1970, as amended, to provide new authority for the Secretary of the Interior to issue leases of not greater than 640 acres on a noncompetitive basis for lands managed by the BLM and FS adjoining lands on which the qualified lessee has made a valid discovery, as defined by the bill. The bill provides that the lessee must pay fair market value per acre for the noncompetitive lease, as determined by the Secretary pursuant to regulation, with a statutory minimum. S. 363 requires public notice of the proposed issuance of the lease and notice to the lessee and the public of the fair market value determination. The bill requires the Secretary to provide an administrative appeal of the fair market value determination. In addition, the bill requires the lessee to pay the annual rentals required under competitive leases.

LEGISLATIVE HISTORY

Senator Wyden introduced S. 363 on February 14, 2013. The bill is identical to S. 1149 as favorably reported by the Committee in the 112th Congress. Senators Begich, Crapo, Merkley, Murkowski, and Risch are original co-sponsors. A companion measure, H.R. 2004, was introduced in the House of Representatives on May 15, 2013, and referred to the House Committee on Natural Resources.

Last Congress, Senator Wyden introduced substantially similar legislation, S. 1149. The Subcommittee on Public Lands and Forests conducted a hearing on that measure on August 3, 2011. The Committee ordered the bill, as amended, reported favorably by voice vote on December 15, 2011 (S. Rept. 112–146). Also during

the 112th Congress, a companion bill, H.R. 2667, was introduced in the House of Representatives and referred to the House Natural Resources Committee's Subcommittee on Energy and Mineral Resources.

COMMITTEE RECOMMENDATION

The Committee on Energy and Natural Resources, in open business session on May 16, 2013, by a voice vote of a quorum present, recommends that the Senate pass S. 363. Senator Landrieu asked to be recorded as present.

SECTION-BY-SECTION ANALYSIS

Section 1 provides that this Act may be cited as the "Geothermal Production Expansion Act of 2013".

Section 2 amends section 4(b) of the Geothermal Steam Act of 1970 (30 U.S.C. 1003(b)) by adding a new paragraph (4) to address adjoining land.

Paragraph (4)(A) sets forth definitions.

Clause (i) defines "Fair Market Value Per Acre" as a dollar amount equal to the market value per acre as determined by the Secretary (taking into account the determination under subparagraph (B)(iii) regarding a valid discovery on the adjoining land) under applicable regulations; requires that the amount be determined by the Secretary for a lease under this paragraph by not later than the 180–day period beginning on the date the Secretary receives an application for a lease; and is not less than the greater of 4 times the median amount paid per acre for all land leased during the preceding year or $50.

Clause (ii) defines "Industry Standards" and is self-explanatory.

Clause (iii) defines "Qualified Federal Land" as land that is otherwise available for leasing under the Geothermal Steam Act of 1970, as amended.

Clause (iv) defines "Qualified Geothermal Professional" and is self-explanatory.

Clause (v) defines "Qualified Lessee" and is self-explanatory.

Clause (vi) defines "Valid Discovery" as a discovery of a geothermal resource by a new or existing slim hole or production well that exhibits temperature with measurements with indications of permeability as specified that are sufficient to meet industry standards.

Paragraph (4)(B) provides that an area of qualified federal land of not less than 1 acre and not more than 640 acres that adjoins other land for which a qualified lessee holds a legal right to develop geothermal resources may be available for a noncompetitive lease to a qualified lessee at the fair market value per acre if it is not already leased under the Geothermal Steam Act or nominated to be leased under that Act. The qualified lessee may not receive the noncompetitive lease if the lessee has previously received a noncompetitive lease in connection with the valid discovery. The qualified lessee must submit sufficient geological and technical data that would lead individuals experienced in the subject matter to believe that there is a valid discovery of geothermal resources on the land for which the qualified lessee holds the right to develop geothermal

resources and the thermal feature is extending into the adjoining areas.

Paragraph (4)(C)(i) addresses the determination of fair market value by the Secretary and sets forth requirements as specified regarding notice to the public and to the lessee. The paragraph also requires that the Secretary provide to the qualified lessee and any adversely affected party the opportunity to appeal the final determination of fair market value.

Paragraph (4)(C)(ii) provides that after publication of a notice of request to lease land under this paragraph, the Secretary may not accept an application under subsection (a) for leasing unless the request has been denied or withdrawn.

Paragraph (4)(C)(iii) provides that leases issued under this paragraph shall be considered a competitive lease for purposes of the level of the annual rental payment.

Paragraph (4)(D) requires the Secretary to issue regulations to carry out this paragraph not later than 270 days after the date of enactment.

