

Public Law 94-413  
94th Congress

An Act

Sept. 17, 1976  
[H.R. 8800]

To authorize in the Energy Research and Development Administration a Federal program of research, development, and demonstration designed to promote electric vehicle technologies and to demonstrate the commercial feasibility of electric vehicles.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Electric and Hybrid Vehicle Research, Development, and Demonstration Act of 1976."*

**SEC. 2. FINDINGS AND POLICY.**

(a) The Congress finds and declares that—

(1) the Nation's dependence on foreign sources of petroleum must be reduced, as such dependence jeopardizes national security, inhibits foreign policy, and undermines economic well-being;

(2) the Nation's balance of payments is threatened by the need to import oil for the production of liquid fuel for gasoline-powered vehicles;

(3) the single largest use of petroleum supplies is in the field of transportation, for gasoline- and diesel-powered motor vehicles;

(4) the expeditious introduction of electric and hybrid vehicles into the Nation's transportation fleet would substantially reduce such use and dependence;

(5) such introduction is practicable and would be advantageous because—

(A) most urban driving consists of short trips, which are within the capability of electric and hybrid vehicles;

(B) much rural and agricultural driving of automobiles, tractors, and trucks is within the capability of such vehicles;

(C) electric and hybrid vehicles are more reliable and practical now than in the past because propulsion, control, and battery technologies have improved, and further significant improvements in such technologies are possible in the near term;

(D) electric and hybrid vehicles use little or no energy when stopped in traffic, in contrast to conventional automobiles and trucks;

(E) the power requirements of such vehicles could be satisfied by charging them during off-peak periods when existing electric generating plants are underutilized, thereby permitting more efficient use of existing generating capacity;

(F) such vehicles do not emit any significant pollutants or noise; and

(G) it is environmentally desirable for transportation systems to be powered from central sources, because pollutants emitted from stationary sources (such as electric generating plants) are potentially easier to control than pollutants emitted from moving vehicles; and

(6) the introduction of electric and hybrid vehicles would be facilitated by the establishment of a Federal program of research,

Electric and  
Hybrid Vehicle  
Research,  
Development,  
and  
Demonstration  
Act of 1976.  
15 USC 2501  
note.  
15 USC 2501.

development, and demonstration to explore electric and hybrid vehicle technologies.

(b) It is therefore declared to be the policy of the Congress in this Act to—

(1) encourage and support accelerated research into, and development of, electric and hybrid vehicle technologies;

(2) demonstrate the economic and technological practicability of electric and hybrid vehicles for personal and commercial use in urban areas and for agricultural and personal use in rural areas;

(3) facilitate, and remove barriers to, the use of electric and hybrid vehicles in lieu of gasoline- and diesel-powered motor vehicles, where practicable; and

(4) promote the substitution of electric and hybrid vehicles for many gasoline- and diesel-powered vehicles currently used in routine short-haul, low-load applications, where such substitution would be beneficial.

### SEC. 3. DEFINITIONS.

As used in this Act, the term—

15 USC 2502.

(1) "Administrator" means the Administrator of the Energy Research and Development Administration;

(2) "advanced electric or hybrid vehicle" means a vehicle which—

(A) minimizes the total amount of energy to be consumed with respect to its fabrication, operation, and disposal, and represents a substantial improvement over existing electric and hybrid vehicles with respect to the total amount of energy so consumed;

(B) is capable of being mass-produced and operated at a cost and in a manner which is sufficiently competitive to enable it to be produced and sold in numbers representing a reasonable portion of the market;

(C) is safe, damage-resistant, easy to repair, durable, and operates with sufficient performance with respect to acceleration, cold-weather starting, cruising speed, and other performance factors; and

(D) at a minimum, can be produced, distributed, operated, and disposed of in compliance with any applicable requirement of Federal law;

(3) "commercial electric or hybrid vehicle" includes any electric or hybrid vehicle which can be used (A) for business or agricultural production purposes on farms (e.g. tractors and trucks) or in rural areas, or (B) for commercial purposes in urban areas;

(4) "electric vehicle" means a vehicle which is powered by an electric motor drawing current from rechargeable storage batteries, fuel cells, or other portable sources of electrical current, and which may include a nonelectrical source of power designed to charge batteries and components thereof;

(5) "hybrid vehicle" means a vehicle propelled by a combination of an electric motor and an internal combustion engine or other power source and components thereof;

(6) "project" means the Electric and Hybrid Vehicle Research, Development, and Demonstration Project established under section 4(a);

- (7) "Secretary" means the Secretary of Transportation; and  
 (8) "small business concern" shall have the meaning prescribed by the Administrator after consultation with the Small Business Administration.

