CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

October 19, 2015

S. 720
Energy Savings and Industrial Competitiveness Act of 2015

As reported by the Senate Committee on Energy and Natural Resources on September 9, 2015

SUMMARY

S. 720 would amend current law and authorize appropriations for a variety activities and programs related to energy efficiency. The bill would require federal agencies that guarantee mortgages to consider whether homes with energy-efficient improvements would affect borrowers' ability to repay mortgages. The bill also would modify certain energy-related goals and requirements for federal agencies.

CBO estimates that enacting S. 720 would increase direct spending by $15 million over the 2016-2025 period; therefore, pay-as-you-go procedures apply. Enacting the bill would not affect revenues. In addition, CBO estimates that implementing the legislation would cost $218 million over the next five years, assuming appropriation actions consistent with the legislation.

CBO estimates that enacting S. 720 would not increase on-budget deficits or net direct spending by more than $5 billion in any of the four consecutive 10-year periods beginning in 2026.

S. 720 would impose an intergovernmental mandate, as defined in the Unfunded Mandates Reform Act (UMRA), by requiring states and tribal governments to certify to the Department of Energy (DOE) whether or not they have updated residential and commercial building codes to meet the latest standards developed by building efficiency organizations. CBO estimates that the cost of that mandate would fall well below the annual threshold established in UMRA for intergovernmental mandates ($77 million in 2015, adjusted annually for inflation.)

This bill contains no private-sector mandates as defined in UMRA.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary effects of S. 720 are shown in the following table. The costs of this legislation primarily fall within budget functions 270 (energy), 370 (commerce and housing credit), 600 (income security), and 700 (veterans benefits and services).

TABLE 1. SUMMARY OF THE BUDGETARY EFFECTS OF S. 270

	By Fiscal Year, in Millions of Dollars											
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
CHANGES IN DIRECT SPENDING												
Estimated Budget Authority	0	1	2	1	1	1	1	2	3	3	5	15
Estimated Outlays	0	1	2	1	1	1	1	2	3	3	5	15
CHANGES IN SPENDING SUBJECT TO APPROPRIATION												
Estimated Authorization Level	242	9	-8	-6	-9	-9	-11	-12	-14	-15	228	167
Estimated Outlays	49	72	55	33	9	-1	-11	-12	-14	-15	218	165

BASIS OF ESTIMATE

For this estimate, CBO assumes that S. 720 will be enacted near the start of calendar year 2016, the necessary amounts will be appropriated each year, and spending will follow historical spending patterns for existing and similar activities.

Changes in Direct Spending

Estimated increases in direct spending under S. 720 stem from a provision that would direct federal agencies that guarantee mortgages to take into account certain information related to energy-efficient home improvements when evaluating a borrower’s ability to repay a mortgage. Provisions of S. 720 that would specify certain energy-related goals and requirements for federal agencies could affect direct spending, but CBO estimates those effects would not be significant.

Energy Efficiency Mortgage Underwriting. S. 720 would direct federal agencies that guarantee mortgages to consider the savings from energy efficiency improvements in determining a borrower’s ability to repay a mortgage if the seller voluntarily provides a report on energy efficiency for the home.

Based on information from the Federal Housing Finance Agency (FHFA), the Federal Housing Administration (FHA), and private researchers, CBO expects that enacting that requirement would lead to a small increase of less than 0.1 percent in the total volume of mortgages insured by federal agencies including Fannie Mae, Freddie Mac, the Department of Veterans Affairs (VA), and FHA. The mortgages that VA and FHA guarantee are securitized by the Government National Mortgage Association (GNMA). The increase in the volume of mortgage guarantees would occur because the eligibility criteria for mortgages on certain energy efficient homes would be more favorable for borrowers than under current law.

To be considered for the program, the seller would voluntarily pay for an energy efficiency report for the home and provide the report to all relevant parties—borrower, appraiser, and lender. Under the bill, if an energy efficiency report indicates that the borrower would incur lower energy utility costs on the home than a similar home with average energy costs, the borrower's eligibility criteria and the maximum loan amount for the home would be adjusted under guidelines that would be developed by the Department of Housing and Urban Development (HUD).

CBO estimates that the increase in total mortgages guaranteed by Fannie Mae, Freddie Mac and the VA would increase direct spending by $15 million over the 2016-2025 period. The budgetary effects of changes in the volume of mortgages guaranteed by FHA and securitized by GNMA are recorded in the budget as changes in spending that is subject to future appropriation. CBO's estimate of the budgetary effects of this provision on FHA and GNMA is discussed below under the heading, "Spending Subject to Appropriation."