COST AND BUDGETARY CONSIDERATIONS

The following estimate of costs of this measure has been provided by the Congressional Budget Office:

S. 363—Geothermal Production Expansion Act of 2013

S. 363 would authorize the Bureau of Land Management (BLM) to award leases for certain federal lands on a noncompetitive basis for the development of geothermal resources. Based on information provided by BLM, the Department of Energy (DOE), and individuals working in the geothermal industry, CBO estimates that implementing the legislation would have no significant impact on the federal budget over the 2014–2023 period. Enacting S. 363 could affect direct spending; therefore, pay-as-you-go procedures apply. However, CBO estimates that the net effect on direct spending would not be significant in any year. Enacting the legislation would not affect revenues.

S. 363 would authorize BLM to offer noncompetitive leases of up to 640 acres for lands adjacent to known geothermal discoveries. Under the bill, a company that identified a geothermal resource that extended onto federal land adjacent to company-controlled lands could acquire the lease for a specified amount (bonus bid) determined by BLM to be equivalent to the fair market value rather than an amount determined through a competitive auction. In addition to paying fair market value for the parcel, the bill would require any company awarded such a noncompetitive lease to make annual rental payments equal to those required for lands that are leased competitively. Finally, a company could receive only one noncompetitive lease for each known geothermal discovery.

Under current law, 75 percent of all receipts from bonus bids, rents, and royalties related to the development of geothermal resources on federal lands is paid to the states and counties in which those lands are located. The remaining 25 percent is deposited in the U.S. Treasury. CBO estimates that awarding noncompetitive leases for lands adjacent to known geothermal discoveries could reduce bonus bids on those parcels. However, because the legislation would require the companies that are awarded those leases to pay

fair market value for them, we estimate that implementing the bill would not reduce the amount of receipts deposited in the U.S. Treasury by more than $500,000 in any year.

In addition, based on information provided by DOE and individuals working in the geothermal industry, CBO expects that implementing S. 363 could increase receipts from royalties paid on geothermal energy production by reducing the amount of time it takes to develop a known geothermal resource and by reducing the likelihood that lands containing geothermal resources would be acquired for speculative purposes. CBO estimates that any increase in the amount of royalty receipts that would be deposited in the U.S. Treasury would not exceed $500,000 in any year. Those amounts would offset any reduction in receipts from issuing noncompetitive leases under the bill. Thus, CBO estimates that implementing S. 363 would have no significant net impact on direct spending through fiscal year 2022.

The bill contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act and would impose no costs on state, local, or tribal governments.

The CBO staff contact for this estimate is Jeff LaFave. This estimate was approved by Theresa Gullo, Deputy Assistant Director for Budget Analysis.

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out S. 363.

The bill is not a regulatory measure in the sense of imposing Government-established standards or significant economic responsibilities on private individuals and businesses.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

Little, if any, additional paperwork would result from the enactment of S. 363, as ordered reported.

CONGRESSIONALLY DIRECTED SPENDING

S. 363, as reported, does not contain any congressionally directed spending items, limited tax benefits, or limited tariff benefits as defined in rule XLIV of the Standing Rules of the Senate.

EXECUTIVE COMMUNICATIONS

The testimony of the Administration on S. 1149 in the 112th Congress follows.

STATEMENT OF ROBERT ABBEY, DIRECTOR, BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to provide the views of the Department of the Interior on S. 1149, the Geothermal Production Expansion Act. S. 1149 would amend the Geothermal Steam Act of 1970 to allow non-competitive leasing of Federal geothermal energy resources when a valid geothermal

discovery is made on adjoining lands. The Bureau of Land Management (BLM) supports the goal of enhancing geothermal exploration and development by ensuring that valid discoveries can be responsibly developed. Accordingly, the BLM generally supports S. 1149, and believes that the bill's provision that the Secretary of the Interior establish regulatory procedures for determining fair market values of adjoining lands is the most effective way to ensure a fair return to American taxpayers. The BLM has concerns with a few provisions in the legislation and would like to work with the Committee to address them.

BACKGROUND

Geothermal energy resources on Federal lands are leased and managed in accordance with the Geothermal Steam Act of 1970 (GSA), which was amended by the Energy Policy Act of 2005 (EPAct). The EPAct made extensive changes to the law governing geothermal leasing and royalty policies. The changes were designed to encourage geothermal energy development and simplify the royalty structure, while ensuring a fair return for the use of Federal lands and geothermal resources. The GSA, as amended, provides the BLM with the authority for leasing and managing geothermal resources on the public lands, and the delegated authority for leasing geothermal resources on lands managed by the U.S. Forest Service (FS). In 2008, the BLM and FS jointly prepared and issued a Programmatic Environmental Impact Statement (PEIS) that analyzed the potential for geothermal leasing on their respective lands. Based on this analysis, the BLM and FS have opened 192 million acres to potential geothermal leasing.