#### SEC. 4. DUTIES OF THE ADMINISTRATOR.

Electric and  
Hybrid Vehicle  
Research,  
Development,  
and  
Demonstration  
Project.  
Establishment.  
15 USC 2503.

(a) The Administrator shall promptly establish, as an organizational entity within the Energy Research and Development Administration, the Electric and Hybrid Vehicle Research, Development, and Demonstration Project.

(b) The Administrator shall have the responsibility for the overall management of the project. The Administrator may enter into any agreement or other arrangement with the National Aeronautics and Space Administration, the Department of Transportation, the National Science Foundation, the Environmental Protection Agency, the Department of Housing and Urban Development, the Department of Agriculture, or any other Federal agency, pursuant to which such agency shall conduct such specified parts or aspects of the project as the Administrator deems necessary or appropriate and within the particular competence of such agency, to the extent that such agency has capabilities which would enable it to contribute to the success of the project and the attainment of the purposes of this Act.

(c) In providing for the effective management of this project, the Administrator shall have specific responsibility to—

(1) promote basic and applied research on electric and hybrid vehicle batteries, controls, and motors;

(2) determine optimum overall electric and hybrid vehicle design;

(3) conduct demonstration projects with respect to the feasibility of commercial electric and hybrid vehicles (A) by contracting for the purchase or lease of electric and hybrid vehicles for practical use, and (B) by entering into arrangements, with other governmental entities and with nongovernmental entities, for the operation of such vehicles;

(4) ascertain consumer needs and desires so as to match the design of electric and hybrid vehicles to their potential market; and

(5) ascertain the long-term changes in road design, urban planning, traffic management, maintenance facilities, utility rate structures, and tax policies which are needed to facilitate the manufacture and use of electric and hybrid vehicles in accordance with sections 13 and 14.

#### SEC. 5. COORDINATION BETWEEN THE ADMINISTRATOR AND OTHER AGENCIES.

15 USC 2504.

(a) In carrying out the project established under section 4, the Administrator shall, to the maximum extent practicable, consult and coordinate with the Secretary, with respect to any functions of the Administrator under this Act which relate to regulatory activities or other responsibilities of the Secretary, including safety and damageability programs.

(b) Each department, agency, and instrumentality of the executive branch of the Federal Government shall carefully consider any written request from the Administrator, or the head of any agency to which the Administrator has delegated responsibility for specified parts or aspects of the project, to furnish such assistance, on a reimbursable basis, as the Administrator or such head deems necessary to

carry out the project and to achieve the purposes of this Act. Such assistance may include transfer of personnel with their consent and without prejudice to their position and rating.

### SEC. 6. RESEARCH AND DEVELOPMENT.

The Administrator, acting through appropriate agencies and contractors, shall initiate and provide for the conduct of research and development in areas related to electric and hybrid vehicles, including—

- (1) energy storage technology, including batteries and their potential for convenient recharging;
- (2) vehicle control systems and overall design for energy conservation, including the use of regenerative braking;
- (3) urban design and traffic management to promote maximum transportation-related energy conservation and minimum transportation-related degradation of the environment; and
- (4) vehicle design which emphasizes durability, length of practical lifetime, ease of repair, and interchangeability and replaceability of parts.

