

FINANCIAL PLAN

FOR THE
CALIFORNIA HIGH-SPEED RAIL AUTHORITY
SAN FRANCISCO TO ANAHEIM SEGMENT



IN ASSOCIATION
WITH

BARCLAYS CAPITAL
GOLDMAN SACHS
SPERRY CAPITAL

Date: October 27, 2008

TABLE OF CONTENTS

1.	EXECUTIVE SUMMARY/INTRODUCTION	1
2.	STATE FUNDING	2
	2.1. INTRODUCTION	2
	2.2. PROPOSED BOND MEASURE	2
3.	FEDERAL FUNDING	3
	3.1. INTRODUCTION	3
	3.2. EXISTING FEDERAL PROGRAMS AND AVAILABLE FUNDING	3
	3.3. NEW FEDERAL LEGISLATION	5
	3.4. CHANGES NEED TO EXISTING PROGRAMS AND NEW LEGISLATION	5
4.	LOCAL SUPPORT	6
	4.1. INTRODUCTION	6
	4.2. COST SHARING WITH LOCAL AGENCIES	7
	4.3. LOCALLY GENERATED REVENUES FROM TRANSIT-ORIENTED DEVELOPMENT	7
	4.4. COMMERCIAL CONCESSIONS AT CHSR STATIONS	7
	4.5. COOPERATIVE FUNDING ARRANGEMENTS WITH LOCAL TRANSPORTATION AUTHORITIES	7
5.	PRIVATE FUNDING/PUBLIC-PRIVATE PARTNERSHIPS	8
	5.1. INTRODUCTION	8
	5.2. BACKGROUND ON PRIVATE INVESTMENT IN INFRASTRUCTURE	8
	5.3. PRELIMINARY FINANCING PLAN	9
	5.4. RFEI PROCESS AND RESULTS	10
6.	TIMING AND PHASING OF FUNDS	11
	6.1. INTRODUCTION	11
	6.2. TIMING AND STAGING OF INVESTMENT FOR THE SAN FRANCISCO TO ANAHEIM SEGMENT	11
	6.3. FINANCING OTHER SEGMENTS	12
7.	PROJECT RISKS/MITIGATION	12
	7.1. INTRODUCTION	12
	7.2. CONSTRUCTION RISK	13
	7.3. TECHNOLOGY AND OPERATIONS RISK	13
	7.4. LEGISLATIVE RISK	14
	7.5. RIDERSHIP RISK	14
	7.6. COMPLETION RISK	15

1. EXECUTIVE SUMMARY/INTRODUCTION

This document presents the updated Financial Plan for the California High-Speed Rail Authority's ("HSRA" or the "Authority") proposed California High-Speed Rail Project ("HSR" or "the Project"). This Financial Plan outlines estimates for State, federal, local, and private funding sources.

The State of California has traditionally assumed a leading role in developing passenger rail service in California. On this basis, the financial plan estimates \$9 billion from State funds, available through the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century, which is on the November 2008 ballot.

The Authority is seeking both financial and regulatory support from the federal government as it targets approximately \$12 to \$16 billion in federal support. The Authority plans to leverage private sector support by obtaining federal funding through both existing and new federal programs for high-speed rail.

The Authority is targeting \$2 to \$3 billion in local support through cost sharing with local agencies, revenues from transit-oriented development, commercial concessions at stations, and cooperative funding arrangements with local transportation agencies. Local officials and authorities support transit investment as they recognize its ability to enhance regional systems and economic development objectives.

Based on the powers granted to it in its enabling legislation and assuming more normalized market conditions, the Authority plans to execute innovative public-private partnerships ("P3s") and is targeting \$6.5 to \$7.5 billion in P3 demand. The Authority issued a Request for Expressions of Interest ("RFEI") in the spring of 2008 in which RFEI participants confirmed private sector interest in HSR in addition to the need for public support as a prerequisite for private funding commitment.

Preliminary estimates for the Anaheim to San Francisco segment of the Project total between \$32.7 billion and \$33.6 billion, according to the Authority's construction manager, Parsons Brinckerhoff. The Authority expects early segments and environmental and right-of-way needs will be funded mostly with public funds as private sector involvement will likely increase as the Project moves closer to completion.

The realization of the Project contains risks that will need to be borne by the most appropriate Project stakeholders. The Project faces a series of risks related to construction, ridership, operations and technology, and legal/regulatory. Measures are, however, available to mitigate these risks and the financial team has begun to assess and address them.

The Financial Plan was written by the Financial Plan team, consisting of Infrastructure Management Group of Bethesda, MD, in association with Barclays (formerly Lehman Brothers), Goldman Sachs, and Sperry Capital. Input was received from Authority Staff, the Authority's program manager, Parsons Brinckerhoff, the Authority's independent ridership consultant, Cambridge Systematics, and other members of the Authority's technical consulting team.

2. STATE FUNDING

2.1. INTRODUCTION

The State of California historically has played a major role in the development of passenger rail service in California. Consistent with this role, the financial plan for the San Francisco to Anaheim portion of the California High-Speed Rail Project anticipates \$9 billion in State funds for its development. The source of State support is expected to come from a proposed bond measure, the Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century (the "Bond Act"), which is currently on the statewide ballot for November 2008. The passage of the Bond Act will demonstrate California's financial and political support for the HSR Project, which will be critical in generating necessary financial support from federal, local and private sources.

