

At a Glance

S. 2657, AGILE Act of 2019

As reported by the Senate Committee on Energy and Natural Resources on December 17, 2019

By Fiscal Year, Millions of Dollars	2020	2020-2025	2020-2030
Direct Spending (Outlays)	*	*	*
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	*	*	*
Spending Subject to Appropriation (Outlays)	*	579	not estimated
Statutory pay-as-you-go procedures apply?	Yes	Mandate Effects	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2031?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No

* = between -\$500,000 and \$500,000.

The bill would

- Reauthorize and amend geothermal energy research and development (R&D) programs administered by the Department of Energy
- Amend various Bureau of Land Management (BLM) activities related to geothermal energy
- Require the U.S. Geological Survey (USGS) to update its assessment of geothermal resources
- Modify the definition of renewable energy pertaining to certain energy requirements for federal buildings

Estimated budgetary effects would primarily stem from

- Authorizing appropriations for geothermal energy R&D programs through fiscal year 2024
- Requiring BLM and the USGS to undertake new activities related to geothermal energy

Detailed estimate begins on the next page.



Bill Summary

S. 2657 would reauthorize and amend geothermal energy research and development (R&D) programs administered by the Department of Energy (DOE) through fiscal year 2024 and direct the Bureau of Land Management (BLM) and the U.S. Geological Survey (USGS) to conduct various activities related to geothermal energy. The bill also would modify the definition of renewable energy to include thermal energy for the purposes of complying with certain requirements for federal buildings.

Estimated Federal Cost

The estimated budgetary effect of S. 2657 is shown in Table 1. The costs of the legislation would fall within budget functions 270 (energy) and 300 (natural resources and environment).

Table 1.
Estimated Budgetary Effects of S. 2657

	By Fiscal Year, Millions of Dollars						2020-2025
	2020	2021	2022	2023	2024	2025	
	Increases in Spending Subject to Appropriation						
Estimated Authorization	55	167	167	167	168	3	727
Estimated Outlays	*	45	101	139	160	134	579

* = between zero and \$500,000.

Over the 2020-2030 period, CBO estimates, enacting S. 2657 also would affect direct spending by an insignificant amount—that is, an amount between -\$500,000 and \$500,000.

Basis of Estimate

For this estimate, CBO assumes that the bill will be enacted in fiscal year 2020. Under that assumption, affected agencies could incur some costs in 2020, but CBO expects that most of the costs would be incurred in 2021 and later. Any spending would be subject to the availability of appropriated funds.

Spending Subject to Appropriation

CBO estimates that implementing S. 2657 would cost \$579 million over the 2020-2025 period (see Table 2).

Geothermal Energy R&D. S. 2657 would authorize the appropriation of \$165 million annually through 2024 for DOE to conduct geothermal energy R&D. In addition to reauthorizing existing programs, S. 2657 would direct DOE to conduct new activities, including a technology transfer initiative for DOE and the private sector. The bill also would require DOE to establish new R&D projects to expand and promote the use of geothermal energy and to establish a geothermal drilling information repository in coordination with the Department of the Interior.



Table 2.
Estimated Increases in Spending Subject to Appropriation Under S. 2657

	By Fiscal Year, Millions of Dollars						2020-2025
	2020	2021	2022	2023	2024	2025	
Geothermal Energy R&D							
Authorization ^a	55	165	165	165	165	0	715
Estimated Outlays	*	44	99	137	157	131	568
Bureau of Land Management							
Estimated Authorization	*	*	*	*	*	*	2
Estimated Outlays	*	*	*	*	*	*	2
U.S. Geological Survey							
Estimated Authorization	*	2	2	2	2	2	10
Estimated Outlays	*	1	2	2	2	2	9
Modify the Definition of Renewable Energy							
Estimated Authorization	*	*	*	*	*	*	*
Estimated Outlays	*	*	*	*	*	*	*
Total Changes							
Estimated Authorization	55	167	167	167	168	3	727
Estimated Outlays	*	45	101	139	160	134	579

Components may not sum to totals because of rounding; DOE = Department of Energy; R&D = research and development;
* = between -\$500,000 and \$500,000.

a. S. 2657 would authorize the appropriation of \$165 million in 2020 for DOE to conduct geothermal R&D. However, DOE has allocated \$110 million in 2020 for those purposes. As a result, CBO estimates that S. 2657 would increase authorizations in 2020 by \$55 million, the difference between the amount authorized to be appropriated in the bill and the amount allocated for that year.

