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Contract

Gateline Replacement

MERSEYRAIL ELECTRICS 2002 LIMITED

F06: Contract award notice – utilities

Notice identifier: 2024/S 000-030310

Procurement identifier (OCID): ocds-h6vhtk-03bf60

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Section I: Contracting entity

I.1) Name and addresses

MERSEYRAIL ELECTRICS 2002 LIMITED

Rail House, Lord Nelson Street

LIVERPOOL

L11JF

Contact

Tom Drost

Email

procurement@merseyrail.org

Telephone

+44 1519552092

Country

United Kingdom

Region code

UKD72 - Liverpool

Companies House

04356933

Internet address(es)

Main address

<http://www.Merseyrail.org>

I.6) Main activity

Urban railway, tramway, trolleybus or bus services

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Gateline Replacement

II.1.2) Main CPV code

- 51100000 - Installation services of electrical and mechanical equipment

II.1.3) Type of contract

Services

II.1.4) Short description

Merseyrail will be replacing 50 gates with priced options for the potential of a further 13 additional gates being installed to the Merseyrail estate. Platform validators required for ABT are already installed at all non-gated stations. Based on the planned phases, compatibility with ITSO and EMV are must have requirements, with support for magnetic stripe paper tickets and barcode as options to be costed for separately.

The scope of this procurement covers physical gate hardware along with associated systems and services.

The ABT system will be token agnostic, providing the flexibility to accept ITSO(MetroCard), EMV (bank card and EMV devices such as mobile phones) and Barcode. Gate lines include a mixture of Automatic Ticket Gates (ATGs), Wide Aisle Gates (WAGs) and manually operated Auxillary Gates.

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.3) Place of performance

NUTS codes

- UKD - North West (England)

II.2.4) Description of the procurement

Merseyrail are working in close partnership with Liverpool City Region Combined Authority (LCRCA) to transform customer journeys ensuring that customers can benefit from a pay as you go (PAYG) Account Based Ticketing system (ABTS). This aligns with the 'London style ticketing' which is a vision endorsed by Merseyrail and the Metro Mayer of the Liverpool City Region.

Merseyrail operate a frequent train service across a small dense urban network and the average fare is low. Research shows that customers tend not to purchase their ticket before travel and instead prefer to purchase their ticket at a station.

Using a new ABT system passengers would simply tap a platform validator or station gate at the start and end of their journey. The ABT system uses these taps to calculate and charge the best

value fare for the journey, removing the need for passengers to queue at ticket offices or work out which ticket they require.

The ABT system will be token agnostic, providing the flexibility to accept ITSO (MetroCard), EMV (bank card and EMV devices such as mobile phones) and Barcode. However, Merseyrail's current gate lines do not support EMV and so as part of the Future Ticketing Strategy, we are looking to procure replacement gate lines which will include the above functionality.

ITSO will be Phase 1 of the ABT rollout, in which passengers will use the existing MetroCard to tap in and tap out. With integration with Merseytravel's Host Operator Processing System (HOPS), the new ABT system will charge the passenger's bank account assigned to the MetroCard.

Phase 2 will be EMV, allowing passengers to tap the gates and platform validators with their bankcard or EMV enabled device, with automatic charges going to that bankcard. Consistent with gate lines across the country, Merseyrail gate lines are not compatible with EMV and so Merseyrail is now looking to replace gate lines with EMV capabilities as part of the delivery of ABT.

This procurement will involve replacing 50 gates with priced options for the potential of a further 13 additional gates being installed to the Merseyrail estate, Bidders will be requested to price each location individually to allow prioritisation of sites and budget, as well as an all-inclusive cost which may drive efficiencies and cost savings. Platform validators required for ABT are already installed at all non-gated stations. Based on the

planned phases, compatibility with ITSO and EMV are must have requirements, with support for magnetic stripe paper tickets and barcode as options to be costed for separately.

3. SCOPE

The scope of this procurement covers physical gate hardware along with systems and services as detailed below.

Although the new ABT system will be token agnostic, Merseyrail is looking for costs for the new gate lines to include a breakdown of cost options with CCST magnetic tickets and Barcode ticket

compatibility as options, and ITSO and EMV as must haves upon initial installation.

3.1 Gate Replacement

Merseyrail's estate currently consists of 50 station gates, all of which need to be replaced. In addition to this, 13 new gates may be purchased for installation, with 5 new

gates at the Water Street entrance to James Street station, 4 new gates at Lime Street low level and 4 more at Old Hall Street. Gate lines include a mixture of Automatic Ticket Gates (ATGs), Wide

Aisle Gates (WAGs) and manually operated Auxillary Gates.

Safety measures will be a key consideration in the specification and will include but not be limited to:

- Design and functions to avoid customer entrapment and injury.
- Compliance with minimum clear opening widths and minimum evacuation numbers.
- Emergency Manual Override and 'Fail Safe' features to open all gates and an interface with the fire alarm system.
- The gate installation must be designed in order to avoid any exposed or loose cabling or other features that may create a trip hazard.
- Gates must have a single action release facility so that in the event of any safety risk, the station staff can open all gates in one operation. The gates must stay in the open position until they have been reset by a member of staff. Each individual gate must be capable of being released by staff using a key or a pass.
- Compliance with Inclusive Mobility Guidelines and EA Code of Practise.

