CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

September 24, 2014

H.R. 2689

Energy Savings Through Public-Private Partnerships Act of 2014

As ordered reported by the House Committee on Energy and Commerce on April 30, 2014

SUMMARY

H.R. 2689 would modify agencies' authority to enter into energy savings performance contracts (ESPCs), a specific type of long-term contract used to procure equipment and services to conserve energy in federal buildings. The bill also would specify new energy-related reporting requirements for federal agencies.

CBO estimates that enacting H.R. 2689 would increase direct spending; therefore, pay-as-you-go procedures apply. Over the 2015-2024 period, we estimate that direct spending for contractual commitments to pay nonfederal vendors for energy conservation measures implemented pursuant to this bill would amount to $450 million. CBO also estimates that reductions in federal agencies' energy costs attributable to investments in energy-related services and equipment procured through contracts authorized under H.R. 2689 would total $210 million over the next 10 years (and additional amounts in subsequent years). In addition, CBO estimates that discretionary spending for certain services related to those contracts would total $10 million over the next five years. Enacting H.R. 2689 would not affect revenues.

CBO believes that allowing agencies to enter into ESPCs without appropriations in advance to cover the costs of the acquired equipment or services creates direct spending authority. However, the Administration does not treat ESPCs that way in the budget. Rather, agencies record payments to the vendors as coming from annual appropriations, usually spread out over many years. In the budget, those costs are offset, at least in part, by whatever reductions in annual energy costs are generated by the investments. Under that budgetary treatment, because it usually takes many years before the annual costs of the equipment or services fall below the annual savings, the federal government generally does not realize significant amounts of net savings in appropriations until after the 10-year period covered by CBO's cost estimates.

H.R. 2689 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary effects of H.R. 2689 are shown in the following table. The costs of this legislation fall primarily within budget functions 050 (defense), 270 (energy), and 800 (general government).

	By Fiscal Year, in Millions of Dollars											
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2015-2019	2015-2024
CHANGES IN DIRECT SPENDING												
Federal Obligations Under ESPCs												
Estimated Budget Authority	50	50	50	50	50	50	50	50	50	50	250	500
Estimated Outlays	15	35	50	50	50	50	50	50	50	50	200	450
CHANGES IN SPENDING SUBJECT TO APPROPRIATION												
Reductions in Energy and Energy-Related Costs Attributable to ESPCs												
Estimated Authorization Level	-1	-4	-9	-13	-18	-23	-28	-33	-38	-43	-45	-210
Estimated Outlays	-1	-4	-9	-13	-18	-23	-28	-33	-38	-43	-45	-210
Appropriations for ESPC-Related Services												
Estimated Authorization Level	*	1	2	3	4	5	6	7	8	9	10	45
Estimated Outlays	*	1	2	3	4	5	6	7	8	9	10	45

Notes: ESPCs = Energy savings performance contracts; * = Less than $500,000.

The estimates presented in this table reflect CBO's view of how cash flows related to ESPCs should be reflected in the federal budget. Since ESPCs were first implemented in 1998, however, the Administration has not recorded the full extent of federal obligations under ESPCs upfront when contracts were signed. Instead, the Administration records ongoing contract payments to vendors under ESPCs on a year-by-year basis as appropriations for such payments are provided. If the Administration was to continue following that practice for executing ESPCs under H.R. 2689, agencies' total energy-related costs would be largely unchanged during the contract period, when savings from reduced energy costs would go toward making contractual payments to vendors. As a result, CBO estimates that there would be no significant reduction in appropriations from implementing H.R. 2689 in the 10-year period covered by this estimate. If expected reductions in energy use continued beyond the contract period, budgetary savings would accrue to the federal government if annual appropriations for agencies' energy-related spending were reduced accordingly.

BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 2689 will be enacted near the start of fiscal year 2015. CBO estimates that amending agencies' authority to enter into ESPCs would increase direct spending by $450 million over the next 10 years. That upfront increase in ESPC-related spending would lead to a reduction in agencies' energy-related costs, which are generally paid from discretionary appropriations, as well as some additional discretionary spending for certain services related to those contracts.

Budgetary Treatment of ESPCs

ESPCs are a form of third-party financing, in which private parties pay for the design, acquisition, installation, and in some cases, the operation and maintenance of energy conservation equipment (generally referred to as energy conservation measures) in federal buildings.[1] Because the government does not pay for the equipment at the time it is acquired, the vendor borrows money from a nonfederal lender to finance the investment on behalf of the federal agency. With such private financing, agencies can pay for energy conservation measures and related financing costs over time on the basis of the anticipated and realized reductions in energy costs. Upon entering into an ESPC, the government effectively commits to make payments to a vendor in future years to cover the costs of equipment and services as well as interest costs on the vendor's borrowing to finance upfront costs. (Since the vendor faces higher borrowing costs than the U.S. Treasury, total interest payments for an ESPC will be higher than they would be if the government financed the acquisition directly with appropriated funds.)

Entering into such legally binding agreements constitutes a commitment of government resources without appropriations to cover all of the resulting costs. Thus, in CBO's view, the authority to enter into contractual agreements for third-party financing of energy conservation measures is a form of direct spending.[2] Consistent with long-standing practice, CBO's cost estimates for legislation providing such authority show budget authority in the year or years when commitments are expected to be made in the amount of the estimated net present value of those contractual commitments. Estimated outlays stemming from such commitments are spread across the period during which the vendor is expected to construct, manufacture, or purchase the asset on behalf of the federal government.

Agencies, however, generally do not follow the procedures that CBO views as appropriate for recording an ESPC in the budget and that are the basis for this cost estimate. In agency budgets, the initial commitment of governmental resources is not shown as an obligation requiring upfront budget authority. Rather, the payments to the vendor, which are usually spread out over many years, come from annual appropriations and are recorded as outlays over the full duration of the contract, offset, at least in part, by whatever annual savings are generated by the investments.

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1. For more on third-party financing, see Congressional Budget Office, *Third-Party Financing of Federal Projects* (June 1, 2005).

2. For further details on the principles that govern CBO's analyses of long-term contracts such as ESPCs, see Congressional Budget Office, letter to the Honorable Fred Upton on the budgetary impact of energy savings performance contracts (July 1, 2011).

Direct Spending

H.R. 2689 would make a variety of changes to the ESPC statute. In particular, the bill would:

- Permit agencies to use, sell, or transfer energy incentives, rebates, or credits (such as renewable energy certificates) as a means of making payments to vendors under ESPCs;[3]

- Expand the definition of "energy conservation measure" to include the acquisition of energy-consuming devices and support structures (such as appliances located within federal buildings); and

- Require federal agencies to include, in estimating energy savings attributable to an ESPC, anticipated forgone operation and maintenance expenses related to energy conservation measures financed under the contract.

Taken together, CBO expects that the proposed changes would result in an increase in the use of ESPCs to finance energy-related investments. In particular, we expect that authorizing agencies to use incentives such as renewable energy certificates to finance contract payments would increase the use of ESPCs for projects involving renewable energy technologies. Under current law, agencies' authority to use such incentives to pay for contract costs is uncertain in light of a 2013 decision by a federal contract appeals board.[4] As a result of that decision, CBO expects that under current law federal agencies are unlikely to pursue ESPCs that involve renewable energy technologies as a significant component. In addition, CBO expects that other definitional changes in H.R. 2689 would result in additional projects going forward that would not be undertaken under current law.

Based on information from the Department of Energy (DOE), particularly related to the potential magnitude of renewable energy projects that are likely to be pursued through ESPCs if agencies were explicitly permitted to use incentives such as renewable energy certificates to fund contracts, CBO estimates that incremental increases in direct spending under H.R. 2689 would total $450 million over the 2015-2024 period. On average, CBO expects that agencies would use ESPCs to acquire new energy conservation measures at an upfront cost of about $50 million a year, with most of that amount supporting investments in renewable energy technologies.

