

TITLE 49 - TRANSPORTATION**SUBTITLE I - DEPARTMENT OF TRANSPORTATION****CHAPTER 3 - GENERAL DUTIES AND POWERS****SUBCHAPTER I - DUTIES OF THE SECRETARY OF TRANSPORTATION****§ 309. High-speed ground transportation**

(a) The Secretary of Transportation, in consultation with the Secretaries of Commerce, Energy, and Defense, the Administrator of the Environmental Protection Agency, the Assistant Secretary of the Army for Public Works, and the heads of other interested agencies, shall lead and coordinate Federal efforts in the research and development of high-speed ground transportation technologies in order to foster the implementation of magnetic levitation and high-speed steel wheel on rail transportation systems as alternatives to existing transportation systems.

(b) (1) The Secretary may award contracts and grants for demonstrations to determine the contributions that high-speed ground transportation could make to more efficient, safe, and economical intercity transportation systems. Such demonstrations shall be designed to measure and evaluate such factors as the public response to new equipment, higher speeds, variations in fares, improved comfort and convenience, and more frequent service. In connection with grants and contracts for demonstrations under this section, the Secretary shall provide for financial participation by private industry to the maximum extent practicable.

(2) (A) In connection with the authority provided under paragraph (1), there is established a national high-speed ground transportation technology demonstration program, which shall be separate from the national magnetic levitation prototype development program established under section 1036(b) of the Intermodal Surface Transportation Efficiency Act of 1991 and shall be managed by the Secretary of Transportation.

(B) (i) Any eligible applicant may submit to the Secretary a proposal for demonstration of any advancement in a high-speed ground transportation technology or technologies to be incorporated as a component, subsystem, or system in any revenue service high-speed ground transportation project or system under construction or in operation at the time the application is made.

(ii) Grants or contracts shall be awarded only to eligible applicants showing demonstrable benefit to the research and development, design, construction, or ultimate operation of any maglev technology or high-speed steel wheel on rail technology. Criteria to be considered in evaluating the suitability of a proposal under this paragraph shall include—

(I) feasibility of guideway or track design and construction;

(II) safety and reliability;

(III) impact on the environment in comparison to other high-speed ground transportation technologies;

(IV) minimization of land use;

(V) effect on human factors related to high-speed ground transportation;

(VI) energy and power consumption and cost;

(VII) integration of high-speed ground transportation systems with other modes of transportation;

(VIII) actual and projected ridership; and

(IX) design of signaling, communications, and control systems.

(C) For the purposes of this paragraph, the term “eligible applicant” means any United States private business, State government, local government, organization of State or local

government, or any combination thereof. The term does not include any business owned in whole or in part by the Federal Government.

(D) The amount and distribution of grants or contracts made under this paragraph shall be determined by the Secretary. No grant or contract may be awarded under this paragraph to demonstrate a technology to be incorporated into a project or system located in a State that prohibits under State law the expenditure of non-Federal public funds or revenues on the construction or operation of such project or system.

(E) Recipients of grants or contracts made pursuant to this paragraph shall agree to submit a report to the Secretary detailing the results and benefits of the technology demonstration proposed, as required by the Secretary.

- (c)**
- (1)** In carrying out the responsibilities of the Secretary under this section, the Secretary is authorized to enter into 1 or more cooperative research and development agreements (as defined by section 12 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710a)), and 1 or more funding agreements (as defined by section 201 (b) of title 35, United States Code), with United States companies for the purpose of—
- (A)** conducting research to overcome technical and other barriers to the development and construction of practicable high-speed ground transportation systems and to help advance the basic generic technologies needed for these systems; and
- (B)** transferring the research and basic generic technologies described in subparagraph (A) to industry in order to help create a viable commercial high-speed ground transportation industry within the United States.
- (2)** In a cooperative agreement or funding agreement under paragraph (1), the Secretary may agree to provide not more than 80 percent of the cost of any project under the agreement. Not less than 5 percent of the non-Federal entity's share of the cost of any such project shall be paid in cash.
- (3)** The research, development, or utilization of any technology pursuant to a cooperative agreement under paragraph (1), including the terms under which such technology may be licensed and the resulting royalties may be distributed, shall be subject to the provisions of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701 et seq.).
- (4)** The research, development, or utilization of any technology pursuant to a funding agreement under paragraph (1), including the determination of all licensing and ownership rights, shall be subject to the provisions of chapter 18 of title 35, United States Code.
- (5)** At the conclusion of fiscal year 1993 and again at the conclusion of fiscal year 1996, the Secretary shall submit reports to Congress regarding research and technology transfer activities conducted pursuant to the authorization contained in paragraph (1).
- (d)**
- (1)** Not later than June 1, 1995, the Secretary shall complete and submit to Congress a study of the commercial feasibility of constructing 1 or more high-speed ground transportation systems in the United States. Such study shall consist of—
- (A)** an economic and financial analysis;
- (B)** a technical assessment; and
- (C)** recommendations for model legislation for State and local governments to facilitate construction of high-speed ground transportation systems.
- (2)** The economic and financial analysis referred to in paragraph (1)(A) shall include—
- (A)** an examination of the potential market for a nationwide high-speed ground transportation network, including a national magnetic levitation ground transportation system;
- (B)** an examination of the potential markets for short-haul high-speed ground transportation systems and for intercity and long-haul high-speed ground transportation systems, including an assessment of—
- (i)** the current transportation practices and trends in each market; and

