

California High-Speed Rail Peer Review Group

Gary Gallegos

Stacey Mortensen

Lou Thompson
Chairman

Martin Wachs

January 14, 2016

The Honorable Kevin de León
Senate President Pro Tem
State Capitol Building
Room 205
Sacramento, CA 95814

The Honorable Toni G. Atkins
Speaker of the Assembly
State Capitol Building
Room 219
Sacramento, CA 95814

The Honorable Jean Fuller
Senate Republican Leader
State Capitol Building
Room 305
Sacramento, CA 95814

The Honorable Chad Mayes
Assembly Republican Leader
State Capitol Building
Room 3104
Sacramento, CA 95813

Dear Honorable Members:

On June 22, 2015, the California High-Speed Rail Authority issued a request for expressions of interest (EOI) from potential private sector partners.¹ The request posed 12 questions intended to identify the roles that the private sector might be willing to play as a partner in the construction, financing and operation of the project. The responses, 33 in total, were received in September.² Appendix A attached to this letter contains a list of the questions and Appendix B contains a list of those who responded.

The Peer Review Group believes it is useful to provide the Legislature with comments on these responses because the responses have greatly clarified critical aspects of the potential private role. This clarification highlights the importance of a thorough discussion of the Authority's

¹ CAHSRA, "Request for Expressions of Interest for the Delivery of an Initial Operating Segment, RFEI HSR#15-02, June 22, 2015.

² The full set of responses may be found at <http://tinyurl.com/2015rfei>

proposed business model in the upcoming 2016 Business Plan that could help the Legislature to ensure that the project remains on a course to serve the State's needs.

In summary, the responses show that significant private sector participation will be based on several factors: (1) private risk capital based on revenues will not be available to the project until travel demand has been demonstrated; (2) the life of the cap-and-trade program and the share of the Authority in the funds generated will need better definition; and, (3) the State may need to back the ability of the Authority to carry out its financial commitments. These points are discussed in detail below.

The private sector's perspective. Contrary to some public comments, there is strong interest from the private sector in the project. The responses varied considerably in their range of proposed involvement – some taking a global view of the project and its management, some focusing more narrowly on a single element such as rolling stock – but the request definitely generated interest and responses, as Appendix A and B show.

The responses demonstrate, however, that the objectives and capabilities of the private sector are different from those of the Authority and the State. The Authority and the State aim to capture broader economic benefits in addition to passenger revenues, including lowered accidents, reduced road and airway congestion, lower air pollution, reduced energy consumption and CO₂ emissions, enhanced economic development, added employment, and increased minority involvement, among many others. The State has a much longer time horizon, and has the capability to take larger financial and economic risks than corporations. By comparison, private partners necessarily aim for profits – revenues from riders and ancillary benefits such as development in stations minus operating and financial costs -- and are acutely sensitive to risk because they have immediate and critical “skin in the game.” Each partner must be willing to assess its benefits in line with the investments, operating costs and performance risks it is prepared to accept. This difference in perspective pervades the issues of public and private roles.

Risks that are difficult for the private sector to take. Although the EOIs confirm that the private sector is willing and able to take some of the construction cost and schedule risks, there are risks that the private sector will probably find it difficult to carry:

- *Demand and revenue risk.* Because the HSR project is an entirely new system rather than an upgrade of an existing system, there is no actual ridership history. This means that the demand forecasts are primarily based on surveys of what potential riders say they would do if offered high-speed rail (stated preferences) rather than on usage of an actual service (revealed preferences). Although the Authority's demand studies are state-of-the-art, they are nevertheless inherently subject to a wide range of possible outcomes, some of which would be financially unacceptable to an investor. The potential private sector partners have indicated that they will defer taking demand or revenue risk until demand has actually been demonstrated on a significant part of the system. Instead, private partners prefer a commitment to an “availability payment” (where the Authority guarantees to pay an investor for providing a stated level of operating capacity whether or not the forecast usage actually occurs) prior to the point at which demand has actually been demonstrated. Since demand cannot be effectively proven on less than a significant part of the system (an Initial Operating Segment), this means that significant private demand-based investment cannot be expected before 2025 at the earliest in the absence of an assured system of availability payments. In

addition, most new services face a “ramp-up” period in demand, during which initial losses might be expected. This could conflict with the prohibition of an “operating subsidy” in Proposition 1A. A clearer definition of the term “operating subsidy” to allow initial losses would be useful.

