To: Chairman Skinner and the VRE Operations Board

From: Doug Allen

Date: July 15, 2016

Re: Authorization to Issue a Request for Proposals for Hosted Back Office Services for Positive Train Control

Recommendation:

The VRE Operations Board is asked to authorize the Chief Executive Officer to issue a Request for Proposals (RFP) for Hosted Back Office Services for Positive Train Control (PTC) for a base period of two years with three, one-year options to be exercised at the discretion of the Chief Executive Officer.

Background:

As determined in accordance with VRE Public Procurement Policies and Procedures, an Invitation for Bids (IFB) is neither practicable nor fiscally advantageous to VRE. While the network infrastructure can be described by a precise specification, the ongoing support of the infrastructure is open to different approaches. An RFP is the preferred method of procurement for this solicitation since there are different approaches to the desired service and an evaluation of technical merit is required.

Upon completion of evaluation of proposals, negotiations are conducted with the two highest ranked firms deemed to be fully qualified and best suited among those submitting Proposals, on the basis of the factors specified in the evaluation criteria. Price will be considered in context of technical performance for this service to achieve a best value determination. After receipt of the best and final offer from the top-ranked firm, a cost
analysis is performed to compare the proposed cost with the independent cost estimate to determine the proposed cost is fair and reasonable.

Positive Train Control (PTC) was mandated by Congress in the Rail Safety Improvement Act of 2008 for all railroads that carry passengers or hazardous materials. It is a set of highly advanced technologies designed to automatically stop a train before certain types of accidents occur. PTC must prevent train-to-train collisions; derailments caused by excessive speed; unauthorized incursions by trains onto sections of track where maintenance activities are taking place; and movement of a train through a track switch left in the wrong position.

To support VRE operation on CSX and Norfolk Southern (NS) territory, VRE is required to deploy a PTC back-office (PTC-BO) information system. This system is required to provide crew initialization, train consist information, reporting of positive train stop brake applications, provide software updates, provide security key updates and create a new interface to the nationwide PTC Multiprotocol Label Switching (MPLS) network.

Due to the specialized and proprietary nature of the PTC-BO, VRE has determined it is more cost effective to contract a third-party provider to provide this service in-lieu of developing this system in-house and hiring additional staff. The cost to set-up a service of this nature in-house would include new personnel prepared and trained to troubleshoot PTC Back Office issues and deeper network integration with the Host Railroads. With a third-party provider, implementation costs, labor and knowledge can be distributed across multiple clients. Two firms, ARINC and Wabtec, have confirmed a hosted PTC back-office is available or under development. Additional firms, such as Herzog, are expected to have the capability to provide this service.

The awarded firm will also be required to staff a troubleshooting helpdesk to support PTC. PTC requires constant digital communication with all trains, CSX train dispatch, NS train dispatch, two cellular networks and multiple radio base-stations. Failure or misconfiguration of components may result in train annulment or a temporary reduction in system safety. To mitigate the risk of any outages, the interested firms will be required to have subject matter experts available who can coordinate troubleshooting 24-hours a day 7-days a week.

Upon receipt and evaluation of the proposals, staff will return to the Board to request authorization to award the contract.

**Fiscal Impact:**

Funding is provided for in the current budget for locomotive and passenger railcar maintenance. Funding for future years will be included in each proposed annual budget.
WHEREAS, VRE is mandated by the Rail Safety Improvement Act of 2008 and through subsequent revisions to the Act to install and certify a Positive Train Control system by December 31, 2018; and,

WHEREAS, the back office system is part of the Positive Train Control system and provides for crew initialization, train consist information, reporting of positive train stop brake applications, software and security key updates and provides an interface to the nationwide PTC MPLS network; and,

WHEREAS, a hosted back office service is deemed cost effective compared to the enormous undertaking of developing and maintaining an in-house, stand-alone system for VRE only; and,

WHEREAS, the subsequent award of a contracted service to provide VRE with a hosted back office service will ensure VRE is in compliance with the requirements in the Rail Safety Improvement Act of 2008;

NOW, THEREFORE, BE IT RESOLVED THAT, the VRE Operations Board does hereby acknowledge the determination made by the VRE Contract Administrator in accordance with the VRE Public Procurement Policies and Procedures that competitive bidding is not practicable, nor fiscally advantageous to VRE, and that competitive negotiation is the appropriate method to procure these services; and,

BE IT FURTHER RESOLVED THAT, the VRE Operations Board does hereby authorize the Chief Executive Officer to issue a Request for Proposals for Hosted Back Office Services for Positive Train Control for a base period of two years with three, one-year options to be exercised at the discretion of the Chief Executive Officer.

Approved this 15th day of July 2016

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Gary Skinner
Chairman

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Maureen Caddigan
Secretary