

Joint Hearing

Transportation and Housing Committee and Select Committee on High-Speed Rail

Hearing on the Review of the High-Speed Rail Authority's Draft 2012 Business Plan Committee Background Report

December 5, 2011

I. Introduction

In December, 2007, the Senate Transportation and Housing Committee held the first oversight hearing of the High-Speed Rail Authority (HSRA). Since then, the Transportation and Housing Committee, the Select Committee on High-Speed Rail, and the Budget Committee Subcommittee on Transportation and Resources has held at least twelve hearings on the high-speed rail (HSR) project.

Today's hearing focuses on the draft *California High-Speed Rail Program Draft 2012 Business Plan*. This is the third business plan. The HSRA published previous plans in 2008 and in 2010. Some criticized the previous plans because they were promotional in nature, did not provide a coherent HSR deployment strategy, did not use reliable ridership forecast to determine revenue, relied extensively on public funding from the state, local, and the federal governments, were dismissive of developing strategies to shift the project's various risks from the state to a private co-development partner, and were opaque as to how the HSRA reached the plan's conclusions.

The draft 2012 Plan is an improvement over previously published plans. The HSRA is proposing a well-defined development strategy. The assumptions used to reach conclusions regarding funding, cost, and deliverability are clearly articulated. There remains, however, issues related to ridership, the role of the private sector, the reasonableness of funding scenarios, and the state's exposure to risk.

This background report will discuss the business plan's proposed deployment strategy, ridership issues, and funding challenges.

Before discussing specific issues involving the business plan, it is useful to review the role of another document recently submitted by the HSRA called the funding plan. This review is important because the funding plan is derived directly from the business plan and will be a

source of information as the Legislature looks to appropriate funding for constructing the first section of the project.

II. Funding Plan

The HSRA must prepare and submit a funding plan to the relevant committees of both houses of the Legislature, the Director of Finance, and a special peer review committee of transportation experts ninety days prior to requesting an appropriation of bond revenues to be used for constructing high-speed rail facilities on either a corridor or a “usable segment” of a corridor. State law requires the funding plan to “include, identify, or certify”, the following:

1. The specific corridor or usable segment in which the bond revenues will be spent.
2. A description of the expected terms and conditions associated with “any lease agreement or franchise agreement” that the HSRA proposes to enter for the construction or operation of HSR service.
3. The full cost of constructing the corridor or usable segment, including cost escalation.
4. The projected ridership and an estimate of operating revenue based on projected train operations.
5. All known or foreseeable risks associated with the construction and operation of high-speed trains and the actions the HSRA proposes to manage the risks.
6. The corridor or usable segment can be completed as HSRA proposes in the plan.
7. The corridor or usable segment will be suitable and ready for high-speed train operations.
8. One or more passenger service providers can begin using the tracks or stations for passenger train service.
9. The planned passenger service in the corridor or the usable segment will not require a local, state, or federal operating subsidy.
10. The HSRA has completed all necessary project level environmental clearances required to proceed to construction.

The business plan provides the basis for judging whether the funding plan has met the above criteria.

III. Overview of the HSR Deployment Strategy

Proposition 1A establishes two phases for the development of HSR. The first phase is from San Francisco to Anaheim and includes San Jose, Fresno, Bakersfield, and Los Angeles Union Station. The second phase is an extension from Los Angeles to San Diego via the Inland Empire and a northern extension from Merced to Sacramento. The 2008 business plan stated that the

The initial construction section, a 130-mile segment from near Bakersfield to near Fresno, would cost approximately \$6 billion in year of construction dollars. (See Exhibit 2) Approximately \$2.7 billion will come from the \$9 billion of Proposition 1A bond revenue and approximately \$3.3 billion will come from ARRA and other federal sources. This Legislature will likely be asked to appropriate this funding in the 2012-12 budget. This segment will not be electrified and no high-speed passenger rail service is expected to operate on the line until there is sufficient funding to construct section two.

