Committee Report

Oversight Hearings of the California High-Speed Rail Authority

Date and Location of Hearings:
December 7, 2007, Los Angeles
January 11, 2008, Oakland

Prepared by the Senate Committee on
Transportation & Housing

June 2008

To the reader—

The California High-speed Rail Authority (Authority) has embarked upon an ambitious $33 billion program to provide high-speed rail service between Anaheim, Los Angeles, and San Francisco. An additional $7 billion will be required to extend service to San Diego and Sacramento.

This farsighted transportation project, however, is not being developed as a conventional public works project to be built with pay as you go funding, or by relying on public debt financing. Instead, the Authority is offering California's voters a business proposition. Should the voters approve the $9.95 billion measure on November's ballot, the Authority is anticipating using the bond revenues and future federal funds to attract a substantial amount of private capital. The Authority's underlying assumption is that the demand for high-speed rail in California is so strong that it will attract a private consortium with the resources to design, construct, finance, and operate the high-speed project under the terms of a long term franchise.

The Authority's plans assume that the high-speed rail service, operated by a private consortium, will generate sufficient revenue to repay the consortium's investment, cover the annual cost of operations, and provide a profit. Furthermore, the Authority assumes that the rail service will not require any future operating subsidy from the State of California.

The immediate challenge for the Authority is to demonstrate to the voters how the $9.95 billion in bonds can generate the $33 billion necessary to fund the project's first phase. The Authority's longer-term challenge is to demonstrate its ability to develop and negotiate a franchise with a private consortium that ensures the state bears limited financial risk during the construction and operation of the high-speed service.

Should the voters approve the bonds, they would be authorizing the Authority to proceed with all aspects of the project, including the preparation of the necessary documents for private firms to submit construction and operating proposals to the Authority. The Authority will have to negotiate a franchise that effectively limits the state's exposure to any financial risk. This will be a large and complex task given the present uncertainty regarding federal funding and the limited state funding allocated to this large and complex infrastructure project.

This report describes the funding plans for the high-speed rail project, identifies the potential risks and benefits associated with the project, documents the travel markets for high-speed rail service, and outlines the next steps necessary to ensure that the Authority operates in an accountable fashion.

California voters are being asked to make a major commitment to an innovative transportation project. It is, therefore, imperative that voters and policy makers have a full accounting of the project's risks and benefits.

Alan Lowenthal
Chair

TABLE OF CONTENTS

Tables

Charts

Introduction

The Senate Transportation & Housing Committee has held two public hearings as part of a comprehensive review of the performance of the California High-speed Rail Authority (Authority), which was established in 1997. Topics examined during the hearings include a review of the Authority's rail program developed during the last decade, the funding strategy proposed for building and operating the project, partnerships the Authority plans to initiate with private firms for construction and operation of the project, and lastly, the construction and operating risks posed by a project of this magnitude. These issues are timely because in November California taxpayers will be asked to endorse a ballot proposition authorizing the sale of $9.95 billion in general obligation bonds to begin construction of the rail program.

During July of last year, the April 12, 2007 version of AB 981 (Ma) was before the Senate Transportation & Housing Committee for consideration. Before voting on the measure, the Committee chair recommended that oversight hearings be held on the matter. This recommendation reflected the committee's desire to review the performance of the Authority before considering the changes contained in AB 981. The bill's provisions would clarify the Authority's ability to condemn property, delete requirements that the Legislature adopt the Authority's rail plan and its financial plan, permit the Authority to employ legal staff, and authorize the Authority's governing board to include two vice chairs.

The Senate Transportation & Housing Committee held two days of oversight hearings, on December 7, 2007 and January 11, 2008, pertaining to the Authority. This report on those hearings traces the evolution of the state's interest in passenger rail and high-speed rail development, describes the Authority's activities since its establishment a decade ago, and examines key issues the Legislature may wish to consider regarding the future development of high-speed rail in California.

The findings along with possible next steps contained in this report are based on information drawn from testimony provided at the hearings by the Authority and other witnesses, data gathered by Committee staff from a review of related documents and reports, and staff interviews conducted with concerned parties.

Findings

1. **$58 million of state funding has been spent by the Authority during the last ten years for high-speed rail planning**. The Authority's current plan envisions initial rail service to run from Anaheim-Los Angeles to San Francisco via Fresno and San Jose. This service would begin in about 2020. A second phase is anticipated to link San Diego (via Riverside) to the system at Union Station in Los

Angeles, and it will connect Sacramento to the system in the vicinity of Merced. This second phase of service is expected to begin five to ten years after the initial phase. A statewide program environmental impact report and an environmental impact statement for the project were certified in 2005.

2. **The High-Speed Rail Authority's business plan should be updated.** The Authority's business plan was adopted in 2000. Because it has not been updated, the plan is based on data that is now a decade old. While the Authority has prepared a revised demand forecast and is preparing a new cost estimate, it is expected that the Authority will update its business plan in advance of the November bond election.

3. **The $9.95 billion bond program to fund high-speed rail development in California was originally scheduled for the November 2004 election. The bond election, however, has been delayed twice by the Legislature at the request of the Governor and is now scheduled for November 2008.** The first effort to implement a funding program for the high-speed rail plan occurred in 2002 with the passage of Senate Bill 1856 (Costa), Chapter 697, Statutes of 2002. This measure would authorize the sale of $9.95 billion in general obligation bonds, $9 billion of which would be allocated for planning and construction of a high-speed rail segment between San Francisco and Los Angeles. The additional $950 million was designated for conventional rail projects to provide connectivity with the high-speed rail system and other modes of transportation.

4. **Construction cost inflation has eroded the purchasing power of the proposed bond program, resulting in a scaling back of the rail system.** The Authority's 2000 business plan envisioned that the entire rail system could be constructed for $25 billion. Since 2000, construction cost inflation has driven the cost estimate up to about $40 billion, resulting in the project being divided into two phases. The first phase, which would link Los Angeles and San Francisco, is estimated to cost about $33 billion. The second phase is estimated to cost $7 billion. If the bond proposal were to be adjusted for inflation, the $9 billion proposed in 2004 for the high-speed rail project would need to be increased to $13.3 billion, according to information provided by the Legislative Analyst's Office. In addition, the amount allocated for the rail connectivity projects would have to be increased to about $1.1 billion.

5. **The strategy for funding the high-speed rail project is unclear.** The Authority testified that it expects the construction cost of the initial segment to be paid in equal shares by state government, the federal government, and the private sector through a public-private-partnership arrangement. The $9 billion designated by the state's bond program to the high-speed rail project is less than one-third of project's estimated total cost. To date no federal program has been established to underwrite the construction of high-speed rail in California. Although the Authority is seeking to ascertain the interest level of private firms in building,

operating, and maintaining the system, at this time it is premature for any firm or consortium to propose a specific funding strategy or commitment.

6. **Potential risks associated with the high-speed rail project require analysis.** Several potential risks are associated with the construction and operation of high-speed rail. Neither the Authority's 2000 business plan nor any of the agency's subsequent documents discuss the risks that might be associated with the project. Among the possible risks that need to be considered are construction cost increases, patronage and revenue estimates, financial capacity (including third party financing), state general fund exposure, right-of-way costs, unforeseen technological complications, and regulatory barriers (both state and federal).

7. **Commute trips on the high-speed rail service are forecasted to exceed business trips.** According to the patronage forecast for 2030 presented by the Authority during the committee hearings, 30 percent of all trips will be commuter trips (work trips of less than 100 miles in length). The forecast also expects recreational travel to account for 34 percent of the trips, business travel for 11 percent, and the ill-defined category of "other" is expected to be about 25 percent of total trips.

8. **Highest number of high-speed rail trips will begin and end in the Southern California region.** Of the 94 million trips forecasted for the high-speed rail service for 2030, the greatest number of trips (about 18 million) will begin and end within the six county Southern California region. Slightly more than 16 million trips will involve travel between Los Angeles and San Francisco, the system's primary destinations.

9. **High value business trips are expected to yield the greatest revenue.** The Authority estimates that 91 percent of the system's revenue will be generated by high value business trips, where travelers are willing to pay a premium, --and only 9 percent of total revenue will derive from commuter trips.

