

California High-Speed Rail Peer Review Group

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The Honorable Toni G. Atkins
Senate President Pro Tem
State Capitol Building
Room 205
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The Honorable Anthony Rendon
Speaker of the Assembly
State Capitol Building
Room 219
Sacramento, CA 95814

The Honorable Scott Wilk
Senate Republican Leader
State Capitol Building
Room 305
Sacramento, CA 95814

The Honorable Marie Waldron
Assembly Republican Leader
State Capitol Building
Room 3104
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Dear Honorable Members:

The High-Speed Rail Authority's "Revised Draft 2020 Business Plan," issued February 12, 2021, is a good summary of the status of the project. After a troubled beginning, the Authority is progressing in getting the construction work under control. The Authority can reasonably expect to complete the 119-mile Madera to Poplar Avenue segment with existing funding. Adding segments from Merced to Madera and from Poplar Avenue into Bakersfield (extending to 177 miles in total) within existing funding, as the Authority is considering, will be a challenge both because of the need to finalize complex operating agreements and because designs for the segments are still at an early stage. The Authority will not be able to extend construction beyond the 177-mile section without funding sources beyond Proposition 1A, ARRA and Cap-and-Trade.

The Peer Review Group (PRG) urges the Legislature to consider the following challenges and opportunities raised by the Plan:

- What is the balance between the need to move forward on the project and ensuring that the management of the project is improving sufficiently to justify doing so;
- What are the potential sources of new funding and when might they become available;
- Can the project be more effectively included in the statewide transportation planning program so the full role and benefit of high-speed rail, including its multiplier effects, can be seen in the proper state-wide context; and
- Can the intentions expressed in the MOU among HSRA, SJJPA and CalSTA be translated into detailed and binding commitments that will ensure the success of the proposed interim operation?

The pace of construction is accelerating, and the Authority is learning from the problems encountered on the early construction contracts (CP1, CP2-3 and CP-4). Many of the Authority's early staffing problems, especially the shortage of internal staffing and over-reliance on consultant staffing, are being resolved. The engineering and Right-of-Way (ROW) acquisition issues of proposed added links to Merced and Bakersfield are likely to be similar to those already encountered, so the Authority will benefit from its hard-won experience. Most of the 119-mile section from Madera to Poplar Avenue defined in the "American Recovery and Reinvestment Act of 2009" (ARRA) contract with the Federal Railroad Administration (FRA), also called the Central Valley Section or CVS, is under contract and well under construction. Completion of the committed ARRA scope is expected in 2023.

At the same time, other new challenges will soon arise. Electrification, signaling, and the design and acquisition of rolling stock lie ahead. The immense tunneling effort required to connect to San Francisco and to the Los Angeles basin will also pose problems.

ROW acquisition and third-party agreements are moving ahead, but have been a major cause of cost increases and delays to date, and problems remain to complete them. Acquisition of eminent domain authority has been helpful but legal process delays due to Covid-19 have been significant. The PRG believes that the Authority **will be able to complete** the ARRA scope within currently available funding and it is likely that the proposed electrification, signaling and interim rolling stock for the CVS section could also be completed within existing funding, though the current ARRA schedules will need to be extended beyond December of 2022.

The "Stage Gate" project control process the Authority is now implementing improves project sequencing under which each step may not commence until the required prior steps have been completed. The Authority believes this process will shield future projects from the problems on existing contracts where construction began before preparation was complete.

The PRG believes that the Biden Administration will consider a request to extend the ARRA completion deadline and to re-obligate the \$929 million in FY 2010 funding. With favorable consideration, the existing federal funding may no longer be threatened as it appeared to be during the Trump Administration. Even so, there is substantial risk, given experience to date and the preliminary state of design work, that the proposed extensions to Merced and Bakersfield **cannot be completed** without added funding beyond that available in Proposition 1A, ARRA, FY 2010, Cap-and-Trade, and other existing financing programs.