Source: High Speed Rail Authority

Exhibit 1

Description of Phased Sections

Section	Length	Endpoints	Service Description
Initial Construction Section	130 miles	Fresno-Bakersfield	Provides track and structures to support system spine.
IOS-North	290 miles	Bakersfield to Merced and San Jose	Supports 220 mph HSR service; includes trains and systems. Ridership and revenues sufficient to attract private participation. Connects with regional/local rail for blended operations.
IOS-South	300 miles	Merced to the San Fernando Valley	Supports 220 mph HSR service; includes trains and systems. Ridership and revenues sufficient to attract private participation. Connects with regional/local rail for blended operations.
Bay to Basin	410 miles	San Jose and Merced to the San Fernando Valley	First HSR service to connect the San Francisco Bay area with the Los Angeles Basin.
Phase 1 Blended	520 miles	San Francisco to Los Angeles/Anaheim	Builds on Bay to Basin with blended operations with existing commuter/intercity rail, and additional improvements for a one-seat ride, connecting downtown San Francisco and Los Angeles/Anaheim. Caltrain corridor electrified for HSR, and new dedicated lines into Los Angeles and Anaheim.
Full Phase 1	520 miles	San Francisco to Los Angeles/Anaheim	Continues dedicated high-speed alignment in full from San Jose to San Francisco and into Los Angeles/Anaheim.

The business plan proposes to allow Amtrak to operate its San Joaquin service on this line until high-speed service is initiated. Currently, Amtrak service in the San Joaquin Valley operates on the Burlington Northern Santa Fe Company (BNSF railroad line). In 2010, approximately one million persons rode the Amtrak service between Bakersfield and Emeryville. There are three stations—Corcoran, Hanford, and Wasco—between Bakersfield and Fresno, the construction of which the state partially funded. The section between Bakersfield and Fresno is the most popular segment of the line. The funding agreement between the HSRA and the federal government creates a \$108 million reserve for constructing connections between the BNSF lines and the HSR line which would allow Amtrak to use the new tracks. In addition, HSRA would use some of the funds to build temporary stations, as some of the existing stations would be closed.

It is unclear when Amtrak would begin use of the high-speed tracks because the business plan does not discuss specifics relating to the shift, such as the implications to Amtrak ridership, operating costs of shifting trains to the HSRA's tracks, and potential impacts to the physical environment of building the connecting tracks.

Source: High-Speed Rail Authority

Exhibit 2

Initial Construction Segment



Section 2: Initial Operating Sections

Cost: IOS North: \$24.7 Billion
IOS South: \$30.7 Billion

The plan proposes options for the first initial operating section (IOS). The IOS North option will lead to the operation of high-speed rail service from Bakersfield via Fresno and Merced to San Jose. The IOS South will result in service from Merced via Fresno and Bakersfield to the San Fernando Valley. The initial construction segment, described above in Section 1, is common to either IOS. The construction on one of the IOSs is scheduled to begin in 2015 and be completed in 2022. The only funding source that currently exists for the IOSs is the remaining Proposition 1A bond proceeds after the construction of the initial construction segment. The business plan assumes that there will be funding for the project from the federal government, although no actual sources currently exist to fund high-speed rail.

The business plan proposes that service on the first IOS will be provided by an operator under contract to the HSRA. Although the HSRA assumes that the revenue from the ridership on the IOS will cover its operating costs from fare revenues and no state subsidy will be required, the business plan indicates that there will be a four year ramp-up period during which operating revenues will be insufficient to cover cost. There is no discussion where the revenue necessary to cover the operating costs will come from during the ramp-up. Finally, the HSRA assumes that a private operator/investor consortium will develop the remaining section of the Phase I project once the IOS demonstrates strong ridership and revenue generation.

