

Board

Date: 5 November 2014

Item 8: New Routemasters

This paper will be considered in public

1 Summary

ST-PJ366 New Routemasters		
	Existing Financial Authority	Existing Project Authority
Project	£219.9m	£219.9m
Operation	£4.1m	n/a
Total	£224m	

Authority Approval:

The Board is asked to approve additional Project Authority for the purchase of 200 additional New Routemaster (NRM) buses for passenger service by the end of April 2016, taking the NRM fleet size to 800. This is an increase to the current project scope and increases total Project Authority. Additional financial and procurement authority is also sought for the additional 200 NRMs and the associated iBus equipment, mid-life refurbishment costs and other related matters.

The estimated final cost figures for Financial and Project Authorities are in the paper on Part 2 of the agenda.

The Board is also asked to note the reduction in the Bus operating contract's budget for the net of ownership savings and other bus costs.

- 1.1 The purchase of 200 NRMs will move London a step closer to aspirations outlined in the Mayor's 2020 Vision, which looks to raise the current proposed 600 vehicles to 2,000 by the end of this decade¹. It is closely aligned to the Mayor's Transport Strategy 2010, which seeks to improve the quality of life of all Londoners through introduction of cleaner low-carbon vehicles and the development of a unique bus for the capital. The NRMs will improve the journey experience of passengers, enhance air quality, reduce vehicle noise and cut emissions with associated health benefits.

¹ Page 17 of the Mayor's 2020 Vision

- 1.2 A paper is included on Part 2 of the agenda, which contains exempt supplemental information. The information is exempt by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.
- 1.3 At its meeting on 14 October 2014, the Finance and Policy Committee noted the proposals in this paper and endorsed the recommendations to the Board.

2 Recommendations

2.1 The Board is asked to note the paper and the supplementary information on Part 2 of the agenda and to:

- (a) approve Project Authority for the purchase of 200 additional New Routemasters from Wrightbus at the figure set out in the paper on Part 2 of the agenda; and**
- (b) approve Financial and Procurement Authorities for the additional 200 New Routemasters and the associated iBus equipment, mid-life refurbishment costs and other related matters, at the figure set out in the paper on Part 2 of the agenda.**
- (c) delegate to the TfL Officers and the Subsidiaries (as described in paragraph 2.2 below) authority to:**
 - (i) settle the timing of any orders for new buses and the number of buses per order; and**
 - (ii) finalise the terms on which the matters described in paragraph 2.1 (b) above are to be supplied;**
- (d) authorise the agreement and execution (whether by deed or otherwise on behalf of TfL or any Subsidiary (as appropriate) any documentation to be entered into in connection with the completion and implementation of the orders for buses made pursuant to the approval given in paragraph 2.1(b) above (the Orders) and any of the matters referred to in them (including, without limitation, all agreements, deeds, guarantees, indemnities, announcements, notices, contracts, certificates, variations, letters or other documents); and**
- (e) authorise TfL Officers and Subsidiaries to do all such other things as they consider necessary or desirable to facilitate the execution and implementation of the Orders and the matters referred to in them.**

2.2 The following Officers and Subsidiaries shall have delegated authority:

- (a) TfL Officers: the Commissioner, Managing Director Finance, Managing Director Surface Transport, General Counsel; and**

- (b) Subsidiaries: Subsidiaries of TfL including Transport Trading Limited and any other subsidiary (whether existing presently or to be formed) of Transport Trading Limited and any of the directors of the relevant company shall be authorised to act for and on behalf of that company.**

3 Background

- 3.1 Wrightbus Limited (Wrightbus) was awarded a contract to supply up to 1,000 vehicles (including initial prototypes) on 23 December 2009, following a competitive process.
- 3.2 Following the introduction of eight trial NRMs into service in 2012, in September 2012 TfL agreed to purchase 600 NRMs, with the final bus due to be delivered by March 2016.
- 3.3 NRMs are becoming a globally recognisable replacement for their iconic predecessor and have been used to promote UK technology, manufacturing and design excellence abroad.
- 3.4 NRMs are popular with passengers, outperforming conventional designs in areas including comfort, vibration, smoothness of ride and engine noise. 35 per cent of passengers interviewed strongly liked the overall design and environment of the NRM compared to 11 per cent for a conventional bus.²
- 3.5 86 per cent of passengers interviewed agreed the NRM is accessible and convenient and 71 per cent recognised the NRM uses green technology and that it is a new London icon.³
- 3.6 The 200 additional buses will be fitted with the latest ultra-low-emission Euro VI engine and help TfL demonstrate its commitment to improving the environmental performance of the bus network to improve air quality in London. This will also help the UK government demonstrate one of a new raft of air-pollution mitigations that are being put in place to reduce excessive levels of oxides of nitrogen beyond that envisaged in the European Union air quality directive.
- 3.7 TfL is currently assessing the air cooling systems on double deck buses in the fleet with the aim of improving comfort, particularly in response to especially high temperatures experienced in summer 2014. Current options under consideration include better insulation around areas such as the engine compartment, improved ventilation and remote monitoring of saloon temperatures. More powerful air conditioning systems are not advocated as these would prevent the bus fleet achieving Mayoral air quality goals, including

² Face to face interviews with 221 customers on the NRM and 529 on conventional double-deck buses on route 38, conducted between 11 – 24 June 2012

³ Survey of 291 adults who used route 24 at least twice a week, conducted between 25 July – 5 August 2013

reducing nitrogen oxides by 20 per cent compared to 2012 levels by the end of 2015.