10. **Door-to-door travel time savings from high-speed rail travel, when contrasted to comparable airline trips, will vary throughout the system.** Passengers traveling between Fresno and Los Angeles will enjoy a total trip time savings of 29 minutes. The travel time savings for passengers between San Diego and Los Angeles is 44 minutes. Travel time savings between Los Angeles and San Francisco would be 2 minutes.

11. **Regional innovations in commuter rail services currently being planned in northern and southern California are expected to be compatible with high-speed rail.** The Orange County Transportation Authority (OCTA), in collaboration with the Authority, is preparing a project EIR for incorporating high-speed rail into the Metrolink commuter rail corridor between Anaheim and downtown Los Angeles. OCTA's goal is to run service every 30 minutes between Orange County and Los Angeles. Similarly, Caltrain, the commuter rail operator

between San Francisco and San Jose, has embarked upon a facility, equipment, and service upgrade program. This will result in a fully grade separated and electrified right-of-way, and the deployment of light weight European passenger rail equipment. These improvements will be fully compatible with the high-speed-rail system.

12. **California has made substantial ridership gains in intercity and commuter rail service since the 1970's.** Amtrak services in California account for 20 percent of the company's national ridership. Indeed, the service between San Diego and Los Angeles is the second most heavily patronized route in the country, and the route between Sacramento and the Bay Area is the third. The service from Bakersfield to Oakland ranks sixth in the country. Metrolink, the commuter rail provider in southern California, reports that 80 percent of its riders are former auto commuters and in some corridors it carries more people than an adjacent freeway lane at rush hour.

13. **High-speed rail will have demonstrable environmental benefits.** Once service begins, the high-speed rail system will have less environmental impacts than airport and highway investments that would carry the equivalent number of trips. The Authority is currently undertaking an assessment of its potential greenhouse gas footprint which is also expected to be favorable when compared with other transportation modes.

14. **Institutional reform is necessary in order to ensure greater accountability on the part of the Authority.** Transportation policy making in California is structured to ensure that there is both regional and state oversight in the formulation of major investments in the transportation system. The regional transportation planning agencies and the metropolitan planning organizations carry out this responsibility at the regional level. Similarly, the California Transportation Commission (CTC) provides statewide oversight, prioritization and accountability. The Authority operates outside of this framework because it is not required to have its program reviewed by the CTC, as are other state transportation investments, although it has endeavored to include regional planning agencies where appropriate.

15. **A venue should be provided to enable the regional commuter rail agencies and the two major freight railroads operating in the state to review and comment on any of the Authority's plans that would impact their operations**. The Authority plans to use the right-of-way of the state's public and private railroads and also use existing station facilities, thereby potentially impacting the ridership and schedules of the other service providers. There is, however, no formal process in place that would allow the Authority and the various affected railroad operators to meet and discuss these issues of mutual concern.

.

Next Steps

During the 2008 legislative session, the Senate may choose to consider legislation pertaining to the high-speed rail program. If this occurs, the Senate could make modifications to the rail bond act now scheduled for the November ballot in order to enhance the project's accountability and credibility. The following six points are offered for consideration in any bill that would amend the bond measure.

1. **The Authority must update its business plan in a format consistent with a standard financial prospectus**. The Authority needs an updated business plan as soon as possible so that the public can be apprised of the benefits and risks associated with the proposed project prior to the November election. The business plan should ***not*** be an advocacy document. To this end, the business plan should be modeled on a financial prospectus of the type that is required to be prepared for investors in new stock or bonding offerings. A prospectus discusses the investment opportunity, its financial strategy, its benefits to the investors, as well as the types and level of risk the investors are assuming. In November, the California electorate is being asked to be an investor in a proposal that is unlike any previous bond measure placed before the voters. It is therefore essential that voters be provided with adequate financial information concerning the project.

2. **Amend the high-speed rail bond act to establish financial accountability in the development and management of the high-speed rail system**. It is unclear under existing law the extent to which the Authority can financially obligate the State of California to construction contracts, operating contracts, or public private partnership arrangements. These are important policy issues that ideally should be resolved by the Legislature before the electorate votes on the proposed bonds.

3. **Create a risk management process**. It is recognized that there are potential risks posed by the project including engineering, operational, patronage, financial and other categories. These risks are a factor for both the state and for private investors. To better understand these risks and their implications for the project, the Authority in conjunction with the Business, Transportation & Housing Agency should create a risk management process. Periodic reports should be made to the Authority's governing board and the legislature on the risks the project is encountering and the strategies developed to address them.

4. **Integrate the Authority into state government in order to enhance its accountability.** Today, policy direction is provided to the Authority by a dedicated part-time board. A process that ensures ongoing administrative oversight and accountability is important for any public agency, especially one that hopes to construct a transportation project that could cost as much as $40

billion. To be sure, the Legislature can exercise oversight through hearings and the annual budget review, but the day-to-day oversight of Authority activities requires a more systematic process that is typical of other state agencies. The Authority's ongoing financial activities, project management arrangements, contractual powers and processes, agreements and activities undertaken between governmental agencies and the private sector, and a myriad of other issues require substantial public oversight.

There are several methods for increasing the Authority's accountability available to the Legislature and the Governor, including developing an independent project management oversight capability within the Business, Transportation & Housing Agency. Another option would be to assign authority to the CTC for the review and approval of the revised business plan and the program of investments proposed by the Authority.

5. **Create a peer review mechanism to strengthen the Secretary of Business, Transportation & Housing's oversight of the Authority.** Consideration should be given to requiring the BT&H Secretary to convene a peer review committee to report on the practicality of the high-speed rail system proposed by the Authority. The peer review committee should be comprised of experts knowledgeable about the design and operation of high-speed rail systems, the compatibility of the systems with existing freight railroads and commuter railroads, the land use implications of high-speed rail, and the feasibility of the Authority's financial proposal. Members of the committee should represent civil engineering firms, equipment technology firms, land use planning professionals, financial firms familiar with funding large infrastructure projects, and executives from freight railroads, commuter railroads, Caltrans's rail division, and Amtrak.

6. **Ensure that the Authority stages its construction program so that state funds are used on regional segments of the high-speed rail corridor, before developing the long distance link between the state's major urban centers, i.e., Los Angeles and San Francisco**. It is possible that the rail bond program could be approved by voters before the Authority has an approved financial plan that includes state, federal, and private resources. In that case, it is important that the first expenditures of state money should be used for improving regional travel segments where rights-of-way may be shared with commuter operators, Amtrak, freight railroads, and eventually high-speed rail. These funds may be used for grade separation programs, track improvements, capacity improvements, and other capital projects that facilitate the use of high-speed rail service in the corridor.

California's Commitment to Intercity Passenger Rail Service

Although the focus of this report is the Authority's vision for a new high-speed rail system in California, it is important to recognize that the State of California and its regional agencies have been operating passenger rail services for many years. Since 1975, the state has demonstrated a progressively increasing commitment to intercity passenger rail service in three regional corridors: Los Angeles-San Diego, including service to Santa Barbara and San Luis Obispo, San Joaquin Valley to the San Francisco Bay Area, and the Capitol Corridor (Auburn-Sacramento to Oakland and San Jose).

As is shown on the following page in Table1, *Total Capital Expenditure for Each Corridor by Source—1977-2005,* a total of $2.8 billion has been invested to date in state supported intercity passenger rail services. About 62 percent, or $1.7 billion, of the total funds expended on passenger rail service have been state funds. Interestingly, local governments have contributed $281 million, an amount equal to10 percent of total funding. In addition, Amtrak has contributed $384 million or 14 percent of the total, which equaled nearly half of the cost of rolling stock. The commercial railroads, which have in many instances benefited from these improvements to rail service, contributed about $107.5 million, or 3.8 percent of total expenditures. Eighty-six percent of the contribution from the private railroad companies was concentrated on the San Joaquin service through the Central Valley and the Capitol Corridor. Both of these corridors are high density freight corridors, nevertheless, the commercial railroads' contribution amounted to only 13 percent of the total investment made in recent years in the two corridors.