### SEC. 7. DEMONSTRATIONS.

(a) Within 12 months after the date of enactment of this Act, the Administrator shall develop data characterizing the present state-of-the-art with respect to electric and hybrid vehicles. The data so developed shall serve as baseline data to be utilized in order (1) to compare improvements in electric and hybrid vehicle technologies; (2) to assist in establishing the performance standards under subsection (b) (1); and (3) to otherwise assist in carrying out the purposes of this section. In developing any such data, the Administrator shall purchase or lease a reasonable number of such vehicles or enter into such other arrangements as the Administrator deems necessary to carry out the purposes of this subsection.

(b) (1) Within 15 months after the date of enactment of this Act, the Administrator shall promulgate rules establishing performance standards for electric and hybrid vehicles to be purchased or leased pursuant to subsection (c) (1). The standards so developed shall take into account the factors of energy conservation, urban traffic characteristics, patterns of use for "second" vehicles, consumer preferences, maintenance needs, battery recharging characteristics, agricultural requirements, materials demand and their ability to be recycled, vehicle safety and insurability, cost, and other relevant considerations, as such factors and considerations particularly apply to or affect vehicles with electric or hybrid propulsion systems. Such standards are to be developed taking into account (A) the best current state-of-the-art, and (B) reasonable estimates as to the future state-of-the-art, based on projections of results from the research and development conducted under section 6. In developing such standards, the Administrator shall consult with appropriate experts concerning design needs for electric and hybrid vehicles which are compatible with long-range urban planning, traffic management, and vehicle safety.

(2) Separate performance standards shall be established under paragraph (1) with respect to (A) electric or hybrid vehicles for personal use, and (B) commercial electric or hybrid vehicles. Such performance standards shall represent the minimum level of performance which is required with respect to any vehicles purchased or leased pursuant to subsection (c). Initial performance standards under paragraph (b) (1) shall be set at such levels as the Administrator determines are neces-

15 USC 2505.

Data  
development.  
15 USC 2506.

Vehicles,  
purchase or lease.

Performance  
standards, rules.

Consultation.

Performance  
standards.

sary to promote the acquisition and use of such vehicles for transportation purposes which are within the capability (as determined by the Administrator) of electric and hybrid vehicles.

Standards,  
revision.

(3) Such performance standards shall be revised, by rule, periodically as the state-of-the-art improves, except that rules promulgated under paragraph (1) shall be amended not later than 6 months prior to the date for contracts specified in subsection (c) (2).

Transmittal to  
Speaker of the  
House, President  
of the Senate and  
congressional  
committees.

(4) Before entering into contracts for the production of vehicles under subsection (c) (2), the Administrator shall transmit to the Speaker of the House of Representatives, the President of the Senate, the Committee on Science and Technology of the House of Representatives, and the Committee on Commerce of the Senate, the performance standards developed under paragraph (1), as revised and currently in effect.

Contract for  
vehicle purchase  
or lease.

(c) (1) The Administrator shall, within 6 months after the date of promulgation of performance standards pursuant to subsection (b) (1), contract for the purchase or lease of 2,500 electric or hybrid vehicles which satisfy the performance standards set forth under subsection (b) (1). The delivery of such vehicles shall be completed within 39 months after the date of enactment of this Act. If the Administrator determines, on the basis of responses to the solicitation for proposals for such contracts, that less than 2,500 of the electric or hybrid vehicles which satisfy performance standards under subsection (b) (1) will be available within such delivery period, the Administrator shall (A) immediately forward this information along with a detailed justification of such determination to the Speaker of the House of Representatives, the President of the Senate, the Committee on Science and Technology of the House of Representatives, and the Committee on Commerce of the Senate, and (B) contract for the purchase or lease of the maximum number of such vehicles (up to 2,500) that will be available within such delivery period. To the extent practicable, vehicles purchased or leased under such contracts shall represent a cross-section of the available technologies and types of uses of such vehicles.

Information,  
transmittal to  
Speaker of the  
House, President  
of the Senate and  
congressional  
committees.

