



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

September 15, 2010

S. 2843

Advanced Vehicle Technology Act of 2010

*As ordered reported by the Senate Committee on Energy and Natural Resources
on July 21, 2010*

SUMMARY

S. 2843 would direct the Secretary of Energy to expand existing activities aimed at developing alternative vehicles with the potential to significantly reduce or eliminate petroleum use and carbon emissions. Assuming appropriation of the necessary amounts, CBO estimates that implementing S. 2843 would cost about \$1.5 billion over the 2011-2015 period. Enacting S. 2843 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

S. 2843 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 2843 is shown in the following table. The costs of this legislation fall within budget function 270 (energy).

	By Fiscal Year, in Millions of Dollars					2011- 2015
	2011	2012	2013	2014	2015	
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Estimated Authorization Level	425	428	435	444	454	2,186
Estimated Outlays	130	259	320	362	399	1,470

BASIS OF ESTIMATE

S. 2843 would direct the Secretary of Energy to carry out, in collaboration with vehicle manufacturers and other nonfederal entities, activities to promote the development of vehicles with the potential to significantly reduce petroleum use and carbon emissions. The bill would authorize the appropriation of whatever amounts are necessary to expand existing research and development activities of the Department of Energy (DOE) related to alternative vehicles. In addition, the bill would require the agency to establish new initiatives, particularly related to medium- and heavy-duty and transit vehicles.

S. 2843 does not specify particular targets or goals for DOE to achieve related to alternative vehicles. Research and development activities inherently involve trial and error, and the pace of incremental progress is directly related to the variety of experiments attempted and other factors. For this estimate, CBO assumes that the agency would increase its level of effort by expanding existing programs, launching new initiatives, and increasing the number of technologies tested in order to achieve appreciable progress in research areas addressed by S. 2843. Based on information from the agency, CBO estimates that realizing recognizable gains from such efforts would require additional appropriations of \$425 million in 2011. (According to DOE, funding for activities addressed by the bill totaled about \$300 million in 2010.) That estimate for 2011 includes:

- \$200 million to expand general research and development efforts related to alternative passenger and light-duty commercial vehicles;
- \$130 million to expand and establish research and development related to alternative medium- and heavy-duty commercial vehicles and transit vehicles;
- \$40 million to improve the energy efficiency of manufacturing processes related to alternative vehicles;
- \$30 million to expand programs to develop vehicle sensing and communication technologies;
- \$15 million for vehicle testing facilities; and
- \$10 million for various other activities and reports.

Assuming that future annual appropriations would remain at that 2011 level, adjusted for anticipated inflation, CBO estimates that fully funding S. 2843 would require additional appropriations totaling \$2.2 billion over the 2011-2015 period. (According to DOE, that amount is equivalent to the total amount of funding for activities related to alternative vehicles that has been provided over the past 10 years.) Resulting outlays over that period

would total about \$1.5 billion, with \$0.7 billion of additional spending occurring in later years. CBO expects DOE would use those amounts to fund a wider variety of research activities aimed at achieving technical milestones. CBO estimates that significantly accelerating the time frame in which new technologies could become market ready would require even larger increases in funding.

PAY-AS-YOU-GO CONSIDERATIONS: None.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

S. 2843 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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