Fannie Mae and Freddie Mac. Based on information from FHFA and others, CBO expects that some borrowers who obtain mortgages guaranteed by Fannie Mae and Freddie Mac under current law would qualify for larger mortgages under the bill. Under current law, CBO estimates that Fannie Mae and Freddie Mac will guarantee about $12 trillion in new mortgages over the 2016-2025 period. Under the bill, CBO estimates that Fannie Mae and Freddie Mac would guarantee an additional $8 billion in new mortgage volume over the next 10 years. The increase in mortgage guarantee volume would increase direct spending by $13 million over the 2016-2025 period on a fair-value basis.[1] (That figure is the product of CBO's estimated subsidy rate in each year—an average of 0.19 percent over the 2016-2025 period—and the estimated increase in loan volume under the bill.)

Department of Veterans Affairs. CBO estimates that under current law, VA will guarantee about $600 billion in new mortgages over the next 10 years. Under the bill, CBO estimates that the VA would guarantee an additional $400 million in new mortgage volume over the 2016-2025 period. That increase in volume would increase direct spending by about $2 million over the 2016-2025 period. (That figure is a product of CBO's estimated

1. For more information on CBO's methodology for estimating the costs Fannie Mae and Freddie Mac's loan guarantee programs, see Congressional Budget Office, cost estimate for S. 1217, the Housing Finance Reform and Taxpayer Protection Act of 2014 (September 5, 2014), www.cbo.gov/publication/45687.

subsidy rate in each year—an average of 0.5 percent over the next 10 years—and the estimated increase in loan volume under the bill.)[2]

Energy-Related Goals and Requirements for Federal Agencies. Under current law, a variety of statutory provisions and executive orders direct federal agencies to meet certain goals to reduce the amount of energy used, increase the consumption of electricity that is generated from renewable sources, reduce emissions of greenhouse gases, and ensure that federal facilities meet certain standards related to sustainability. To comply with such policies, federal agencies have spent an average of roughly $1.5 billion annually (since 2003) in energy conservation measures. Roughly one-third of such spending—or about $500 million annually—is made through Energy Savings Performance Contracts (ESPCs) and similar arrangements involving an increase in estimated direct spending. According to DOE, federal agencies have identified a multi-billion dollar pipeline of additional energy-related improvements that they intend to pursue under current law over the next several years in order to comply with existing energy-related goals and requirements.

S. 720 would extend statutory goals for federal agencies to reduce energy consumption and expand requirements for federal buildings to meet certain standards related to sustainable resource use. According to DOE, the goals and requirements specified by those provisions are largely consistent with existing statutory and administrative policy, and CBO expects that they would not significantly affect the timing or magnitude of federal spending on energy-related technologies.

Spending Subject to Appropriation

Assuming appropriation actions consistent with the bill, CBO estimates that implementing S. 720 would cost $218 million over the 2016-2020 period. That estimate includes $245 million in increased spending for a variety of activities related to energy efficiency that would be partially offset by $27 million in savings stemming from provisions that would increase the volume of mortgages guaranteed by FHA, repeal an existing requirement for federal agencies to reduce consumption of fossil fuels, and require HUD to implement a demonstration program to reduce energy consumption in properties that receive housing subsidies.

2. This estimate for VA mortgage guarantees was prepared using procedures specified in the Federal Credit Reform Act. Pursuant to section 3105 of the Concurrent Resolution on the Budget for Fiscal Year 2016, CBO has also calculated this cost on a fair-value basis, which is shown below in the section “Additional Information.”

TABLE 2. CHANGES IN SPENDING SUBJECT TO APPROPRIATION UNDER S. 720

	By Fiscal Year, in Millions of Dollars					
	2016	2017	2018	2019	2020	2016-2020
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Energy-Efficiency Activities						
Estimated Authorization Level	241	11	1	1	1	255
Estimated Outlays	48	74	64	40	19	245
Energy Efficiency Mortgage Underwriting						
Estimated Authorization Level	0	-2	-4	-4	-5	-15
Estimated Outlays	0	-2	-4	-4	-5	-15
Repeal of Requirement to Reduce Fossil Fuel Use						
Estimated Authorization Level	0	-1	-3	-3	-5	-12
Estimated Outlays	0	-1	-3	-3	-5	-12
Housing and Urban Development Demonstration Program						
Estimated Authorization Level	1	1	-2	*	*	*
Estimated Outlays	1	1	-2	*	*	*
Total Changes						
Estimated Authorization Level	242	9	-8	-6	-9	228
Estimated Outlays	49	72	55	33	9	218

Note: * = between -$500,000 and $500,000.