Hardware

- Surveys of installation locations and detailed installation plans are to be submitted by the supplier as part of any Tender submission and must include all cabling.
- Automatic ticket gates are to be designed with a minimum clear walkway width of 620mm. All standard automatic ticket gates must be power operated as to permit a passenger with a valid ticket or pass to travel through if either inserted into the gate, read by a contactless reader or read by a scanner on the gate.
- Wide aisle gates (WAGs) must be installed as well standard ATGs to cater for passengers with children, luggage or impaired mobility and also those with incompatible tickets. The WAGs must

provide a clear opening width of at least 900mm.
- Automatic gates must include a display and sounds to indicate whether the gate is operational and if a ticket has been accepted.
- Transaction/validation speed must be within 500ms.
- All gates (ATG's and WAG's) should be reversible and thus must be able to operate in either direction.

3.2 Gate Validation

Gates must be capable of validating tickets that are presented, the media types that the gate must support are ITSO and cEMV and as priced options for magnetic stripe tickets and barcode tickets in a number of form factors.

- Gate validation will be required to conform to ISO/IEC 14443 standard to allow reading of ITSO cards and cEMV.
- For contactless media, upon card presentation, Gate Validation must determine the card type presented (ITSO or cEMV) before carrying out the onward processing relevant to that card type.
- The Gate Validation must support the installation of an ITSO Security Application Module (ISAM)

and be capable of interfacing with an ITSO HOPS. Gate Validation shall operate within an ITSO infrastructure as defined by the ITSO 2.1.4 specification (ITSO), ITSO on National Rail specification [RSPS3002], and allow the collection and validation of ITSO products.

- For cEMV support, the Gate Validation must be PCI-DSS compliant, and capable of processing Amex, Mastercard and Visa cards. The Gate Validation must generate Payment Card Tap Records as a result of successful validations and encrypt these before sending these records to the Tap Landing Area. Any solution through which payment card data is stored, processed, or transmitted must be compliant with / or must be actively seeking compliance against the latest version of the PCI-P2PE standards as listed at: https://www.pcisecuritystandards.org/document_library (https://www.pcisecuritystandards.org/document_library).

- Regarding the pricing of barcode as an option, the gate must incorporate the ability to read tickets in the form of 2D barcodes via an optional reader. If taken up, both QR code and Aztec 2D

barcodes must be supported, when presented via physical paper media or as mobile phone tickets via screen. Where the ticket is presented as a physical Aztec barcode, the reader must be capable of reading tickets that comply with the current version of RSPS3001.

- Where possible gate applications must operate independently of each other so that the failure of the ITSO application does not prevent the processing of cEMV cards and vice versa.
- Gates must be capable of accepting, storing and actioning Hotlists and Action lists.

3.3 Operational Support system

The scope of procurement also covers the delivery of an operational support system (OSS) that performs near real- time monitoring of gates through the receipt of reports and alerts from those devices.

The OSS can present real time status information using GUIs and dashboards and can generate ad-hoc or scheduled reports based on the monitoring data. In addition to reports, alerts will need to be automatic for defined events. The OSS also allows the remote configuration of the gate estate, and the distribution of remote

software updates.

3.4 Legislation

The proposed automatic ticket gates and associated scheme equipment must comply with a number of

key pieces of legislation as detailed below.

- Railway Group Standard GI/RT 7015, issue 1 February 2003 - Automatic Ticket Gates at stations.
- Railway Group Guidance Note GI/GN 7515 issue 1 February 2003 - Guidance on Automatic Ticket Gates at stations.
- Inclusive Mobility guidelines [INCMOB]
- EA Code of Practice
- DfT Inclusive Mobility
- GE/TT8005 Fire Safety of materials at operational premises
- Fire Precautions Act 1971
- Disability Discrimination Act 1995
- All glazed barrier and other construction materials will be in accordance with British Standards.
- Materials used will be non- combustible and with low heat emission in accordance with British Standards.

- All works will be in full compliance with Railway Group Standards and British Standards.
- All electrical works will be in accordance with the current IEE wiring regulations and British Standards.

3.5 Other Key Requirements

The new gate line supplier will be responsible for providing a gate management regime for both preventative and corrective maintenance. Gates must support remote updates of software and firmware and must not go offline during a software upgrade.

II.2.11) Information about options

Options: Yes

Description of options

Initial period of 48 months. The contract may be renewed for the remainder of the term (8 x 12 month renewal term options) subject to the requirements of Merseyrail Electrics 2002 Ltd.

Section IV. Procedure

IV.1) Description

IV.1.1) Type of procedure

Restricted procedure

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: No

IV.2) Administrative information

IV.2.1) Previous publication concerning this procedure

Notice number: [2023/S 000-011040](#)

Section V. Award of contract

Title

Gateline Replacement

A contract/lot is awarded: Yes

V.2) Award of contract

V.2.1) Date of conclusion of the contract

9 September 2024

Section VI. Complementary information

VI.4) Procedures for review

VI.4.1) Review body

Merseyrail Electrics 2002 Ltd

Liverpool

Country

United Kingdom