



California High-Speed Rail BRIEFING: April 11, 2024, Board Meeting Agenda Item #3

TO: Chairman Richards and Board Members

FROM: Bruce W. Armistead, Chief of Rail and Operations Delivery

DATE: April 11, 2024

RE: Consider Providing Approval to Release a Request for Proposals for a Supply-Maintain Contract for High-Speed Trainsets and Related Services

Summary

Staff recommends that the Board approve the issuance of a Request for Proposals (RFP) for a supply-maintain contract for the provision of high-speed trainsets, driving simulator, and related services to two pre-qualified (shortlisted) teams. This RFP will be the second step of a two-step procurement. The shortlisted teams are the result of the first step, the release of a Request for Qualifications (RFQ), which was approved under Board Resolution #HSRA 23-06.

Staff will return to the Board for approval to award the High-Speed Trainsets and Related Services contract and issue Notice to Proceed 1 (NTP 1 for six trainsets) and Notice to Proceed 2 (NTP 2 for the driving simulator). Staff will also return to the Board for approval prior to issuance of each subsequent notice to proceed.

Background

The California High-Speed Rail Authority (Authority) is responsible for planning, designing, building, and operating the first high-speed rail system in the nation, linking California's major population centers. The Authority aims to complete construction and begin train and rail systems testing on the first 119-mile segment between Madera and Poplar Avenue by the end of 2028 and begin revenue operations between 2030 and 2033 on the full 171-mile segment between Merced, Fresno, and Bakersfield. The initial 119-mile segment is a crucial part of these goals, as it will serve as the test track. The track, overhead contact system (OCS), signaling, communications, traction power, and trains must all be tested extensively to achieve certification from the Federal Railroad Administration. Contracting with a high-speed train manufacturer in 2024 is a critical step in this process.

The Authority's future trainset manufacturer must engage early with the future designers and contractors delivering the track, OCS, signaling, communications, and traction power elements. The future trainset manufacturer will also be required to engage with the Authority's future facilities contractor for the buildout and equipping of the facilities in preparation for trainset receipt and maintenance.

On August 24, 2023, the Board approved the release of an RFQ for a supply-maintain contract for High-Speed Trainsets and Related Services (Resolution #HSRA 23-06). Subsequently, Authority staff released the RFQ on August 25, 2023. Two teams submitted Statements of Qualifications (SOQs) in response to the RFQ. Both SOQs were thoroughly reviewed and evaluated based on the criteria provided in the RFQ to establish the most qualified teams.

Under the first step, both teams were determined to be qualified to participate in the second step of this two-step procurement. A news release was provided publicly on January 5, 2024. The shortlisted teams (proposers) are, in alphabetical order:

- Alstom Transportation Inc.
- Siemens Mobility Inc.

In accordance with sections 185034 and 185036 of the California Public Utilities Code, and upon approval of the Board, the Authority will request proposals from the two proposers. The Authority will evaluate and score the proposals it receives in response to this RFP, according to criteria set forth therein, and will identify the proposer whose proposal was determined to represent the best overall value to Authority. The selection will be based on a combination of qualitative factors and proposal price, detailed more below.

Prior Board Action

In 2023, Resolution #HSRA 23-06 authorized the release of a Request for Qualifications (RFQ) for a Supply-Maintain Contract for High-Speed Trainsets and Related Services.

In January, 2024 the Board accepted an updated Total Expenditure Authorization that includes costs for the first six trainsets, the driving simulator, and related services included in this contract. The federal share of these costs is 80% and the state share is 20%.

Discussion

The provision of trainsets is on the critical path for the Authority to meet its commitments to the Federal Railroad Administration (FRA) per its federal grants, including start of revenue service between 2030 and 2033. The selection of a trainset manufacturer is critical to the development of design criteria to ensure correct and complete integration of the trainsets with the track and systems. The delivery of the trainsets is also necessary to enable the static and dynamic testing of the trainset and track and systems. To meet these goals, a trainset manufacturer must be under contract in 2024. Grant funding under the Federal-State Partnership for Intercity Passenger Rail Program (FSP-National) will provide for six electric trains for testing and use. Under the FSP-National grant, the federal share is 80% and the state share is 20%.