Energy-Efficiency Activities. CBO estimates that fully funding a variety of provisions aimed at enhancing energy-efficiency would require appropriations totaling $255 million over the 2016-2020 period (and $5 million in later years). That five-year total includes:

- $220 million specifically authorized for technical and financial assistance to state, local, and tribal governments and other activities aimed at improving the energy efficiency of public and private residential and commercial buildings;

- $30 million specifically authorized for energy-efficiency programs related to certain appliances; and

- $5 million in estimated funding for a variety of studies, reports, and other activities.

Assuming appropriation of the amounts authorized and estimated to be necessary, CBO estimates that the resulting outlays would total $245 million over the 2016-2020 period and $15 million in later years.

Energy Efficiency Mortgage Underwriting. CBO estimates that, over the 2016-2020 period, implementing S. 270 would increase offsetting collections for FHA's single-family program and GNMA. Those additional offsetting collections would stem from an increase in the volume of FHA loan guarantees and subsequent securitization of those loans by GNMA over that period. The increase in the volume of mortgage guarantees would occur because the eligibility criteria for mortgages on certain energy efficient homes would be more favorable for borrowers than under current law. Based on information from FHA, CBO expects that some borrowers that obtain mortgages guaranteed by FHA under current law would qualify for larger mortgages under the bill.

CBO estimates that under current law FHA will guarantee about $1 trillion in new mortgages over the 2016-2020 period. We estimate that, over the same period, enacting this bill would increase mortgage guarantees from FHA's single-family program by about $450 million—an increase of less than 0.1 percent. The combination of guarantee fees charged by FHA and estimated defaults and mortgage prepayments over the next 5 years yields an average subsidy rate for FHA's guarantees of -3.6 percent.[3] Multiplying that subsidy rate by the additional volume of mortgage guarantees expected to be offered by FHA under the bill results in additional estimated offsetting collections of $15 million over the 2016-2020 period.[4]

Repeal of Requirement to Reduce Fossil Fuel Use. S. 720 would repeal section 433 of the Energy Independence and Security Act of 2007 (EISA), which requires federal agencies to gradually phase out, and eliminate by 2030, the use of energy generated from fossil fuel in newly constructed federal buildings and buildings undergoing major renovations. That provision is one of several energy-related requirements with which federal agencies must comply under current law; for example, other statutory provisions and executive orders direct agencies to reduce overall consumption of energy and water, reduce greenhouse gas emissions, increase use of energy generated from renewable sources, and meet certain sustainability-related standards. According to DOE, agencies are expected to make significant investments in energy-related technologies, many of which will help agencies simultaneously achieve multiple requirements.

3. A negative subsidy cost for a federal credit program can occur if the net present value of upfront and annual fees charged for a loan guarantee are greater than the estimated cost of a default on that loan.

4. This estimate for FHA mortgage guarantees was prepared using procedures specified in the Federal Credit Reform Act. Pursuant to section 3105 of the Concurrent Resolution on the Budget for Fiscal Year 2016, CBO has also calculated this cost on a fair-value basis, which is shown below in the section "Additional Information."

For that reason, CBO estimates that repealing any single energy-related requirement would not necessarily change the overall amount of federal investment in energy-related technologies. In particular, during the period covered by this estimate, agencies must also ensure that newly constructed buildings and major renovations are designed to achieve certain energy-efficiency standards; according to DOE, many investments that agencies pursue to comply with such standards are likely to simultaneously fulfill the requirement under section 433 of EISA. After 2020, CBO expects that incremental spending attributable to federal agencies' efforts to comply with the standard would increase as it becomes more stringent.

Nevertheless, CBO expects that repealing section 433 of EISA would, on the margin, reduce agencies' near-term costs. Although DOE has not yet finalized a rule to implement section 433, the department expects that, as an alternative to reducing the use of energy generated by fossil fuels, agencies will be allowed to achieve compliance by purchasing renewable energy certificates from firms that generate electricity from renewable resources. (Under current law, federal agencies purchase such certificates to comply with certain other energy-related requirements.)

Based on information from DOE, CBO estimates that under current law, agencies will use discretionary appropriations to purchase renewable energy certificates worth $12 million over the next five years (and an additional $40 million over the 2021-2025 period) in order to comply with section 433 of EISA. Thus, CBO estimates that repealing that provision would generate discretionary savings of that amount, assuming future appropriations for compliance costs are reduced accordingly.

Housing and Urban Development (HUD) Demonstration Program. Section 304 would require HUD to implement a demonstration program to reduce energy consumption in properties that receive housing subsidies. Property owners that participate in the program would receive incentive payments for lowering their utility costs, but the housing subsidies that those owners receive would be lower under the bill because they are based, in part, on utility costs. CBO estimates that HUD would incur administrative costs to implement the program of $1 million per year in 2016 and 2017 and about $500,000 annually thereafter. Beginning in 2018, we estimate that those upfront costs would be offset by subsequent reductions in housing subsidies paid to participating property owners, and that any amounts that remained would be paid to property owners in the form of incentive payments. As a result, CBO estimates that implementing section 304 would have no significant effect on spending subject to appropriation over the 2016-2020 period.

