

Date: 4 July 2018

Item: **Telecommunications Commercialisation Project Update**

This paper will be considered in public

1 Summary

- 1.1 This paper provides an update on the approach being taken to deliver a range of telecommunications improvements in line with the Mayor's Transport Strategy. These include public cellular services on the London Underground, a new high-speed fibre optic network utilising TfL assets and the use of TfL on-street assets such as lighting columns, to support the delivery of the next generation of cellular coverage.
- 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 financial and commercial affairs of TfL.

2 Recommendations

- 2.1 **The Committee is asked to note the paper and the supplementary paper on Part 2 of the agenda and that further authority will be sought prior to the award of a contract for a concession for telecommunications commercialisation.**

3 Background

- 3.1 The Mayor's Transport Strategy recognises that the Underground is one of the most high-profile 'not spots' in the country and undertakes that, building on the improvements in communication technology for the emergency services, public 4G mobile communications will be made available on the Underground. This supports the commitment in the Mayor's Transport Strategy to delivery mobile phone coverage on the London Underground.
- 3.2 TfL has engaged with the market and potential customers to build interest and has issued an OJEU notice and Standard Selection Questionnaire (SSQ) which has initiated the process for selecting a concession partner to invest in and deliver the capabilities necessary to implement the strategy and deliver a new revenue stream to TfL in so doing.
- 3.3 The concession will comprise six distinct scope elements:
- (a) mobile phone coverage on the underground stations, platforms and tunnels of the London Underground;
 - (b) enhanced WiFi service including explicit data collection requirements;

- (c) a new high capacity data network across London using TfL assets to route the fibre optic cable required;
 - (d) provide an option to deliver the scope of work within the joint TfL/Greater London Authority (GLA)/London Borough DCMS Local Full Fibre Network funding and support the delivery of other grants should they be approved;
 - (e) using the street scape assets such as lighting columns to generate revenue from the Mobile Network Operators; and
 - (f) provide an option to deliver certain elements of the Emergency Services Network scope including the equipment selection and on-going service management.
- 3.4 The corner stone of the commercialisation strategy is to provide mobile coverage in stations and tunnels across the Underground network. Most major international metro operations already provide a public cellular service. There are several different business models employed internationally, though the majority involve a commercial partner, and many are revenue-generating for the metro operator. Soft market testing has shown that there is strong market interest in this opportunity in London, although the Mobile Network Operators (MNOs) point out that the additional cost does not drive very much additional revenue.
- 3.5 The requirement included in the OJEU notice is to deliver significant public cellular coverage on the Underground, and on the Elizabeth Line, by December 2019.
- 3.6 The second element of the commercialisation strategy is to create a fibre optic network on the TfL estate. Across the world, cities are engaged in building fibre infrastructure to provide city-wide, hyper-connected environments. These networks are becoming increasingly important to cope with the rapid growth in connected devices including utility assets, street lighting, traffic signals and CCTV. Cities such as New York, Hong Kong and Stockholm have leveraged their networks to foster fibre-based services, either directly or, more often, through partnerships with local providers. They have used these new services to support economic development and improvements to education, healthcare and other community functions. London lags behind these cities in the delivery of fibre to deliver the high speed data services that are needed in a modern city.
- 3.7 Improved connectivity in London will have far reaching social and economic implications, as well as delivering new revenue streams. Improved connectivity can improve the lives of Londoners, create digital inclusion, boost the technology sector in London and enhance the wider economy. This supports the Mayor's Transport Strategy to use public assets to improve connectivity.
- 3.8 The fibre network requirements in the concession are deliberately flexible to allow for potentially different business models to be bid. The commercial partner will be required to use the Underground network and certain other TfL assets to design, build and operate a high capacity core network. They will be required to sell capacity on that network to the Mobile Network Operators (MNOs) and large business users, as well as providing wholesale access to other internet service providers. The internet service providers will themselves sell the final service to the end users such as residential and smaller business users.

