



Description of Intended Sole Source Purchase

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This description of commodities or contractual services intended for purchase from a sole source is posted in accordance with section 287.057(3)(c), Florida Statutes and will remain posted for a period of at least seven (7) business days.

Commodity or Service Required: Positive Train Control System

Description:

The South Florida Rail Corridor ("SFRC") is a 72-mile rail corridor between mainline M.P. SX964.9 and SX1037 that is owned by the Florida Department of Transportation ("FDOT") and currently dispatched and maintained by CSX Transportation ("CSXT"), under contract to FDOT. Current rail traffic includes Tri-Rail commuter rail service (operated by the South Florida Regional Transportation Authority ("SFRTA")), CSXT freight service, and Amtrak intercity passenger service. CSXT owns and operates the tracks on either end of the SFRC (north of Dyer Interlocking and south/west of Oleander Junction). CSXT also maintains perpetual exclusive freight easement rights on the SFRC through a separate agreement between FDOT and CSXT.

SFRTA is responsible for procuring and implementing a Positive Train Control ("PTC") System (below) on the SFRC wayside portion (through various agreements with FDOT) and on the Tri-Rail rolling stock, no later than December 31, 2015 (the "Deadline") pursuant to the Rail Safety Improvement Act ("RSIA") of 2008 § 104, Pub. L. 110-432, 122 Stat. 4854 (Oct. 16, 2008) (codified at 9 U.S.C. § 20157)) . The purpose of this Sole Source Justification is to outline the process and the conclusions reached by SFRTA regarding procurement and implementation of the Work (as defined below).

Intended Source:

Xorail, Inc.

Estimated Dollar Amount:

\$20,919,888.00

Justification for Sole Source Acquisition:

The following summarizes the decision factors that validate the sole sourcing of the Work to Xorail, Inc. ("Xorail"):

Current Knowledge of Existing SFRC Signal System and Dispatch System: Xorail, formerly known as Southwest Signal Engineering Company, is the Engineer of Record for the railroad signal system on the SFRC. Additionally, Xorail has been the sole signal designer and contractor for both CSXT and SFRTA on the SFRC since the State purchased the SFRC in 1988. Xorail's exclusive knowledge and experience on the SFRC signal system will be crucial for quick mobilization of the PTC contractor team and the project execution under the accelerated schedule in order to meet the Deadline. Some of the existing signal systems are older generation, and maintenance documentation may not be readily available, so any other contractor would require Xorail's support to integrate the various segments comprising the PTC System with the existing signal system. In addition to integrating with the existing signal system, the PTC System will also have to be integrated with SFRTA's dispatch system, which is an Ansaldo STS product, through the Back Office Segment (as defined below). Wabtec Railway Electronics ("WRE"), Xorail's sister company (both are subsidiaries of Westinghouse Air Brake Technologies, Inc. d/b/a Wabtec Corp.) and the I-ETMS product supplier, has successfully integrated I-ETMS equipment with Ansaldo STS dispatch systems in other areas of the country.

Third Party Integration Risk: The PTC System is comprised of the four segments described below. The work which is the subject of this Procurement includes Segments 1-4 and is referred to herein as the "Work."

1. The Locomotive Segment refers to a set of independent on-board hardware, software, and devices that interface with locomotive control equipment (i.e. air brakes, train line, etc.) and includes a train management computer (TMC), a computer

display unit (CDU), a locomotive ID module, a GPS receiver, and a brake cut-out switch. The Type-Approved WRE I-ETMS product includes the hardware, software, etc. that comprises the Locomotive Segment.

