**Dial-a-Ride Electric Vehicles**

**High Level Requirements**

**Guidance notes**

* Please note that the information contained within this document is supplementary to the published Prior Information Notice for Dial-a-Ride Electric Vehicles.
* This PIN is not a call for competition. This prior information notice is being used as a medium for Transport for London to carry out market engagement, identify interested parties that have the potential to meet the requirements and better understand market capabilities.
* The requirement is for the provision of Electric Vehicles for TfL’s Dial-a-Ride service. Further information on Dial-a-Ride is available [here](https://tfl.gov.uk/modes/dial-a-ride/).
* This PIN is issued solely for the purposes of market engagement. No information contained within this PIN, or provided during and for this, or any other, market engagement exercise, constitutes any commitment by TfL or any member of the TfL group or any of its or their stakeholders to undertake any procurement exercise in the future.
* Please note that the requirements outlined in this document are not exhaustive and are subject to change. The main technical, structural and design related elements have been outlined, along with the **minimum** requirements attached to them.
* Interested parties should also note that whilst these requirements most closely relate to a minibus-type vehicle, other options will still be taken into consideration provided that they meet the minimum requirements outlined in this document. For example, a smaller vehicle that may not allow for entry / exit from the rear may be considered.
* Only full tested, certified and production ready vehicles will be considered. TfL **will not** consider working prototypes.

**Instructions**

* Any clarifications are to be addressed to SurfaceVehicleProcur@tfl.gov.uk
* In order to express your interest, you are required to submit information on the vehicle(s) you deem to be suitable for the requirements described within this document through completing the supplementary questionnaire (Appendix A – Questionnaire). This includes, but is not limited to, a request for the following information:
	+ A specification for the proposed vehicle, including any drawings to supplement this;
	+ The relevant documents / certifications relating to the testing of the vehicle;
	+ Lead times for delivery of the vehicle;
	+ Information on warranties (and any options for alternative warranties) for the vehicle;
	+ Information on warranties (and any options for alternative warranties) for the battery;
	+ If the vehicle is a conversion, the details of the organisation used to undertake the conversion.
	+ Electric Vehicle / battery specific questions

**Please note that you are required to complete both tabs in this questionnaire.**

* All responses and attachments should be emailed to: SurfaceVehicleProcur@tfl.gov.uk with the subject line **Dial-a-Ride Electric Vehicles**.
* The deadline for responses is **17:00pm** on **Friday 31st January 2020.**

#  VEHICLE DESIGN

## The vehicle must be capable of accommodating wheelchairs and mobility scooters up to Class 2.

## Wheelchairs users must be carried in the forward facing position. Where there is more than one wheelchair space, it shall be acceptable for one wheelchair position to be rear-facing.

## The vehicle must be low floor design throughout its length.

## An option for a side entry / exit intermediate retractable step is desired. This must be at least 500mm wide and 300mm deep. The surface area must be fully usable and slip resistant. The height of the first step must not exceed 250mm from the ground (in order to maintain the low floor requirement).

## The vehicle must also be of flat floor (i.e. no steps internally) design throughout its internal length in order to facilitate ease of access to the rear and side entries / exits.

## A rear access ramp is required for passenger boarding and alighting. The ramp must, as a minimum, be able to carry 300kg and there must be a clear ramp width of 850mm1.

## A front kerb side drawbridge design is required. This must be built into the floor of the vehicle and be able to extend onto the kerbside / road. This must be able to carry a minimum load of 300kg and must have a minimum width of 850mm.

## The design must be suitable for high frequency, long running, and fully-laden journeys with multiple pick up and set down activity including corresponding use of ramps, doors and suspension systems.

## The suspension configuration must enable the rear passenger access ramp to be positioned such that the ramp angle does not exceed 12 degrees elevation when measured relative to the ground1.

1. where a smaller vehicle is identified, these requirements can be omitted, provided that the remaining minimum requirements have been met. Most importantly, where there is no rear access ramp, the vehicle is also required to have an alternative **emergency** exit.

#  VEHICLE PERFORMANCE

##  The vehicle battery must be able to achieve a life expectancy that exceeds 100,000 miles, with a maximum deterioration, of the battery’s state of health, of 30% over this period. The vehicle will be required to have a minimum life expectancy of 10 years.

##  The vehicle must be drivable on a Cat D1 licence (code 78, restricted to automatic transmission) and must be right-hand drive.

##  The vehicle is required to have an Anti-lock Braking System (ABS) / Electronic Braking system (EBS).

**Battery / Range**

##  The battery must have AC and rapid DC charging capabilities.

##  The battery must enable the vehicle to operate for a minimum of one shift (defined as 75 miles) on a single charge.

##  The following operational elements (ancillaries), which could impact battery life, must be taken into consideration to ensure the requirement outlined in 2.5 is met:

* Air conditioning
* Regular opening and closing of doors (unless doors are manual)
* Lighting
* Heating

#  DIMENSIONS

##  The vehicle will be required to have a minimum capacity of six (6) passengers, although it would be preferable to have capacity for eight (8) or more passengers.

##  The above requirement is to include the ability to adapt the seating arrangement to accommodate space for a minimum of either two (2) wheelchairs or one (1) mobility scooter class 2.

##  The wheelchair space dimensions must be at a minimum of 1300mm long and 750mm wide.

##  The vehicle must be designed in such a way that there is a minimum unobstructed aisle width of 350mm throughout, irrespective of the internal configuration2.

##  Any changes to configurations must be possible, by the driver, without the use of specialist tools or the need to return to a depot.

##  The vehicle must comply with the following dimensions:

|  |  |  |
| --- | --- | --- |
| **Attribute** | **Minimum** | **Maximum** |
| Overall length (excl. ramp) | - | 7500mm |
| Overall width (excl. mirrors) | - | 2100mm |
| Overall height | - | 2850mm |
| Internal height | 1830mm | - |
| Seating (including demountable seats) | 6 | - |
| Wheelchair positions  | 2 | - |
| Gross Vehicle Weight | - | 5 tonnes |

1. For smaller vehicles, this requirement can be omitted. Instead, there must be adequate, comfortable space for drivers to be able to access passengers in order to assist them.