

April 2, 2018

Review of High-Speed Rail Draft 2018 Business Plan

LEGISLATIVE ANALYST'S OFFICE

Presented to:
Assembly Committee on Transportation
Hon. Jim Frazier, Chair





Overview of Presentation

- State law requires the California High-Speed Rail Authority (HSRA) to prepare a business plan every even year that provides certain key information about the planned high-speed rail system. On March 9, 2018, HSRA released a draft of its 2018 business plan.

- This presentation (1) provides background information on the planned high-speed rail system, (2) describes the major changes proposed in the draft 2018 business plan, and (3) identifies issues for legislative consideration.



Overview of High-Speed Rail Project

- Proposition 1A Established System Criteria.** Proposition 1A (2008) specified certain criteria and conditions that the high-speed rail system must ultimately achieve. For example, the measure requires electric trains capable of operating speeds of at least 200 miles per hour and specifies minimum travel times along specific routes. Proposition 1A also requires that the system operate without requiring a subsidy.

- Project Divided in Two Phases.** Phase I of the system would provide service for about 500 miles from San Francisco to Anaheim. Phase II would connect the system to Sacramento in the north and San Diego in the south. In 2016, HSRA estimated that Phase I of the system would be completed in 2029 and cost about \$64 billion. The authority has not provided estimates of the cost or schedule for Phase II.



Project Delivery Plan for Phase I

- Delivery of Phase I Divided in Segments.*** Phase I of the high-speed rail project is divided into multiple segments. According to HSRA, the first operation of high-speed rail in the state will be after the construction of the initial operating segment (IOS) of Phase I, which would connect the Silicon Valley to the Central Valley—commonly referred to as the Valley-to-Valley Line. In 2016, HSRA estimated that the IOS would cost about \$21 billion and initially operate between San Jose and a terminus north of Bakersfield in 2025.

- Construction of IOS Began in Central Valley.*** In 2015, HSRA initiated construction of the first segment of the IOS—commonly referred to as the initial construction segment (ICS) or the Central Valley Segment. The ICS extends for 119 miles through the Central Valley from Madera (about 25 miles north of Fresno) to Shafter (about 20 miles north of Bakersfield). In 2016, HSRA estimated completing construction of the ICS at a cost of \$7.3 billion.



Project Funding and Expenditures

- Proposition 1A Bonds.** Proposition 1A authorized the state to sell \$10 billion in general obligation bonds to support the development of the high-speed rail system. At this time, the state has sold about \$2.3 billion in Proposition 1A bonds. As of December 2017, HSRA had spent or committed \$1.7 billion of these funds.

- Federal Funds.** HSRA has received a total of \$3.5 billion in federal funds. First, the state received \$2.6 billion in American Recovery and Reinvestment Act funds in 2009. HSRA has fully expended these particular funds. Second, the state received a \$929 million grant from the federal High-Speed Intercity Passenger Rail program in 2010, which has not yet been spent.

- Cap-and-Trade Auction Revenues.** In 2014, the state began providing cap-and-trade auction proceeds to HSRA for the high-speed rail project. For example, the Legislature adopted legislation to continuously appropriate, beginning in 2015-16, 25 percent of annual cap-and-trade auction revenue for the planning and capital costs of Phase I of the high-speed rail project. At this time, a total of roughly \$1.5 billion in cap-and-trade revenues has been provided to HSRA. As of December 2017, HSRA had spent \$583 million of these funds.

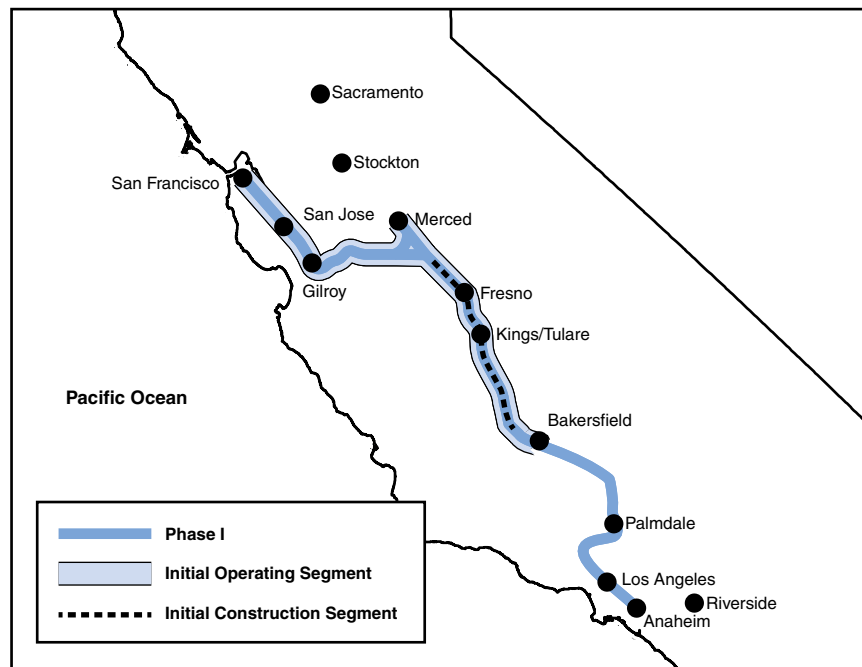
Major Features of Draft 2018 Business Plan



Project Scope and Timeline

- **Changes Scope of IOS.** Under the 2016 business plan, the IOS would connect San Jose and Shafter. The draft 2018 business plan proposes to extend this segment into San Francisco in the north and Bakersfield in the south, connecting the line to larger population centers.
- **Assumes Delay in Operation of IOS.** The draft plan assumes that the IOS would commence operations in 2029—four years later than assumed in the 2016 business plan.