The state sponsored improvements made in the Los Angeles-San Diego corridor also benefit the two commuter operators in the corridor, Metrolink and the Coaster. Improvements north of Los Angeles for Amtrak service to San Luis Obispo also benefit Metrolink service to Ventura County. Similarly, when Metrolink or the Coaster commuter services make improvements in the corridor, the state supported services are likely to benefit.

Table 1

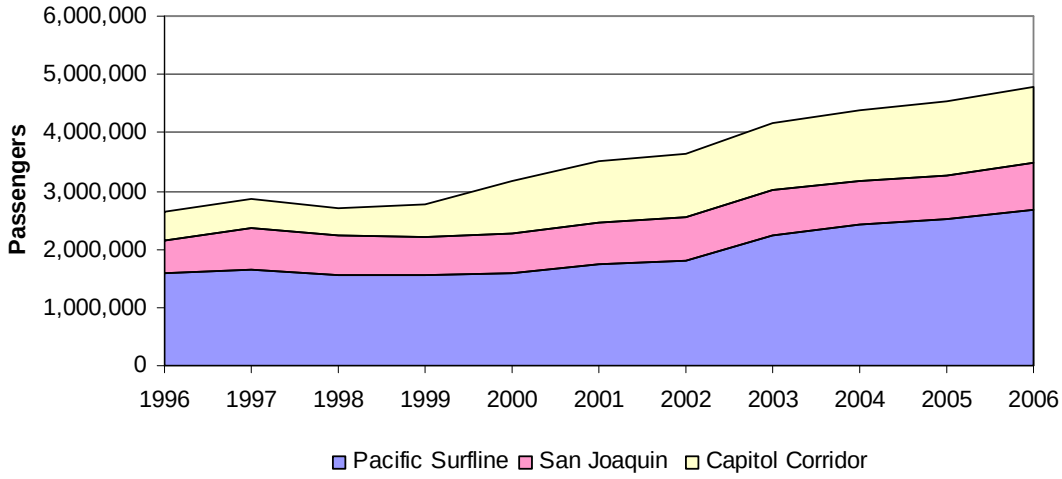
Total Capital Funding for Each Corridor by Source--1977-2005

	State	Local	Federal	Amtrak	Railroads	Other	Total
Surfliner-San Diego/Los Angeles	$ 516,158,608	$ 104,948,182	$ 153,262,225	$ 16,078,300	$ 7,144,111	$ 12,448,367	$ 810,039,793
Surfliner-Los Angeles/San Luis Obispo	229,517,231	83,307,392	25,147,927	3,086,168	1,323,326	0	342,382,044
San Joaquin-Bakersfield-Oakland	395,332,334	33,134,524	32,699,464	1,999,522	78,369,190	1,673,000	543,208,034
Capitol Corridor-Sacramento-Oakland/San	198,627,674	51,372,744	31,133,241	1,201,102	14,521,630	70,000	296,926,391
Other Routes	30,289,281	7,848,037	21,380,249	3,035,000	6,092,700	45,000	68,690,267
Maintenance Facilities	80,757,530	520,000	0	62,478,862	2,823	0	143,759,215
Rolling Stock	306,329,983	0	486,000	296,530,360	0	6,295,291	609,641,634
							-
Total	$ 1,757,012,641	$ 281,130,879	$ 264,109,106	$ 384,409,314	$ 107,453,780	$ 20,531,658	$ 2,814,647,378
Percent of Total Program	62.42%	9.99%	9.38%	13.66%	3.82%	0.73%	100%

Source: Caltrans

Chart 1

Total Ridership on State Supported Intercity Passenger Rail Service--1996-2006



Caltrans

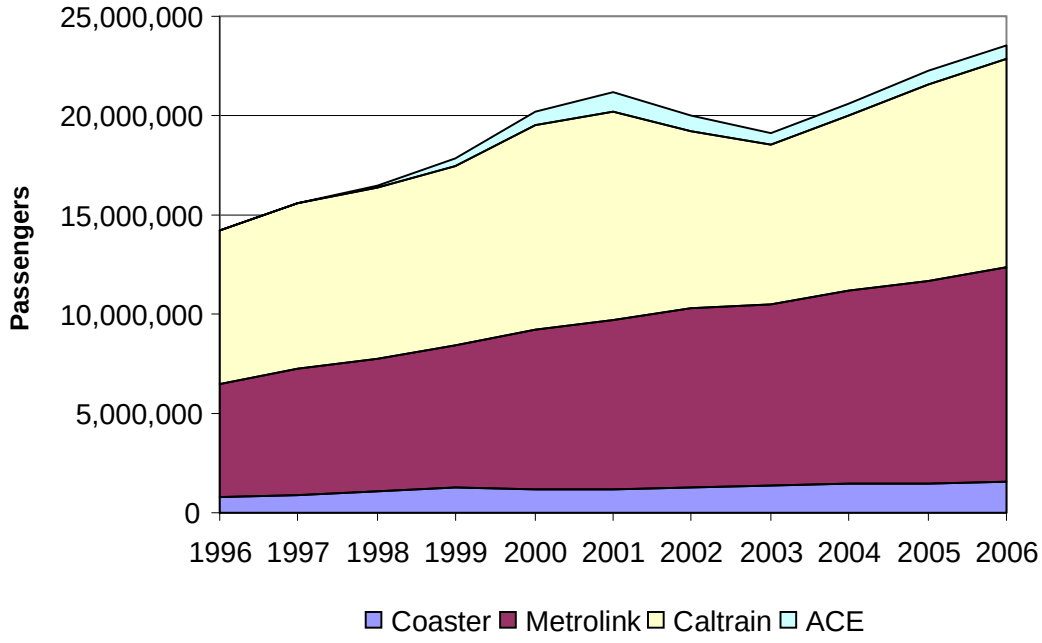
Chart 1, *Total Ridership on State Supported Intercity Passenger Rail Service—1996-2006,* depicts the growth in ridership of state supported rail passenger service. Between 1996 and 2006, total annual ridership grew from 2,633,510 to 4,773,813 passengers, an 84.6 percent increase. Surfliner service, operating between San Diego-Los Angeles-Santa Barbara-San Luis Obispo, increased from 1,574,816 to 2,667,960, or 69 percent. San Joaquin service from Bakersfield to Oakland grew from 578,059 to 799,742, representing a 38 percent increase. The greatest percentage increase in ridership has been in the Capitol Corridor service from Sacramento to Oakland with some trains serving San Jose and Roseville. This service began in 1996 with only 480,555 passengers the first year. By 2006 ridership had soared to 1,306,102 passengers, representing a 171.8 percent improvement.

The three California intercity passenger rail corridor services operating today are among the most successful in the country. The country's highest ridership is achieved on the Northeast Corridor service, located in the most densely populated region in the country, linking Washington, D.C., Philadelphia, New York City, and Boston. That service carried 9.4 million riders in 2006. For the same year, California's Surfliner service was the second most patronized service in the country, with 2.6 million patrons. The Capitol Corridor service ranked third. The San Joaquin service ranks sixth nationally. Overall, California's instate ridership represents 20 percent of Amtrak's total annual passengers.

Commuter Rail Service in California

In addition to intercity rail, California has a vibrant commuter rail industry.[1] The rail operators include Caltrain, operating between San Jose and San Francisco, ACE, operating between Stockton and San Jose, and the Coaster, operating between Oceanside and San Diego. Metrolink, the Southern California operator, provides an expansive service that radiates out of Los Angeles to Ventura on the north, the Inland Empire to the east, and Oceanside to the south. In addition, Metrolink operates the only suburb to suburb service in the country, between San Bernardino/Riverside and Irvine in Orange County. In 2007, 24.3 million passengers used commuter rail in California. Chart 2, *Ridership Trends of California Commuter Rail Operators, 1996-2006*, summarizes commuter rail ridership trends over the past decade.

