

(C) Integration of those systems on a prototype vehicular platform, including with drivetrain systems for passenger, commercial, and nonroad electric drive vehicles.

(D) New technologies and processes that reduce manufacturing costs.

(E) Integration of advanced vehicle technologies with electricity distribution system and smart metering technology.

(F) Control systems that minimize emissions profiles in cases in which clean diesel engines are part of a plug-in hybrid drive system.

(k) Secondary applications and disposal of electric drive vehicle batteries

The Secretary shall carry out a program of research, development, and demonstration of—

(1) secondary applications of energy storage devices following service in electric drive vehicles; and

(2) technologies and processes for final recycling and disposal of the devices.

(l) Cost sharing

The Secretary shall carry out the programs established under this section in accordance with section 16352 of this title.

(m) Merit review of proposals

The Secretary shall carry out the programs established under subsections (i), (j), and (k) in accordance with section 16353 of this title.

(n) Coordination and nonduplication

To the maximum extent practicable, the Secretary shall coordinate activities under this section with other programs and laboratories of the Department and other Federal research programs.

(o) Review by National Academy of Sciences

On the business day that is 5 years after December 19, 2007, the Secretary shall offer to enter into an arrangement with the National Academy of Sciences to assess the performance of the Department in carrying out this section.

(p) Authorization of appropriations

There are authorized to be appropriated to carry out—

(1) the basic research program under subsection (f) \$50,000,000 for each of fiscal years 2009 through 2018;

(2) the applied research program under subsection (g) \$80,000,000 for each of fiscal years 2009 through 2018; and;²

(3) the energy storage research center program under subsection (h) \$100,000,000 for each of fiscal years 2009 through 2018;

(4) the energy storage systems demonstration program under subsection (i) \$30,000,000 for each of fiscal years 2009 through 2018;

(5) the vehicle energy storage demonstration program under subsection (j) \$30,000,000 for each of fiscal years 2009 through 2018; and

(6) the secondary applications and disposal of electric drive vehicle batteries program under subsection (k) \$5,000,000 for each of fiscal years 2009 through 2018.

(Pub. L. 110-140, title VI, §641, Dec. 19, 2007, 121 Stat. 1688.)

² So in original.

REFERENCES IN TEXT

The Federal Advisory Committee Act, referred to in subsec. (e)(3)(B), is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, which is set out in the Appendix to Title 5, Government Organization and Employees.

PART E—MISCELLANEOUS PROVISIONS

§ 17241. Lightweight materials research and development

(a) In general

As soon as practicable after December 19, 2007, the Secretary of Energy shall establish a program to determine ways in which the weight of motor vehicles could be reduced to improve fuel efficiency without compromising passenger safety by conducting research, development, and demonstration relating to—

(1) the development of new materials (including cast metal composite materials formed by autocombustion synthesis) and material processes that yield a higher strength-to-weight ratio or other properties that reduce vehicle weight; and

(2) reducing the cost of—

(A) lightweight materials (including high-strength steel alloys, aluminum, magnesium, metal composites, and carbon fiber reinforced polymer composites) with the properties required for construction of lighter-weight vehicles; and

(B) materials processing, automated manufacturing, joining, and recycling lightweight materials for high-volume applications.

(b) Authorization of appropriations

There is authorized to be appropriated to carry out this section \$80,000,000 for the period of fiscal years 2008 through 2012.

(Pub. L. 110-140, title VI, §651, Dec. 19, 2007, 121 Stat. 1694.)

§ 17242. Commercial insulation demonstration program

(a) Definitions

In this section:

(1) Advanced insulation

The term “advanced insulation” means insulation that has an R value of not less than R35 per inch.

(2) Covered refrigeration unit

The term “covered refrigeration unit” means any—

(A) commercial refrigerated truck;

(B) commercial refrigerated trailer; or

(C) commercial refrigerator, freezer, or refrigerator-freezer described in section 6313(c) of this title.

(b) Report

Not later than 90 days after December 19, 2007, the Secretary shall submit to Congress a report that includes an evaluation of—

(1) the state of technological advancement of advanced insulation; and

(2) the projected amount of cost savings that would be generated by implementing advanced insulation into covered refrigeration units.