(2) (A) The Administrator shall, within 6 months after the required amendment of such standards pursuant to subsection (b) (3), and not later than 54 months after the date of enactment of this Act, contract for the purchase or lease of 5,000 advanced electric or hybrid vehicles, which satisfy such amended standards. The final delivery of such vehicles shall be completed within 72 months after the date of enactment of this Act. If the Administrator determines, on the basis of responses to the solicitation for proposals for such contracts, that less than 5,000 of the electric and hybrid vehicles which satisfy performance standards set forth under subsection (b) (3) will be available within the delivery period (including any extension under subparagraph (B)), the Administrator shall (i) immediately forward this information along with a detailed justification of such determination to the Speaker of the House of Representatives, the President of the Senate, the Committee on Science and Technology of the House of Representatives, and the Committee on Commerce of the Senate, and (ii) contract for the purchase or lease of the maximum number of such vehicles (up to 5,000) that will be available during such delivery period. To the extent practicable, vehicles purchased or leased under such contracts shall represent a cross-section of the available technologies and types of uses of such vehicles.

Information,  
transmittal to  
Speaker of the  
House, President  
of the Senate and  
congressional  
committees.

Vehicles delivery  
period, extension.

(B) The Administrator shall extend the delivery period for such vehicles for a period not to exceed 6 additional months, if he finds that such an extension in delivery date would result in the deliv-

ery of advanced electric and hybrid vehicles which would add to the total number of vehicles to be purchased or leased (up to 5,000) and which would not otherwise be available. If the Administrator finds that such an extension is appropriate and necessary for the delivery of such vehicles, he shall so notify the Speaker of the House of Representatives, the President of the Senate, the Committee on Science and Technology of the House of Representatives, and the Committee on Commerce of the Senate.

Notification to Speaker of the House, President of the Senate and congressional committees.

(d) The Administrator, in supervising the demonstration of vehicles acquired under subsection (c), shall make such arrangements as may be necessary or appropriate—

(1) (A) to make such vehicles available to Federal agencies and to State or local governments and other persons for individual or business use (including farms). The individuals and businesses involved shall be selected by an equitable process which assures that the Administrator will receive accurate and adequate data on vehicle performance, including representative geographical and climatological information and data on user reaction to the utilization of electric and hybrid vehicles. Such individuals and businesses shall be given the option of purchasing or leasing such vehicles under terms and conditions which will promote their widespread use;

(B) to pay the differential operating costs of such vehicles to the extent necessary to assure the adequate demonstration of such vehicles;

(2) for demonstration maintenance projects, including maintenance organization and equipment needs and model training projects for maintenance procedures; and

(3) for the dissemination of data on electric and hybrid vehicle safety and operating characteristics (including nontechnical descriptive data which shall be made available by the Government Printing Office) (A) to Federal, State, and local consumer affairs agencies and groups; (B) to Federal, State, and local agricultural and rural agencies and groups; and (C) to the public.

(e) (1) At least 60 days prior to entering into any contract for the purchase or lease of any electric or hybrid vehicle under subsection (c) (1) or any advanced electric or hybrid vehicle under subsection (c) (2), the Administrator shall determine (A) if the purchase or lease of the number of such vehicles specified in such subsection (c) (1) or (c) (2) will, with high probability, displace the normal level of private procurement of such vehicles which would conform to the applicable performance standards promulgated pursuant to subsection (b) and which would be used in the United States, and (B) if such displacement will occur, the necessary extent of such displacement in order to carry out the purposes of this Act. At the time any such determination is made, the Administrator shall transmit such determination, along with all relevant information in support thereof, to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce of the Senate.

Transmittal to congressional committees.

(2) The Administrator shall reduce the number of vehicles for which he shall contract for the purchase or lease under subsection (c) (1) or (c) (2) by the number determined under paragraph (1) (A) as modified by paragraph (1) (B), except in no event shall he contract for the purchase or lease pursuant to subsection (c) (1) of less than 1,000 electric or hybrid vehicles, and in no event shall he contract

Reduction.

for the purchase or lease pursuant to subsection (c) (2) of less than 2,500 advanced electric or hybrid vehicles unless he determines on the basis of responses to the solicitations for proposals for such contracts, under the provisions of (c) (1) and (c) (2), that lesser numbers of such vehicles which satisfy the applicable performance standards will be available within the delivery periods. All other provisions of subsection (c) shall apply.