This RFP, the second step of this procurement, follows the RFQ and associated shortlisting of two proposers, Alstom and Siemens. With Board approval, the Authority will request technical and price proposals from Alstom and Siemens, leading to the selection of the proposer that represents the best value to Authority.

Following evaluation and selection of the apparent best-value proposer, staff will return to the Board for approval of contract award and issuance of NTP 1 (six trainsets) and NTP 2 (driving simulator) of the High-Speed Trainsets and Related Services contract.

Scope of Work

The scope of work for the High-Speed Trainsets and Related Services contract includes the following:

- the design, manufacture, delivery, integration, testing, and commissioning of the trainsets;
- maintenance of each trainset for 30 years, including a mid-life overhaul, and provision of all spares (i.e., interchangeable parts of a trainset) for such trainsets;

- the design, manufacture, installation, testing, commissioning, maintenance, and update of the driving simulator;
- development and provision of design criteria to inform interfaces with the facilities, track, systems, and stations;
- participating in the testing and commissioning of the facilities, track, systems, and stations;
- the development and provision of information to support the certification and subsequent commissioning of the trainsets; and
- the operation and maintenance of the equipment needed to maintain the trainsets within the Heavy Maintenance Facility (to be built by others).

Staff will release the work in accordance with the following schedule of Notices to Proceed (NTPs):

- **NTP 1:**
 - Identification of critical interfaces, mobilization, and engineering design services
 - Two prototype trainsets and static and dynamic testing
 - Four production trainsets and pre-revenue testing
 - Provision of trainset spares
- **NTP 2:**
 - Driving simulator
- **NTP 3/OPTIONAL**
 - Delivery of an option order of up to fifteen (15) additional trainsets
- **NTP 4:**
 - Commencement of the overall trainset service period, including the planning and coordination efforts related to the mid-life overhaul to occur around year(s) 14-16
- **NTP 5:**
 - Commencement of the mid-life overhaul for the trainsets

Staff will return to the Board for approval to award the contract and issue NTP 1 and NTP 2. Subsequent Board approvals will be required to issue NTP 3, NTP 4, and/or NTP 5.

Contract Term and Structure

The contract has two phases: Delivery and service. Under the delivery phase, the two prototype trainsets must be delivered and achieve provisional acceptance within 48 months of NTP 1 and achieve final acceptance within 72 months of NTP 1; the four production trainsets must be delivered and achieve provisional acceptance within 60 months of NTP 1 and achieve final acceptance within 78 months of NTP 1. The service period is for 30 years and will commence upon final acceptance of the trainsets by the Authority.

Small Business Requirements

The High-Speed Trainsets and Related Services contract is subject to Small Business (SB), Disabled Veteran Business Enterprise (DVBE), and Disadvantaged Business Entity (DBE) participation goals in compliance with state and federal requirements. The contract will include the HSR SB Program goals adopted by the Board at its November 2023 meeting. Based on the blend of state and federal funds for this contract, the participation goals will be as follows:

- 3 percent DVBE goal (applied to full contract value)
- 10 percent DBE goal (applied to full contract value)
- 25 percent SB goal, including a 3 percent Microbusiness goal (applied to state-funded contract value)

The contract will permit the Authority to withhold issuance of an NTP or a portion thereof if the Authority is not satisfied with the contractor's SB Performance Plan and efforts to achieve it. More details on the small business requirements within the RFP are provided in the section on the procurement evaluation criteria below.

Buy America Requirements

The High-Speed Trainsets and Related Services contract is subject to FRA's Buy America statute and applicable guidance. Under this law, the U.S. Secretary of Transportation may obligate funds for "a project only if the steel, iron, and manufactured goods used in the project are produced in the United States" (49 U.S.C. § 22905(a)). What constitutes FRA Buy America compliant trainsets are trainsets that have undergone final assembly in the U.S. from components that are manufactured in the U.S. or for which FRA waivers have been granted.