2. The Back Office Segment is comprised of one (1) or more back office server(s) and associated applications, such as railroad dispatch. This segment interfaces with other railroad back offices (i.e. CSXT Back Office), Locomotive, and Communications Segments.
3. The Wayside Segment consists of those signaling appliances located in the field whose status impacts PTC on-board system operations, along with any wayside interface units used to monitor and report their status. Such appliances include interlocking controllers, signal controllers, switch circuit controllers, track circuits, track/route hazard detectors, train defect detectors, or other field devices.
4. The Communications Segment consists of hardware and software components that interface with and provide connectivity between the PTC System Segments. The Communications Segment also consists of one or more private and commercial communication networks. Its functions allow PTC data traffic to be routed amongst the networks. A private 220 MHz data radio is the primary PTC/ITC communication network. The following communications networks may also be part of the Communications Segment: private 802.11 Wi-Fi; commercial cellular networks; and commercial satellite networks. The frequencies required for PTC functionality, shall be provided by SFRTA.

The Type-Approved WRE I-ETMS product is based on Interoperable Train Control (“ITC”) specifications, which are continuously evolving as new features are added. New product hardware and software releases have also been, and continue to be, released. Major hardware and software components of the Locomotive and Back Office Segments are provided exclusively by WRE.

Integration of each Segment, between Segments, and with CSXT and Amtrak PTC systems is crucial in providing a safe and dependable PTC System. A Third Party Integrator outside of the Wabtec group of companies would introduce additional implementation and schedule risks. WRE is the exclusive provider of the I-ETMS components and Xorail (its sister company) is currently the only contractor capable of providing a turn-key PTC solution that includes equipment supply, system design, configuration, installation, testing, and ultimate system integration on the SFRC under the accelerated schedule required to meet the Deadline.

Major PTC System hardware and software components are WRE proprietary products. Xorail, Inc. is a wholly owned subsidiary of Westinghouse Air Brake Technologies, Inc. d/b/a Wabtec Corp., and is a major turnkey contractor for design, installation, interfacing with existing signals, integration, testing, and commissioning of the Type-Approved WRE I-ETMS. In order to deliver a compliant PTC System, any other prime contractor would require WRE on its team as a major subcontractor and/or a Type-Approved WRE I-ETMS equipment supplier.

Interoperability: Four (4) Class I Railroads (BNSF, UP, NS and CSXT) established the ITC Committee to develop a comprehensive interoperable technical plan to meet the requirements of RSIA, and the executing statutory rule adopted by the Federal Railroad Administration (FRA), 49 CFR Subpart I (the “PTC Rule”). The ITC Committee developed PTC Interface Control Documents to provide interface standards to allow each of the railroads to seamlessly operate on one another’s property while meeting the statutory requirements of the PTC Rule.

All Class I railroads chose the WRE Interoperable Electronic Train Management System® (“WRE I-ETMS”) for implementation of their respective PTC programs, primarily based on WRE's PTC industry experience and the PTC product WRE had already developed in conjunction with BNSF.

UP, NS, and CSXT then filed a joint PTC Development Plan based on the WRE I-ETMS, for which FRA granted a Type-Approval (docket number: FRA-TA-2011-02) in 2011 (the “Type-Approved WRE I-ETMS”). In order to provide technical and interoperability compliance with the RSIA, SFRTA will implement a PTC System based on the Type-Approved WRE I-ETMS, as described in SFRTA’s PTC Implementation Plan (PTCIP), which was submitted to, and approved by, the FRA in 2012.

To comply with the RSIA requirements, SFRTA, as the host railroad, must ensure that the PTC System for the SFRC is interoperable with the Tri-Rail commuter rail service, the CSXT freight service, and Amtrak’s intercity passenger service on the SFRC, as well as provide interoperability with other PTC systems for uninterrupted train movements over property boundaries with CSXT on each end of the SFRC.

Additionally, CSXT’s exclusive perpetual freight easement over the SFRC would preclude FDOT and SFRTA from implementing any improvements, including PTC, on the SFRC that may negatively impact CSXT’s ability to provide freight service.

Recommended Procurement Approach: SFRTA intends to utilize the Sole Source procurement method to contract with Xorail as the sole source contractor for the turnkey implementation of the PTC System, including design, product supply, installation, integration, testing, commissioning, certification, training, and placing in service a fully integrated, interoperable and PTC System on the SFRC that is FRA certified.