2.2. PROPOSED BOND MEASURE

The original Bond Act legislation (SB1856) passed in 2002. Since its passage, this legislation has been amended twice, resulting in the currently scheduled date of November 2008 for a vote on the amended Bond Act (AB3034). An additional amendment to the Bond Act has been passed by the State legislature to specify the general criteria that the Authority would use in selecting segments for construction, and to limit the amount of bond proceeds that could be used for planning purposes, among other things. The Administration's "Strategic Growth Plan," as described in its 2008-09-budget summary, includes the High-Speed Rail bonds among its proposed general obligation bonds.

If passed, the Bond Act would authorize the State to issue \$9.95 billion of general obligation bonds, \$9 billion of which would be used to develop the High-Speed Rail Project. The remaining \$950 million raised under the Bond Act would be allocated for capital improvements to commuter and intercity rail lines, which will connect to the High-Speed Rail system once it is built. General obligation bonds, backed by the full faith and credit pledge of the State, are payable from the State's general fund and must be approved by the voters. State tax revenues and any other available funds guarantee the repayment of these bonds. Most of California's general obligation bonds are repaid over a 30-year period.

As specified in the Bond Act, bond proceeds may be used for preliminary engineering, right-of-way acquisition, and the construction of tracks, structures, power systems and stations. Additionally, rolling stock and related equipment, as well as other capital related facilities and equipment could be purchased with these funds. However, use of the proceeds from the bonds is restricted to no more than 50 percent of the costs of each corridor or usable segment. In addition, the Bond Act establishes caps on the amount of funds that can be expended for preliminary engineering and right-of-way acquisition, at no more than 7.5 percent of total bond proceeds.

The Authority's Preliminary Financing Plan issued in May 2007 indicated the \$9 billion in general obligation bonds for the HSR Project could be issued over time without increasing the State of California's debt ratio above 6.5 percent.¹ In 2007, the Governor's Strategic Growth Plan II (which did not include bonds for High-Speed Rail) called for California to have a total of \$100 billion in general obligation debt outstanding by 2016, without exceeding the Administration target of 6.5 percent. It was calculated that a total of \$41 billion in additional general obligation bonds (including those for High-Speed Rail) could be issued along with the Administration's other

¹ This analysis was based on the Administration's estimated schedule of planned State debt issuances at the time of writing, and was consistent with the Administration's guideline for a 6.5 percent maximum ratio of debt service to general fund revenues.

planned issuance without exceeding a debt ratio of 7 percent. More recently, the Administration has added the HSR Project to its latest “Strategic Growth Plan”, further reinforcing the conclusions the Authority had reached previously regarding the State’s debt capacity to support these bonds.

3. FEDERAL FUNDING

3.1. INTRODUCTION

Federal support, both financial and regulatory, is a key component to the success of California’s HSR Project. The financing plan for the San Francisco to Anaheim segment is targeting approximately \$12 to \$16 billion from federal sources. Although a portion of this funding may come from existing federal transportation programs, the creation of new programs designed specifically to advance high-speed rail projects will be necessary to achieve this level of support.

Federal funding sources will likely be drawn upon during the early stages of the HSR Project, as the private sector is likely to invest only after much of the targeted federal funding has been secured. The development of specific federal high-speed train programs or the commitment of federal funds for California’s HSR Project, in particular, are key signals that would encourage private participation in the HSR Project.

Historically, federal funds have supported approximately 50 to 80 percent of many major transportation projects. These include highway, transit, and aviation sector related projects. Although the scale of California’s HSR Project is significantly larger than a typical major transportation project, there is precedent for significant federal support for large transportation projects. Furthermore, California’s congressional delegation currently holds key leadership positions to assist the Project in achieving its federal funding goals.

3.2. EXISTING FEDERAL PROGRAMS AND AVAILABLE FUNDING

Existing federal funding sources and financing mechanisms have the capacity to provide only a portion of the Authority’s projected federal funding support. Over time, existing federal funding sources could provide between \$3 and \$4 billion. These options include new High-Speed Intercity Passenger Rail Grants, Transportation Infrastructure Finance and Innovation Act of 1998 (“TIFIA”), the Railroad Rehabilitation and Improvement Financing Program (“RRIF”), and Private Activity Bonds (“PABs”).

RAIL SAFETY IMPROVEMENT ACT OF 2008 (HR 2095)

President Bush signed HR 2095 into law on October 16, 2008. While the bill primarily authorizes appropriations for Amtrak over the next five years, it also includes language that authorizes \$1.5 billion in grants over five years for high-speed rail corridor development to States or Amtrak to finance the construction and equipment for California and 10 other federally designated high-speed rail corridors under Title 5. The federal share for these projects are capped at 80% with the Secretary of Transportation awarding these grants on a competitive basis based on economic performance, expected ridership, and other factors.

TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT OF 1998 (“TIFIA”)

TIFIA is an established federal credit assistance program for eligible transportation projects of national or regional significance. These include transit and passenger rail facilities, such as the California HSR Project. Under TIFIA, the US Department of Transportation (“DOT”) can provide three forms of credit assistance to eligible applicants, such as the CAHSRA. These means of assistance include secured (or direct) loans, loan guarantees, and standby lines of credit.