- (ii) the extent to which high-speed ground transportation systems would relieve the current or anticipated congestion on other modes of transportation;
 - (C) projections of the costs of designing, constructing, and operating high-speed ground transportation systems, the extent to which such systems can recover their costs (including capital costs), and the alternative methods available for private and public financing;
 - (D) the availability of rights-of-way to serve each market, including the extent to which average and maximum speeds would be limited by the curvature of existing rights-of-way and the prospect of increasing speeds through the acquisition of additional rights-of-way without significant relocation of residential, commercial, or industrial facilities;
 - (E) a comparison of the projected costs of the various competing high-speed ground transportation technologies;
 - (F) recommendations for funding mechanisms, tax incentives, liability provisions, and changes in statutes and regulations necessary to facilitate the development of individual high-speed ground transportation systems and the completion of a nationwide high-speed ground transportation network;
 - (G) an examination of the effect of the construction and operation of high-speed ground transportation systems on regional employment and economic growth;
 - (H) recommendations for the roles appropriate for local, regional, and State governments to facilitate construction of high-speed ground transportation systems, including the roles of regional economic development authorities;
 - (I) an assessment of the potential for a high-speed ground transportation technology export market;
 - (J) recommendations regarding the coordination and centralization of Federal efforts relating to high-speed ground transportation;
 - (K) an examination of the role of the National Railroad Passenger Corporation in the development and operation of high-speed ground transportation systems; and
 - (L) any other economic or financial analyses the Secretary considers important for carrying out this section.
- (3) The technical assessment referred to in paragraph (1)(B) shall include—
 - (A) an examination of the various technologies developed for use in the transportation of passengers by high-speed ground transportation, including a comparison of the safety (including dangers associated with grade crossings), energy efficiency, operational efficiencies, and environmental impacts of each system;
 - (B) an examination of the potential role of a United States designed maglev system, developed as a prototype under section 1036(b) of the Intermodal Surface Transportation Efficiency Act of 1991, in relation to the implementation of other high-speed ground transportation technologies and the national transportation system;
 - (C) an examination of the work being done to establish safety standards for high-speed ground transportation as a result of the enactment of section 7 of the Rail Safety Improvement Act of 1988;
 - (D) an examination of the need to establish appropriate technological, quality, and environmental standards for high-speed ground transportation systems;
 - (E) an examination of the significant unresolved technical issues surrounding the design, engineering, construction, and operation of high-speed ground transportation systems, including the potential for the use of existing rights-of-way;
 - (F) an examination of the effects on air quality, energy consumption, noise, land use, health, and safety as a result of the decreases in traffic volume on other modes of transportation that are expected to result from the full-scale development of high-speed ground transportation systems; and

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- (G) any other technical assessments the Secretary considers important for carrying out this section.
- (e) (1) Within 12 months after the submission of the study required by subsection (d), the Secretary shall establish the national high-speed ground transportation policy (hereinafter in this section referred to as the “Policy”).
- (2) The Policy shall include—
- (A) provisions to promote the design, construction, and operation of high-speed ground transportation systems in the United States;
- (B) a determination whether the various competing high-speed ground transportation technologies can be effectively integrated into a national network and, if not, whether 1 or more such technologies should receive preferential encouragement from the Federal Government to enable the development of such a national network;
- (C) a strategy for prioritizing the markets and corridors in which the construction of high-speed ground transportation systems should be encouraged; and
- (D) provisions designed to promote American competitiveness in the market for high-speed ground transportation technologies.
- (3) The Secretary shall solicit comments from the public in the development of the Policy and may consult with other Federal agencies as appropriate in drafting the Policy.