- *Financial and investment risks.* The potential private partners identified a number of financing risks emerging from the fact that nearly all of the existing financing sources face varying degrees of uncertainty. Proposition 1A financing (\$9 billion) requires a 50/50 match and is presently tied up in litigation; it is thus not yet fully available and is subject to legal risk. The ARRA grant money from the Federal Government (\$2.5 billion) must be spent by September 30, 2017, and project delays (many not within the control of the Authority) place at least some of that money in question. The expiration deadline can only be extended by Congress. Cap and Trade (C&T) funding is based on the Authority’s current 25% share of C&T revenues, amounting to roughly \$500 million annually, but (1) the legal foundation of the overall program is arguably not established beyond 2020, (2) the Authority’s future share could be changed by the Governor and Legislature in the face of stiff competition from other potential claimants and, (3) estimates of future C&T total income are uncertain. As a result, the C&T income, desirable as it is, cannot be effectively securitized as it is currently constituted and, in any event, would only fill part of the gaps. More broadly, the responses indicated that potential private partners question the ability of the Authority to make or to fulfill major commitments such as availability payments without access to the backing of the State. This is particularly important because there are no other currently available significant Federal or State grant programs; the existing programs (TIFIA or RRIF) are loans that would have to be repaid, and the likely source of repayment would be the State.
- *Project structure risks.* There was common agreement among potential participants that the project should be awarded in packages no larger than \$4 billion to \$6 billion in order not put the work beyond the capability of even the very largest contractors. There was also consensus that the packages might be a combination of geographically-based civil construction (as is the case with the current construction packages) along with broader, system-wide elements such as signaling, rolling stock or electrification. At the same time, the responses identified potential integration and compatibility risks that are posed by separated packages in which, for example, track and electrification could be provided by one contractor and rolling stock by a different contractor. In its current approach, if rolling stock and track or signals are not compatible, the Authority will be responsible. In principle this set of risks could be minimized by bringing a private coordinating partner in as early as possible, especially one with the operating and commercial skills that will be needed when the system begins carrying passengers. Doing so would require a shift in roles from the exiting contractors to new contractors. This could conflict with the way the project is currently structured and managed and could even now be difficult because the integration of the work and design commitments already made might pose risks to a new partner.

In summary, the EOIs have underlined a major issue the Authority faces: the known sources of funding will need to be modified if the Authority is to be able to manage the risks and potential financial demands that the project faces. It will be critical that the 2016 Business Plan identify and carefully evaluate the options for moving ahead in the light of these challenges.

Along with the discussion in the upcoming 2016 Business Plan, we believe the Legislature may want to consider several questions:

- Could the Authority be given the ability to commit the backing of the State to execution of an availability payment scheme if that is an effective way to secure private investment?
- Should the C&T program be changed to give it clearly established status beyond 2020? Should the current 25% share of funding for the Authority be increased to a higher percentage and the expected income to the Authority guaranteed against future reduction so that securitization will be possible in order to unlock this source of funding?
- Would the State want the Authority to apply for Federal loan funding such as TIFIA and RRIF even though that would mean that the State may need to commit to repay at least a major share of such loans?
- Looking at the project as a whole and given its manifest importance to the State, is the current oversight adequate or should the Legislature create a focused committee along with a dedicated and adequately funded oversight staff lodged, for example, in the Legislative Analyst's Office?

As stressed in earlier letters, the peer review group does not see its role as either criticizing the project or supporting it, though we do strongly support the concept of better rail passenger service, including high-speed rail service, in the State's future transport system. We hope to ensure that the critical issues and questions are identified as they emerge and in time for effective consideration by the Governor and Legislature. Please let me know if you have any questions, need further information about our comments, or would like to meet with the Group directly.