The fundamental goal of TIFIA is to leverage federal funds to attract substantial private and other non-federal co-investment into projects that provide critical improvements to U.S. surface transportation. Principal amounts of credit assistance provided by TIFIA are limited to 33 percent of eligible project costs. Additionally, interest rates for TIFIA loans generally reflect the government’s borrowing costs, and the terms of repayment are generally favorable to project sponsors.

RAILROAD REHABILITATION AND IMPROVEMENT FINANCING PROGRAM (“RRIF”)

The RRIF program is a revolving loan and loan guarantee program that is administered by the Federal Railroad Administration (“FRA”). It is legislatively enabled to issue up to \$35 billion in loans. The program originally was established by the Transportation Equity Act for the 21st Century (“TEA-21”), and was amended by the Safe Accountable, Flexible and Efficient Transportation Act: a Legacy for Users (“SAFETEA-LU”).

Funding from RRIF may be used to acquire, improve or rehabilitate inter-modal or rail equipment or facilities, including track, components of track, bridges, yards, buildings, and shops. Funds also may refinance outstanding debt incurred for those purposes listed previously, or may be allocated to develop or establish new intermodal railroad facilities.

Attractive interest rates, similar to those available under TIFIA, also exist under RRIF. This program is able to fund up to 100 percent of a project’s costs, allows for a five-year grace period, and requires the payment of an up-front risk premium.

PRIVATE ACTIVITY BONDS (“PABS”)

Private Activity Bonds are tax-exempt bonds that are issued by the State or local government on behalf of a private entity. Their purpose is to facilitate private investment for projects that generate public benefit. PABs allow for the private sector to borrow at tax-exempt rates resulting in lower overall financing costs. Currently any PABs issued for HSR would be subject to a volume cap of the respective State; however, a new category of exempt facilities was created under SAFETEA-LU that allows projects receiving Title 23 and under certain conditions Title 49 funds, to qualify for the \$15 billion in transportation PABs.² The Secretary of Transportation and the U.S. DOT are responsible for the allocation of these PABs.

PABs are highly attractive to private investors in conjunction with a public-private partnership (“P3”) program that includes equity investment, design-build, and operations involvement and could be used in conjunction with TIFIA/RRIF. For instance PABs were recently used in the financing of the \$1.9 billion Capital Beltway project in Northern Virginia, one of the first variable toll rate congestion pricing projects in the U.S.

² Specifically, the new category includes: 1) any surface transportation project receiving Title 23 funds, 2) a project for an international bridge or tunnel for which an international entity authorized under federal or state law is responsible and which receives Title 23 funds; and 3) facilities for the transfer of freight from truck to rail or rail to truck which receives federal assistance under Title 23 or Title 49. Title 23 and 49 are U.S. Code governing federal funding for highways and transportation.

3.3. NEW FEDERAL LEGISLATION

New funding sources specifically for high-speed rail, along with the expansion of existing transit programs, will need to be created in order to provide adequate support for the HSR Project. HSR proponents argue that a focus on investing in America's overall transportation system, as opposed to individual modal investments, would encourage more efficient allocation of transportation dollars and likely increase the proportion of funding provided for rail projects.

RAIL INFRASTRUCTURE DEVELOPMENT EXPANSION ACT FOR THE 21ST CENTURY (HR 6004)

HR 6004 was introduced on May 8, 2008, and would provide mechanisms for financing projects that make a substantial contribution to provide the infrastructure required to complete a corridor for high-speed intercity rail passenger service.

The bill would provide \$1.2 billion per year in tax credit bonding authority. Bond proceeds could be used for equipment, infrastructure, stations and facilities, and grade crossing elimination. Only projects that have completed preliminary engineering and a full environmental process would be eligible. In addition, this act would authorize States or interstate compacts to issue federally-subsidized bonds to finance high-speed passenger rail infrastructure improvements. Specifically, it would allow the issuance of \$1.2 billion in federal tax-credit bonds and \$1.2 billion in federal, tax-exempt Private Activity Bonds over 10 years.

3.4. CHANGES NEED TO EXISTING PROGRAMS AND NEW LEGISLATION

Expansion of existing federal funding programs, as well as significant new initiatives, will be required to support California's HSR Project at the levels assumed in this financing plan. Modification of existing federal funding terms and restrictions also would make the HSR Project more attractive to private investors, thereby facilitating achievement of the targeted private sector funding levels, as well.

RE-AUTHORIZATION OF SAFE ACCOUNTABLE, FLEXIBLE AND EFFICIENT TRANSPORTATION ACT: A LEGACY FOR USERS

SAFETEA-LU addresses many of the challenges that face today's transportation system, including improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing inter-modal connectivity, and protecting the environment, as well as laying the groundwork for addressing future challenges. It promotes more efficient and effective federal surface transportation programs by focusing on transportation issues of national significance, while giving state and local transportation decision makers more flexibility for solving transportation problems in their communities.

The reauthorization of this legislation sets key transportation funding priorities. Currently, it is set to expire in September 2009. Reauthorization is expected to take place over the next several months. This reauthorization process is seen as a vehicle for modifications to existing programs that could support HSR. Specific modifications that would benefit HSR include:

- Extend terms for TIFIA and RRIF debt to more closely match the useful lives of the infrastructure being built;
- Reduce or modify the RRIF premium;
- Allow the use of existing grant programs, such as New Starts or the Hazard Elimination Program, for the HSR in areas where it would be eligible.