Chart 2
Ridership Trends of California Commuter Rail Operators
1996-2006



Caltrans

In Southern California, Metrolink service has contributed to a reduction in the growth of freeway traffic. Surveys show the eighty percent of Metrolink riders formerly drove alone

[1] Traditionally, commuter rail service is defined as conventional passenger rail service that is 90 miles or less in distance for which discounted multiple ride tickets may be purchased by riders.

or were in carpools.[2] A recent study prepared by the Los Angeles County Metropolitan Transportation Authority indicated that Metrolink contributes measurably to the reduction of congestion on freeways adjacent to existing rail lines[3]. The most successful of the Metrolink lines is the San Bernardino line operating between Los Angeles Union Station and San Bernardino. The ridership on this line at peak commute hours is equivalent to 1.3 lanes of freeway capacity.

Table 2, *Congestion Relief by Metrolink Line Adjacent to Freeways*, summarizes the congestion relief brought by Metrolink commuter rail lines operating in metropolitan Los Angeles.

Table 2

Congestion Relief by Metrolink Line Adjacent to Freeways

Metrolink Line	Afternoon Peak Hours Equivalent Freeway Lanes	Adjacent Freeway
San Bernardino Line	1.3	I-10
Burbank Line	0.8	1-5 Northbound
Riverside Line	0.7	SR 60
Orange County Line	0.8	I-5 Southbound
Inland Empire Orange County Line	0.8	SR 91
Antelope Valley Line	0.8	SR 14 and I-5 Northbound

Source: LACMTA and Metrolink

High-speed rail service in California would likely impact the state's commuter rail operators in different ways. Caltrain, for example, is in the process of finalizing plans to upgrade its service between San Francisco and San Jose through electrification and the introduction of light weight European style rolling stock. This strategy would be compatible with the proposed high-speed rail service, and investments made on the right-of-way to accommodate the high-speed trains would also benefit Caltrain. In addition, OCTA is collaborating with the Authority and Metrolink in exploring possible service upgrades to Metrolink service that would also be compatible with high-speed service between Anaheim and Los Angeles.

[2] Letter from David Solow, Chief Executive Officer of Southern California Regional Rail Authority to Dan Leavitt, Deputy Director of the California High-Speed Rail Authority, April 20, 2007.
[3] Cost/Benefit Assessment of Metro's funding for Metrolink prepared for Los Angeles County Metropolitan Transportation Authority by HNTB and Sharon Greene and Associates, p.25, October 8, 2007.

OCTA's goal is to operate passenger trains between Anaheim and Los Angeles every thirty minutes throughout the day. This is a very complex rail service area with various segments of the right-of-way owned by OCTA, the Los Angeles County Metropolitan Transportation Authority (LACMTA), and the private Burlington Northern Santa Fe (BNSF) railroad. The right-of-way rail segment extending from Commerce to Fullerton, under the ownership of BNSF, is among the most heavily traversed double tracked corridors in the country. Approximately 75 freight trains and 52 Amtrak and Metrolink trains traverse this segment of track per day. A third track, in partnership with the California Department of Transportation (Caltrans), Metrolink, and BNSF, is currently being added to accommodate growth in freight volume and passenger service operated by Amtrak and Metrolink. This improvement with exhaust all of the capacity at ground level of the existing right-of-way.

Creation of the California High-Speed Rail Authority

As a result of Proposition 116, the $2 billion transit bond program approved by state voters in 1990, Caltrans began exploring the feasibility of high-speed rail service in a study conducted of alternative alignments for crossing the Tehachapi Mountains between the San Joaquin Valley and the Los Angeles Basin.

In 1993, the Legislature enacted Senate Concurrent Resolution (SCR) 56, Resolution Chapter 56 of 1993, which requested Caltrans to prepare a 20-year high-speed intercity ground transportation plan under the direction of an Intercity High-Speed Rail Commission. The resolution called for construction "to commence on a Los Angeles to San Francisco Bay Area High-Speed Ground Transportation Corridor by the year 2000", with the system linking Sacramento, Orange County, San Diego, and San Bernardino/Riverside by 2020.

The Legislature continued to foster the development of high-speed rail when it enacted the California High-Speed Rail Act of 1996[4]. The statute established the Authority as an independent entity with nine board members, five of whom are appointed by the Governor, two by the Senate Rules Committee, and two by the Speaker of the Assembly. The Authority's executive director is appointed by its governing board and serves at its pleasure. The executive director appoints the staff. The original enabling legislation had the Authority sunsetting on December 31, 2003. Legislation in 2002 repealed that expiration date, making the Authority permanent[5].

The Authority's enabling legislation establishes the following mandate for the agency:

> The authority shall direct the development and implementation of intercity high-speed rail service that is fully integrated with the state's existing intercity rail and bus network, consisting of interlinked conventional and high-speed rail lines and associated feeder buses. The intercity network in turn shall be fully coordinated and connected with commuter rail lines and urban rail transit lines developed by local agencies, as well as other transit services, through the use of common station facilities whenever possible.[6]

The enabling legislation sets the Authority's responsibility for planning, construction, and operation of high-speed trains that operate at a top speed of greater than 125 miles per hour. The reason for the 125 miles per hour threshold is that existing passenger rail equipment can operate at this speed if the appropriate signaling technology is installed and the right-of-way meets a variety of design and safety standards.

[4] SB 1420 (Kopp), Chapter 796, Statutes of 1996.
[5] SB 796 (Costa), Chapter 696, Statutes of 2002.
[6] California Public Utilities Code §185030.

Funding for the High-Speed Rail Program

The Authority anticipates that the project will likely be funded from a variety of sources including state, federal, and private entities. Consultants have been retained by the Authority to assist in the development of a comprehensive financing plan, which is currently in preliminary form.

During the past ten years, the Authority has received about $58 million in spending authority, including approximately $32.1 million from the Public Transportation Account (PTA), $5.75 million from the State Highway Account (SHA), $5 million from the Traffic Congestion Relief Fund (TCRF), and $15.5 million from redirected Proposition 116 funds. For a more detailed look at the Authority's funding history, see Table 3, *High-Speed Rail Authority Appropriations and Expenditures, 1998-99 through 2007-08*, compiled using data from the Legislative Analyst's Office.

Table 3

High-Speed Rail Authority Appropriations and Expenditures[a]
1998-99 through 2007-08
(in thousands)

Year	Appropriations	Expenditures
1998-99	$3,001	$3,000
1999-00	3,032	3,030
2000-01	6,027	6,027
2001-02	1,060	1,057
2002-03	6,520	6,472
2003-04	2,592	2,560
2004-05	1,151	1,122
2005-06	3,923	2,993
2006-07	14,331	14,076
2007-08	16,722	17,194
Total	**$58,359**	**$57,531**

a) Appropriation and expenditure amounts include only state funds. The authority also received $2,276 in federal funds over the reporting period.

Source: Legislative Analyst Office

2000 Business Plan

In June 2000, the Authority issued its publication, *Business Plan for High-Speed Rail*. This document, after seven years, remains the best available discussion of the Authority's

vision for high-speed rail development. The Authority reached the following conclusion in the Business Plan:

> We find that a high-speed train system is a smart investment in the state's future mobility. It will yield solid financial returns to the state and provide potentially dramatic transportation benefits to all Californians. It is a system that can be operated without public subsidy. The public's investment should be limited to that which is necessary to ensure the construction of the basic system.

The Business Plan recommended an "as-needed" funding strategy to be based on state and federal funds, plus the awarding of a franchise agreement with a private firm or a consortium of firms based on a design-build-operate-maintain (DBOM) project development model.

After the Business Plan was released, the Legislature responded with the enactment of SB 796 as discussed above and the enactment of bond legislation reviewed below. The Authority then initiated preparation of the program environmental impact report (EIR).

Among the major activities the Authority has undertaken since the enactment of the 2000 Business Plan are the following:

- Completed a program EIR, which allowed it to define the travel corridors over which the service would operate.

- Identified five corridor segments that will be the focus of the project EIRs that are necessary before construction can commence.

- Entered into a joint venture with OCTA to prepare a project level EIR for the corridor segment between Anaheim and Union Station in downtown Los Angeles.

- Commissioned a new ridership forecast.

- Commissioned a new funding strategy for constructing and operating high-speed rail.