Waivers to use non-domestic components may only be granted by the U.S. Secretary of Transportation if the Secretary finds that: i) the public interest requires a waiver; ii) the steel, iron, and goods needed are not produced in a sufficient and reasonably available amount in the U.S. or are not of satisfactory quality; iii) rolling stock or power train equipment cannot be bought and delivered in the U.S. within a reasonable time; or iv) including domestic material will increase the cost of the overall project by more than 25 percent.

Based on dollar value, over 90% of trainset components are produced in the U.S. Industry practice includes limited Buy America waivers for a small percentage of components. For example, Amtrak has received limited Buy America waivers for particular components, and the Brightline West project recently sought limited waivers for some components of its high-speed trainsets. The Authority anticipates a similar need consistent with industry practice. Initial information has been gathered from the qualified proposers. Early in the RFP process, proposers will be required to submit formal requests for limited waivers, if any, for specified components. The Authority will work with the FRA and seek only the necessary and justifiable waivers—as identified by the proposers—that permit Buy America compliance and a fair procurement process. If waivers are granted, the Authority will issue an addendum to the RFP prior to accepting proposals. As part of their proposals, proposers must also submit a Buy America Domestic Content Improvement Plan detailing how they will improve the domestic content of the trainsets over the life of the contract.

Labor Requirements

The High-Speed Trainsets and Related Services contractor must comply with applicable state and federal labor laws and regulations.

The contractor will also be required to comply with the Memorandum of Understanding between the Authority and 13 rail labor organizations dated November 16, 2023 (MOU), which addresses employees doing traditional rail work to support the Authority's revenue service under the Railway Labor Act. The MOU will cover an estimated 3,000 workers who will operate and maintain high-speed trains, facilities, and stations for the entire system from the Bay Area, through the Central Valley and into Southern California. The initial 171-mile segment from Merced to Bakersfield will create nearly 400 operating jobs. The MOU ensures that employees doing traditional rail work on the project, including train maintenance, will be able to determine for themselves what representation, if any, they want, and that they can be covered by applicable rail labor laws.

The contractor will also be required to submit a U.S. Employment Plan describing its approach to developing a skilled labor force in the U.S. for the manufacturing and maintenance periods of the contract. A draft U.S. Employment Plan must be submitted with the proposal and will be scored. It must include information on the following:

- (i) U.S. Production Sites – Identify the locations in the U.S. of final assembly and manufacture of the Trainsets and Trainset components, including any evidence of Contractor's commitment to these

locations such as a letter of intent, lease, purchase agreement or existing ownership of the site, if available. Identify any other sites in the U.S. owned or controlled by Contractor where there will be a significant increase in activities and employment or jobs retention as a result of the Work under this Contract. Describe any investments and/or upgrades to existing U.S. facilities that will occur as a result of the Work under this Contract.

- (ii) Description of Jobs Created and/or Retained – Describe the number, quality, and range of employment opportunities to be created and/or retained to complete the Work under the U.S. Employment Plan during the delivery and service periods. The descriptions should include minimum requirements for each job/skill category, including the extent to which the plan is likely to produce or retain long-term employment in skilled or trade labor. Workers who also work on other projects may only be counted to the extent they perform work under this Contract. The percentage of time a worker will work under this Contract may be counted as a percentage of one full-time equivalent position, or FTE.
- (iii) Compensation and Benefits – Regarding the jobs identified pursuant to item (ii) above, describe the compensation related to jobs created or retained and the compensation ranges for each job category and the value of benefits such as medical and dental coverage, retirement, paid sick leave and paid vacation.
- (iv) Workforce Training Plans – Provide Contractor’s dollar commitment to be made for workforce development, apprenticeship, and training programs for jobs in categories that will support or perform the Work under this Contract. Contractor should identify applicable, transferrable credentialing opportunities that will be offered to new hires, which may include coordinating with any publicly or privately funded workforce development, apprenticeship, and training programs.
- (v) Outreach and Recruitment Plans for New Hires – Describe outreach and recruitment plans for the U.S. Employment Plan, including strategies and plans for the recruitment of new hires and any special outreach for entry level positions that will include training in contemporary manufacturing skills. Describe specific outreach strategies for recruitment of disadvantaged workers. A disadvantaged worker is a worker certified under the Workforce Innovation and Opportunity Act or a worker whose permanent residence is in an economically disadvantaged zip code.
- (vi) Subcontractors and Suppliers – Describe approach to encourage subcontractor and supplier participation in the U.S. Employment Plan.
- (vii) Plan Administrator – Describe the duties assigned to an employee of the Contractor for the administration of the U.S. Employment Plan. Provide the name and contact information of the Plan Administrator no later than Authority’s issuance of NTP 1.