- Explicitly enable HSR projects to use the \$15 billion in PABs authorized under SAFETEA-LU for transportation projects.

NEW LEGISLATION

While legislation introduced to date addresses many of the needs for the HSR system, the two key financing mechanisms proposed, tax-credit bonds and expanded uses for PABs, have not yet passed. Furthermore, for high-speed rail to develop in the United States, more support than is currently provided and envisioned through tax-credit bonds or PABs is needed. These are useful tools that should form a part of the development of any high-speed rail program. The grant program that was recently established in the Rail Safety Improvement Act of 2008 is a critical step forward in funding high-speed rail and current authorization of \$1.5 billion over five years is expected to be a part of the financial support package provided by the federal government.

4. LOCAL SUPPORT

4.1. INTRODUCTION

The Authority's Financing Plan for the San Francisco to Anaheim segment is targeting \$2 to \$3 billion in local financial support, based on discussions with the Authority's technical team about potential overlapping infrastructure needs, and a broad overview of local revenue authority and local borrowing capacity in the counties along the Project's proposed routes.

Local financial support can include the following approaches: 1) cost sharing with local agencies; 2) locally-generated revenues from transit-oriented development; 3) commercial concessions at high-speed rail stations; and 4) cooperative funding arrangements with local transportation agencies.

Local officials and transportation authorities have generally supported increased financial support for transit. They recognize the ability to enhance local and regional transit systems and sustainable economic development objectives through integration with high-speed rail. Although many local officials have expressed support for high-speed rail, they have not publicly stated the level of local contributions that they ultimately could commit to the Project. These officials await the resolution of several outstanding issues prior to committing funds to the Project. Among these outstanding issues are:

- Settling of the final routes, station locations, timing, phasing, and operational and service plans for the Project.
- Status of the State's funding from the Bond Act (which will be resolved soon, with Proposition 1A on the November 2008 ballot). This uncertainty extends to the future allocation of the portion of State bond funds to be allocated to local rail projects, as well as the planned federal and private sector dollars.

Competing requests for limited local and regional transportation funds make it difficult for locals to set funding priorities at this time, especially given the locals' needs to retain contingencies for potential cost increases for existing local projects. The Team expects that as the Project timeline, requirements, and other funding are refined, local funding commitments will be made. As discussed below, cost sharing with local agencies and locally generated revenues from transit-oriented development will be negotiated over time.

4.2. COST SHARING WITH LOCAL AGENCIES

The HSRA has engaged in discussions with transportation authorities throughout the State and identified a number of projects where costs might be shared between the HSRA and local agencies. To date, the HSRA has focused on those projects that would benefit commuter rail service in addition to high-speed rail. The San Francisco to San Jose and Los Angeles to Anaheim corridors are two examples where the HSRA believes significant cost sharing opportunities may exist.

4.3. LOCALLY GENERATED REVENUES FROM TRANSIT-ORIENTED DEVELOPMENT

Transit-Oriented Development (“TOD”) is an important tool for the realization of local revenues from real estate appreciation along the California HSR routes. The Preliminary Financing Plan presumes that the HSRA would work closely with each local agency to explore and adopt TOD agreements. As past experience has shown, TODs must be carefully crafted to local conditions.

TOD agreements with private real estate developers are complicated and challenging documents. However, the implementation of publicly-established benefit assessment districts and the Mello Roos districts adjacent or near a transit or rail facility are alternative ways to raise development-related revenues that can be financed. However, the formation of benefit assessment districts and Mello Roos districts require local approval, and cannot be implemented by the HSRA directly. In addition, a benefit assessment district or Mello Roos district must be a relatively large geographic area in order to provide a significant contribution to the Project’s capital costs from any given local bond issue or program. Furthermore, as these types of financing vehicles are real estate development driven, ratings agencies and investors may view them as speculative, thereby limiting the amount of up-front bond funding that can be generated for early-stage development of high-speed rail.

4.4. COMMERCIAL CONCESSIONS AT CHSR STATIONS

Commercial concessions at stations are important tools to realize additional locally-generated revenues. These concessions include retail stores, advertising, parking, and other commercial revenues. The Preliminary Financing Plan presumes that the HSRA would work closely with relevant local agencies to explore and adopt station commercial concessions before stations are built. These types of revenues and related agreements may be viewed by the market as speculative, thereby limiting the amount of up-front funding that can be generated for early-stage development of high-speed rail.

4.5. COOPERATIVE FUNDING ARRANGEMENTS WITH LOCAL TRANSPORTATION AUTHORITIES

California law allows “self-help” counties to elect to dedicate an increase in local sales tax for local transportation projects. The current and future self-help county sales tax revenue streams can be used on a “pay as you go” basis or can be pledged as a source of payment for sales tax revenue bonds. California self-help counties have collectively issued billions of dollars of sales tax revenue bonds.

Twenty California counties have passed sales tax measures for transportation for specific time periods ranging for 10 years to 30 years. Los Angeles County has a permanent 1% sales tax increment dedicated towards transportation projects. In addition, Los Angeles County has an

additional 0.50% sales tax for transportation on the November 2008 ballot. The self-help counties have specific expenditure plans about how the sales tax revenues must be spent, which must be consistent with the measures approved by local voters.