#### SEC. 8. CONTRACTS.

15 USC 2507.

(a) The Administrator shall provide funds, by contract, to initiate, continue, supplement, and maintain research, development, and demonstration activities which are necessary to carry out the purposes of the project. The Administrator may enter into such contracts with any Federal agency, laboratory, university, nonprofit organization, industrial organization, public or private agency, institution, organization, corporation, partnership, or individual.

Consultation.  
Procedures.

(b) In addition to the requirements of sections 4 and 5, the Administrator, in the exercise of his duties and responsibilities under this section, shall consult with the Department of Transportation, the Environmental Protection Agency, the Federal Energy Administration, the National Aeronautics and Space Administration, the Department of Agriculture, and representatives of other appropriate Federal agencies, and shall establish procedures for periodic consultation with representatives of science, industry, and such other groups as may have special expertise in electric and hybrid vehicle research, development, and demonstration.

Rules.

(c) Each contract under this section shall be entered into in accordance with such rules as the Administrator may prescribe in accordance with the provisions of this section. Each application for funding shall be made in writing in such form and with such content and other submissions as the Administrator shall require. The Administrator may enter into contracts under this section without regard to section 3709 of the Revised Statutes (41 U.S.C. 5).

Application.

#### SEC. 9. ENCOURAGEMENT AND PROTECTION OF SMALL BUSINESS.

15 USC 2508.

(a) The Administrator shall take such steps as are feasible to assure that small business concerns have a realistic and adequate opportunity to participate in the project.

(b) To assist in accomplishing the objectives of subsection (a), the Administrator shall reserve, for contracts with small business concerns, a reasonable portion of the funds made available pursuant to this Act for research, development, or demonstration of electric or hybrid vehicles.

(c) The Administrator shall, in addition to the requirements set forth in subsections (a) and (b)—

(1) include in all contracts for research, development, or demonstration of electric or hybrid vehicles such terms, conditions, and payment schedules as may assist in meeting the needs of small business concerns, and shall take steps to avoid the inclusion in such contracts of any terms, conditions, or penalties which would tend to prevent such concerns from participating in the program under this Act; and

Grants.

(2) make planning grants available to qualified small business concerns which require assistance in developing, submitting, and entering into such contracts.

**SEC. 10. LOAN GUARANTEES.**

(a) It is the policy of the Congress to assist in the introduction into the Nation's transportation fleet of electric and hybrid vehicles and to assure that qualified small business concerns and other qualified borrowers are not excluded from participation in such development due to lack of adequate capital. Accordingly, it is the policy of the Congress to provide guarantees of loans made for such purposes.

15 USC 2509.

(b) In order to encourage the commercial production of electric and hybrid vehicles, the Administrator is authorized to guarantee, and to enter into commitments to guarantee, principal and interest on loans made by lenders to qualified borrowers, primarily small business concerns, for the purposes of—

- (1) research and development related to electric and hybrid vehicle technology;
- (2) prototype development for such vehicles and parts thereof;
- (3) construction of capital equipment related to research on, and development and production of, electric and hybrid vehicles and components; or
- (4) initial operating expenses associated with the development and production of electric and hybrid vehicles and components.

(c) Any guarantee under this section shall apply only to so much of the principal amount of the loan involved as does not exceed 90 percentum of the aggregate cost of the activity with respect to which the loan is made.

(d) Loan guarantees under this section shall be on such terms and conditions as the Administrator determines, except that a guarantee shall be made under this section only if—

- (1) the loan bears interest at a rate not to exceed such annual percent on the principal obligation outstanding as the Administrator determines to be reasonable, taking into account the range of interest rates prevailing in the private sector for similar loans and risks by the United States;
- (2) the terms of such loan require full repayment over a period not to exceed 15 years;
- (3) in the judgment of the Administrator, the amount of the loan (when combined with amounts available to the qualified borrower from other sources) will be sufficient to carry out the activity with respect to which the loan is made;
- (4) in the judgment of the Administrator, there is reasonable assurance of repayment of the loan by the qualified borrower; and
- (5) no loan shall be guaranteed by the Administrator under subsection (b) unless the Administrator finds that no other reasonable means of financing or refinancing is reasonably available to the applicant.