(Added Pub. L. 102–240, title I, § 1036(c)(1), Dec. 18, 1991, 105 Stat. 1982.)

References in Text

Section 1036(b) of the Intermodal Surface Transportation Efficiency Act of 1991, referred to in subsecs. (b)(2)(A) and (d)(3)(B), is section 1036(b) of Pub. L. 102–240, which is set out below.

The Stevenson-Wydler Technology Innovation Act of 1980, referred to in subsec. (c)(3), is Pub. L. 96–480, Oct. 21, 1980, 94 Stat. 2311, as amended, which is classified generally to chapter 63 (§ 3701 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see Short Title note set out under section 3701 of Title 15 and Tables.

Section 7 of the Rail Safety Improvement Act of 1988, referred to in subsec. (d)(3)(C), is section 7 of Pub. L. 100–342, which amended section 431 of Title 45, Railroads.

Effective Date

Section effective Dec. 18, 1991, and applicable to funds authorized to be appropriated or made available after Sept. 30, 1991, and, with certain exceptions, not applicable to funds appropriated or made available on or before Sept. 30, 1991, see section 1100 of Pub. L. 102–240, set out as an Effective Date of 1991 Amendment note under section 104 of Title 23, Highways.

National Magnetic Levitation Prototype Development Program

Section 1036(b) of Pub. L. 102–240 provided that:

“(1) Management of program.—There is hereby established a national magnetic levitation prototype development program to be managed by a program director appointed jointly by the Secretary and the Assistant Secretary of the Army for Civil Works (hereinafter in this subsection referred to as the ‘Assistant Secretary’). To carry out such program, the Secretary and the Assistant Secretary shall establish a national maglev joint project office (hereinafter in this subsection referred to as the ‘Maglev Project Office’), which shall be headed by the program director, and shall enter into such arrangements as may be necessary for funding, staffing, office space, and other requirements that will allow the Maglev Project Office to carry out its functions. In carrying out such program, the program director shall consult with appropriate Federal officials, including the Secretary of Energy and the Administrator of the Environmental Protection Agency.

“(2) Phase one contracts.—

“(A) Request for proposals.—Not later than 12 months after the date of the enactment of this Act [Dec. 18, 1991], the Maglev Project Office shall release a request for proposals for development of conceptual designs for a maglev system and for research to facilitate the development of such conceptual designs.

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“(B) Award of contracts.—Not later than 15 months after the date of the enactment of this Act, the Secretary and the Assistant Secretary shall, based on the recommendations of the program director, award 1-year contracts for research and development to no fewer than 5 eligible applicants. If fewer than 5 complete applications have been received, contracts shall be awarded to as many eligible applicants as is practical.

“(C) Factors and conditions to be considered.—The Secretary and the Assistant Secretary may approve contracts under subparagraph (B) only after consideration of factors relating to the construction and operation of a magnetic levitation system, including the cost-effectiveness, ease of maintenance, safety, limited environmental impact, ability to achieve sustained high speeds, ability to operate along the Interstate highway rights-of-way, the potential for the guideway design to be a national standard, the applicant’s resources, capabilities, and history of successfully designing and developing systems of similar complexity, and the desirability of geographic diversity among contractors and only if the applicant agrees to submit a report to the Maglev Project Office detailing the results of the research and development and agrees to provide for matching of the phase one contract at a 90 percent Federal, 10 percent non-Federal, cost share.

“(3) Phase two contracts.—Within 3 months of receiving the final reports of contract activities under paragraph (2), and based only on such reports and the recommendations of the program director, the Secretary and the Assistant Secretary shall select not more than 3 eligible applicants from among the contract recipients submitting reports under paragraph (2) to receive 18-month contracts for research and development leading to a detailed design for a prototype maglev system. The Secretary and the Assistant Secretary may only award contracts under this paragraph if—

“(A) they determine that the applicant has demonstrated technical merit for the conceptual design and the potential for further development of such design into an operational prototype as described in paragraph (4),

“(B) the applicant agrees to submit the detailed design within such 18-month period to the Maglev Project Office and the selection committee described in paragraph (4), and

“(C) the applicant agrees to provide for matching of the phase two contract at an 80 percent Federal, 20 percent non-Federal, cost share.