In 2020, DOE allocated \$110 million for activities related to geothermal technologies. As a result, CBO estimates that S. 2657 would increase authorized spending in 2020 by \$55 million, the difference between the amount authorized to be appropriated in the bill and the allocated amount for that year. Based on historical spending patterns for similar programs, CBO estimates that implementing those provisions would cost \$568 million over the 2020-2025 period.

Bureau of Land Management. The bill would direct BLM to create a program to improve the federal coordination of permitting for geothermal projects on federal land and to establish at least one office to carry out the program, to develop national goals for geothermal energy capacity on federal land, and to exempt certain geothermal exploration projects from complying with provisions of the National Environmental Policy Act.

In addition, using information from BLM, CBO expects the agency would issue regulations to carry out those requirements. Based on the cost of similar activities, CBO estimates that implementing those provisions would cost less than \$500,000 annually and total about \$2 million over the 2020-2025 period.



U.S. Geological Survey. Section 2 would direct the USGS to update its assessment of geothermal resources to provide high-resolution hydrothermal resource assessments, evaluate geothermal environmental risks, and expand several pilot studies.

In 2019, the most recent year for which we have information available, the USGS allocated \$1.6 million to geothermal resource activities. Using information from the USGS on the additional resources needed, CBO estimates that implementing those requirements would cost \$9 million over the 2020-2025 period.

Modify the Definition of Renewable Energy. As discussed below in more detail under the heading “Direct Spending,” section 6 would modify the definition of renewable energy for the purposes of complying with certain energy requirements for federal buildings. Implementing that provision could affect spending subject to appropriation if agencies procure or generate renewable energy using appropriated funds. However, CBO estimates such spending would not be significant.

Direct Spending

CBO estimates that S. 2657 would have an insignificant effect on direct spending over the 2020-2030 period.

Modify the Definition of Renewable Energy. Section 6 would modify the definition of renewable energy pertaining to certain energy requirements for federal buildings. Under current law, at least 7.5 percent of the electricity that federal agencies consume must come from renewable sources. S. 2657 would authorize agencies to include thermal energy generated from or conserved by projects placed in service after December 31, 2018, when calculating that share, thus possibly making it easier for them to comply with the requirement.

That provision could affect direct spending if agencies procure or generate renewable energy using third-party financing or long-term contracts known as energy savings performance contracts.¹ However, because most agencies currently comply with the statutory requirement for renewable energy, CBO estimates that section 6 would not have a significant effect on direct spending. In addition, the net effect could be positive or negative depending on whether the increased incentive to install thermal energy projects outweighed the reduced need to procure or generate other forms of renewable energy.

Geothermal Leasing. Section 10 of S. 2657 would allow businesses with federal oil and gas leases to noncompetitively acquire the rights to coproduce geothermal resources under those

1. In CBO’s judgment, agencies that enter into energy savings performance contracts (ESPCs) make an obligation—a commitment of federal resources—on behalf of the government to cover the full cost of the equipment to be acquired, but without the necessary appropriations. Therefore, legislation that modifies the use of ESPCs affects the authority of agencies to make such obligations, and in the absence of appropriations sufficient to cover the contractual costs, that authority is a form of mandatory rather than discretionary spending. See Congressional Budget Office, *Using ESPCs to Finance Federal Investments in Energy-Efficient Equipment* (February 2015), www.cbo.gov/publication/49869.



leases. Under current law, companies pay the federal government a bonus bid (the amount that a company is willing to pay to acquire a lease), annual rent to retain the lease, and royalties based on the value of any geothermal resources produced. Those payments are classified in the budget as offsetting receipts, or reductions in direct spending. CBO expects that allowing businesses to acquire such rights noncompetitively would reduce bonus bids as some businesses would now acquire leases without bidding for them. However, the bill also could increase royalties from geothermal leasing if businesses obtain noncompetitive leases on the land they would not otherwise bid on. Using information from BLM, CBO expects that few geothermal leases would be acquired under the bill and that direct spending would increase by an insignificant amount.

Pay-As-You-Go Considerations

The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. CBO estimates that the net changes in outlays resulting from S. 2657 that are subject to those pay-as-you-go procedures would not be significant over the 2020-2030 period.

Increase in Long-Term Deficits

CBO estimates that enacting S. 2657 would not significantly increase deficits in any of the four consecutive 10-year periods beginning in 2031.

Mandates: None.

Estimate Prepared By

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