(e) (1) The amount of the guarantee of any loan shall not exceed \$3,000,000, unless the Administrator finds that a higher guarantee level for specific loan guarantees is necessary in order to carry out the purposes of this Act. If the Administrator makes such finding, he shall immediately report that finding to the Speaker of the House of Representatives, the President of the Senate, the Committee on Science and Technology of the House of Representatives, and the Committee on Commerce of the Senate.

Limitation.

(2) The aggregate amount of guarantees outstanding under this section at any one time shall not exceed \$60,000,000.

Report to Speaker of the House, President of the Senate and congressional committees.  
Limitation.

(f) As used in this section, the term "qualified borrower" means any partnership, corporation, or other legal entity which (as determined by the Administrator) has presented satisfactory evidence of an interest in electric or hybrid vehicle technology and is capable of

"Qualified borrower."

performing research or completing the development and production of electric or hybrid vehicles or any components thereof in an acceptable manner.

(g) (1) With respect to any loan guaranteed pursuant to this section, the Administrator is authorized to enter into a contract to pay, and to pay, the lender for and on behalf of the borrower the interest charges which become due and payable on the unpaid balance of any such loan if the Administrator finds—

(A) that the borrower is unable to meet interest charges, that it is in the public interest to permit the borrower to continue to pursue the purposes of his project, and that the probable net cost to the Federal Government in paying such interest will be less than that which would result in the event of a default; and

(B) that the amount of such interest charges which the Administrator is authorized to pay shall be no greater than the amount of interest which the borrower is obligated to pay under the loan agreement.

**Defaults.**

(2) In the event of any default by a qualified borrower on a guaranteed loan, the Administrator is authorized to make payment in accordance with the guarantee, and the Attorney General shall take such action as may be appropriate to recover the amounts of such payments (including any payment of interest under paragraph (1)) from such assets of the defaulting borrowers as are associated with the activity with respect to which the loan was made or from any other surety included in the terms of the guarantee.

(h) No loan guarantee shall be made, or interest assistance contracts entered into, pursuant to this section, after the expiration of the 5-year period following the date of enactment of this Act.

**Applicant,  
citizenship  
requirement.**

(i) An applicant seeking a guarantee under this section must be a citizen or national of the United States. A corporation, partnership, firm, or association shall not be deemed to be a citizen or national of the United States unless the Administrator determines that it satisfactorily meets all the requirements of section 2 of the Shipping Act of 1916 (46 U.S.C. 802), for determining such citizenship, except that the provisions in subsection (a) of such section 2 concerning (1) the citizenship of officers or directors of a corporation, and (2) the interest required to be owned in the case of a corporation, association, or partnership operating a vessel in the coastwise trade, shall not be applicable. The Administrator, in consultation with the Secretary of State, may waive such requirements in the case of a corporation, partnership, firm, or association, controlling interest in which is owned by citizens of countries which are participants in the International Energy Agreement.

**Waiver.**

**SEC. 11. USE OF ELECTRIC AND HYBRID VEHICLES BY FEDERAL AGENCIES.**

**Study.**  
15 USC 2510.

The Postmaster General of the United States Postal Service, the Administrator of the General Services Administration, the Secretary of Defense, and the heads of other Federal agencies shall—

(1) carry out a study of the practicability of using electric and hybrid vehicles in the performance of some or all of the functions of their agencies; and

(2) arrange for the introduction of electric and hybrid vehicles into their fleets as soon as possible.

For competitive procurement purposes in purchasing such vehicles, life-cycle costing and any beneficial air pollution control characteristics of electric and hybrid vehicles shall be fully taken into account.

If the head of the agency involved determines that electric or hybrid vehicles are technologically practicable, but that they are not completely economically competitive with conventional vehicles, the Administrator may, for purposes of the demonstration program described in section 7, pay to such agency the incremental costs of the electric or hybrid vehicles, including differential operating costs.

### SEC. 12. PATENTS.

Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908) shall apply to any contract (including any assignment, substitution of parties, or subcontract thereunder), entered into, made, or issued by the Administrator pursuant to section 8 of this Act.