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3. Renewable energy certificates represent the rights to the nonpower renewable and environmental attributes of electricity generated from renewable resources. Such certificates, and other similar incentives and rebates, can be sold separately from the underlying units of physical electricity.

4. *Honeywell International Inc.,* Armed Services Board of Contract Appeals No. 57779 (August 7, 2013).

CBO's estimate of direct spending reflects an amount equal to the cost of energy conservation measures as installed (about $35 million a year), plus the net present value of the portion of borrowing costs attributable to contract interest rates that would exceed U.S. Treasury interest rates (about $15 million). (Borrowing costs equivalent to the amount of Treasury interest that would be paid if the equipment was financed with appropriated funds are not included in our estimate because, for the enforcement of Congressional budget rules, changes in Treasury interest costs are not counted as a cost or savings related to any particular legislative provision.) CBO's estimate of outlays reflects its judgment as to when equipment or services would be provided—for equipment, typically over a three-year period.

Spending Subject to Appropriation

ESPCs permit federal agencies to pay vendors for energy conservation measures and related financing costs over time on the basis of anticipated and realized reductions in energy costs, which are generally paid from annual appropriations. Typically, an ESPC vendor develops a baseline estimate of energy consumption that would occur in the absence of energy conservation measures and estimates the reductions in energy consumption and energy costs that would result from an ESPC-funded project. Such reductions in energy-related costs are used to set the annual payments to the vendor for the services and equipment provided under the ESPC. According to DOE, the average term of those repayments under an ESPC is 17 years—that is, it takes about 17 years, on average, for the government to realize sufficient savings to cover the contractual payments due to the vendor.[5]

CBO anticipates that ESPC-funded projects under H.R. 2689 would, on average, have payback periods in line with that historical experience. On that basis, we estimate that reductions in energy-related federal costs attributable to such contracts would total $210 million over the next 10 years.

In addition to contractual commitments through ESPCs that CBO categorizes as direct spending, CBO estimates that discretionary spending for certain services related to ESPCs under H.R. 2689 would total $10 million over the next five years. Typically, when using an ESPC, an agency agrees to make payments for services related to the operation and maintenance of newly installed equipment. Such agreements include measurement and verification activities to confirm that the equipment produces savings as guaranteed by the contract. Because the government can opt out of those services at any time, such contract costs are discretionary. For this estimate, CBO assumes that the cost of such services would total about 2.5 percent of the value of the overall contract. Assuming appropriation of the necessary amounts, CBO estimates that discretionary spending for optional

5. Information provided to the Congressional Budget Office by the U.S. Department of Energy, Federal Energy Management Program, June 2014.

ESPC-related services would total less than $500,000 in 2015 but would gradually increase as new contracts are entered into each year and payments on older contracts continue.

If the funding for ESPCs was recorded as direct spending (as shown in the above table), any reductions in energy and related costs could be used to reduce discretionary spending by the affected agencies. However, because agencies do not record commitments under ESPCs upfront and instead record the payments to vendors as discretionary spending over the course of the contracts, we expect that savings from reduced energy costs over the first 17 years would be roughly offset by the costs of contract payments to vendors.

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. The net changes in outlays that are subject to those pay-as-you-go procedures are shown in the following table.

CBO Estimate of Pay-As-You-Go Effects for H.R. 2689, as ordered reported by the House Committee on Energy and Commerce on April 30, 2014

	By Fiscal Year, in Millions of Dollars												
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2014-2019	2014-2024
NET INCREASE OR DECREASE (-) IN THE DEFICIT													
Statutory Pay-As-You-Go Impact	0	15	35	50	50	50	50	50	50	50	50	200	450

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

H.R. 2689 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

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