

AMENDED IN ASSEMBLY APRIL 7, 2011
AMENDED IN ASSEMBLY MARCH 14, 2011
CALIFORNIA LEGISLATURE—2011–12 REGULAR SESSION

ASSEMBLY BILL

No. 277

Introduced by Assembly Member Galgiani
(Coauthor: Senator Kehoe)

February 7, 2011

An act to add Section 2704.78 to the Streets and Highways Code, relating to high-speed rail.

LEGISLATIVE COUNSEL'S DIGEST

AB 277, as amended, Galgiani. High-speed rail: power supply.

Existing law creates the High-Speed Rail Authority to develop and implement a high-speed rail system in the state, with specified powers and duties. Existing law, pursuant to the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, approved by the voters as Proposition 1A at the November 4, 2008, general election, provides for the issuance of \$9.95 billion in general obligation bonds for high-speed rail and related purposes. Various federal laws provide funding for allocation nationally to high-speed rail and other related projects.

This bill would require the California Research Bureau, by May 1, 2012, to develop an energy consumption profile that includes a forecast of the power needs of the high-speed rail system and an analysis of any recommendations for identifying a carbon-free baseline power supply for the system. The bureau's work would be done in consultation with the High-Speed Rail Authority, the Federal Railroad Administration, the Public Utilities Commission, the State Energy Resources

Conservation and Development Commission, the United States Department of Energy, and the Legislative Analyst's Office. The bill would require the bureau to submit its report to the authority, the authority's independent peer review group, and specified committees of the Legislature.

The bill would also make legislative findings and declarations.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

The people of the State of California do enact as follows:

- 1 SECTION 1. The Legislature finds and declares all of the
2 following:
- 3 (a) High-speed trains will alleviate the need to build nearly
4 3,000 miles of new freeway, five airport runways, and 91 airport
5 departure gates in California, with an avoided cost of nearly \$100
6 billion dollars over the next two decades.
- 7 (b) Electrically powered high-speed trains reduce pollutants and
8 greenhouse gas emissions, and reliance on fossil fuels. The
9 California high-speed train system is projected to result in
10 emissions savings of 12 billion pounds of CO₂ in the year 2030,
11 and this number would grow as ridership levels grow.
- 12 (c) The high-speed rail system is projected to save 12.7 million
13 barrels of oil per year by 2030, even with projected future
14 improvements in auto fuel efficiency.
- 15 (d) At its September 2008 board meeting, the High-Speed Rail
16 Authority approved the following policy statement: "The California
17 High-Speed Rail Authority's policy goal is to power the train by
18 clean renewable energy, making it the first true zero-emission train
19 in the world."
- 20 (e) It is essential to take the necessary steps to ensure that an
21 efficient and environmentally responsible power supply is available
22 for high-speed rail operations. Currently, the Public Utilities
23 Commission, the United States Department of Energy, and the
24 State Energy Resources Conservation and Development
25 Commission have responsibility for overseeing and regulating
26 utility and energy company activities in California.
- 27 (f) It is the intent of the Legislature that California's high-speed
28 rail system shall be powered by green electricity from renewable
29 energy sources.

SEC. 2. Section 2704.78 is added to the Streets and Highways Code, to read:

2704.78. (a) The California Research Bureau, in consultation with the High-Speed Rail Authority, the Federal Railroad Administration, the Public Utilities Commission, the State Energy Resources Conservation and Development Commission, the United States Department of Energy, and the Legislative Analyst's Office, shall develop an energy consumption profile that includes all of the following:

(1) A forecast of the power needs necessary or desirable to power, and facilitate the operations of, California's high-speed rail system. The power consumption of the high-speed rail system will depend on operating conditions, such as type of service and weather conditions. Issues to be analyzed shall include, but not be limited to, both of the following:

(A) The peak demand for power to operate the high-speed rail system under different operating conditions.

(B) The level of need for baseload power under different operating conditions.

(2) An analysis of, and recommendations for identifying, a carbon-free baseload power supply to be available and operational at the time the high-speed rail system commences operation. The analysis shall consider future availability of power from renewable sources, including, but not limited to, hydroelectric, solar, and wind sources.

(3) Consideration shall be given to all aspects of power needs for a high-speed rail system, including, but not limited to, all of the following:

(A) An electrified, double track rail line with overhead catenary that receives electricity from power substations spaced out regularly along the line.

(B) A train management system similar to the European Rail Traffic Management System (ERTMS) that will meet positive train control requirements.

(C) A signaling system plus radio network.

(D) Onboard electrical and technical equipment.

(E) Track intrusion protection equipment.

(F) Telecommunications, including voice and data communication.

1 (G) Power needs associated with a heavy maintenance facility
2 for rolling stock.

3 (H) Power needs associated with two light duty maintenance
4 facilities.

5 (I) Electrical needs for passenger services on high-speed rail
6 cars, including, but not limited to, power sockets, USB sockets,
7 Internet, and cell phone connections.

8 (4) Consideration shall be given to the service development
9 plan, rolling stock fleet, and phasing, with the first stage of
10 high-speed rail service anticipated to be implemented at the end
11 of 2017 in order to start commercial operations at the end of 2017.

12 (b) On or before May 1, 2012, the California Research Bureau
13 shall report its findings pursuant to this section to the High-Speed
14 Rail Authority, the Senate Committee on Transportation and
15 Housing, the Assembly Committee on Transportation, the
16 Assembly Select Committee on High Speed Rail for California,
17 and the independent peer review group established pursuant to
18 Section 185035 of the Public Utilities Code.

19 *(c) In performing its work pursuant to subdivision (a), the*
20 *California Research Bureau may use existing research to the extent*
21 *feasible, and the report prepared pursuant to subdivision (b) shall*
22 *draw upon information and material developed by other sources,*
23 *including, but not limited to, the High-Speed Rail Authority.*