

## California High-Speed Rail Peer Review Group

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March 23, 2023

The Honorable Toni G. Atkins  
Senate President Pro Tem  
State Capitol Building  
Room 205  
Sacramento, CA 95814

The Honorable Anthony Rendon  
Speaker of the Assembly  
State Capitol Building  
Room 219  
Sacramento, CA 95814

The Honorable Brian Jones  
Senate Republican Leader  
1021 O St.  
Suite 7640  
Sacramento, CA 95814

The Honorable James Gallagher  
Assembly Republican Leader  
State Capitol Building  
Room 4740  
Sacramento, CA 95814

Dear Honorable Members:

The Peer Review Group created by Proposition 1A is required to report to the Legislature on selected reports and documents produced by the California High-Speed Rail Authority. In this letter we provide our comments on the 2023 Project Update Report (2023 PUR) issued by the Authority on March 1, 2023.

Since its inception in 2008, the Group has issued 18 letters and members have testified before Legislative and Congressional committees 15 times. In reviewing past letters and testimony, a consistent theme emerges: 1) project costs, schedules, and ridership estimates are uncertain and subject to significant risk of deteriorating, a typical experience for mega-projects; 2) the project is underfunded, and its financing is unstable, raising costs and making effective management difficult if not impossible; 3) more legislative oversight is needed. This letter reinforces the message, but with a sense of urgency over the ever-higher stakes.

In our discussions, the Authority has argued that the 2023 PUR is the most complete – and honest – picture to date of the project and the challenges and choices that the State now faces. We agree and we compliment the Authority’s efforts. We also acknowledge the experience the Authority has gained, some of it the hard way, in dealing with the immensely complex issues of an ill-defined, technically difficult megaproject impacting many common and often conflicting public and private interests. We are concerned by the picture that emerges.

## **ASSESSMENT OF THE 2023 PUR**

**Project costs.** Project costs have risen year after year, and they continue to rise with no clear end in sight. The current contract values for Construction Package One (CP 1), CP2/3, CP4 and the State Road 99 relocation are 97 percent higher than the original award values, up from an 86 percent increase a year ago. The Phase I system cost at the 50 percent probability (P50) level grew from \$68 billion in the 2012 Business Plan to \$92 billion in the 2022 Business Plan and to \$106 billion in the 2023 PUR. This is a 56 percent increase from the 2012 to 2023 (in YOE \$), and a 15 percent increase from 2022 to 2023. Comparison with other megaprojects does show that the Authority’s experience is not out of line. It also shows that all megaprojects can be expected to have large delays and overruns; there is no reason to conclude that the Authority’s problems on the project are over.

**Schedules.** Schedules continue to stretch out. CP1, awarded in August of 2013, was to be completed in March of 2018, but the current completion is December of 2026. CP2/3, awarded in February of 2013, was to be completed in December of 2018, but has a current completion of March of 2026. CP4 was awarded in February of 2016 with original completion scheduled for June of 2019, and the current completion date is July of 2023. The SR-99 relocation contract was awarded in February of 2013, the original completion was December of 2018, and it was completed in May of 2019. Completion of the Merced to Bakersfield section is now scheduled for some time between 2030 and 2033. There is no longer a projected completion date for the full Phase I system because there is no funding on which to base a credible schedule.

**Ridership.** Demand forecasts have fallen. The forecast ridership in the 2009 Business Plan was 41 million. In the 2012 Business Plan it was 37 million, in the 2022 Business Plan it was 38.6 million, and in the 2023 PUR it is now foreseen as 31.3 million. These changes have come about partly because of a change in the model used to forecast ridership and partly because of changes in the economic and demographic factors that generate ridership.

**Confidence in forecasts.** While the Authority argues that the cost forecasts for the 119-mile Madera to Poplar Avenue section meet the 65 percent (P65) confidence level, this may not be the case for the Merced and Bakersfield add-ons because there has been no bidding for the civil work in these sections, nor is there any bidding experience for trackwork, electrification or rolling stock. The work in the Central Valley was originally supposed to be the “easy” part, but contracts have overrun by 97 percent so far. Of the total (P65) estimated cost of the Phase I project of \$127.9 billion, approximately \$115.6 billion (Tunnelling, Track and Systems, Stations, and essentially all of the work outside the Central Valley), is only at the 15 to 30 percent (or less) design stage and there has been no bidding experience. The unbid part of the project, especially

tunneling and electrification, is likely to be the hardest and most technically challenging part of the project, but the risk and cost analysis may not fully reflect the more difficult engineering and construction issues involved.

**Inflation.** The impact of inflation has been and will continue to be significant. The values used: 2023, 5.31%; 2024, 3.61%; 2025, 3.24%; 2026, 3.14%; 2027-2030, 2.00%, are based on the best available official sources, but necessarily require forecasts of events that are hard to predict. In particular, the estimates for the Southern California segments of the project have not been updated for inflation and cost experience. These segments cover approximately 41 percent of the total cost of Phase I and updating them will add billions of dollars to the expected cost.

**Meeting local requests.** Completion of environmental approvals and agreements with local authorities has typically added desirable but unanticipated scope and costs, such as the elevated stations in Merced (\$.96 billion) and Bakersfield (\$1.195 billion). Existing litigation and the need for local buy-in may well bring more such increases.

