



**CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE**

July 20, 2007

**H.R. 2850
Green Chemistry Research and Development Act of 2007**

*As ordered reported by the House Committee on Science and Technology
on July 11, 2007*

SUMMARY

H.R. 2850 would authorize appropriations to promote the development of green chemistry technologies. Green chemistry encourages the design of products and processes that reduce or eliminate the use or generation of hazardous substances. Activities under the bill would include the establishment of a Green Chemistry Research and Development Program and the creation of collaborative, multiagency grant programs. Assuming appropriation of the authorized and necessary amounts, CBO estimates that implementing H.R. 2850 would cost \$18 million in 2008 and \$181 million over the 2008-2012 period. Enacting H.R. 2850 would not affect direct spending or revenues.

H.R. 2850 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would benefit state and local governments.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 2850 is shown in the following table. The costs of this legislation fall within budget functions 250 (science, space, and technology) and 800 (general government).

	By Fiscal Year, in Millions of Dollars				
	2008	2009	2010	2011	2012
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
National Science Foundation					
Authorization Level	27	29	30	0	0
Estimated Outlays	6	18	25	21	10
National Institutes of Standards and Technology					
Authorization Level	8	9	10	0	0
Estimated Outlays	1	5	8	8	3
Environmental Protection Agency					
Authorization Level	10	11	12	0	0
Estimated Outlays	4	9	11	7	2
Department of Energy					
Authorization Level	13	14	15	0	0
Estimated Outlays	7	12	14	7	2
Interagency Working Group					
Estimated Authorization Level	*	1	*	*	*
Estimated Outlays	*	1	*	*	*
Total Changes					
Estimated Authorization Level	58	64	67	*	*
Estimated Outlays	18	45	58	43	17

Notes: * = less than \$500,000.

BASIS OF ESTIMATE

For this estimate, CBO assumes that H.R. 2850 will be enacted near the end of fiscal year 2007 and that the entire amounts authorized and estimated to be necessary will be appropriated for each fiscal year. Estimated outlays are based on historical spending patterns for similar programs.

Green Chemistry Research and Grant Programs

H.R. 2850 would authorize the appropriation of \$58 million in 2008 and about \$188 million over the 2008-2010 period to create multiagency grant programs for the study of green chemistry. (Green chemistry encourages the design of products and processes that reduce or eliminate the use or generation of hazardous substances.) Under the bill, grants would be awarded to investigators for general research and development, and to universities for establishing partnerships with the chemical industry to retrain chemists and engineers in the field of green chemistry. The bill would authorize several agency appropriations for those grant and research activities.

For NSF, H.R. 2850 would authorize the appropriation of between \$27 million and \$30 million a year over the 2008-2010 period. NSF also would be required to conduct a study on the barriers to commercial application of green chemistry technologies.

For the other specified agencies, the following amounts would be authorized to be appropriated over the 2008-2010 period: \$27 million for the National Institute of Standards and Technology, \$42 million for the Department of Energy, and \$33 million for the Environmental Protection Agency to carry out the coordinated grant programs. Assuming appropriation of the authorized amounts for all agencies, CBO estimates that implementing those provisions would result in discretionary spending of \$18 million in fiscal year 2008 and \$181 million over the 2008-2012 period.

Interagency Working Group

H.R. 2850 would establish a Green Chemistry Research and Development Program within the Executive Office of the President and create an interagency working group to promote and coordinate federal green chemistry research and development. Agencies participating in the program would report annually on their activities, and the interagency working group would report within two years to the Congress on the status of green chemistry research. Based on information from the Office of Management and Budget and the cost of similar programs, CBO estimates that implementing those provisions would cost \$1 million over the 2008-2010 period.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

H.R. 2850 contains no intergovernmental or private-sector mandates as defined in UMRA and would create several grant programs benefitting institutions of higher education. Any costs state, local, or tribal governments might incur, including matching funds, would be incurred voluntarily.

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