- Initiated pursuit of federal funding for high-speed rail development in the 2008 re-authorization of the federal surface transportation funding act, the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).*

- Worked with the Federal Railroad Administration to allow light weight foreign high-speed rail equipment to operate in California.

Cost of the Proposed High-Speed Rail System

In 1999, the Authority estimated the entire high-speed rail system (from San Francisco to San Diego and the Bay Area/Central Valley to Sacramento) would cost $25 billion to complete. As of October 2007, the Authority reports the expected cost to build the entire system to be between $33 billion and $37 billion, with the cost for the first segment from San Francisco to Anaheim to cost approximately $30 billion. This financial revision represents an increase of between 32 and 48 percent for the total project.

Adjusting the Authority's estimates for inflation, the project would cost between $37 billion and $39 billion in 2008, slightly higher than its October 2007 estimates. Clearly, delay is having a substantial impact on project cost.

Funding the Proposed High-Speed Rail Project

The *Safe Reliable High-speed Train Bond Act for the 21st Century*[7] of 2002 provides for the sale of $9.95 billion in general obligation bonds, including $9 billion of which would be allocated for planning and construction of a high-speed rail segment between San Francisco and Los Angeles. The additional $950 million was designated for rail projects that provide connectivity with the high-speed rail system and other modes of transportation. Although the bond measure was initially scheduled to be placed on the November 2004 ballot, it has yet to be placed before the state's voters. It was postponed twice due to state budget constraints first in 2004 and again in 2006[8]. It is now scheduled for the November 2008 ballot.

Value of the Bond Measure

During the four years that the statewide bond measure has been delayed, inflation has reduced the purchasing power of the $9.95 billion that was originally authorized. For example:

- In 2002, $9 billion would have funded approximately 36 percent of the estimated cost of the entire system.

- In 2008 dollars, it would require about $13.3 billion to fund 36 percent of the estimated cost of the total system. Nine billon dollars will fund 25 percent of the estimated total cost.

- Similar escalation in project cost could also be applied to the $950 million portion of bond proceeds designated for connectivity with other transportation modes.

[7] SB 1856 (Costa), Chapter 697, Statutes of 2002.
[8] SB 1169 (Murray), Chapter 71, Statutes of 2004 and AB 713 (Torrico), Chapter 44, Statutes of 2006.

- Funding the connectivity program to keep pace with inflation would call for about $1.1 billion, assuming the bond remains on the 2008 ballot.[9]

The Authority's board recognized that the original financial plan is insufficient to fund the project and has directed the staff and its consultants to prepare a new financial plan.

Revised Construction Financing Plan

Most likely, revised financial plan will continue to rely on project funding to be shared equally by state government, the federal government, and the private sector. The difference in the new finance plan is the emphasis being placed on the role of the private sector. The revised plan is not assuming the private sector will automatically be interested in the project. Rather, the Authority's consultants are seeking to ascertain the information that private sector partners will need in order to make their financing decisions. This will be done in three ways:

1. Private sector firms such as construction entities, equipment suppliers and lessors, financial firms, railroad operating entities, and other participants in the international passenger rail development community are being surveyed regarding their interest in the high-speed rail project.

2. A formal request for expressions of interest will be issued to selected firms to determine their level of interest in the proposed project. It is hoped that project development consortiums will respond positively.

3. Depending on the response of the high-speed rail development community, and the status of the bond financing ballot measure, the Authority may issue a request for qualifications for firms to develop one or more segments. At this point, the Authority would be entering into a pubic private partnership with a consortium that would design, build, and operate the service.

This entire process is unlikely to be completed before the end of 2008. A revised business plan, however, could shed light on the Authority's expectations regarding the role of the private sector. It could also indicate at what stage of the high-speed rail development a private sector consortium would commence project development and delivery.

[9] This information was developed with the assistance of the Legislative Analyst Office.

The Authority's consultants have prepared a conceptual financing framework which was presented to the Transportation & Housing Committee. It is summarized in Table 4, *Overview of Preliminary Funding Strategy and Finance Plan.*

Table 4

Funding Outline for High-Speed Rail Development

Funding Sources	Amount (Billions)
Public-Private Partnerships	$5 to $7.5
State Support	$9 to $12.5
Federal Support	$10 to $12.5
Local Partnerships	$2 to $4
Other Sources	$1 to 3.5
Total Funding	$27.5 to $39.5

Source: Infrastructure Management Group/Lehman Brothers Team testimony to the Senate Transportation & Housing Committee, January 11, 2008.

In discussing at which stage in project development private funds would become available, the consultants suggest that participation will depend upon the private sector's assessment of the project's risks. The higher the risk, the longer it will take for investors to participate, and the fewer firms will be interested. However, some firms may become interested in the project at a later date when the risks are better understood and the project becomes more attractive, or they will avoid the project entirely. This consultant's report was the first discussion of investment risk associated with the project that has been presented to the Authority.

It is unclear as to the extent the Authority can commit the State of California to the terms and conditions of any public private partnership agreement. Several matters need to be clarified, including the degree to which the state will bear any responsibility for construction overruns or the degree to which the state would provide operating subsidies should the operating revenue be insufficient.

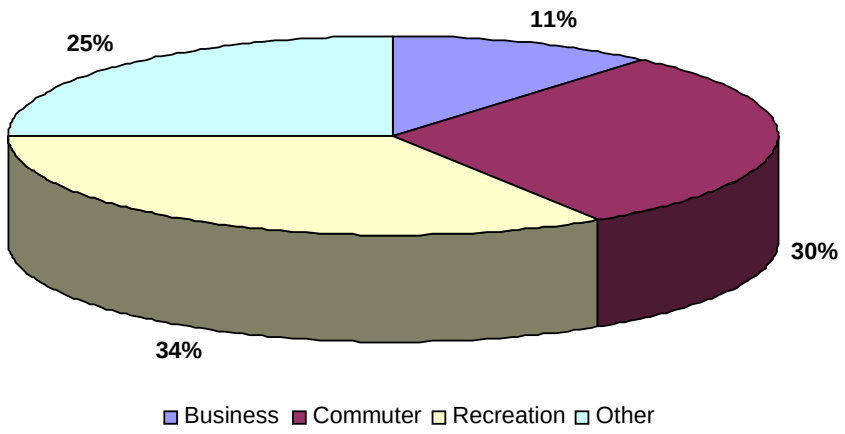
The Authority's High-Speed Rail Vision for California

The Authority's vision for high-speed rail service in California includes the development of statewide service that would provide timely connections throughout California. The initial segment would link downtown Los Angeles to downtown San Francisco via San Jose. At buildout the system would link Los Angeles and San Diego via Riverside and an extension to Sacramento from the vicinity of Merced.

In a presentation to the Transportation & Housing Committee, the Authority identified the market for high-speed rail service as depicted in Chart 3, *Trip Purposes of HSR Travelers in 2030*. As can be seen, after recreational travel, 30 percent of travelers will be using the high-speed rail service for commuter purposes, which is defined by the Authority as work oriented trips that are 100 miles or less in length. Only eleven percent of the trips will be for business purposes. While business trips would account for only 11 percent of the demand, they would generate 91 percent of total operating revenue.