Sincerely,



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

cc: Hon. Jim Beall, Chair, Senate Transportation and Housing Committee
Hon. Anthony Canella, Vice Chair, Senate Transportation and Housing Committee
Hon. Jim Frazier, Chair, Assembly Transportation Committee
Hon. Katcho Achadjian, Vice Chair, Assembly Transportation Committee
Brian Kelly, Secretary, California State Transportation Agency
Mac Taylor, State Legislative Analyst
Ken Alex, Director, Governor's Office of Planning and Research
Dan Richard, Chair, California High-Speed Rail Authority
Jeff Morales, Chief Executive Officer, California High-Speed Rail Authority
Members, California High-Speed Rail Peer Review Group

Appendix A
Specific Questions Posed for Response

Commercial Questions

1. Is the delivery strategy (i.e., combining civil works, track, traction power, and infrastructure) likely to yield innovation that will minimize whole-life costs and accelerate schedule? If so, please describe how. If not, please recommend changes to the delivery strategy and describe how those changes will better maximize innovation and minimize whole-life costs and schedule.
2. Does the delivery strategy adequately transfer the integration and interface risks associated with delivering and operating a high-speed rail system? What are the key risks that will be borne by the State if such risk transfer is not affected? What are the key risks that are most appropriate to transfer to the private sector?
3. Are there any other components of a high-speed rail system that should be included in the scope of work for each project (e.g., rolling stock, train operations, stations)? If so, how will this help meet the Authority's objectives as stated in this RFEI?
4. What is the appropriate contract term for the potential DBFM contract? Will extending or reducing the contract term allow for more appropriate sharing of risk with the private sector? If the Respondent recommends a different delivery model, what would be the appropriate term for that/those contract(s)?
5. What is the appropriate contract size for this type of contract? What are the advantages and disadvantages of procuring a contract of this size and magnitude? Do you think that both project scopes should be combined into a single DBFM contract?
6. Does the scope of work for each project expand or limit the teaming capabilities? Does it increase or reduce competition?

Funding and Financing Questions

7. Given the delivery approach and available funding sources, do you foresee any issues with raising the necessary financing to fund the IOS-South project scope? IOS-North project scope? Both? What are the limiting factors to the amount of financing that could be raised?
8. What changes, if any, would you recommend be made to the existing funding sources? What impact would these changes have on raising financing?
9. Given the delivery approach and available funding sources, is an availability payment mechanism appropriate? Could financing be raised based on future revenue and ridership (i.e., a revenue concession)? Would a revenue concession delivery strategy better achieve the Authority's objectives?

Technical Questions

10. Based on the Authority's capital, operating, and lifecycle costs from its 2014 Business Plan, describe how the preferred delivery model could reduce costs, schedule, or both. Please provide examples, where possible, of analogous projects and their cost and/or schedule savings from such delivery models.
11. How does this compare to separately procuring each high-speed rail component (i.e., separate contracts for civil works, rail, systems, power separately)? Please discuss design/construction costs, operating/maintenance/lifecycle costs, and schedule implications.
12. For each project, are there any technical changes to the respective scope of work that would yield cost savings and/or schedule acceleration while still achieving the Authority's objectives? If so, please describe.

Appendix B

Responses Received

- 01 Cintra Ferrovia
- 02 **AECOM**
- 03 Vinci Concessions
- 04 Italferr
- 05 Japan HSR Consortium
- 06 Ashurst
- 07 Acumen
- 08 China Railway Signal and Communication (CRSC)
- 09 OHL Infrastructure
- 10 INABENSA (Spain)
- 11 China Railway International (CRI)
- 12 John Laing
- 13 FCC (Spain)
- 14 Ericsson
- 15 Sacyr (Spain)
- 16 **DB International**
- 17 **Kiewit**
- 18 Indra (Spain)
- 19 **Fluor/Balfour Beatty**
- 20 **Isolux Corsan (Spain)**
- 21 **Siemens**
- 22 Thales
- 23 TYPESA Group (Spain).
- 24 Skanska (Sweden)
- 25 **Plenary Group**
- 26 Bouygues (France)
- 27 Acciona (Spain)
- 28 **GLOBALVIA (Spain)**
- 29 **Parsons**
- 30 **Bechtel/Arup/Systra**
- 31 **Barclay's**
- 32 Airtrain
- 33 **ACS/Dragados/Cobra***
- 34 **Meridiam**
- 35 **Macquarie**
- 36 Elecnor (Spain)

* Currently has the contract for CP2 and CP3

Responses in bold type are more comprehensive