15 USC 2511.

### SEC. 13. STUDIES.

(a) The Administrator shall conduct a study to determine the existence of any tax, regulatory, traffic, urban design, rural electrical, or other institutional factor which tends or may tend to bias surface transportation systems toward vehicles of particular characteristics. The Administrator shall submit a report to the Congress on the findings and conclusions of such study, within 1 year after the date of the enactment of this Act. The report shall include any legislative or other recommendations of the Administrator.

15 USC 2512.

(b) The Administrator shall conduct a continuing assessment of the long-range material demand and pollution effects which may result from or in connection with the electrification of urban traffic. Such assessment shall include a statement of the Administrator's current findings in each report submitted under section 14. Any environmental impact statement which may be filed under a Federal law with respect to research, development, or demonstration activities under this Act shall include reference to the matters which are subject to assessment under this subsection.

Report to Congress.  
Legislative recommendations.  
Material demand and pollution, assessment.

(c) The Administrator shall perform, or cause to be performed, studies and research on incentives to promote broader utilization and consumer acceptance of electric and hybrid vehicle technologies. A description and a statement of the findings of such studies and research activities shall be included in each report submitted under section 14.

(d) The Secretary shall conduct a study of the current and future applicability of safety standards and regulations to electric and hybrid vehicles. The Secretary shall report the results of such study to the Administrator and the Congress within 1 year after the date of enactment of this Act.

Report to Energy Research and Development Administration and Congress.

(e) The Administrator shall conduct a study to determine the overall effectiveness and feasibility of including regenerative braking systems on electric and other automobiles in order to recover energy. In such study the Administrator shall—

- (1) review the history of regenerative braking devices;
- (2) describe relevant experimental test data and theoretical calculations with respect to such devices;
- (3) assess the net energy impacts and cost effectiveness of such devices;
- (4) examine present patents and patent policy regarding such devices; and
- (5) determine whether regenerative braking should be used on some of the advanced electric or hybrid vehicles to be purchased or leased pursuant to section 7(c)(2). The Administrator shall submit a report to the Congress on the findings and conclusions of such study within 1 year after the date of enactment of this Act.

Report to Congress.

**SEC. 14. ANNUAL REPORT.**

Submittal to  
Congress.  
15 USC 2513.

The Administrator shall submit to the Congress annually a report on all activities being undertaken or carried out pursuant to the provisions of this Act, including—

(1) such projections and estimates as may be necessary to evaluate the progress of the project and to indicate the extent to which, and the pace at which, the objectives of this Act are being achieved; and

(2) a statement of the extent to which imported automobile chassis or components are being used, or are desirable, for the production of vehicles under section 7, and of the extent to which restrictions imposed by law or regulation upon the importation or use of such chassis or components are impeding the achievement of the purposes of this Act.

Legislative  
recommendations.

Each such report shall also include any recommendations which the Administrator may deem appropriate for legislation or related action which might further the purposes of this Act.

**SEC. 15. AMENDMENTS TO THE NATIONAL AERONAUTICS AND SPACE ACT.**

Ground  
propulsion  
systems research  
and development.

(a) Section 102 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2451) is amended (1) by redesignating subsection (d) thereof as subsection (e) thereof; and (2) by inserting immediately after subsection (c) thereof the following new subsection:

“(d) The Congress declares that the general welfare of the United States requires that the unique competence in scientific and engineering systems of the National Aeronautics and Space Administration also be directed toward ground propulsion systems research and development. Such development shall be conducted so as to contribute to the objectives of developing energy- and petroleum-conserving ground propulsion systems, and of minimizing the environmental degradation caused by such systems.”

(b) Section 102(e) of such Act, as redesignated by paragraph (1) of this subsection, is amended by striking out “and (c)” and inserting in lieu thereof “(c), and (d)”.