The contract will require annual reports to the Authority detailing the contractor’s adherence to the commitments made in its U.S. Employment Plan, which will include the elements listed above, at a minimum.

Procurement Schedule

The anticipated schedule for this procurement is as follows:

The Authority anticipates awarding the contract in Q4 of 2024. The RFP must be released by Q2 to support the 2023 Project Update Report, 2024 Draft Business Plan, and meet federal grant deadlines.

ACTIVITY DESCRIPTION	EST. TIMEFRAME
RFP Release	April 2024
Proposal Date Due	Fall 2024
Contract Award	Q4 2024
Delivery of Two Prototype Trainsets for Static and Dynamic Testing, Driving Simulator	Q4 2028
Delivery of Four Production Trainsets for Pre-Revenue Testing, Spares	Q4 2029
Revenue Service	2030-2033

Procurement Evaluation Criteria

The RFP process will be managed by the Authority. Proposals submitted will be reviewed to ensure that all technical, requisite qualifications, and other requirements are met. The financial capacity of proposers will be required as a minimum qualification and will be evaluated on a pass/fail basis. (Proposers’ information on its environmental, social, and governance efforts were submitted previously with their SOQs.)

The technical and price proposals submitted by the proposers will be evaluated and scored by the Evaluation Selection Committee pursuant to established criteria in the RFP, which allocates 60 percent of points toward price and 40 percent toward technical as follows:

EVALUATION CRITERIA	POSSIBLE POINTS
General Proposal Review 1. Responsiveness and Pass/Fail Review 2. Financial Capacity	N/A N/A
Best Value Evaluation Technical Proposal Scoring Criteria 1. Technical Pass/Fail Evaluation (points N/A) 2. Minimum Technical Requirements (225) 3. Added Value Parameters (175) Pricing Scoring Criteria 1. NTP 1/NTP 2 – 6 Trainsets/Driving Simulator (225) 2. NTP 3 – Options Fleet (25) 3. NTP 4 – Maintenance Service Payments (225) 4. NTP 5 – Mid-life Overhaul (100) 5. Track Maintenance Adjustment (25)	400 600
BEST VALUE TOTAL POSSIBLE POINTS	1000

As part of the technical proposal, the proposers will be scored on their responsiveness to numerous technical requirements, such as dynamic behavior simulations, axle loads and trainset interiors. Proposers will also be scored on their responses to certain programmatic elements. These include items such as sustainability, energy consumption, small business goals, and draft U.S. Employment Plan (detailed above).

The tables below represent condensed versions of the evaluation and scoring criteria from the RFP related to proposer technical submittals (numbers 2 and 3 in the above table under “Technical Proposal Scoring Criteria”). Note that the section on the Small Business Program goals, in the second table below, has not been condensed.

Minimum Technical Requirements (225 points available of 400 points total for technical score):