- 3.8 The only other significant change to date on the production vehicles is an alteration to the rear door, with modifications to the mechanism, voice warning and markings to improve safety when the door opens inwards.
- 3.9 NRMs with Euro V compliant engines are more fuel efficient and produce significantly lower levels of nitrogen oxide (NOx) and particulate matter (PM10) compared to other Euro V hybrid buses. On average, the NRMs introduced to date have improved fuel efficiency by almost 50 per cent compared to the diesel vehicles they have replaced. However given the advancement of Euro VI emission standards, which have ultra-low PM and NOx emissions across all vehicle types (80 per cent and 95 per cent reduction respectively), the PM and NOx benefits of NRM at Euro VI are marginal compared to standard Euro VI hybrids.

4 Proposal

Preferred Option

- 4.1 Wrightbus has confirmed that it has the capacity to deliver the 200 additional NRMs by April 2016 provided that an order is placed by December 2014.
- 4.2 TfL's contract with Wrightbus has an obligation giving them exclusive production rights over the first 1,000 vehicles.
- 4.3 The NRM is a unique bus designed and intended to be used in London for its full economic life. Therefore under any third party ownership and funding model they would be required to be recorded as a finance lease in TfL's accounts, affecting TfL's ability to invest in other projects. The most cost effective approach is for TfL to purchase and retain ownership of the buses directly, taking advantage of its preferential cost of capital. This treatment of assets does not apply to conventional buses, as they can be acquired from a number of different suppliers and can be deployed anywhere in an operator's national fleet after use in London. The uniqueness of NRM will also disfavour the financial deal that operating companies can obtain with the leasing companies.
- 4.4 Therefore, the recommended option (as with the 600 NRMs for which approval was given in 2012) is for TfL to purchase the buses directly and to supply them to the bus operating companies at a notional rate, rather than for the current model of the bus companies having beneficial ownership of the vehicles. The leases enable TfL to move the NRMs between operators during their life as route contracts change and include clauses to ensure the buses are maintained to the required standard for them to be moved between operators without issue, and to maintain the value of TfL's investment.
- 4.5 The standard model, whereby the operators or lease companies finance and take the ownership risks of the vehicles, is still considered the best model for the majority of the bus fleet, as they are better placed to manage the full

economic life of the more generic vehicles during and after their time in London.

Benefits (and Value)

- 4.6 While no final decision has yet been taken on which additional routes will be converted to NRM, potential routes have been identified. Where possible (and as with the 600 NRMs for which approval was given in 2012) the vehicles will be introduced through tendering at the point of contract renewal. However, where routes are not at a contract renewal point during the production period, introduction will be through negotiation with the current operator.
- 4.7 The routes will run entirely as One Person Operated (OPO). As a result there would be no additional safety and security benefits or disbenefits compared to a standard double deck bus.
- 4.8 A review of the business case of the original project produced a benefit cost ratio (BCR) of 15:1 for NRMs compared to hybrids, with one person operation and based on Euro V emissions differences. The emissions benefits for Euro VI NRM buses over Euro VI hybrids are expected to be marginal (as detailed in paragraph 3.9), which would reduce the BCR to around 0.2:1. However, given the popularity of NRMs with passengers (as noted in paragraphs 3.3 and 3.4) and their impact in driving up overall customer satisfaction and brand momentum for buses, it is considered that this is a worthwhile investment.
- 4.9 The reduction in the Bus operating contract's budget for the net of ownership savings and other bus costs is included in the supplementary information on Part 2 of the agenda.

5 Assurance

- 5.1 The TfL Programme Management Office (PMO) undertook an Assurance Review and the recommendations have been accepted.

6 Views of the Finance and Policy Committee

- 6.1 At its meeting on 14 October 2014, the Finance and Policy Committee noted the proposals in this paper and endorsed the recommendations to the Board. Members were advised that the TfL remained on target to achieve the Mayors 2020 vision of 2,000 vehicles. TfL was able to purchase up to 1,000 buses from Wrightbus under the current contract. No decision was proposed on the order of the next 1,000 vehicles as other bus manufacturers were looking to develop their own double-decker buses with NRM features, which would give TfL options when considering future vehicle choices.

List of appendices to this paper:

Exempt supplementary information is included in a paper on Part 2 of the agenda.

List of background papers:

Report from the TfL Programme Management Office and the management response to that report.

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