Federal geothermal resources have the potential to make an important contribution toward the President's goal of increasing energy production from clean, renewable sources. To date, the BLM has issued 818 geothermal leases that cover 1.2 million acres of Federal lands. Approximately 59 leases have reached producing status with a generating capacity of nearly 1,300 megawatts (MW). These producing leases account for more than 40 percent of current U.S. geothermal capacity. Despite this progress, the development of geothermal energy is just beginning, and its future role and importance is expected to increase significantly, from the current level to 12,200 MW by 2025, according to estimates in the 2008 PEIS. Notably, this is often baseload power that does not have the variable qualities of some other renewable sources and may pair well with them.

The BLM's geothermal leasing program is administered under regulations (43 CFR 3200 and 3280) issued in 2007 to reflect the 2005 EPAct's amendments to the GSA. Under these regulations, most leases for geothermal development on Federal lands are offered initially through competitive oral auctions, which are held about twice per year. Typically, the parcels offered at auction are nominated for

lease by industry, but may also be nominated by the public, or by Federal, state, and local governments. Since competitive auctions began in 2007, a total of 366 geothermal leases have been sold, generating more than $74 million in revenue. In addition to the price paid at auction, geothermal lease holders pay annual per-acre rental fees until production begins. Thereafter, lease holders pay royalties or fees on production.

Lease parcels that do not receive a bid at auction are made available for noncompetitive lease for a period of 2 years, at a price of $1.00 per acre. In addition, noncompetitive geothermal leases may be offered under certain conditions for direct, on-site energy uses, which include the use of geothermal steam and hot water in greenhouses and aquaculture. Noncompetitive leases are also offered to qualified mining claim holders.

S. 1149

S. 1149 seeks to focus Federal geothermal energy leasing activities toward entities that intend to develop geothermal resources rather than toward those who may intend to obtain leases for parcels with geothermal resources for speculative purposes. More specifically, the bill aims to address a practice whereby speculators purchase at auction Federal geothermal leases for parcels that are located adjacent to parcels of Federal or private land with existing geothermal leases or developments. This practice is viewed by some as an effort to capitalize upon another company's geothermal exploration efforts, and is a disincentive for future geothermal investment and development. Because the geothermal competitive leasing program is open to all qualified bidders, the potential exists for such speculative activity.

To address this concern, the legislation authorizes noncompetitive leasing of adjoining Federal geothermal resources when a valid discovery of geothermal resources is made, and the geothermal resources are shown to extend into unleased Federal land. Under the bill, a Federal noncompetitive lease would be available only for areas not exceeding 640 acres that have not already been leased or nominated to be leased competitively. Only one noncompetitive lease could be issued for each valid geothermal discovery.

To qualify for a noncompetitive lease under this legislation, an applicant would have to demonstrate, consistent with industry standards, a valid discovery of a geothermal resource. An applicant also would have to present sufficient geological and technical data showing that the geothermal resource extends into adjoining Federal lands.

Section 3 of S. 1149 would amend Section 4(b) of the GSA to define fair market value per acre for the non-competitive lease. Under the provisions of Section 3, the lessee would pay fair market value for the non-competitive lease in accordance with regulations issued by the Secretary of the Interior. The bill would set a minimum price on how

much the Secretary may determine the fair market value to be at not less than the greater of $50 per acre, or four times the median amount paid per acre for all land leased during the preceding year.

This legislation would make proposed fair market value determinations open for public comment for a period of 30 days and would allow a qualified lessee and any affected party to appeal a fair market value determination. Further, the lease awarded non-competitively would be assessed the annual rental rate of leases awarded competitively.

The BLM supports the objective of S. 1149 to enhance geothermal development by increasing investor confidence that geothermal discoveries could be fully developed. Additionally, BLM supports a requirement that regulations be promulgated to establish procedures for determining the fair market value of leases on adjoining lands.

The BLM is concerned, however, about the provision of S. 1149 that sets a minimum price on how much the Secretary may determine the fair market value to be. Though the minimum price set forth in the bill may provide some assurance of a return to American taxpayers, the price may not reflect a fair market value. The BLM believes that the provision is unnecessary, because under the bill, the Secretary would be required to establish procedures for determining fair market values of these leases. With these procedures, the BLM would consider a number of factors, including available information on the known resources and the value of other leases within the local market, in determining a price that is fair for that lease. Thus, the BLM recommends that the provision that sets a minimum price be removed from the bill.

The BLM also has concerns with the timeframes included in the legislation. Specifically, the promulgation of regulations issued by the Secretary typically requires more than 180 days. The 90 days provided in the bill for determining the fair market value of a lease may not be adequate to conduct such an evaluation.

CONCLUSION

The BLM supports efforts to enhance geothermal exploration and development in the United States in a manner that is fair to geothermal developers and other participants in the competitive leasing process. We must ensure those efforts result in a fair return to the American taxpayers. Thank you for the opportunity to testify and I would be happy to answer any questions.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as ordered reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in

italic, existing law in which no change is proposed is shown in roman):

GEOTHERMAL STEAM ACT OF 1970

(Public Law 91–581, as amended)

AN ACT To authorize the Secretary of the Interior to make disposition of geothermal steam and associated geothermal resources, and for other purposes.

