AGENDA ITEM 7

TRANSPORT FOR LONDON

SAFETY, HEALTH AND ENVIRONMENT ASSURANCE COMMITTEE

SUBJECT: SOURCE LONDON SCHEME

DATE: 6 MARCH 2012

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1 PURPOSE AND DECISION REQUIRED

1.1 This paper provides an update on the Source London electric vehicle charging point network, since the launch of the scheme by the Mayor on 26 May 2011.

1.2 The Committee is asked to note the paper.

2 INTRODUCTION

2.1 Source London is the Capital's first and only electric vehicle (EV) membership scheme enabling city-wide usage. At the launch in May 2011, Source London added 150 new charging points to the approximately 250 existing publicly accessible charging points in London, most of which had been funded by TfL under the Local Implementation Plan (LIP) programme.

2.2 Source London and its infrastructure is key to building confidence in and boosting the new EV market and as such it is critical to support the Mayor's aspiration that London be the EV capital of Europe with 100,000 EVs as soon as possible.

3 BACKGROUND

Electric Vehicles

3.1 It is generally agreed that electric vehicles are a key part of a more sustainable transport future. Taking account of the current mix of fuels used to generate electricity in the UK, EVs produce up to 40 per cent less CO_2 than an equivalent petrol or diesel car ("well to wheel" emissions produced over the life of the vehicle, including manufacture). They also produce no harmful emissions of particulate matter or nitrous oxide, both of which are a cause for concern in London, as the capital is in breach of EU limit values for both pollutants.

3.2 In central London, road transport accounts for over 80 per cent of particulate matter emissions and almost 50 per cent of nitrogen oxide emissions across Greater London. EVs therefore have significant potential to help address this problem in the future.

3.3 The EV agenda has high level support from the Government, as the move to EVs is seen not only as an environmental innovation but also as a potential platform to drive investment and job creation in the UK as part of new technology and the vehicle industries. Developing a local market for EVs is considered critical to attaining UK Government goals regarding EV investment and growth.

3.4 As well as the £30m Plugged in Places (PiP) fund, government offers a consumer grant of up to £5,000 towards the cost of eligible EVs.

3.5 London is a key market for EVs. Over 2,400 electric vehicles are currently registered in London for the Congestion Charging discount and some 26,000 hybrid vehicles registered in the UK are used in London.

3.6 In London, around 90 per cent of all car trips are less than six miles and across the UK over 99 per cent of all car journeys are less than 100 miles. Electric cars available now or coming to the market shortly typically have a range of around 100 miles. The Government and vehicle manufacturers estimate that London will take the largest share of new EV sales in the UK – of between 30 per cent and 50 per cent.

Source London

3.7 The Source London EV charging point network is the product of a public and private sector collaboration, coordinated and managed by TfL. In February 2010, the Source London consortium was awarded £9.3m over three years to 2013/14 of the £30m PiP grant available nationally. Consortium partners purchase and install charge points and the PiP monies are used to reimburse 50 per cent of the cost. Partners continue to own the charge points but these are made available for Londoners to use via the Source London network. Consortium partners pay for the electricity used at their own points so that Source London members pay only an annual fee (of £10) and electricity is then free at the point of use, though parking charges may apply at some points.

3.8 The Source London network replaces the patchwork of charging schemes that previously operated in individual boroughs and for the first time offers genuine pan-London coverage. Of the 11 individual borough schemes, eight have already been brought into Source London (nine once the London Borough of Wandsworth completes the process of joining). This leaves only Westminster and the London Borough of Islington with EV schemes outside Source London and efforts continue to bring these into Source London.

3.9 Siemens is providing the back office, IT infrastructure and call centre support for Source London free of charge (to TfL) under a unique sponsorship arrangement, until March 2014. The back office functionality enables all the charging points in the scheme, from various manufacturers, to be operated with a single smart card. This is a Radio Frequency ID (RFID) card using similar technology as the TfL Oyster card.

3.10 Cards are issued to members for a £10 annual fee with the scheme operating as a seamless whole to the customer, visually tied together by the shared Source London branding that is on the membership card and all charging points.

3.11 Anyone with an EV registered with the DVLA can join (vans, cars and motorcycles and scooters can join but electric bicycles cannot). Registrations are taken online at www.sourcelondon.net and payment can be made using a debit or credit card. Once members receive their membership card, they can use any of the Source London charging points and access electricity free of charge.