The Authority proposes to:

- Complete the 119-mile CVS with a single-track, electrification and interim rolling stock;
- Complete all environmental documentation that is required by the ARRA commitment;
- Carry out more extensive engineering for the proposed Merced and Bakersfield links, leading to improved cost and schedule estimates for these segments; and
- Improve the engineering analysis of the costs of the future links to San Francisco and Los Angeles/Anaheim, with particular focus on tunneling through the Pacheco Pass and the Tehachapi Mountains. This is needed because the tunnels will incur nearly half the total cost of Phase 1 and will amount to about two-thirds of the costs remaining after completion of the CVS section.

The PRG believes this is reasonable given current funding constraints. It urgently requires an agreement with the Governor and Legislature that the State will commit the funding needed to extend the CVS section to Merced and Bakersfield and to completing Phase 1 when funding becomes available. If there is no commitment to extend the system beyond the CVS section, then the Authority's plans will need to be reassessed by the Legislature.

We recognize and commend the progress that has been made, but there are critical issues that need to be addressed. Most of these are not new but they are becoming ever more important with the passage of time.

Funding. Given the range of outcomes in current construction cost estimates, the Authority may not be able to undertake the Merced and Bakersfield links without added funding, and it will definitely not be able to extend the system beyond Bakersfield and Merced without new sources of financing.

New state sources (gas tax, sales tax, vehicle tax, sugar tax, etc.) beyond Proposition 1A and Cap-and-Trade are financially feasible but may be difficult politically. The Governor has expressed support for the project but has not yet made concrete funding proposals. The value of economic development initiated by high-speed rail service will be large, but it will mostly benefit local communities and may not be a source of significant construction financing for the Authority.

New federal support may emerge given the general support for rail service expressed by President Biden and Transportation Secretary Buttigieg. The prospects for new federal programs may be clearer by mid-year, so it is speculative now to look beyond ARRA for new federal funding. In any case, a new federal program would likely require a state match. If the Authority uses Cap-and-Trade revenue to match federal contributions, the \$625 million/year (estimated average income to the Authority from Cap-and-Trade) would not reliably generate enough funding to complete Phase 1 of the program unless the matching ratio is close to Interstate Highway program levels (90/10) rather than the Federal Highway ratio (70/30) or typical FTA programs (80/20). In addition, there is presently no source of federal revenues other than general funds to support a new long-term federal program (the Interstate Highway system was funded by continuing user charges). As discussed below in our specific comments, new federal financing is also likely to include heightened focus on small and disadvantaged business opportunities that the Authority will need to address.

As discussed in earlier PRG letters, Cap-and-Trade funding is too volatile to support borrowing against future receipts, and the 2030 end to the Cap-and-Trade program limits potential receipts for the project. As in previous Business Plans, the Authority's Revised Draft 2020 Business Plan calls for actions to extend and stabilize the Cap-and-Trade program so program funds can be financed or securitized. The PRG concurs that these actions would stabilize funding for the project and would make securitization possible at a reasonable premium.

Private investment, while it may eventually be feasible, will not be available until substantial parts of the system have been in operation long enough (3-5 years) to establish the actual levels of demand and operating costs. The system will have to be built with public funding before private investment can be generated.

The PRG recognizes that finding additional funding for the project will be difficult. At the same time, we believe that some of the past management problems can be attributed to inadequate and unstable funding. Looking ahead, the project will never be fully manageable until an adequate and stable funding stream is established.

Interim operation by San Joaquin Joint Powers Authority (SJJPA) and Altamont Corridor Express (ACE) supported by CalSTA. The Authority's proposal to lease the trackage between Merced and Bakersfield for interim operations of the San Joaquin trains (with improved connections to ACE) would assure use of the new tracks until the connection with Gilroy/San Francisco is completed, but it relies on a number of assumptions:

- The Side-by-Side Peer Review Report (RSG, "Side-by-Side Peer Review Report, 2.3.2021) focuses on the question of which of the alternatives (Merced and Bakersfield links, versus HSR from Gilroy to San Francisco, versus HSR services from Burbank to Los Angeles/Anaheim) performs best **given a commitment** that the entire Phase 1 system will be rebuilt eventually. It does not address whether the system should be extended if the full Phase 1 Plan is not committed.
- The Memorandum of Understanding (MOU) executed by the three parties is a comprehensive initial discussion of the expected roles and responsibilities of the three parties, but it is explicitly not a **commitment** of responsibilities or assured funding from any of the parties. Since the value of the proposed interim operation is heavily based on the terms of the agreement, a clear conclusion of the actual commitments is needed. The MOU does identify specific agreements that will need to be executed before service can commence. These agreements can only be executed once the state settles on a path forward for the project beyond the initial 119-mile section now under construction.
- The operating agreement proposed in the MOU would result in transferring all demand and operating cost risk to the state. If the demand and operating cost forecasts turn out to be optimistic, the state will be on the hook. This is important because the conclusions of the Side-by-Side study are described as "high-level" and subject to a wide range of variation around the predicted outcomes. The current San Joaquin services operating in the Central Valley are heavily subsidized by the state, both for operations and rolling stock procurement. The Authority's analysis indicates that its interim operating service proposal between Merced and Bakersfield could reduce the current level of state subsidy for Central Valley service. There are, however, alternative scenarios in the analysis that

could lead to increased state support.

- **75% of the projected ridership** on the proposed SJJPA/ACE/Sacramento to Bakersfield link is actually **not** on the high-speed link but is, instead, generated on the ACE sections and on the Sacramento to Merced section on the San Joaquins as a result of shorter trip times from the connecting service to Merced and Bakersfield. This means that the viability of the proposal is critically dependent on planning, management and funding decisions by ACE, SJJPA and CalSTA that are beyond HSRA's control. On the other hand, it suggests that improving the Sacramento to Merced link might be a promising near-term opportunity that merits further examination.
- The Authority has concluded that the proposed leasing of the Merced to Bakersfield link to an operator (most likely an entity created by SJJPA and CalSTA) would not violate the strictures in Proposition 1A against an operating subsidy. This is partly based on the finding in the Side-by-Side study that overall state support would decrease as a result of the improved service. The leasing proposal may be subject to legal challenge on the issue of whether it is consistent with Proposition 1A.

Capital cost forecasts. As discussed above, the Authority's experience with the existing construction contracts (CP-1, CP 2-3, and CP4, as well as the SR-99 relocation) should lead to better forecasts for similar work on the proposed Merced and Bakersfield extensions, but the forecasts for electrification, signaling, rolling stock, and (especially) tunneling are more uncertain, and it is not clear that the asserted "P70" confidence level (there is a 70% probability that actual costs will be less than equal to projection) is defensible.

This raises questions for the Legislature to consider:

- Both PRG and the Authority have emphasized that many of the problems with the existing contracts have stemmed from trying to meet the time pressures that the state agreed to with FRA as a condition of ARRA funding. Driven by the deadline, the Authority started construction before adequate design and planning were completed, which resulted in significant cost (70 percent) and schedule overruns. There is no need to repeat the experience. The Authority can take the time to prove that its management is improving.
- Although the Authority is making significant progress in managing ROW acquisition, third party agreements and its construction contracts, schedule and cost problems remain. The Legislature could gain more confidence going ahead if performance on the existing contracts demonstrably continues to improve. In addition, the proposal to carry out further engineering analysis, particularly geotechnical exploration in the tunnel areas, should significantly improve the capital cost estimates of future elements.
- Much of the Authority's planning is necessarily based on the possibility that there will be new sources of financing, especially federal money. Federal plans and programs could become clearer over the next year as Covid-19 is brought under control and Congress and the Biden Administration turn to longer-term programs on infrastructure.
- In Executive Order N-79-20 (Sept 23, 2020), Governor Newsom announced that the state will need to take new measures to combat climate change, including a requirement that "the State Transportation Agency, the Department of Transportation and the California Transportation Commission, in consultation with the Department of Finance and other State agencies, shall, by July 15, 2021, identify near-term actions, and investment strategies, to improve clean transportation, sustainable freight and transit options, while

continuing a ‘fit-it-first’ approach to our transportation system, including, where feasible, building towards an integrated, statewide rail and transit network, consistent with the California State Rail Plan, to provide seamless, affordable multimodal travel options for all...” These actions clearly have a bearing on the state’s commitment to high-speed rail as well as other transportation investment options. The Legislature should ask that the role and funding for high-speed rail receive particular attention in the July 15 report.

- The Authority, SJJPA and CalSTA must focus on converting the terms of the MOU into a set of agreed commitments that will further refine the service plans, operating support and investment commitments of the parties.