- 3.9 Since the last update to the Committee on 5 December 2017, the project has led a consortium of eight London Boroughs (Hammersmith and Fulham; Kensington and Chelsea; Lambeth; Westminster; Camden; City of London; Southwark and Tower Hamlets) and the Old Oak Common Park Royal Development Corporation in a bid to the DCMS run competition, called the Local Full Fibre Network Challenge fund. This additional scope will be delivered by the commercial partner and forms the third element of the concession scope.
- 3.10 The fourth aspect of the commercialisation strategy is to leverage both the new fibre network and TfL on-street assets, to make available to MNOs sites for small cells to be installed across the TfL estate. The next generation mobile networks, known as '5G' networks, are expected to roll-out in the 2020s. This mobile technology will provide 400 times more capacity than the 'Superfast Broadband' currently offered by the home broadband industry. To provide this capacity and coverage, small cells (miniature mobile phone base stations) will play an essential role. We will be in the unique position of being able to offer high volumes of sites for small cells across London in areas where there are high densities of people.
- 3.11 The associated requirement is for the commercial partner to market the relevant TfL assets to the MNOs with a view to them deploying small cells. For example, the 35,000 lighting columns together with bus shelters and CCTV poles. There is also the opportunity to use other assets to create more innovative solutions as the market matures. Use will be subject to pre-existing encumbrances
- 3.12 The concession scope includes the potential access for the GLA, its related bodies and London Boroughs, to opt to request that TfL include their assets (of an equivalent type) in the concession. This will provide an opportunity for the bodies in question to benefit from the TfL concession, whilst, also creating a more attractive proposition for the commercial partner (and by extension MNOs) by facilitating access to a greater number of locations in London. It will, to the extent there is uptake by the relevant bodies, also drive additional business for the fibre assets.
- 3.13 Finally, the scope incorporates a TfL option to require the provision by the commercial partner of common equipment selection, data centre sharing and shared service management to facilitate delivery of the Emergency Services Network (ESN). The passive equipment installed by the concessionaire will also be available for operational use should that be required. The passive infrastructure already installed for ESN (and funded by the Home Office will be available to the concessionaire for use in delivering the overall scope. This will allow TfL to achieve the maximum amount of shared infrastructure despite the significant challenges of the timing difference of the projects and the uncertainty around the Home Office ESN programme.

4 Procurement Strategy

- 4.1 TfL ran a successful launch event on 22 February 2018 with more than 20 potential concessionaires or consortium members attending.
- 4.2 The OJEU notice and SSQ were issued on 7 June 2018. Responses are due early in July 2018, with shortlisting and the subsequent issue of the tender documents to selected tenderers scheduled for the summer. An indicative

timetable is below. This results in the selection of the preferred bidder by the end of January 2019 and contract award by the end of the financial year.

- 4.3 The capital and operating costs of the telecommunications operation described above will be provided by the concessionaire in consideration for which TfL will receive a revenue share. A financial summary of anticipated revenues is set out in the paper on Part 2 of the agenda.
- 4.4 TfL will select a partner after completion of the procurement in accordance with the Concession Contract Regulations 2016. Bids will be evaluated on a most economically advantageous basis, based on the best technical, commercial, financial, legal and health safety and environmental offers.
- 4.5 The contracting arrangements and evaluation process will include provisions to minimise the disruption to TfL, its customers and suppliers. By way of example, all work on the Underground will be required to be carried out in engineering hours unless otherwise approved, so there will be no disruption to the train service. Damages will be payable by the commercial partner if they do impact the train operations. As regards on-street assets, the commercial partner will operate under the standard constraints for street works, including lane rental charges if appropriate.
- 4.6 Careful coordination with the ESN project on the Underground will mean that when infrastructure, e.g. cabling, is designed and installed for either ESN or public cellular, the aim would be to use the equipment across both projects wherever practical. Where different infrastructure is required, e.g. to meet differing requirements, the installation will be coordinated with the aim of minimising tunnel and station access. However, ESN delivery is not dependant on public cellular network delivery.
- 4.7 Commercial and accounting advice has been provided by KPMG.
- 4.8 Accounting advice is that all elements are off balance sheet from the ESA 2010 and IFRS perspective. This advice will need to be refreshed before invitation to tender is issued. TfL Auditors will review the advice provided by KPMG.
- 4.9 Following commercial options review by KPMG a concession approach has been chosen. We are following the concession contract regulations 2016. We are procuring in a single lot owing to the significant interdependencies between the different elements making it difficult to split the procurement and still maximise the revenue generated.
- 4.10 The concession is offered for 20 years with the option of an additional five years at our discretion. Modelling of the business showed that this was the optimum length to make a return on the partners considerable investment highly likely, although not certain as they are holding nearly all financial risk.
- 4.11 All capital expenditure, operating expenditure and renewals will be the responsibility of the concessionaire who has the responsibility of keeping the assets maintained to a standard with two years operating life when they are returned to TfL. TfL has a commitment to purchase assets at independently assessed market rate at the end of the contract.

5 Legal Implications

- 5.1 A delegation of the Mayor's general powers under the Greater London Authority Act 1999 may be required to enable TfL to receive grant funding on behalf of other bodies as described in paragraph 3.9 as this element is not strictly a transport matter.

6 Assurance

- 6.1 The commercial partner will be subject to assurance from the TfL Engineering and project assurance teams (such costs to be reimbursed by the commercial partner).

7 Next Steps

- 7.1 Once shortlisting is complete we will issue the ITT, the table below is an indicative timeline showing the minimum time required to deliver the contract:

Activity	Date
SSQ return	July 2018
Complete short-listed Tenderer selection	August 2018
Issue ITT to selected Tenderers	August 2018
Interim Submission	October 2018
Final ITT requirements issued	November 2018
Deadline for submission of ITT clarification questions	December 2018
Final Tender Submission	December 2018
Selection of Preferred Tenderer	February 2019
Award Concession Agreement	March 2019

List of appendices to this report:

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

List of Background Papers:

Commercialising TfL's Telecommunications Assets July 2015

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