Section 3: Bay to Basin
Cost: \$24 Billion

“Bay to Basin” construction phase is essentially the completion of the IOS section option that was not built between 2015 and 2022. This would create high-speed rail service between San Jose and the San Fernando Valley. This service will require a transfer to either Caltrain in the north or to Metrolink in the south to complete travel between San Francisco and Los Angeles. The HSRA expects to begin construction on this portion of the project in 2021 and private capital and will be made available beginning in 2023.

Section 4: Phase 1 Blended
Cost: \$23.9 billion

The next phase of project development extends the high-speed rail service from San Jose to 4th and King Streets in San Francisco using the Caltrain tracks and right-of-way, and from the San Fernando Valley to Los Angeles Union Station and Anaheim using the Metrolink facilities. This service removes the transfer and provides a one-seat trip between northern and southern California. Construction on this phase is expected to begin in 2026.

Section 5: Full Phase I
Cost: \$19.9 billion

This completes the Phase I project as defined by Proposition 1A, San Francisco Transbay Terminal to Los Angeles Union Station and Anaheim.

IV. Issues

There are at least two issues that need further elaboration or clarification pertaining to the development of the HSR project.

1. Ridership Model

The issue of the adequacy and reliability of the model used to forecast ridership has been a concern of the Senate committees since the beginning of the oversight effort. Although the ridership forecasts are not perfect, they should be sufficiently reliable so that informed decisions can be made regarding the viability of a high-speed rail investment. Because models are statistical abstractions of future travel behavior, several assumptions must be made when creating the model such as the cost of travel, traveller preferences, personal income, the attractiveness of a destination, desirability of alternative transportation modes, and many other factors.

In 2010, the Transportation and Housing Committee asked the Institute of Transportation Studies (ITS) at UC Berkeley to review the methodology used in the HSRA model. ITS found several errors in the model and concluded that it was unclear whether or not the service will “achieve healthy profits and the possibility that it may incur significant revenue shortfalls.”¹

The committee staff understands that the HSRA’s modeling team and its modeling peer review group have been addressing ITS’s and others concerns. The peer review group has also consulted with the ITS group. There remains the need for additional data to understand better travel behavior and a need to reconstruct parts of the model. The HSRA has commissioned a revamping of the model to improve its reliability in the future. The HSRA, however, believes the model is adequate for business planning purposes at this time.

The technical memorandum prepared by the HSRA’s modeling consultants that describes various model updates, enhancements, and assumptions closes with the following disclaimer:

“The information and results presented in this memorandum are estimates and projections that involve subjective judgments, and may differ materially from the actual future ridership and revenue. ***This memorandum is not intended nor shall it be construed to constitute a guarantee, promise, or representation of any particular outcome(s) or result(s).*** Further, the material presented in this memorandum is provided for solely purposes of the Authority’s business planning and should not be used for any other purpose.”² (Highlighting added)

¹ Review of the “Bay Area/California High-Speed Rail Ridership and Revenue Forecasting Study” Research Report UCB-IS_RR-2010-1, Institute of Transportation Studies, UC Berkeley, 2010.

² Draft Technical Memorandum, California High-Speed Rail 2012 Business Plan, Ridership and Revenue Forecasting, prepared by Parsons Brinckerhoff and Cambridge Systematics, October 19, 2011, page 6-9.

This is a forthright presentation of the limits of the model. Despite these limitations, the business plan makes a clear representation that the IOS, whether the northern or southern section, will not require an operating subsidy based on the model's forecasted ridership. The final business plan should address this inconsistency

2. Funding Challenges

Future Federal Funding Risk

The 2012 business plan lays out a potential funding scenario that includes a mix of state, federal, private, and other funding sources through completion of Phase I system. The plan relies heavily on federal funding even though hardly any of the expected funds have been identified.

Completion of the IOS South, combined with the Initial Construction Segment, is projected to cost a total of \$33 billion in year-of-expenditure dollars, and the plan proposes that more than 75 percent of that funding (\$25 billion) will be from federal grants and innovative financing programs. Full construction of the Phase 1 corridor from San Francisco to Los Angeles and Anaheim is estimated to cost \$98 billion and the plan expects that 70 percent of that funding will be from the federal government.