**The MOU.** The Memorandum of Understanding (MOU) of November, 2020, among CalSTA, the Authority and the San Joaquin Joint Powers Authority is a necessary step in the right direction but it remains vague as to funding responsibilities and does not fix responsibility in a situation in which incremental revenues from operation of the high-speed services would not cover incremental costs – which is more likely now that demand forecasts have fallen.

**New Federal money.** The total award target of \$8 billion in new Federal grant funding is speculative. The total potential Federal “pot” may be significant, and it has many components, but it also has many claimants. While California will surely receive some of the money, the outcome is unpredictable, especially year-to-year. More important, we would like to underline the fact that this kind of unreliable and fluctuating, year-to-year funding is not compatible with the stable and predictable funding that the management of a large infrastructure project must have.

**The unfunded gap.** The unfunded gap is growing. In fact, there has always been an unfunded gap between identified credible sources of funding, on the one hand, and project costs on the other. In the early years, the Authority argued that State funds of \$9 billion would be combined with Federal, local and private sources to finance the project. The 2009 Business Plan argued that there would be no need for State funding beyond the \$9 billion in Prop 1A funding. Since then, the gap has grown with every Business Plan.

The 2023 PUR now shows that for the Merced to Bakersfield section the **unfunded gap (P65) is between \$2.5 and \$10.5 billion**, depending on the success in meeting the \$8 billion Federal funding target. More important, the 2023 PUR shows a **Phase I unfunded gap of \$92.6 billion to \$103.1 billion between estimated costs and known State and Federal funding**, again depending on success with meeting the \$8 billion target for new Federal grants.

**The dilemma.** The dilemma that the project now poses is that, given the expected cost increases, delays and demand decreases for the Merced to Bakersfield segment, there are few who would argue that completing this section, by itself, at a cost of up to \$35 billion, can be

justified. Rather, it would make sense only in the context of a commitment to building the complete Phase I system. At the same time, completing the full Phase I system poses a growing financial challenge for the State because the gap is already large, and costs have been increasing faster than identifiable potential financing while forecast ridership has fallen.

## **CONSIDERATIONS FOR THE LEGISLATURE**

The Phase I system as envisioned in the 2023 PUR is not the same as the system approved by the Legislature and the voters in Proposition 1A. While the Authority still envisions connecting San Francisco with Los Angeles and Anaheim as required, it will cost at least three times as much and take 15-20 years longer, will not meet the trip times envisioned, and will carry only 75 percent of the passengers. Very explicitly, the economic and financial performance of the 2023 PUR system cannot be as favorable as originally projected, and the tradeoffs between the investment in high-speed rail and alternative State needs must necessarily be different and more difficult than they appeared in 2009. Given what we know of the project today, and given the financial demands facing the State, the Legislature may want to commission an **independent** review of the economic and financial justification for the project, including the ability to operate without subsidy as required by Proposition 1A, before recommitting to the full Phase I system.

The Legislature may also want to:

- Request that the selection and appointment of the Inspector General (OIG) be given high priority. Some of the actions suggested below should be addressed by the OIG when the office has been fully staffed.
- Request the Authority to issue updated dashboard information in the format used for the ARRA dashboards so that the cost and schedule experience of awarded contracts can be easily evaluated and updated.
- Review the reports by the Authority on the award of all large new contracts (track and systems, rolling stock, stations, and the Merced and Bakersfield extensions) showing the contract value and expected completion time as compared with the 2023 PUR's values.
- As proposed by the Authority, limit ("phase") contract awards outside the 119-mile Madera to Poplar Avenue section in accord with actual availability of funding.
- Request development (by LAO or another appropriate agency) of an analysis with options and tradeoffs available to the Legislature for how to fund the gap for completion of the Merced to Bakersfield section and the gap between this section and the remainder of the Phase I system. It is critical that any funding approach be fully funded and stable and predictable from year to year.
- Request the Authority to assess changes that could be made to reduce costs in the Merced to Bakersfield section pending decision by the Legislature whether to authorize extension outside the Central Valley. An assessment would be useful because the State still has the option to limit the project to the 119-mile Madera to Poplar Avenue section or to limit the project to a revised form of the Merced to Bakersfield section if the evaluation of Phase I is unfavorable.

- Request the Authority to identify options for reorganizing the project into more manageable parts. For example, create a separate agency to award and manage tunnel construction to meet specifications set by the authority.
- Request the Authority to assess the current staffing and organizational structure of the Authority to determine if the staffing level and organizational structure match future project requirements, given possible changes in delivery systems, program schedule (including more concurrency of projects), funding conditions and other circumstances.
- Commission an **independent** study of the experience of the project and the lessons the State should learn that must be applied to future megaprojects the State undertakes.

Please do not hesitate to let me know if the Group can provide further information or answer any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "Louis S. Thompson". The signature is fluid and cursive, with a long horizontal stroke at the end.

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

cc: Hon. Lena Gonzalez, Chair, Senate Committee on Transportation  
Hon. Roger W. Niello, Vice Chair, Senate Committee on Transportation  
Hon. Laura Friedman, Chair, Assembly Transportation Committee  
Hon. Vince Fong, Vice Chair, Assembly Transportation Committee  
Toks Omishakin, Secretary, California State Transportation Agency  
Gabriel Petek, State Legislative Analyst  
Samuel Assefa, Director, Governor's Office of Planning and Research  
Tom Richards, Chairman, California High-Speed Rail Authority  
Brian Kelly, Chief Executive Officer, California High-Speed Rail Authority  
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