(c) Section 203 of such Act (42 U.S.C. 2473) is amended (A) by redesignating subsection (b) thereof as subsection (c) thereof, and (B) by inserting immediately after subsection (a) thereof the following new subsection:

“(b) The Administration shall, to the extent of appropriated funds, initiate, support, and carry out such research, development, demonstration, and other related activities in ground propulsion technologies as are provided for in sections 4 through 10 of the Electric and Hybrid Vehicle Research, Development, and Demonstration Act of 1976.”

**SEC. 16. AUTHORIZATION FOR APPROPRIATIONS.**

15 USC 2514.

(a) There are authorized to be appropriated to the Administrator, for purposes of carrying out this Act, (1) not to exceed \$30,000,000 for the fiscal year ending September 30, 1977, except that at least \$10,000,000 of such authorization shall be allocated for battery research and development; (2) not to exceed \$40,000,000 for the fiscal year ending September 30, 1978; (3) not to exceed \$25,000,000 for the fiscal year ending September 30, 1979; (4) not to exceed \$20,000,000 for the fiscal year ending September 30, 1980; and (5) not to exceed \$45,000,000 for the fiscal year ending September 30, 1981. Any amount appropri-

ated pursuant to this section shall remain available until expended, and any amount authorized for any fiscal year prior to the fiscal year ending September 30, 1981, but not appropriated, may be appropriated for any succeeding fiscal year through the fiscal year ending September 30, 1983.

(b) Any moneys received by the Administrator from vehicle sales or leases or other activities under this Act may be retained and used for purposes of carrying out this Act, notwithstanding the provisions of section 3617 of the Revised Statutes (31 U.S.C. 484), and may remain available until expended; but the amount authorized to be appropriated for any fiscal year under subsection (a) shall be reduced by the amount of the moneys so received in that year.

CARL ALBERT

*Speaker of the House of Representatives.*

PATRICK J. LEAHY

*Acting President of the Senate pro tempore.*

IN THE HOUSE OF REPRESENTATIVES, U.S.

*September 16, 1976.*

The House of Representatives having proceeded to reconsider the bill (H.R. 8800) entitled "An Act to authorize in the Energy Research and Development Administration a Federal program of research, development, and demonstration designed to promote electric vehicle technologies and to demonstrate the commercial feasibility of electric vehicles", returned by the President of the United States with his objections, to the House of Representatives, in which it originated, it was

*Resolved*, That the said bill pass, two-thirds of the House of Representatives agreeing to pass the same.

Attest:

EDMUND L. HENSHAW, JR.

*Clerk.*

*By Benjamin J. Guthrie*

I certify that this Act originated in the House of Representatives.

EDMUND L. HENSHAW, JR.

*Clerk.*

IN THE SENATE OF THE UNITED STATES,  
September 17, 1976.

The Senate having proceeded to reconsider the bill (H.R. 8800) "An Act to authorize in the Energy Research and Development Administration a Federal program of research, development, and demonstration designed to promote electric vehicle technologies and to demonstrate the commercial feasibility of electric vehicles", returned by the President of the United States with his objections, to the House of Representatives, in which it originated, and passed by the House of Representatives on reconsideration of the same, it was

*Resolved*, That the said bill pass, two-thirds of the Senators present having voted in the affirmative.

Attest:

FRANCIS R. VALEO  
*Secretary.*

By *Harold G. Ast*  
*Legislative Clerk*

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**LEGISLATIVE HISTORY:**

HOUSE REPORTS: No. 94-439 (Comm. on Science and Technology) and No. 94-1363 (Comm. of Conference).

SENATE REPORTS: No. 94-836 accompanying S. 1632 (Comm. on Commerce) and No. 94-1048 (Comm. of Conference).

**CONGRESSIONAL RECORD:**

Vol. 121 (1975): Sept. 5, considered and passed House.

Vol. 122 (1976): June 14, considered and passed Senate, amended, in lieu of S. 1632.

Aug. 26, Senate agreed to conference report.

Aug. 31, House agreed to conference report.

**WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS:**

Vol. 12, No. 38 (1976): Sept. 13, vetoed; Presidential message.

**CONGRESSIONAL RECORD:**

Vol. 122 (1976): Sept. 16, House overrode veto.

Sept. 17, Senate overrode veto.