



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

May 21, 2013

S. 761

Energy Savings and Industrial Competitiveness Act of 2013

*As ordered reported by the Senate Committee on Energy and Natural Resources
on May 8, 2013*

SUMMARY

S. 761 would authorize appropriations to support a variety of activities aimed at promoting energy efficiency in certain sectors of the economy. To offset a portion of the new discretionary spending authorized under the bill, S. 761 would reduce amounts authorized to be appropriated for an existing program aimed at promoting energy-efficient commercial buildings. Assuming appropriation actions consistent with the bill, CBO estimates that implementing S. 761 would have a net discretionary cost of \$210 million over the 2014-2018 period.

In addition, S. 761 would expand federal agencies' authority to enter into certain long-term contracts to acquire certain types of vehicles and related infrastructure. CBO estimates that enacting the proposed expansion would increase direct spending by \$350 million over the 2014-2023 period. Because the bill would affect direct spending, pay-as-you-go procedures apply. Enacting S. 761 would not affect revenues.

S. 761 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 standards developed by building efficiency organizations. CBO estimates that the cost of that mandate would fall well below the annual threshold established in UMRA (\$75 million in 2013, adjusted annually for inflation).

S. 761 would impose no private-sector mandates as defined in UMRA.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 761 is 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 | | | | | 2014- |
|-----------------------------------------------------|----------------------------------------|------|------|------|------|-------|
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2018 |
| CHANGES IN SPENDING SUBJECT TO APPROPRIATION | | | | | | |
| New Authorizations | | | | | | |
| Estimated Authorization Level | 490 | 30 | 20 | 20 | 20 | 580 |
| Estimated Outlays | 151 | 164 | 136 | 79 | 45 | 575 |
| Reduced Authorizations | | | | | | |
| Authorization Level | -70 | -100 | -100 | -100 | -200 | -570 |
| Estimated Outlays | -20 | -50 | -76 | -91 | -128 | -365 |
| Total Proposed Changes | | | | | | |
| Estimated Authorization Level | 420 | -70 | -80 | -80 | -180 | 10 |
| Estimated Outlays | 131 | 114 | 60 | -12 | -83 | 210 |
| CHANGES IN DIRECT SPENDING^a | | | | | | |
| Estimated Budget Authority | 30 | 30 | 30 | 35 | 35 | 160 |
| Estimated Outlays | 30 | 30 | 30 | 35 | 35 | 160 |

a. CBO estimates that enacting S. 761 would increase direct spending by \$350 million over the 2014-2023 period.

BASIS OF ESTIMATE

For this estimate, CBO assumes that S. 761 will be enacted near the start of fiscal year 2014. Assuming appropriation action consistent with the bill, CBO estimates that implementing S. 761 would have a net discretionary cost of \$210 million over the next five years. CBO also estimates that enacting S. 761 would increase direct spending by \$350 million over the next 10 years.

Spending Subject to Appropriation

S. 761 would authorize appropriations for a variety of programs and activities aimed at promoting energy efficiency, particularly within residential and commercial buildings and the industrial sector. The bill also would reduce existing authorizations of appropriations for related activities.

New Authorizations. S. 761 would specifically authorize appropriations totaling \$480 million over the 2014-2018 period for DOE to carry out a variety of activities directed toward improving the energy efficiency of buildings and industrial systems. (By

comparison, DOE received an appropriation of roughly \$317 million for activities related to building and industrial technologies in 2013.) Those specified authorizations include:

- \$250 million for grants to states to establish or expand programs to finance energy-efficient retrofits at certain privately owned buildings;
- \$200 million for technical assistance to states, tribes, and other organizations to improve and implement energy standards for residential and commercial buildings and to update model building codes;
- \$20 million to provide rebates to purchasers of certain energy-efficient transformers and devices that reduce energy consumed by motors; and
- \$10 million for grants and initiatives to promote efforts to enhance the energy efficiency of supply chains involved in commercial manufacturing processes.

In addition, CBO estimates that implementing other provisions of S. 761 that would direct DOE to expand ongoing efforts by DOE and the General Services Administration (GSA) related to building technologies and industrial energy efficiency would require appropriations totaling \$100 million over the 2014-2018 period. Those amounts would support programs to provide outreach and technical assistance to industrial manufacturers, carry out research and development on energy-efficient technologies and practices within the industrial manufacturing sector, and to update and implement designs for projects at federal buildings that meet certain energy-efficiency requirements.

In total, assuming appropriation of amounts specified and estimated to be necessary, CBO estimates that implementing newly authorized activities in S. 761 would have a gross cost of \$575 million over the 2014-2018 period. That estimate is based on historical spending patterns for activities similar to those that would be authorized by S. 761.