ADDITIONAL INFORMATION

Pursuant to section 412 of the Concurrent Resolution on the Budget for Fiscal Year 2016, CBO is providing additional information on the estimated budgetary effects of certain provisions of S. 270 that would affect the mortgage guarantees of VA, FHA, and GNMA. Table 3 compares the estimated costs of increasing the volume of mortgage guarantees issued by VA, FHA, and GNMA using two different accounting techniques. Estimated costs using the procedure specified in the Federal Credit Reform Act are generally less than costs estimated using fair-value methods.[5]

TABLE 3. COMPARISON OF ESTIMATED COSTS FOR VA, FHA AND GNMA PROGRAMS UNDER S. 720 USING FCRA AND FAIR-VALUE ESTIMATES

	In Billions of Dollars	
	Estimated Cost Using FCRA Methodology	Estimated Cost Using Fair-Value Methodology
CHANGES IN DIRECT SPENDING[a], 2016-2025		
Department of Veterans Affairs		
Estimated Budget Authority	2	11
Estimated Outlays	2	11
CHANGES IN SPENDING SUBJECT TO APPRORPRIATION[b], 2016-2020		
Discretionary Spending for FHA and GNMA Under Current Law		
Estimated Authorization Level	-15	10
Estimated Outlays	-15	10

Notes: FCRA = Federal Credit Reform Act; FHA = Federal Housing Administration; GNMA = Government National Mortgage Association.

a. CBO uses the fair-value methodology to estimate costs for Fannie Mae and Freddie Mac's guarantee programs under current policy. Therefore, the table does not include a comparison of both methodologies for Fannie Mae and Freddie Mac.

b. Negative numbers denote a net reduction in spending, as a result of increased collections by FHA and GNMA. Those collections are treated as reductions in spending subject to appropriation.

5. For more information on CBO's methodology for estimating the costs Fannie Mae and Freddie Mac's loan guarantee programs, see Congressional Budget Office, Fair-Value Accounting for Federal Credit Programs (March 2012), https://www.cbo.gov/publication/43027.

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 Table 4.

TABLE 4. CBO ESTIMATE OF PAY-AS-YOU-GO EFFECTS FOR S. 720, AS REPORTED BY THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES ON SEPTEMBER 9, 2015

	By Fiscal Year, in Millions of Dollars											
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
NET INCREASE IN THE DEFICIT												
Statutory Pay-As-You-Go Impact	0	1	2	1	1	1	1	2	3	3	5	15

INCREASE IN LONG-TERM DEFICIT AND NET DIRECT SPENDING

CBO estimates that enacting the legislation would not increase on-budget deficits or net direct spending by more than $5 billion in any of the four consecutive 10-year periods beginning in 2026.

ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

S. 720 would impose an intergovernmental mandate, as defined in UMRA, by requiring states and tribal governments to certify to DOE whether or not they have updated residential and commercial building codes to meet the latest standards developed by building efficiency organizations. According to information from DOE, CBO estimates that the cost of that mandate would fall well below the annual threshold established in UMRA for intergovernmental mandates ($77 million in 2015, adjusted annually for inflation).

The bill would authorize funding and technical assistance to state, local, and tribal governments to implement the certification requirement. Such funding also could be used for implementing and enforcing new building codes and training officials. In addition, state, local, or tribal governments may benefit from federal grants to establish or expand programs to promote retrofit projects for reducing energy costs, and public institutions of higher education may benefit from federal funding for outreach activities in industrial research and assessment centers. Any costs to public entities associated with receiving such assistance would be incurred voluntarily as conditions of receiving federal assistance.

ESTIMATED IMPACT ON THE PRIVATE SECTOR

This bill contains no private-sector mandates as defined in UMRA.

PREVIOUS CBO ESTIMATE

On October 15, 2015, CBO transmitted a cost estimate for S. 2012, the Energy Policy Modernization Act of 2015, as reported by the Senate Committee on Energy and Natural Resources on September 9, 2015. Title I of that legislation contains several provisions that are substantively similar to provisions of S. 720. In particular, both bills would authorize funding for activities to increase the energy-efficiency of buildings and appliances, eliminate the existing requirement (under section 433 of EISA) for federal agencies to reduce consumption of energy generated from fossil fuels, and require HUD to carry out a demonstration program to reduce energy consumption in properties that receive housing subsidies. Our cost estimates of those provisions are the same for both bills.

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