Each self-help county expenditure plan is different and reflects local transportation policy and goals. The self-help counties along the high-speed rail alignment may have the ability to pledge a portion of their sales tax for Project capital costs. Once the status of State funding is clear, the HSRA can begin negotiating with the relevant local transportation authorities to explore their interest in providing financial support in order to facilitate or expedite implementation of the Project in their respective regions.

The HSRA already has worked closely with several local transportation authorities on joint development challenges. For example, the Orange County Transportation Authority (“OCTA”) signed a memorandum of understanding with the HSRA in 2007 that calls for OCTA to contribute \$7 million towards development costs for High-Speed Rail in Orange County between Anaheim and the Los Angeles county line.

OCTA is committed to dramatically increasing transit options in Orange County. OCTA already uses Measure M sales tax revenues to fund transit projects throughout the county. In November 2006, Orange County residents voted to extend Measure M until 2046. Although OCTA has covenanted to spend some of its Measure M sales tax revenues on specified freeway projects, OCTA also has a wide degree of flexibility in spending remaining Measure M sales tax revenues on transit projects, including rail. Additionally, OCTA and the City of Anaheim have formed a joint powers authority, the Anaheim Regional Transportation Intermodal Center (“ARTIC”) that is pursuing a public-private partnership for development of an intermodal transportation center that can accommodate freeway, bus, Metrolink, Amtrak, and high-speed rail access.

5. PRIVATE FUNDING / PUBLIC-PRIVATE PARTNERSHIPS

5.1. INTRODUCTION

Under normalized market conditions, private funding through public-private partnership arrangements is an increasingly accepted method to support the development of infrastructure projects. Based on this premise, the Authority’s Financial Plan is targeting \$6.5 to \$7.5 billion in P3 demand sources for the San Francisco to Anaheim segment. Based on this plan, the Authority issued a Request for Expressions of Interest in the spring of 2008 as an effort to gauge private sector interest in participating in a P3 arrangement for the HSR Project. Results of the RFEI have shown that private sector interest is strong and diverse; however, public support, both financial and political, is needed to generate private funding commitments.

5.2. BACKGROUND ON PRIVATE INVESTMENT IN INFRASTRUCTURE

Historically, major transportation infrastructure projects in the United States have been funded primarily with federal funds (as much as 80 percent), with State funding comprising the remaining share. This paradigm is based substantially on the construction of the interstate highway system in the 1950s. Since that time, the increasing cost of public works projects has not been matched by the public funds available to pay for them. For example, federal shares of major infrastructure projects have decreased to approximately 30 percent for some programs, and States have had to make tough decisions to prioritize the expenditure of their funds. Increasingly, U.S. project

sponsors have followed international trends and are turning to private funding sources to develop certain projects.

This trend has been intensified by the active interest of private investors, partially driven by pension funds, in the infrastructure sector. These investors have been attracted to long-term assets with stable cash flows. These tend to be 'brownfield' or developed projects with a revenue history. In the U.S., toll roads have been the major focus. Some key examples of private investment in toll roads are the long-term lease of the Chicago Skyway and the Comprehensive Development Agreement ("CDA") toll roads in Texas. However, the assets of private equity funds interested in infrastructure investment far exceed the value of stable, brownfield investments available, which has encouraged these firms to invest in non-toll road infrastructure. In addition, given the large capital expenditures contemplated in many infrastructure projects, engineering and equipment firms have been willing to invest in projects in order to participate in project-related contracts.

The level and timing of private participation is dependent on the perceived risks associated with private investment. The main risks associated with the HSR Project are environmental, regulatory, legislative, construction, technological, ridership and operational³. In order for a P3 arrangement to be successful, these risks need to be shared between the public and private sectors. In general, a risk should be assigned to the party with the best ability to manage that specific risk. The private sector will expect to be compensated for any risks that it assumes. Therefore, the more risk that the public sector chooses to address, the higher the level of up-front private investment that can be attracted to a given project. In some cases, for example, with environmental and regulatory risks, the public sector may need to significantly mitigate the risk before the private sector will invest.

5.3. PRELIMINARY FINANCING PLAN

The Authority's Financing Plan for the San Francisco to Anaheim segment targets \$6.5 to \$7.5 billion in private sector participation. This projection is based on estimated construction and operating costs, independent ridership and revenue projections, and other available funding sources. This Financing Plan assumes normalized long run market conditions and discusses several different methods through which such investment could be obtained. In addition, a basic discussion of investment risk and timing is included.

The targeted \$6.5 to \$7.5 billion level of private sector investment is based largely on the amount of project-based debt (\$4.5 to \$5.5 billion) the Authority believes could be supported based on future revenues. These estimated revenues were based on independent ridership forecasts available in May of 2007 and capital market conditions at that time. While capital markets have tightened since the initial projections, changes in certain variables, including increased gas prices, have resulted in higher projected ridership. P3 concessions would also benefit from depreciation tax treatment, which could also have a substantial impact on valuations.

In addition to considering private investment in exchange for future project revenues, the Preliminary Financing Plan also discusses other mechanisms for private participation that would support the Project. Vendor financing is a key mechanism to consider given the equipment needs of the HSR Project. Such a mechanism would reduce the amount of up front borrowing required and could reduce the cost of financing. Depending on the tax regulations applicable to the equipment owner, additional pricing benefits in the range of \$0.5 to \$1.0 billion could accrue to the Authority through the vendor's capture of depreciation benefits. This technique would reduce construction costs through a small subsidy that export credit agencies could provide as part of vendor financing. Overall this technique would allow for more substantive private participation

³ A discussion of how these risks could be mitigated is included in Section 7 of this report.

earlier in the development of the system and it would allow the Authority to achieve a higher level of risk transfer.