Chart 3

Trip Purposes of HSR Travelers in 2030

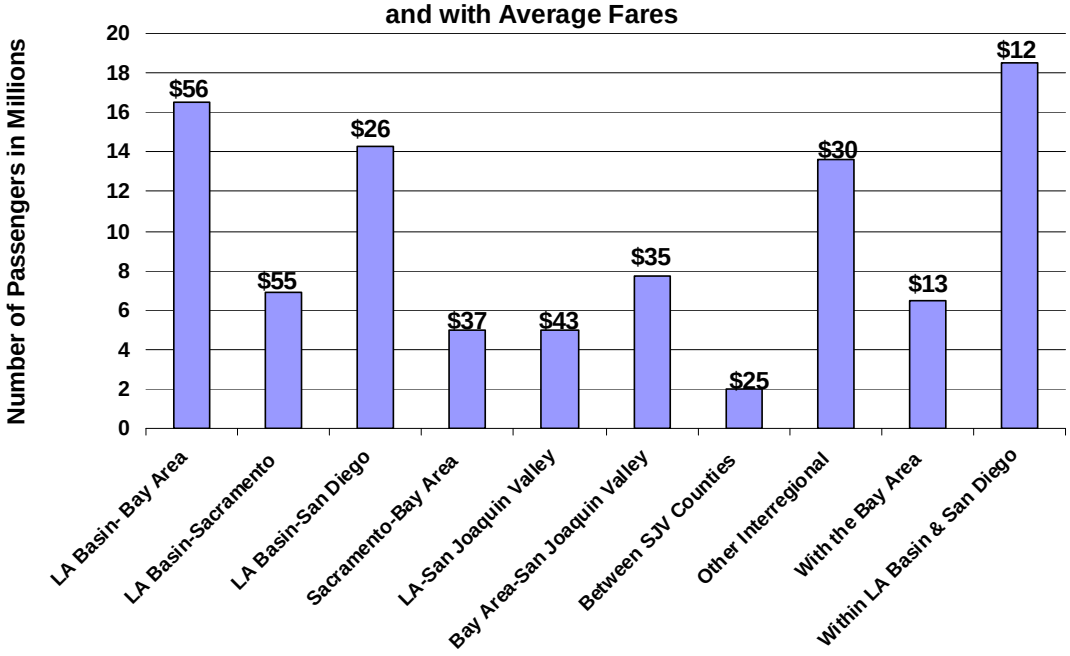


Source: California High-Speed Rail Authority

The expected travel markets for high-speed rail can be seen in Chart 4, *High-Speed Rail Trips via Pacheco Pass Alignment for 2030 by Market and with Average Fares*. This Chart shows that the greatest number of trips, approximately 18 million, are regional trips in the Los Angeles Basin and San Diego, with an average fare of $12 per trip. The second

largest market is the Los Angeles to San Francisco trip with slightly more than 6 million trips in 2030 at an average fare of $56.

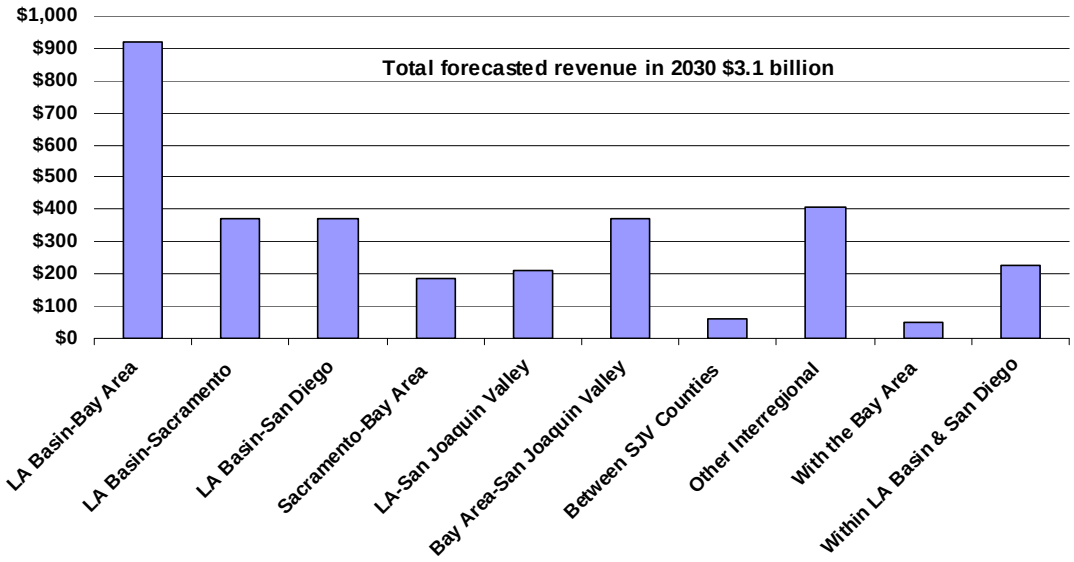
Chart 4
High-Speed Rail Trips via Pacheco Pass Alignment for 2030 by Market and with Average Fares



Source: California High-Speed Rail Authority

As can be seen in Chart 5, *High-Speed Rail Revenue via Pacheco Pass in 2030 by Market*, the Los Angeles to San Francisco market is expected to be the most lucrative generating about $900 million of revenue annually by 2030. The people constituting this market are primarily business travelers.

Chart 5
High Speed Rail Revenue via Pacheco Pass in 2030 by Market



Source: California High-Speed Rail Authority

The benefits from high-speed rail as measured in travel time savings vary among the regions of the state, according to the Authority's environmental documents. This information is summarized in Table 5, *Estimated Total Travel Time "Door-To-Door" between Cities by Auto, Air and High-speed Train in 2020.*

In terms of total door-to-door trip time, the savings compared with air travel would be 2 minutes between Los Angeles and San Francisco. Although the actual time in the air is much shorter than the time a rider would spend on the train (1:20 hours compared to 2:35 hours), the travel time from the train station to the final destination is shorter by train than it is by plane (55 minutes compared to 1:35). Among the reasons for the time difference is that the train stations are located closer to the train traveler's final destination as opposed to the proximity of airports to the airline traveler's final destination.

Travelers enjoying the greatest travel time savings would be those journeying between San Diego and Los Angeles. The savings for that trip would be 44 minutes. The Fresno to Los Angeles traveler would save 29 minutes.

Based on the data, the high-speed rail service is an option for air travel in all corridors.

Table 5

Estimated Total Travel Time "Door-To- Door" between Cities by Auto, Air and High-Speed Train in 2020

	Auto	Air		High-Speed Alternative Optimal Express Times		
City Pairs Downtown to Downtown	Auto Travel Time	Line Haul*	Total Door-to-Door	Line Haul*	Total Door-to-Door	Time Savings Compared to Air in Minutes
Los Ángeles to San Francisco	7:57	1:20	3:32	2:35	3:30	2
Los Angeles to Fresno	4:30	1:05	3:02	1:22	2:33	29
Los Angeles to San Diego	2:49	0:48	3:00	1:13	2:16	44
Los Angeles to San Jose	6:50	1:00	3:14	2:06	3:02	12
Sacramento to San Jose	2.:40			0:50	1:53	N/A

*Actual time in plane or train

Source: A Plan to Fly California, Final Program Environmental Impact Report/Environmental Impact Statement for the Proposed California High-Speed Train System, page 3, no date.

Environmental Impacts of the High-Speed Rail Project

Although the Authority did not testify at the committee's hearings specifically on the environmental implications of the rail passenger project, the project's environmental analysis identified several environmental benefits. When the project was tested against the option of making no improvements to support growth in intercity travel by air or on the highway system, or making improvements that would address the increase in travel demand for those two travel modes, the high-speed rail service impacts to the environment were comparatively less. Specifically, the benefits included energy savings, reduced air emissions, and improved intercity travel conditions, including safety. The analysis also found that there would be localized traffic congestion impacts in the vicinity of stations used by the high-speed rail services that would require mitigation.

Recently, the Authority has commissioned a study to determine the feasibility of achieving zero greenhouse gas emissions for the power needs of the 700-mile electric high-speed train system.[10]

[10] Final Program Environmental Impact Report /Environmental Impact Statement for the Proposed California High-Speed Rail System, A Study by the California High-speed Rail Authority and the Federal Railroad Administration, Volume 1, pages S-1-S-21.

Potential Risks Associated with the High-Speed Rail Project

To be sure, high-speed rail is an attractive concept, but as proposed by the Authority, it is in fact, a business decision for California voters. It will not be a typical state funded public works project, such as the construction of a new highway or a new water treatment facility. In the typical public works project, a portion of the risks and costs are borne by the public agency commissioning the project.

California's high-speed rail project is a "mega" project. The cost, schedule, project scope and risks associated with such a project are unusually large. This has been demonstrated in mega projects throughout the world. For example, Boston's Big Dig, the Eurotunnel (or "Chunnel") linking Great Britain with France, and the Denver Airport experienced substantial difficulties controlling project cost, schedule and budget. Each of these large infrastructure projects deployed technologies that were known and understood, but each was delayed and came in significantly over budget. The Big Dig (Boston's Central Artery/Tunnel Project) was originally estimated to cost $4 billion, but is closer to $16 billion now that the highway tunnel complex is in operation.