Proposed Initial Operating Segment—Valley-to-Valley Line





Major Features of Draft 2018 Business Plan (Continued)



Interim Services Planned

- Proposes Early Interim Services on Completed Construction Segments.** Previously, under the 2016 business plan, no rail services were expected to begin until full completion of the IOS. However, the draft 2018 business plan proposes operating early, interim services on the ICS and San Francisco-Gilroy corridor by 2027—two years prior to the estimated completion of the IOS. The plan suggests that the completed segments could host enhanced Caltrain and Amtrak services or potentially abbreviated high-speed rail operations.



Project Construction Costs

- Revises Cost Estimates Upward.** As shown in the figure, the 2018 draft plan estimates that the total cost to complete Phase I is about \$77.3 billion, which is \$13.1 billion higher than the 2016 cost estimate. HSRA states that greater contingency estimates, cost escalation due to schedule delays, and increased costs for construction of the IOS (including the ICS) account for most of the overall cost increase for the project. For example, the draft plan reflects an increase in the construction cost of the IOS from \$20.7 billion to \$29.5 billion.

Capital Cost Estimates for Phase I			
<i>(In Billions)</i>			
	2016	2018	Change From 2016 to 2018
Initial Operating Segment			
Initial Construction Segment	\$7.3	\$10.6	\$3.3
Other	13.4	18.9	5.5
Subtotals	(\$20.7)	(\$29.5)	(\$8.8)
Other Segments	\$43.5	\$47.8	\$4.3
Phase I Totals	\$64.2	\$77.3	\$13.1

Note: Dollar amounts are year of expenditure estimates.



Major Features of Draft 2018 Business Plan (Continued)



Project Funding Plan

- **Identifies Full Funding for ICS.** The draft plan identifies funding from various fund sources to complete the ICS as planned. These sources include Proposition 1A bond funds, federal grants, and cap-and-trade revenues.
- **Assumes Further Extension of Cap-and-Trade and Securitization of Revenues to Complete IOS.** The funding plan for the proposed IOS assumes an extension of the cap-and-trade program to 2050, which is currently only authorized through 2030. In addition, the plan assumes the securitization of cap-and-trade revenues to finance the construction of the IOS.
- **Assumes Additional Funding Will Become Available for Remainder of Phase I.** The remainder of Phase I beyond the IOS is currently estimated to cost \$47.8 billion. The draft plan assumes that funding would become available to support these costs. While the plan does not identify specific funding sources and amounts, it does discuss some potential sources, including a combination of federal sources and borrowing against the net operating revenues of the IOS.



Issues for Legislative Consideration

- Actual Project Costs Could Be Even Higher.*** As noted in the draft plan, given the significant scope of the high-speed rail project, the cost of the project is subject to substantial uncertainty. This is because several factors (such as final design decisions, procurements, and construction delays) could potentially affect the actual cost. While the plan provides a base cost estimate of \$77.3 billion for completing Phase I, it indicates that the actual cost could range from a low of \$63.2 billion to a high of \$98.1 billion.
- Significant Uncertainties Regarding Funding to Complete IOS.*** A large portion of the funding identified for the IOS would come from borrowing against future cap-and-trade auction revenues through 2050. Thus, without legislative action to extend the cap-and-trade program, the total cap-and-trade funds HSRA plans to use to complete the IOS would probably not be available. To the extent that the level of auction revenues assumed in the draft plan does not materialize or the project's costs are much higher than estimated, the state would need to identify other funds sources to help finance the IOS—likely the General Fund.
- No Complete Funding Plan for Remainder of Phase I.*** While the draft plan discusses the possibility of securitizing the net operating revenues of the IOS, there are several potential challenges with this approach. First, it is unclear that the initial system will actually generate an operating surplus. Second, HSRA anticipates that securitizing the net cash flow would make additional funding available no sooner than 2032, even though funds would likely be needed earlier to complete Phase I by 2033 as assumed. Third, the plan estimates that the amount of funding that could be generated would fall substantially short of the level needed to complete Phase I and does not specifically identify how this shortfall would be met.



Issues for Legislative Consideration

(Continued)



Full Funding Plan Needed. In view of the above funding challenges, as well as the potential for further project cost increases, it is crucial for the high-speed rail project to have a complete and viable funding plan to complete the IOS and the remainder of Phase I. At this time, no such funding plan exists.