The Legislature and the Newsom Administration should come together on a cautious and prudent approach to advance the work the Authority must complete to meet its federal commitments (i.e., complete the civil works and the track and systems for the 119-mile Central Valley Segment and all environmental work for the Phase 1 system) and the work necessary to further refine the cost, schedule, scope, and operating benefits of the Merced and Bakersfield extensions (i.e., advancing design work, conducting geotechnical testing, mapping right-of-way, identifying necessary third-party agreements and utility relocations, etc.). Beyond this work, and perhaps with the exception of advancing design and geotechnical work for other segments where the environmental work is completed, the Legislature want to might request the Authority to limit additional binding contractual commitments until the above questions are more thoroughly addressed, possibly in the 2023 Project Update Report required by the Legislature.

In addition to the discussion above, we have several more specific comments on the draft Business Plan and the related “2021 Proposition 1A Funding Plan” that are attached below.

Specific comments on the Business Plan and the Funding Plan

- The ARRA Status Reports that were developed as “Dashboards” (see https://hsr.ca.gov/docs/about/legislative_affairs/arra_report_nov_2020.pdf) are a valuable summary indication of project status, but could be more useful if the cost estimates were developed and reported currently with the revised schedule projections. In addition, a dashboard indicator focusing on ROW acquisition, possibly similar to the data provided in the monthly reports to the Finance Committee, would be useful.
- The Biden Administration’s plans are likely to include strong measures to advance racial equity and advance access to opportunity across the American economy: i.e., workforce development and good jobs creation, small business development and growth, environmental sustainability, and mobility improvements. While there is always room for improvement, these are areas in which the Authority and the state have done considerable work and have an opportunity to excel. To that end we strongly encourage the Authority, perhaps with the assistance of the state, to undertake a Best Practices “DEI” Assessment specifically targeted at mega-program delivery and expanding the overall tool kit with respect to community benefits and importance of the multiplier effects of high-speed rail.
- We commend the Authority’s new dashboard reporting on Small Business Enterprise (SBE) involvement in the program (see https://hsr.ca.gov/small_business). We strongly recommend that the dashboard be improved to show indicators for all three commitments: SBE, 30%; Disadvantaged Business Enterprises (DBE), 10%; and Disadvantaged

Veterans Business Enterprises (DVBE), 3%. The current dashboard only displays performance against the SBE target where the Authority's current performance, 21%, does not yet meet the 30% goal. Targets without reporting data are of little value.

- The analysis of Greenhouse Gas (GHG) reduction should not just be stated in metric tons of CO₂ emissions avoided but should also be shown as a percent of the state total: the HSRA contribution is only a small percentage of the state's total GHG target. The potential impact of electric vehicles should also be acknowledged (shifting traffic from electric vehicles to HSRA, both using the same electricity, won't reduce CO₂ emitted).
- More detail on the costs and specifications of the interim and longer-term trainsets would be helpful in assessing the proposed interim operating plan. Given that Brightline-West (Las Vegas to Victorville) proposes to buy electrified equipment with performance similar to the proposed interim sets, would a common procurement be possible?
- The Authority has asserted that single track operation would be a useful way to save money in the short term. The draft Plan does not provide sufficient information to compare the decision to delay the second track until later, and there is no information regarding the potential train schedules possible with only single-track service available.

Despite the problems, the project is gaining momentum and the options for moving ahead are emerging more clearly. Some of the critical questions, including added federal funding, may be resolved over the next year. Reports requested by the Governor should further define the Governor's vision of the potential role for high-speed rail in California. All of these add up to an opportunity for the Legislature to put the project on a sound basis that will permit better management as the project goes forward. Please let me know if you have any questions or need any further information.

Sincerely,



Louis S. Thompson
Chairman, California High-Speed Rail Peer Review Group

cc: Hon. Lena Gonzalez, Chair, Senate Committee on Transportation
Hon. Patricia C. Bates, Vice Chair, Senate Committee on Transportation
Hon. Laura Friedman, Chair, Assembly Transportation Committee
Hon. Vince Fong, Vice Chair, Assembly Transportation Committee
David S. Kim, Secretary, California State Transportation Agency
Gabriel Petek, State Legislative Analyst
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