Likely Risk Profiles for Investment in High Speed Rail				
Participant	Environmental	Construction	Ridership	Operational
Construction Firm	No	Yes	No	No
Vendor	No	No	Some	No
Operator	No	No	Some	Some
Equity Investor	No	Limited	Some	Some

Design-build contracting and other project delivery mechanisms also are discussed as vehicles that would allow the Authority to transfer significant design, construction and technical risk to the private sector entities best in the position to manage these risks. Although this may not generate up-front investment, these mechanisms can significantly reduce or eliminate the risk associated with increases in costs during construction or equipment development. Including operations and/or maintenance in a design-build contract (i.e., design-build-operate-maintain arrangements) also would allow for the transfer of operational risks associated with the Project. If payment is based on performance or tied to operating revenues, such contracts provide considerable incentive for the private sector to run the facility as efficiently as possible. Private sector firms tend to be most willing to accept risk in those areas where they hold the most experience, leading such arrangements to require a multi-party private sector consortium, in most cases.

5.4. RFEI PROCESS AND RESULTS

In March 2008, the Authority issued a Request for Expressions of Interest (“RFEI”). The intent of the RFEI was to gain a better understanding of how the Project could benefit from private sector participation and to gauge the level of private interest in the Project. Responses were received from 30 private firms, including construction firms, system and equipment providers, financial institutions, and operators. These respondents included major firms in each of these categories, providing a good sample from which to draw initial conclusions about private sector experience and preferences for involvement⁴. Their responses supported the Preliminary Financing Plan’s assumption of private sector interest in a P3 arrangement for the HSR Project.

Respondents to the RFEI were interested in participating through a variety of mechanisms, many of which would require integration of project components outside of their individual area(s) of expertise. Many respondents expressed concern about integration among the various project components and indicated that a design-build-finance-operate-maintain (“DBFOM”) or a design-build-operate-maintain (DBOM”) approach could resolve these issues. Given the size of the Project, multiple project delivery mechanisms likely will be necessary, particularly for civil works contracts.

Respondents also discussed factors that would influence the level of private investment and participation. This discussion indicated that private investment and participation is highly dependent on the amount of risk to be transferred to the private sector entity. The most important factor was the level of commitment from public funding sources. Without strong State and federal support, many participants indicated they would not participate. Another critical factor was the need for a public policy mandate for the Project and clear P3 legal authorization. These policy, legislative and State funding risks largely will be addressed if the Bond Act passes in November

⁴ For a more in-depth discussion of RFEI results, please see the 2008 RFEI Report.

2008. In addition to the mitigation of these risks, respondents indicated that all environmental risk and right-of-way acquisition must be handled by the public sector.

Once the above factors have been addressed, the specific risks associated with individual contracts will become critical. There are a variety of issues with contracts including, among others, performance guarantees and the timing and source of repayment. Specific concerns centered on the extent to which private investment is to be repaid through ridership revenues. Respondents perceive a high level of risk in such repayment due to the “greenfield” nature of the Project and the lack of comparable modes of transport in the United States. While respondents indicated that some ridership risk is acceptable, due to a private party’s expected role in increasing revenues, there is limited appetite for investment that would be repaid largely through ridership revenues without any type of revenue guarantee or availability payments from the project sponsor at this time. Investors’ willingness to take on greater amount of ridership risk will increase as initial segments are completed and ridership meets are exceeds those projections.

The Authority recognizes that there are a number of issues that remain to be resolved before the exact role and extent of private sector participation can be determined. However, such challenges are to be expected with a project of this size, complexity, risk profile, and duration of development. For example, there will be risk and reward trade-offs, and various phasing and funding timing requirements, to consider before contracts for any given portion of the Project are undertaken. As further information about specific Project segments is developed, the Authority will focus on designing P3 contract opportunities that achieve its goals and are attractive investments for the private sector.