Reduced Authorizations. To offset a portion of new discretionary spending authorized by the bill, section 501 of S. 761 would reduce existing authorizations of appropriations for a program aimed at developing and disseminating technologies to reduce the quantity of energy consumed by commercial buildings. In total, S. 761 would reduce amounts authorized to be appropriated for that program by \$570 million over the 2014-2018 period. Assuming future appropriations are reduced accordingly, CBO estimates that implementing S. 761 would result in \$365 million less in discretionary outlays for that program over the next five years.

Direct Spending

S. 761 would expand federal agencies' authority to enter into energy savings performance contracts (ESPCs) and utility energy service contracts (UESCs), which are specific types of long-term contracts used to procure certain energy services. Such agreements are a form of third-party financing, in which private parties fund projects on behalf of the federal government.¹ Upon signing such contracts, 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. In CBO's view, the authority to enter into such contractual agreements is a form of direct spending.²

Specifically, S. 761 would authorize federal agencies to use ESPCs and UESCs to procure vehicles that operate on natural gas or electricity or to install infrastructure related to such vehicles. CBO expects that, under the bill, agencies would use such contracts to invest in such vehicles and infrastructure in order to meet certain energy-related requirements pertaining to the federal fleet. For example, executive orders and provisions of current law specify goals and requirements for certain agencies to reduce greenhouse gas emissions, reduce petroleum use, and increase the use of alternative fuels.

CBO anticipates that additional spending through long-term contracts under S. 761 would vary widely from year to year depending on the magnitude of federal acquisitions of eligible vehicles and infrastructure. Based on information from DOE, GSA, and the Department of Defense (DOD), CBO estimates that increased spending through such contracts would total \$350 million over the 2014-2023 period. CBO estimates that \$100 million of that amount—or an average of \$10 million annually—would cover upfront costs to acquire commercially available electric and natural gas vehicles and to construct related fueling and charging stations. (By comparison, CBO estimates that total federal expenditures for vehicle leases and fuel for all agencies totaled about \$2 billion in 2011.)

CBO's estimate also reflects the expectation that some agencies would use long-term contracts authorized under S. 761 to pursue cutting-edge technology such as "vehicle-to-grid" systems. Such systems would enable advanced electric vehicles to communicate and share power with the electric grid. Under S. 761, CBO estimates that agencies would pursue additional vehicle-to-grid projects for a total cost of roughly \$250 million over the 2014-2023 period. That estimate includes costs to build necessary infrastructure across roughly 50 military installations and federal campuses and to acquire

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

2. For further details of the principles that govern CBO's analyses of long-term contracts such as ESPCs and UESCs, see Congressional Budget Office, letter to the Honorable Fred Upton on the Budgetary Impact of Energy Savings Performance Contracts (July 1, 2011) and Congressional Budget Office, letter to the Honorable Jeff Bingaman and the Honorable Christopher Coons on the Budgetary Impact of Power Purchase Agreements (November 29, 2011).

3,500 advanced electric vehicles. The estimate is also based on information from DOD about nascent efforts to develop and field vehicle-to-grid technology.

Agencies' total energy-related costs would be affected by the long-term contracts that would be authorized by S. 761. Such costs are typically paid from annual discretionary appropriations; thus, S. 761 would result in changes in the need for appropriations in future years after contracts are fully paid. For example, if investments in eligible vehicles and infrastructure reduce energy use, and if such reductions continue beyond the period of time covered by contracts, those savings would accrue to the government and federal spending for such costs would be less if future appropriations are reduced accordingly. Because of the length of time likely to be involved in contracts under S. 761, however, CBO expects that most of those changes in the need for future appropriations would not occur until after the period covered by this estimate.

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 S. 761 as ordered reported by the Senate Committee on Energy and Natural Resources on May 8, 2013

| | By Fiscal Year, in Millions of Dollars | | | | | | | | | | | | 2013- | 2013- |
|----------------------------------------------------|----------------------------------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2018 | 2023 | |
| NET INCREASE OR DECREASE (-) IN THE DEFICIT | | | | | | | | | | | | | | |
| Statutory Pay-As-You-Go Impact | 0 | 30 | 30 | 30 | 35 | 35 | 35 | 35 | 40 | 40 | 40 | 160 | 350 | |

ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

S. 761 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 standards developed by building efficiency organizations. Because states can certify that they have not updated their building codes, CBO estimates that the cost of that mandate would fall well below the annual threshold established in UMRA (\$75 million in 2013, adjusted annually for inflation).

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

ESTIMATED IMPACT ON THE PRIVATE SECTOR

S. 761 would impose no new private-sector mandates as defined in UMRA.

ESTIMATE PREPARED BY:

Federal Costs: Megan Carroll, David Newman, and Matthew Pickford
Impact on State, Local, and Tribal Governments: J'nell L. Blanco
Impact on the Private Sector: Amy Petz

ESTIMATE APPROVED BY:

Theresa Gullo
Deputy Assistant Director for Budget Analysis