Requirement / Description	Potential Points	Information to be Provided, at a Minimum, to Address the Referenced Clause
Reference System	20	Proposer shall document the “Reference System” and provide details that support its claim of a Service-Proven Trainset.
General Requirements / Interior Aesthetic Design Concepts / Flexibility	40	Proposer shall provide an interior concept package that illustrates compliance with the Train Interior Design Vision Book and associated Train Interior Functional and Technical Requirements (Attachments 4 and 5 to Schedule 1). Proposer shall provide a vehicle-specific adaptation of the Authority’s concepts, following the instructions provided in the document titled Train Interior Design Vision Book – Proposer Adaptation.
Passenger Seating Capacity for Trainset Baseline Interior Layout	15	Proposer shall provide evidence that it is offering a Trainset capable of providing a Trainset baseline interior layout with a minimum of 450 passenger seats in accordance with the “Systems” tab of the Train Interior Functional and Technical Requirements (Attachment 5 to Schedule 1).
Driving Simulator	25	Proposer shall provide a description of the Driving Simulator that it will provide that meets the requirements of the referenced section.
Trainset Dynamic Behavior Vehicle/Track Analytical Simulation	45	Proposer shall provide simulation modeling data that demonstrates the ability of the product offering to meet the requirements identified in the referenced sections, including the process to be employed to achieve FRA approval of the validated model.
Static Axle Load	15	Proposer shall provide evidence that it is offering a Trainset and associated services that meet the requirements identified in the referenced section.
Clearances	25	Proposer shall provide evidence that it is offering a Trainset and associated services that meet the requirements identified in the referenced section.
Draft Baseline Program	20	Proposer shall provide a draft Baseline Program that contains the information as defined in Article 6 of the General Provisions.
Draft Project Management Plan (PMP)	20	Proposer shall provide a draft PMP that contains the information as defined in Article 22(a) through (n) of the General Provisions. (<i>Note: The information within Article 22 (o)(i) – (vii) will be submitted within the Draft U.S. Employment Plan and scored according to Section 9.5.3 below.</i>)
	225	

Added Value Parameters (175 points available of 400 points total for technical score):

Parameter	Maximum Points
<u>TECHNICAL PROPOSAL</u>	
<p>1. <u>HSR Small Business Program</u> The Authority seeks a Contractor that understands the policies and requirements set forth in the Authority’s HSR Small Business Program Plan; has an effective approach to meeting the Small Business, including Microbusiness, Disabled Veteran Business Enterprise, and Disadvantaged Business Entity goals; and is committed to providing the systems, skilled management personnel and staffing levels necessary to meet the policies of the Authority.</p> <p>The Authority sees value in a Contractor with an outreach program that is visible, accessible and continuous throughout the duration of the Project; that is innovative and employs industry best practices; and is financially supportive of small business and other subcontractors.</p> <ol style="list-style-type: none"> a. Detail the Proposer’s approach and processes to be used to develop SB/DBE/DVBE participation throughout the duration of the Contract, including the Overall Trainset Service Period, including the planned methodology for achieving the 25 percent SB utilization goal, which includes a 3 percent Microbusiness utilization goal, and the separate 10 percent DBE goal and 3 percent DVBE participation goals, which will become Proposer’s commitments in and the basis of its SB/DBVE/DBE Performance Plan, a Contract deliverable. Include any commitments to items such as workshops, technical assistance, seminars, trade fairs, industry forums and other small business focused events. b. List each of the SBs, MBs, DBEs and DVBEs identified on Form B together with a description of the scope of work and overall percentage of the Work each will perform. c. Describe the qualifications and experience of Proposer’s proposed Small Business and Outreach Coordinator, and describe their role and responsibilities for both implementation and compliance with Authority’s HSR Small Business Program Plan. Describe the coordinator’s level of authority, placement in your proposed organization chart and percentage of time committed to the Project. d. Provide a narrative description and Proposer’s commitments to innovation in assistance to small business such as access to capital, trade credits, surety bonding assistance or forbearance, insurance, and other supportive services. e. Provide a detailed Communication Plan, defining the approach and frequency that the Proposer will use to communicate with SB/MB/DBE/DVBE Subcontractors and meet the requirements in Article 32.4 of the General Provisions. 	30
2. Draft U.S. Employment Plan	20
3. Service Period Requirements	15
4. Exterior Noise	10
5. Energy Consumption – Authority’s San Francisco 4 th and King to Los Angeles Union Station Alignment	20
6. Reliability	10
7. Fire Safety	15
8. Sustainability	55
	175

At the conclusion of the proposal review, the Evaluation Selection Committee will rank the proposers on the basis of total score (60 percent weighting for price and 40 percent for technical) and recommend to the Chief

Executive Officer the proposer that provides the best value to Authority. Board approval is then required to award the contract.