6. TIMING AND PHASING OF FUNDS

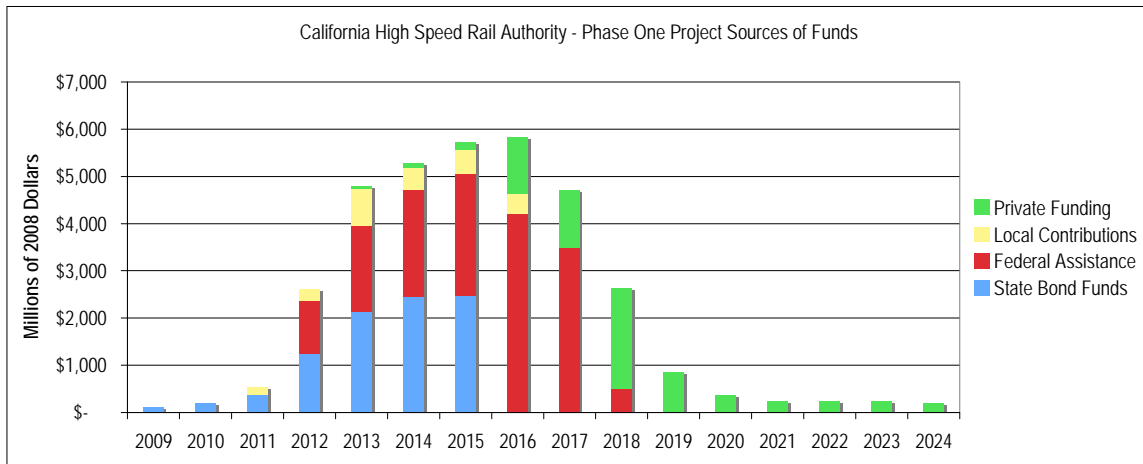
6.1. INTRODUCTION

The Financial Plan team, in conjunction with the Authority’s engineering consultants has developed estimated sources and uses for the San Francisco to Anaheim project totaling approximately \$33.6 billion (in 2008 dollars). The HSRA expects to fund the \$33.6 billion in total cost through targets of \$12 to \$16 billion in federal grants, \$9 billion in State funds, \$6.5 to \$7.5 billion from public-private partnerships, and \$2 to \$3 billion in local funding assistance and cost sharing.

6.2. TIMING AND STAGING OF INVESTMENT FOR THE SAN FRANCISCO TO ANAHEIM SEGMENT

The Authority’s Financial Plan expects initial environmental studies and right of way acquisition for the HSR Project to be funded with public dollars from federal, State, and local sources. Initial smaller segments, most likely within metropolitan areas, would also be paid for largely with public dollars, although the HSRA will leverage opportunities for private participation early in the Project through design-build contracts and other mechanisms. Over time, as the Project draws nearer to completion, and links are completed between the State’s major metropolitan areas, private sector participation will increase as private participants gain more certainty over the Project’s construction as well as its ability to meet ridership forecasts. Although it may be feasible to achieve a partial ridership risk transfer early in the Project, it is probable that a firm or consortia accepting substantial compensation based on future operating surpluses will invest in the middle to later term of Project’s construction period, possibly taking responsibility for completing the final segment of the system.

Several respondents to the Authority’s Request for Expressions of Interest⁵ indicated that although they were willing to accept payment based on future operating revenues, they would be more likely to do so later in the High-Speed Rail’s development. According to RFEI respondents, a proving period, during which ridership is proven early in the Project’s development, may also serve to encourage private participants to accept a greater percentage of payment based on future revenues. As a result, it will be important to secure the federal government as a partner early in the development process to provide funds to be coupled with State and local monies and fund early construction.



6.3. FINANCING OTHER SEGMENTS

The Financial Plan team expects the extensions to San Diego and Sacramento to be financed with a similar mix of federal, State, local, and private monies. However, because the extensions will take place later in the construction period, and investors will have more certainty about the construction and operations of the Project, the team anticipates that public-private partnerships would account for a greater share in funding extensions, with less reliance on public money from federal, State, and local sources.

7. PROJECT RISKS / MITIGATION

7.1. INTRODUCTION

A project as large and complex as California’s High-Speed Rail will convey a number of risks to both the project sponsor and other project participants. This section of the business plan will address a number of key risks that are associated with the Project and the measures that are available to mitigate them.

⁵ Please see the Authority’s Request for Expressions of Interest Report for an in-depth discussion.

7.2. CONSTRUCTION RISK

Construction risk is associated with delays in construction and/or increases in construction costs for the HSR Project. There are a number of steps that the HSRA can take to limit the State's exposure to future construction cost increases, which focus on transferring this risk to a private partner through innovative contracting methods, like design-build. These contracting methods should ensure on-time delivery at a high level of performance by contractors by subjecting a large amount of their compensation to meeting performance standards; cost overruns and delays in completion would be subject to significant penalties. Design-build contracts have been very effective delivering projects on-time and on-budget. In the event that design-build contracting is not used for a particular segment, the Authority could use more traditional performance bonding to create incentives for its contractors to fulfill their contract obligations. If such obligations are not fulfilled, then the Authority could seek payment for damages under the performance bond.

The above measures address construction risk once the procurement and contracting process is undertaken. Before this time, there is no other party to which the Authority can transfer construction risk, such as the risk that materials prices will increase, or that, as design work progresses, sections of the Project may be more complicated than originally anticipated. To manage this risk, the Authority must take two separate steps. The first will be to work closely with its engineering team to keep the Project on budget through efficient design and value engineering where appropriate. Secondly, the Authority must factor appropriate contingencies into its cost estimates to ensure that sufficient resources are available in the event that projected costs do increase. Such contingencies have been included in all cost estimates to date, and will continue to be incorporated until the Authority has price certainty on sections of the Project.

7.3. TECHNOLOGY AND OPERATIONS RISK

Technology and operations risks are those associated with the high-speed rail technology and future system operations. Due to the size of the HSR Project, it is possible that private participation will be split amongst several companies or consortia. Because of this, there is the potential for integration issues to arise, between the various pieces of operating and communications equipment necessary for high-speed rail.

The Authority can work to mitigate this risk by entering into contracts and providing incentives that encourage Project participants to achieve seamless integration. For example, the Authority could choose to contract with one firm or consortia responsible for the system's operations, or work to provide incentives for participants to share in the long-term success of the system. The Authority will also choose the technology for California's system from existing technology that is applied successfully internationally, and provide for a testing period before system opening.