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SEC. 4. LEASING PROCEDURES.

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(b) COMPETITIVE LEASE SALE REQUIRED.—

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(3) LANDS SUBJECT TO MINING CLAIMS.—Lands that are subject to a mining claim for which a plan of operations has been approved by the relevant Federal land management agency may be available for noncompetitive leasing under this section to the mining claim holder.

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SEC. 4. LEASING PROCEDURES.

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(b) COMPETATIVE LEASE SALE REQUIRED.—Where there are conflicting claims, leases, or permits therefor embracing the same land, the person who first was issued a lease or permit, or who first recorded the mining claim shall be entitled to first consideration.

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(4) ADJOINING LAND.—

(A) DEFINITIONS.—In this paragraph:

(i) FAIR MARKET VALUE PER ACRE.—The term "fair market value per acre" means a dollar amount per acre that—

(I) except as provided in this clause, shall be equal to the market value per acre (taking into account the determination under subparagraph (B)(iii) regarding a valid discovery on the adjoining land) as determined by the Secretary under regulations issued under this paragraph;

(II) shall be determined by the Secretary with respect to a lease under this paragraph, by not later than the end of the 180-day period beginning on the date the Secretary receives an application for the lease; and

(III) shall be not less than the greater of—

(aa) 4 times the median amount paid per acre for all land leased under this Act during the preceding year; or

(bb) $50.

(ii) INDUSTRY STANDARDS.—The term "industry standards" means the standards by which a qualified geothermal professional assesses whether downhole or flowing temperature measurements with indications of

permeability are sufficient to produce energy from geothermal resources, as determined through flow or injection testing or measurement of lost circulation while drilling.

(iii) QUALIFIED FEDERAL LAND.—The term "qualified Federal land" means land that is otherwise available for leasing under this Act.

(iv) QUALIFIED GEOTHERMAL PROFESSIONAL.—The term "qualified geothermal professional" means an individual who is an engineer or geoscientist in good professional standing with at least 5 years of experience in geothermal exploration, development, or project assessment.

(v) QUALIFIED LESSEE.—The term "qualified lessee" means a person that may hold a geothermal lease under this Act (including applicable regulations).

(vi) VALID DISCOVERY.—The term "valid discovery" means a discovery of a geothermal resource by a new or existing slim hole or production well, that exhibits downhole or flowing temperature measurements with indications of permeability that are sufficient to meet industry standards.

(B) AUTHORITY.—An area of qualified Federal land that adjoins other land for which a qualified lessee holds a legal right to develop geothermal resources may be available for a noncompetitive lease under this section to the qualified lessee at the fair market value per acre, if—

(i) the area of qualified Federal land—

(I) consists of not less than 1 acre and not more than 640 acres; and

(II) is not already leased under this Act or nominated to be leased under subsection (a);

(ii) the qualified lessee has not previously received a noncompetitive lease under this paragraph in connection with the valid discovery for which data has been submitted under clause (iii)(I); and

(iii) sufficient geological and other technical data prepared by a qualified geothermal professional has been submitted by the qualified lessee to the applicable Federal land management agency that would lead individuals who are experienced in the subject matter to believe that—

(I) there is a valid discovery of geothermal resources on the land for which the qualified lessee holds the legal right to develop geothermal resources; and

(II) that thermal feature extends into the adjoining areas.

(C) DETERMINATION OF FAIR MARKET VALUE.—

(i) IN GENERAL.—The Secretary shall—

(I) publish a notice of any request to lease land under this paragraph;

(II) determine fair market value for purposes of this paragraph in accordance with procedures for

making those determinations that are established by regulations issued by the Secretary;

(III) provide to a qualified lessee and publish, with an opportunity for public comment for a period of 30 days, any proposed determination under this subparagraph of the fair market value of an area that the qualified lessee seeks to lease under this paragraph; and

(IV) provide to the qualified lessee and any adversely affected party the opportunity to appeal the final determination of fair market value in an administrative proceeding before the applicable Federal land management agency, in accordance with applicable law (including regulations).

(ii) LIMITATION ON NOMINATION.—After publication of a notice of request to lease land under this paragraph, the Secretary may not accept under subsection (a) any nomination of the land for leasing unless the request has been denied or withdrawn.

(iii) ANNUAL RENTAL.—For purposes of section 5(a)(3), a lease awarded under this paragraph shall be considered a lease awarded in a competitive lease sale.

(D) REGULATIONS.—Not later than 270 days after the date of enactment of the Geothermal Production Expansion Act of 2013, the Secretary shall issue regulations to carry out this paragraph.

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