The Eurotunnel, built for high-speed train service between France and Great Britain, was completed at a cost $12 billion, 80 percent over the original estimate and several years later than scheduled. Since its opening for service in 1994, the tunnel has been refinanced five times, with the most recent refinancing in 2006. The original rail and commercial freight demand forecasts have never materialized, necessitating the most recent refinancing. It was also beset with significant post construction woes, including a fire. The tunnel's owners hope that utilization of the service will increase with improved access to central London and by further upgrading of service to full high-speed status from near the tunnel's portal to London. This achieves high-speed service for the entire distance between London and Paris and Brussels.

The Denver Airport opened in 1995 at a cost of $5 billion, nearly 200 percent over budget. During its first year of operations passenger traffic was only half of what was forecasted at the outset of the project.

These examples of comparable infrastructure projects are raised to point out that mega projects, however beneficial they may be, carry substantial financial risks. In addition, there is a pattern of economic analyses and demand forecasts that are often overly optimistic, resulting in significant engineering and construction problems. The high-speed rail project will have risks similar to those of other mega projects and some that may be uniquely its own. A few of these potential risks are discussed below.

Right-of-Way Risk

In the case of the high-speed rail project, the greatest risk for the project is gaining access to existing right-of-way currently used or owned by commercial or commuter train

operators. The purchase of new right-of-way for track and rail facilities is less problematic.

A good example of this problem is the 14 mile segment of right-of-way located between the cities of Commerce and Fullerton. This right-of-way is owned by the Burlington Northern Santa Fe Railroad (BNSF). The line links the Ports of Long Beach and Los Angeles to the BNSF's national railroad network. Today, approximately 75 freight trains and 52 Amtrak and Metrolink passenger trains traverse this segment per day. With the growth in container traffic at the ports, a substantial increase in freight service is expected over the next several years. In addition, Orange County is seeking to operate additional Metrolink service on the same right-of-way. When a project, currently programmed, to construct a third track between the Fullerton and Commerce is completed, the right-of-way will have no space for additional capacity. Threading high-speed service into this corridor will have risks and require substantial resources.

Other right of way constraints exist in the San Fernando Valley. This is especially evident in the segment from Burbank to Los Angeles where the existing two track right of way is adjacent to the Los Angeles River, major streets, and other geographic impediments. Moreover, the remaining capacity of this corridor is increasingly consumed by freight traffic operated by the Union Pacific Railroad.

Technology and Regulatory Risks

One of the risks associated with the high-speed rail project is its proposed technology. In Europe and Asia, the operating features of high-speed train technology are known and understood. What is unknown is how this technology would fit into an American railroad operating environment. Under existing Federal Railroad Administration regulations, off shore high-speed rail technology is incompatible with American regulations and the operating environment. This is the case because the high-speed rail equipment is lighter than domestic equipment and designed to operate under a different safety regime.

Under European safety methodology, equipment is designed foremost to avoid accidents. The US standard requires equipment whose primary safety objective is to survive accidents. This incompatibility in standards introduces substantial risk, especially in a segment such as Fullerton to Commerce where American standard freight and passenger trains are continuously operating. A change in standards would require that the freight and commuter railroads operating in the same corridors as the high-speed trains change their train control technology. Ultimately, the change in standards may become a major challenge for the railroad industry operating in the state.

Third Party Financing Risk

Although the early draft of the Authority's financial plan anticipates $2 to $4 billion in contributions from local governments and others for the development of the high-speed

system, there is no guarantee that these funds will materialize. Similarly, there is an expected federal commitment of $10 to $12.5 billion. This would represent a substantial new federal program, and is a funding option that will require further analysis by the Authority, as it potentially affects the strength of the entire financial plan.

Unlike a typical public works project that uses a finance strategy built on pay-as-you-go funding, revenue bonds, or general obligation bonds, this project will rely on private funding likely based upon a non-recourse or limited recourse financial structure where project debt and equity used to finance the project are paid back from the cash flow generated by the project. Clearly, the assessment of risks will underlie the decisions of private firms to participate in the financing, construction, and operations of the high-speed rail service.

Patronage and Revenue Risks

The Authority recognizes the risks posed by an inadequate patronage and revenue forecast and has therefore commissioned a new forecast. Nevertheless, forecasts are viewed skeptically in the investment community and may require additional independent verification. It is understood that travel demand forecasting is not a perfect science. The new forecast will influence the Authority's decisions regarding build out and operation of the high-speed system in incremental travel segments developed over time.

Studies by investment banks conclude that the traffic and revenue forecasts for toll roads in the US have often been inadequate. For example, the traffic demand on the San Joaquin Hills toll road in Orange County during its first two to five years was 50 percent below forecasted demand. Today, traffic is above projection, but the facility has not been able to extract itself from the financial consequences of its initial revenue shortfall. Indeed, it has had to draw upon the revenues of an adjacent toll road to remain financially viable. This experience emphasizes the risk in forecasting demand for even a relatively straight forward travel market such as toll roads. The high-speed rail market is much more complex, and therefore the degree of uncertainty rises commensurate with the complexity of the endeavor.

Construction Risk

To date, the Authority has not developed a construction phasing strategy, nor has it discussed in detail the construction risks presented by this ambitious infrastructure project. This will likely occur as it pursues the preparation of the project environmental impact reports.

After all the risks and variables of the high-speed rail system are assessed, the final decision to go forward should be determined by the extent to which the state is willing to share in the financial burden associated with the risks. While some risks can be transferred to the private sector by project development strategies such as DBOM, it is likely that the state will be unable to shed responsibility for the project entirely. This

means that state government will need to assess project risks to the same degree as the private sector.

Risk Management

There is a need for the Authority and the Administration to institute a risk management program. As can be seen from the examples of potential project risks identified below and above, the risks this program is likely to encounter will have substantial implications for the viability of the high-speed rail program. A risk management program would allow the Authority to assess the project's potential construction and operating risk in order to protect the state's investment should the voters approve the bond revenues. A risk management program also has the advantage of providing public accountability, if it is transparent and accessible to the Legislature and the general public.

The Legislature has encountered this issue at least once before, after the seismic safety retrofit program had been operational for several years. To bring managerial discipline to the program, a risk management program was statutorily established. This program is central to the $8.7 billion retrofit program for the state's toll bridges, including the construction of the new east span of the Oakland-San Francisco Bay Bridge.[11] Among the major risk management activities included in this statute is the requirement that Caltrans establish a comprehensive risk management plan that identifies and quantifies project risks, implements and tracks the response to the risks by the project's contractors, estimates the financial implications of the risks, and requires the incorporation of the added costs into a revise project budget. The issues of risks and other aspects of project monitoring are reported to a project oversight committee comprised of Caltrans, the Metropolitan Transportation Commission and the California Transportation Commission.

The experience with the risk management program clearly points to the need to install the program at the outset of a major project, such as the high-speed rail project. Risk management is essentially a form of insurance.

[11] See §30952.05 of the Streets and Highways Code. This section was added to the Code by Assembly Bill 144 (Hancock), Chapter 71, Statutes of 2005.

Conclusions

Since 1997, the California High-speed Rail Authority has been embarked on an ambitious program to bring premium high-speed rail service between the cities of Anaheim, Los Angeles, and San Francisco. The proposed high-speed rail technology will compete directly with short haul airlines for passengers and assumes that in the future there is likely to be insufficient gate capacity at California airports to meet future intrastate air travel demand.

This farsighted transportation project, however, is not a conventional public works project to be built with pay as you go funding or by relying exclusively on debt financing. The initial phase of the project, operating service from San Francisco to Los Angeles and Anaheim, has been estimated to cost approximately $33 billion. Two-thirds of project funding is expected to come from state and federal revenues, and the remaining third provided by private capital. State funding is dependent on voter approval of a $9.95 billion statewide bond program, scheduled for the November 2008 ballot. By seeking authorization for issuance of state bonds, the Authority is in effect offering Californians a business proposition.