Operations risk deals more specifically with the performance of the future system operator. In order to have certainty that its operator will perform to the highest standards, the Authority will select a system operator with extensive experience in high-speed rail or related transportation modes. The Authority will also require its operators to provide security for the Project (through performance bonding or similar methods), in the event that it needs to seek damages for non-performance. Lastly, any concession or operating agreement will contain rigorous standards that, if not met, will result in penalties or the Authority's right to transfer operations to another, more qualified operator.

7.4. LEGISLATIVE RISK

Legislative risk is the risk that future action taken by federal or State lawmakers could restrict or delay necessary funding for the HSR Project. In order to mitigate this risk, the HSRA staff has been and will continue to communicate fully with the Authority's Board and respective legislature committees regarding the Project's objectives and the support needed from lawmakers. The HSRA will work diligently to comply with the requirements of AB3034 and any other legislation passed by State or federal lawmakers affecting the Project.

A key step that can be taken to mitigate the impacts of future legislative action is to protect and clarify the powers, granted to the Authority in its enabling legislation, to enter into public-private partnerships for the construction and operation of the HSR system. The clearer the ability of the HSRA to procure and select private partners, as well as negotiate and enter into contracts and commit to the full range of activities needed for completion and operation of the system, the lower will be the perceived risk of the HSR by the private sector. Lower perceived risk by private participants will serve to increase the quantity and quality of bids received in a procurement process, resulting in a better value to the Authority.

Having a transparent streamlined process for the disbursement of State bond proceeds also will be an important step to securing competitive bids for any private sector participation. Private participants that expect even a portion of their payment from State bond funds must have confidence that any allocation and disbursement process will not delay or reduce payment for services or they will increase their bids to compensate for this additional risk.

Federal legislative efforts are also important to ensure that projected federal funding will be available as expected. The HSRA will need to work closely with State and federal lawmakers in the coming years in order to secure the level of federal participation necessary. The best way for the Authority to limit its risk of not obtaining adequate federal funding is to develop a federal strategy that targets both existing federal programs as well as opportunities for new legislation that are best for California as well as the federal government. In addition, construction of any given segment will be commenced only when the targeted federal funding has been committed, and both parties have agreed upon a timely schedule for draws on those funds. Please see section 3 for a detailed description of targeted opportunities for federal participation.

7.5. RIDERSHIP RISK

Ridership risk is the risk of projected ridership and revenues of California's HSR falling short of current projections. As currently envisioned, private funding is expected in the amount of \$6.5 to \$7.5 billion, backed largely by the HSR's projected operating surplus. If ridership or revenues were to be lower than forecast, the Project could suffer from constrained private funding.

Although there is no one policy to mitigate the risk associated with future system ridership, there are steps that the HSRA can take lower the future risk. The Authority could limit future ridership risk to the State through partial transfer of this risk to the private sector via an innovative public-private partnership. The Authority's Request for Expressions of Interest process in the spring of 2008 confirmed that there is substantial private sector interest in California's HSR Project. RFEI participants confirmed that they would be willing to accept a portion of their payment for services subject to ridership risk.

The HSRA and the State also can also mitigate future ridership risk by promoting policies that encourage high-speed rail ridership. This can be achieved through well-placed stations in large urban centers, with adequate connections to the California's transit, air, and road networks. The State also can work to market the high-speed train system to prospective future riders. The

private partner responsible for system operations also may carry out this marketing, particularly if a portion of the private partner's payment is dependent on ridership. Lastly, the State should adopt a future transportation plan that encourages high-speed rail as a viable alternative to intrastate travel on air and interstate highways.

In order to entice private sector participants to take a greater share of ridership risk, the State could guarantee a minimum level of revenue to any private partner.

7.6. COMPLETION RISK

Due to the Project's size and the duration of the expected construction period, full funding for the HSR Project is not expected to be available when the Project commences. This risk could arise if full funding for the HSR does not materialize, even after State, federal, and local monies have been spent to begin construction, resulting in an incomplete system. This risk applies to both federal, and especially private funds, as these are anticipated later in the construction period. Private funds may not materialize for several reasons including lower than expected ridership, delays in the development of the HSR Project or a downturn in financial markets.

The implications of a partial system could include an ongoing operating subsidy or a lack of connectivity between some city pairs, and lower resulting ridership and revenues, possibly creating operating deficits that would require governmental subsidies to maintain operations.

In order to mitigate this risk, the Authority will develop a phasing plan that promotes maximum utility throughout the construction period. Smaller segments in and around the Los Angeles Basin and the Bay Area would provide immediate benefit to commuters in those regions. At that stage, if further funding were not to materialize, California would be left with improved commuter rail service and no required operating subsidy beyond what is currently provided to local entities. Following these initial segments, segments linking the Central Valley with a major metropolitan area would provide an immediate benefit to communities underserved by current air or rail networks. In many cases, such segments are projected to be "self supporting" over time, and not require an ongoing operating subsidy.

An additional mitigating factor in the event that private funding does not materialize at the level currently anticipated is that the Authority will have system revenues upon which it can draw. Once ridership has been proven through partial system operations, it is likely that the Authority could leverage the system's projected operating surplus, by issuing its own tax-exempt revenue bonds, and use the bond proceeds for additional system segments. This approach would slow the completion of the system, as each expansion would have to be delayed until surplus revenues were available from prior segments. However, it remains a viable alternative approach if private sector investment through P3 arrangements is not available on a timely basis or under acceptable terms.