“(4) Prototype.—

“(A) Selection of design.—Within 6 months of receiving the detailed designs developed under paragraph (3), the Secretary and the Assistant Secretary shall, based on the recommendations of the selection committee described in this subparagraph, select 1 design for development into a full-scale prototype, unless the Secretary and the Assistant Secretary determine jointly that no design shall be selected, based on an assessment of technical feasibility and projected cost of construction and operation of the prototype. A selection committee of 8 members, consisting of—

“(i) 1 member to be appointed by the Secretary,

“(ii) 1 member to be appointed by the Assistant Secretary,

“(iii) 3 members to be appointed by the Senate majority and minority leaders, and

“(iv) 3 members to be appointed by the Speaker of the House and the minority leader of the House,

shall be appointed not later than 1 year following the award of contracts under paragraph (3). The selection committee, within 3 months of receiving the detailed designs developed under paragraph (3), shall make a recommendation to the Secretary and the Assistant Secretary as to the best prototype design or the unsuitability of any design. The program director shall provide technical reviews of the phase two contract reports to the selection committee and otherwise provide any technical assistance that the committee requires to assist it in making a recommendation. In the event that the Secretary and the Assistant Secretary determine jointly not to select a design for development under this subsection, they shall report to Congress on the basis for such determination, together with recommendations for future action, including further research, development, or design, termination of the program, or such other action as may be appropriate.

“(B) Award of construction grant or contract.—Unless the Secretary and the Assistant Secretary determine not to proceed pursuant to subparagraph (A), they shall, not later than 3 months after selection of a design for development into a full-scale prototype, and based on the recommendations of the program director, award 1 construction grant or contract to the applicant whose detailed design was selected under subparagraph (A) for the purpose of constructing a prototype maglev system in accordance with the selected design. Not more than 75 percent of the cost of the project shall be borne by the United States.

“(C) Factors to be considered in selection.—Selection of the detailed design under this paragraph shall be based on consideration of the following factors, among others:

“(i) The project shall be capable of utilizing Interstate highway rights-of-way along or above a significant portion of its route, and may also use railroad rights-of-way along or above any portion of the railroad route.

“(ii) The total length of guideway shall be at least 19 miles and allow significant full-speed operations between stops.

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“(iii) The project shall be constructed and ready for operational testing within 3 years after the award of the contract or grant.

“(iv) The project shall provide for the conversion of the prototype to commercial operation after testing and technical evaluation is completed.

“(v) The project shall be located in an area that provides a potential ridership base for future commercial operation.

“(vi) The project shall utilize a technology capable of being applied in commercial service in most parts of the contiguous United States.

“(vii) The project shall have at least 1 switch.

“(viii) The project shall be intermodal in nature connecting a major metropolitan area with an airport, port, passenger rail station, or other transportation mode.

“(D) Additional factors for consideration.—In awarding a grant or contract under this paragraph, the Secretary shall encourage the development of domestic manufacturing capabilities. In selecting among eligible applicants, the Secretary shall consider existing railroads and equipment manufacturers with excess production capacity, including railroads that have experience in advanced technologies (including self-propelled cars).

“(5) Licensing.—

“(A) Proprietary rights.—No trade secrets or commercial or financial information that is privileged or confidential, under the meaning of section 552 (b)(4) of title 5, United States Code, which is obtained from a United States business, research, or education entity as a result of activities under this subsection shall be disclosed.

“(B) Commercial information.—The research, development, and use of any technology developed pursuant to an agreement reached pursuant to this subsection, including the terms under which any technology may be licensed and the resulting royalties may be distributed, shall be subject to the provisions of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3701–3714). In addition, the Secretary and the Assistant Secretary may require any grant or contract recipient to assure that research and development be performed substantially in the United States and that the products embodying the inventions made under any agreement pursuant to this subsection or produced through the use of such inventions be manufactured substantially in the United States.

“(6) Reports.—The Secretary and the Assistant Secretary shall provide periodic reports to Congress on progress made under this subsection.

“(7) Eligible applicant defined.—For purposes of this subsection, the term ‘eligible applicant’ means a United States private business, United States public or private education and research organization, Federal laboratory, or a consortium of such businesses, organizations, and laboratories.”