Assuming no new federal funding for the next three years, as the HSRA suggests, the state will need to receive approximately \$65 billion from the federal government over the following 20 years to complete the first phase of the project, or an average of \$3.5 billion per year. To put this in perspective, through the most recent federal multi-year transportation spending plan, California received roughly \$3 billion per year in formula funds for highways, most of which came from federal fuel taxes, *a dedicated revenue source*, paid by the nation's motorists. It may be unrealistic to presume that the federal government is going to either dedicate general tax revenues to construct California's HSR system at this magnitude, or develop new programs and/or taxing schemes to do so. This represents perhaps the single largest risk to the completion of the project.

The State's Future Expenses

Another risk the business plan fails to discuss is the state's future expenditure liabilities under various scenarios presented in the plan. In regard to the initial construction, the federal grant agreement requires the tracks to be maintained to high-speed rail standards, whether or not Amtrak uses the facility. Specifically, the grant agreement requires that, "the Grantee shall ensure the maintenance of Project property to the level of utility (including applicable FRA track safety standards) which exists when the improvements are placed in service for a period of 20 years. In the event that intercity passenger rail service making use of the Project property is discontinued, the Grantee shall continue to ensure that maintenance of the Project property."³ The business plan does not discuss the cost of maintenance of this section.

³ Federal Railroad Administration Grant/Cooperative Agreement, Amendment No. 1, signed December 22, 2010, page 8.

In addition, the business plan fails to meet the requirement described elsewhere in the grant agreement that expects the plan to demonstrate that, “prior to construction, the Grantee has secured commitments for the financing necessary to support the ongoing operation of the Project, including necessary maintenance and recapitalization during the first 20 years of operations.” Until HSRA enters into a contract with a private entity for operating service and maintaining the track, which isn’t proposed to happen until the completion of the IOS in 2022 at the earliest, the state will have to fund the maintenance and provide security for the built section. The final business plan should include a discussion regarding the funding issues that the HSRA has agreed to in its agreement with the Federal government.

A third example of state costs that are not considered in the business plan relate to some of the various federal funding options outlined in the plan. Many of the current or proposed federal funding options described in the business plan are subsidized loan programs that would require repayment of principal, if not some portion of the interest accrued through the borrowing of funds. These debt service payments are not included in the construction costs, though they will likely come from state funds. Also, to the extent the state receives direct federal grants for the project, these types of grants almost always require some level of matching funds. The business plan does not address these potential additional state costs.

V. Options for the HSRA: Involvement of the Private Sector

Fortunately, the committee’s hearing is on the draft business plan. This means that the HSRA has the opportunity to address the concerns raised in this report and by others when it prepares the final plan.

In addition to the other comments, the HSRA may wish to elaborate upon how it intends to involve the private sector. The criteria established by Proposition 1A, which the peer review group must use when evaluating the HSRA’s funding plan, anticipates the use of the private sector and requires that the service receive no operating subsidy. In light of these requirements, the HSRA may wish to consider soliciting a private consortium consisting of a qualified operator, a financing group, a construction firm, an equipment operator, and perhaps others to join with the HSRA when it begins to develop the second section of the project, the IOS, in 2015. The draft business plan does not intend to do this until 2022.

Involving the private sector earlier rather than later may have some advantages. First, the adequacy of the ridership model would be addressed. Clearly, the private consortium would create its own model, as it is risking its own capital on the potential for future revenues. Second, a private group would expose the HSR project to the practical knowledge that an operator gains from day-to-day operating experience. Third, important technological innovations that may affect efficiency and effectiveness of the system might be more available to private entities with the proper financial incentives.

The HSRA has the consulting expertise available for addressing the issue of private sector involvement in the current business plan. The HSRA should be able to elaborate on this issue in the plans final draft.