4 PROGRESS SINCE LAUNCH

4.1 As at 31 January 2012:

(a) the number of partners in Source London has grown to 31 (from the original 21 at the time of launch) – 18 boroughs and 13 businesses or other organisations:

(i) **Boroughs** – Brent, Camden, Ealing, Enfield, Greenwich, Hackney, Hammersmith and Fulham, Haringey, Harrow, Hillingdon, Hounslow, Kingston upon Thames, Lewisham, Merton, Newham, Redbridge, Southwark, Sutton; and

(ii) **Businesses** – Asda, Capital Shopping Centre, Gatwick Airport, Heathrow Airport, IKEA, Nissan, Old Ford Housing Association, Sainsbury's, Southern Electric Power Distribution, Whittington Hospital NHS Trust, Southern Railway, Q-Park Limited, Toyota;

(b) new installations and retrofitting of existing units has substantially increased the number of Source London branded charging points to 267, including 14 fast points, from the 150 installed at launch. 67 charge points have been retrofitted and accepted, with an additional 140 on track to be retrofitted this financial year; and

(c) these charge points support almost 300 members using some 370 active access cards for some 340 registered vehicles.

4.2 TfL is providing project management support to the London Organising Committee for the Olympic Games (LOCOG) to install charge points for the 200 strong Olympic EV fleet. These charging points, all “next generation” units, will be included in Source London after the Games as a part of the legacy.

4.3 By April 2012, the aim is to have 600 publicly accessible charge points provided via Source London, with 1,300 by April 2013.

4.4 The Source London brand has been made available, under licence, to other UK cities and regions running EV networks. The East of England region and Bristol have licensed the brand as Source East and Source Bristol respectively.

4.5 TfL currently has 15 EVs in operation: five Toyota plug-in hybrid Prius cars; four Mitsuibishi I-MiEV electric cars; and a further four Smith electric vans, a Peugeot iOn and a Citroen Nemo. TfL has also run short trials of a Citroen C-Zero car, a Nissan Leaf and a Renault Kangoo. In addition, there are 14 Alke electric vehicles in use on the TfL contract with Serco and 16 Modec electric vehicles in use by the Highways Maintenance and Works contractors.

5 PARTNERSHIP WORKING AND THE FUTURE

5.1 TfL will continue to work with a broad range of stakeholders to support the EV agenda in London, including ongoing grant funded research and development projects.

5.2 TfL is working closely with energy suppliers, vehicle manufacturers and car park operators to provide charging solutions for EV owners that include Source London membership. There is already an agreement in place with Nissan and several

others will be announced in the coming months. TfL is currently finalising an agreement with British Gas, the preferred charge point supplier to several major motor manufacturers. Subsidised home and work place charge points will be offered to EV purchasers at the point of sale in a bundle with Source membership.

5.3 In 2012, TfL will work in partnership with Qualcomm to trial new inductive (wireless) charging technology in London. This new technology will be fitted to some of TfL's own EV fleet and to private hire vehicles later this year. The trial is expected to last for at least a year and will further development of this innovative technology, which is currently not market ready.

5.4 TfL hosts the London Electric Vehicle Partnership (LEVP), which meets twice a year with a range of stakeholders from the public and private sector, to debate and discuss the future of EVs in London. TfL also provides the secretariat for the Mayor's Electric 20, comprising business members (including Nissan, Sainsbury's, Tesco's, Marks and Spencer, UPS, TNT Express, DHL, Amey, Go Ahead, Speedy, Royal Mail) already using electric vehicles in their fleets on a daily basis. The forum provides experience, knowledge and support for companies looking to follow in their footsteps in adopting EVs.

5.5 TfL is planning to launch a consultation service with the Energy Saving Trust (EST), targeting companies in London to encourage uptake of EVs into corporate fleets and installation of work place charging points. This builds on the existing EST Green Fleet advice funded by DfT.

5.6 TfL is working with the Department for Transport's Office of Low Emission Vehicles (OLEV), other cities, Source London partners and industry to identify potential options for a self sustaining business model for EV charging where users would pay for electricity. This is just one of a number of options that are being considered by TfL in order to secure the continuity of Source London beyond 2014 (when the current Siemens sponsorship and Government PiP funds stop).

5.7 TfL is also part of 'Low Carbon London'. Co-ordinated by UK Power Networks, this is an Ofgem funded project that is researching new technology to explore use of smart grid technology to deliver lower carbon electricity in the future. The project includes investigation of smart metering technology in a number of scenarios including for use with EVs. TfL will encourage Source London members and TfL staff to participate in the trial and use a new smart meter to monitor electricity use in the home and, where applicable, for their EV. Source London will also supply information on charge point usage. The trial will provide a wealth of data on use of EVs for TfL, grid impacts of new technology such as EVs and inform future development of the electricity grid.

6 CONCLUSION AND NEXT STEPS

6.1 Source London's service is built on:

(a) the success of a large scale innovative public-private sector partnership, where 31 partners part-fund, own and install charge points, and make them available to Source London customers;

(b) innovative technology that allows charging points with different operating models from different manufacturers to work together; and

(c) creative commercial thinking to create and operate a city-wide network with minimal burden on the public purse.

6.2 TfL's approach of working with numerous partners and public and private investment to deliver EV infrastructure on this scale had not previously been done successfully in London.

7 RECOMMENDATION

7.1 The Committee is asked to NOTE this paper.

8 CONTACT

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