Legal Approval

The Legal Office has reviewed and approved this RFP for release to the shortlisted offerors (proposers).

Budget and Fiscal Impact

In January 2024, the Board adopted a revised program baseline budget that includes recent federal grant awards, including the nearly \$3.1 billion grant under the Federal-State Partnership for Intercity Passenger Rail Program (FSP-National). Funding for six electric trains for testing and use is included in the FSP-National grant as are funds for a driving simulator. The federal grant funds 80 percent of the cost, with the state funding the remaining 20 percent.

This RFP is budgeted at the Probability 50 (P50) level with an estimated costs for six electric trains and a driving simulator of \$533.68 million, which covers NTP 1 and NTP 2 of the RFP. This is consistent with the cost estimates in the January 2024 Board action.

Authority staff will return to the Board for approval to award the contract and issue NTP 1 and NTP 2, and any subsequent NTPs. Prices for the NTPs will be based on the price proposal of the successful proposer. NTPs after NTP 1 and NTP 2 will be based on the price proposal plus escalation, which will be tied to various indexes.

Capital Outlay Costs

The funds associated with this request include federal and state sources, including 80-percent FSP-National funds and 20-percent Cap and Trade auction proceeds (Greenhouse Gas Reduction Funds). This budget covers NTP 1 and NTP 2. Should NTP 3 for additional trainsets ever be utilized, staff will return to the Board for approval.

This request does not change the Total Program Budget or the FY2024/25 (Next FY) budget:

2024/25 Fiscal Year Budget

Contract Name	Contract Number	Current FY Contract Budget	Budget Change	Funding Source
Trainsets		\$75,000,000	-\$75,000,000	80% Federal / 20% State
Trainset Supply and Maintainer	HSR-PEND-24-01-03-02	\$0	\$75,000,000	80% Federal / 20% State
Total			\$0	

Total Program Budget

Contract Name	Contract Number/Budget Allocation	Current Total Program Contract Budget	Budget Change	Funding Source
Trainsets		\$533,680,000	-\$533,680,000	80% Federal / 20% State
Trainset Supply and Maintainer	HSR-PEND-24-01-03-02	\$0	\$533,680,000	80% Federal / 20% State
Total			\$0	

Maintenance Costs

Authority staff will return to the Board for approval to issue NTP 4, which will trigger the trainset maintenance period and associated monthly service payments, and to issue NTP 5, which is the mid-life overhaul. During operations, revenues generated by the system, including farebox and ancillary revenue, will be the source of funding used, consistent with the no-subsidy requirement of Proposition 1A.

The interim Central Valley Service, guided by the Universal Operator concept, will be managed by the San Joaquin Joint Powers Authority (SJJPA). As outlined in the 2023 Project Update Report and Draft 2024 Business Plan, the Authority has laid out a business model for interim service in the Merced-to-Bakersfield corridor following an “infrastructure owner” approach. An element of these discussions is to detail and evaluate the concept of establishing a “universal operator” under the management of SJJPA to operate a set of integrated rail services. Specific sub-agreements are under development that are necessary to detail the operating relationships and requirements of each agency for asset leasing and operating cost responsibilities.

REVIEWER INFORMATION	SIGNATURE
Reviewer Name and Title: Brian Annis Chief Financial Officer	Signature verifying budget analysis:
Reviewer Name and Title: Alicia Fowler Chief Legal Counsel	Signature verifying legal analysis:

Recommendations

Staff requests Board approval of the Term Sheet for High-Speed Trainsets and Related Services, approval to issue the Request for Proposals to the two shortlisted teams, and authorization for staff to make appropriate changes to the Request for Proposals as part of the procurement process. Staff will return to the Board for approval to award the contract for High-Speed Trainsets and Related Services and issue NTP1 and NTP2, and for each subsequent NTP prior to issuance of such NTP.

Attachments

- Draft Resolution #HSRA 24-05
- Term Sheet for High-Speed Trainsets and Related Services
- PowerPoint Presentation