The Authority's business proposition for California's voters is to structure a major infrastructure project capable of attracting a substantial amount of private capital. It is anticipated that the project will be developed on a design-build-finance-operate-maintain basis with a private business partner as the key player. This plan requires the project to attract a private consortium with the resources to design, construct, finance, and operate the high-speed project under the terms of a long term franchise.

The Authority's plans assume that the high-speed rail service, which the private consortium will operate, will generate sufficient revenue to repay the consortium's investment, cover the annual cost of operations, and provide a profit. Furthermore, the Authority assumes that the rail service will not require any future operating subsidy from the State of California.

The challenge for the Authority is to demonstrate how it will achieve a full funding plan for this project with a private consortium that ensures the state bears limited financial risk during the construction and long term operation of the high-speed service. Should the voters approve the bond, they are authorizing the Authority to complete engineering studies that will provide adequate information to private firms to prepare construction and operating proposals for submission to the Authority. The Authority will have to negotiate a franchise that effectively limits the state's exposure to any financial risk. This will be a large task given the present uncertainty regarding federal funding and the limited state funding allocated to this large and complex infrastructure project.

Appendix 1

Communications between the Senate Committee on Transportation & Housing and the California High-Speed Rail Authority

California Legislature

SENATE COMMITTEE ON TRANSPORTATION AND HOUSING

January 16, 2008

Honorable Quentin L. Kopp, Chair
California High Speed Rail Authority
925 L Street Suite 1425
Sacramento, CA 95814

Dear Judge Kopp:

I want thank you and the Authority's staff and consultants for the very thorough presentations in Los Angeles and Oakland. I'm sure that the information will be very useful as the Legislature considers the development of high-speed rail.

As you know I was unable to ask several questions at the Oakland hearing due to the lengthy agenda. I am, therefore, requesting that the Authority provide me with answers to the following questions.

1. Will a second voter approved bond be necessary to complete the extensions to Sacramento and San Diego, or will the revenues from the initial service support the construction of the extensions? Does the Authority have the legal authority to finance the construction of the extensions by issuing revenue bonds guaranteed by the net operating revenues generated by the initial segment?

2. The bond act requires that all net revenue, after operating and maintenance costs, must be used for the construction of the next phase. How would a private firm desiring to obtain a concession secure a profit under the terms of the bond act?

3. Does the Authority expect private firms to accept its estimate of patronage and construction cost, or will the firms make their own estimates? What would the impact be on the construction of the first stage between Los Angeles and San Francisco if the firms estimate that costs are higher and patronage lower than the Authority's forecast?

4. Do you expect private firms to ask for guarantees, especially operating subsidies, if the demand forecast doesn't meet expectations?

5. During the initial phase of operations, it can be expected that patronage will not be immediately at the forecasted level. Who will pay the initial operating deficit, the state or the concessionaire?

6. Does the Authority have the power to commit the state to a concession agreement with a private consortium, including any financial guarantees? Will the Legislature have a role in this decision?

7. Where will final responsibility rest for construction cost overruns? The Legislature, the Authority, or the construction firms?

8. When will the Authority provide the legislature with revised business plan?

9. As you know, I am very concerned about the potential risks associated with the development of high-speed rail in California. On page 10 of your financial consultant's presentation, the following comment is made: "The extent, cost and timing of private funding will reflect the risks inherent in the Project." What does this statement mean? What are the risks that the private sector firms are likely to consider?

In closing, I want to encourage the Authority to review carefully the issue of risks. As I noted in my remarks the business plan should be modeled on an investment prospectus and not an advocacy document. The people of California, as investors, need to know the benefits of an investment in high-speed rail, but they also deserve to know the various risks associated with the project.

Again, thank you for testifying and I look forward to your answers to my questions.

Sincerely,

Al Lowenthal

Alan Lowenthal
Chair

cc: David Crane
Special Advisor to the Governor
Jobs and Economic Growth

FLYCALIFORNIA
Without ever leaving the ground.

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

January 31, 2008

Honorable Alan Lowenthal
California State Senate
State Capitol, Room 2032
Sacramento, CA 95814

Dear Senator Lowenthal,

Thank you for your continued interest in the California High-Speed Train project and for taking the time to conduct two status hearings. It was an honor and privilege for our staff and me to present the pertinent data to the Committee and describe the project and our activities in building the train.

In your letter of January 16, 2008 you posed salient questions that I now address:

Questions 1 and 2 relate to the use of the bond funds and surplus revenues. As I stated at the hearing, we are proceeding with the project based on direction by the Legislature through enacted statutes and a financing plan approved by the Legislature in the enactment of SB 1856 of 2002. That measure provides $9B for the construction of the first phase as defined in statute.

We have a draft funding plan that proposes use of the bond funds, together with federal funds and private monies to build and operate Phase One. Our financing plan anticipates the use of surplus operating revenues to fund in part the construction of Phase One. As to construction of the remaining part, we have not prepared a specific plan. We believe that if additional state funds appear needed for the remaining segments, it is the prerogative of the Legislature to determine the amount, source and timing of such funds, similar to its action on Phase One.

We believed the current language in the High-Speed Train Bond Act allows any operating profit to be used for the initial segment. After you posed the question and upon closer review of the statutory provisions, however, we concluded there may be some ambiguity, and clarifying language would be in order.

Our financial plan contemplates the awarding of design/ build/operate/and finance contracts. This means the contractors will accept the risk of construction overruns as well as revenue fluctuations and that those risks will be reflected in the contract prices. As noted, we believe we possess the authority to enter into such contracts but we will again investigate the law to determine if some additional clarification may be necessary. We will inform you of our findings as soon as they are available and seek your assistance if any additional legislative authority is needed.

Since we envision our contracts to be design/build or design/build/operate/ and finance, we expect the contractors will assess all potential risks, including ridership and revenue risks, and will bid accordingly. Whether contractors accept our estimates or prepare their own will be up to them, but it is highly unlikely that contractors will bid without some analytical work and estimates of their own. In preparing their bids,

925 L Street, Suite 1425 Sacramento, CA 95814 916.324.1541 fax 916.322.0827
www.cahighspeedrail.ca.gov

the contractors will need to consider operating costs and revenues on a yearly basis and any increased cost will be reflected in their bid.

As you know, our authority to award a contract and make financial commitment is limited to monies made available by the Legislature. We have no authority to provide any guarantees that would commit state funds beyond those appropriated by the Legislature.

The Authority recognizes the project risks. There are many in a project of this magnitude. We are proceeding in a manner to manage the risk and to award our contracts in a way that each party will share an appropriate level of risk. For example, the Authority is better suited to the risk of environmental clearance, right-of-way acquisition and similar activities. The contractors are better suited to accept construction cost and timing risk, and the operator/financiers are more appropriate to take revenue risks. We will proceed with caution and ensure that state taxpayers' interests are fully protected.

The Business Plan of 2000 was a very important document prepared by the Authority and submitted to the Legislature and the Governor. The Business Plan laid out the vision and ways to build the high-speed train system. Since then the Legislature has adopted a financial plan for the project through enactment of SB 1856 (Costa). In 2005, the Authority prepared and submitted "A Blueprint for Building California's High-Speed Train", as a follow-up to the Business Plan. The Blueprint presented the Authority's approach to implementing the high-speed train system, including the contracting processes, train technology selection, project phasing and construction staging.

After the board certifies the Bay Area – Central Valley environmental document and has finalized the financial plan we will begin preparation of new funding plan and project description, which will be an update of what was presented in the Business Plan and blueprint. This updated plan should be available in early summer.

We are proceeding based on direction and funding provided us by the Legislature. After the voters approve the High-Speed Rail Bonds, the Legislature will continue to exercise a vital fiscal and oversight responsibility through annual appropriation of the bond funds.

We look forward to working with you in the months and years ahead. Again, thanks for your interest and support and please convey to the staff and me such further suggestions and advice as you deem pertinent.

Yours truly,

Quentin L. Kopp
Chairman

cc: Senate Transportation Committee members
Board members