

## **Request for Information (RFI)**

# Enhanced Train Control (ETC)

## Standards Development - Request for Information

June 2, 2022

### Background

1. Enhanced Train Control (“ETC”) systems are being developed to enhance the capabilities of the Train Operators to reduce human error and improve the safety of passenger and freight railway operations in Canada. ETC technologies would act as a driver assist mechanism, alerting the train crew to danger and, at their highest functionality, slowing or stopping a train to prevent a collision or derailment. This development is a result of recommendations by the Transport Safety Board (TSB) for the implementation of these types of systems; and recommendations put forth within the 2018 Review of the *Railway Safety Act*.
2. The ETC program of the Railway Association of Canada (RAC) (hereinafter “ETC Program”) is developing technical documents, standards, and Interface Control Documents (“ICDs”) for ETC systems to support interoperability utilizing processes of the Institute of Electrical and Electronics Engineers (IEEE 29148:2018). The railways participating in this RAC ETC Program are Canadian National Railway, Canadian Pacific Railway, Metrolinx and VIA Rail (“Participating Railways”).
3. It is recognized within this ETC Program that system requirements, standards, ICDs, etc. developed within this program would benefit from being reviewed by potential Vendors of train control systems and components to confirm, to the extent possible, that they do not:
  - unnecessarily preclude the use of proven systems or components; or
  - contain requirements that result in extensive unnecessary changes to proven systems or components that will significantly increase costs.
4. The objective of this Request for Information (RFI) is to circulate the developed technical documents to potential Vendors for feedback while protecting the proprietary and confidentiality aspects of these documents.
5. *Participating in this RFI, and review of ETC Program documents, will not approve Vendors for, or exclude them from, future procurement processes conducted by Participating Railways.*
6. *There is no cost or remuneration for participating in this Vendor Engagement Process.*

### Eligibility for Participation

7. Participation is open to Vendors of train control systems, components or software that:
  - i. have train control systems, components, or software products in active use by railways;
  - ii. have safety and quality assurance programs for their product(s) that meet internationally accepted standards; and
  - iii. are approved by a selection committee comprised of representatives from the Participating Railways.

The Vendor shall include in its response appropriate documentation of evidence that it meets criterion (i) and (ii), and the RAC reserves the right to request additional documentation demonstrating a Vendor’s qualifications.

8. The expectations of Vendors will be conveyed with an introductory letter, sent via email. This letter will require confirmation of receipt, understanding and agreement.

9. Eligible Vendors will sign a Non-Disclosure Agreement (NDA) before they can review documents or participate in meetings or other forums.
10. Once the introductory letter is acknowledged, and an NDA is in place, then a Vendor will be an *Engaged Vendor* and will be provided with introductory documents, an opportunity to participate in information sessions, and included in the document review process as further described below.

### **Document Review Process**

11. The Vendor Engagement Process is intended to be ongoing for the duration of the development of ETC Standards and ICDs with revised versions of the documents sent to Vendors for additional reviews, and documents being released to Engaged Vendors on multiple occasions over the next several years.
12. Documents, or groups of documents, will be released to all Engaged Vendors simultaneously. Engaged Vendors will be notified before the release of documents, along with relevant dates for the review process.
13. A Question and Answer (Q&A) forum will be scheduled within two to three weeks of the documents being released and the Engaged Vendors will be invited to provide a common understanding of the intent and contents of the documents.
14. Comments and proposed edits for the documents will be due six to eight weeks following the Q&A forum. All Engaged Vendors will be provided with the same dates, and no extensions will be provided to individual Engaged Vendors. All meetings with Engaged Vendors will include at least two or more Engaged Vendors.
15. The initial release of documents is anticipated to include the Operational Concepts Document (IEEE 29148:2018).

### **Contact**

16. The contact for this RFI is **Mr. Magdy Fahmy** who can be reached at [ETCDevelopment@railcan.ca](mailto:ETCDevelopment@railcan.ca). All communications relating to this RFI should be directed to Mr. Fahmy and carbon copied (CC) to [ETCProgram@railcan.ca](mailto:ETCProgram@railcan.ca)

### **Vendor Submissions**

17. All responses to this RFI shall clearly provide the following information:
  - Company contact information and primary contact person;
  - Introductory cover letter;
  - Brief description of train control product(s) or systems relevant to Enhanced Train Control (ETC);
  - Examples of implementation of train control product(s) or systems on active railways (with documentation);
  - Description of safety assurance program and the applicable international standards to which it complies;
  - Description of quality assurance program and the applicable international standards to which it complies;
  - Description of Environmental, Social, and Governance (ESG) strategies and/or certifications; and,
  - Credentials of person(s) that would be reviewing technical documents.