

Western Gateway Sub-national Transport Body

Board Meeting

Paper B

Date **27th September 2023**

Title of report: **Electric Vehicle Charging Study update**

Purpose of report: **To report on progress made on the Joint Peninsula Transport and Western Gateway Electric Vehicle Charging Study and agree next steps**

Recommendations:

The members of the Board are recommended to:

- I. Note progress to date; and
- II. Agree to the next steps outlined in section 5 being progressed.
- III. Agree to the recommendation in 5.4 regarding the role of the STB

1. Background

- 1.1. Western Gateway jointly commissioned consultants WSP, through Peninsula Transport, to undertake a regional electric vehicle (EV) charging study for the South West. Work started with WSP in April 2023.
- 1.2. The purpose of the work is to inform the development of a regional EV strategy by providing information on how many chargepoints are needed to meet future demand up to 2050.
- 1.3. WSP are using their in-house EV:Ready tool and have completed similar assessments for Transport for the North, Transport East and England's Economic Heartland. Using WSP to also undertake this work in the south west ensures we are using a consistent assessment framework and that we'll have comparable outputs to other STB areas.
- 1.4. The data will be valuable to Local Authorities to support their future LEVI bids and their delivery programmes by providing an indication of where chargepoints should be located and what types of charger should be installed.

2. Methodology

- 2.1. WSP's EV:Ready tool uses baseline Department for Transport's electric vehicle registration data; Experian Mosaic consumer segmentation analysis; Census (2011)

data; and industry forecasts to calculate expected electric vehicle numbers. This feeds into a forecast to determine a low and high regional EV uptake trajectory up to 2050.

- 2.2. An assessment of EV charging demand has been undertaken based on forecasted mileages and efficiencies of the expected electric vehicle and plug-in hybrid electric vehicle (PHEV) fleet.
- 2.3. EV charging supply forecasts have been made by assessing expected en route, origin and destination charging needs, which all have different requirements.
- 2.4. The supply and demand results were analysed further to identify where the private sector is most likely to invest and has identified the areas where the public sector will need to intervene to fill the gaps.
- 2.5. The tool has generated forecasts for electric vehicle chargepoint (EVCP) requirements up to 2035. This includes the numbers of chargepoints which the local authorities will need to provide.
- 2.6. The analysis provides detailed forecasting about when, where, how and what type of chargers will be required in the future and where charge points should be prioritised for installation in the medium-term.
- 2.7. A high-level assessment of the impact of tourism and seasonal changes in demand has also been considered.

3. Key outcomes – emerging numbers of EVCP

- 3.1. The rate of electric vehicle uptake growth is expected to accelerate towards the 2030 ban on the sale of new diesel and petrol cars and vans with predictions that up to 45% of cars and vans in the region will be EVs.
- 3.2. The forecast uptake of EVs enables an assessment of charging infrastructure requirements. Two scenarios, high uptake and low uptake, have been considered.
- 3.3. Across the south west region, there are currently 2,408 chargepoints. By 2030, up to 43,400 charge points could be required.
- 3.4. These charge points would be provided by a combination of both the public and private sector. To plug the gap left by the private sector, it is forecasted that the public sector will need to deliver 14,800-21,400 standard charge points and 850-1,180 rapid charge points by 2030 across the whole south west region.
- 3.5. Forecasting suggests public funding for EVCPs should be mainly allocated to areas where there is a high demand for standard charging infrastructure.
- 3.6. Installing this volume of chargepoints is going to be extremely challenging for the Local Authorities. The expectation of the Department for Transport is that councils

will leverage private sector investment and skills in order to install chargepoints at the scale and pace required.

- 3.7. The impact of tourism analysis shows that across the SW region there is estimated to be a 24% rise in vehicle miles in August (peak) relative to March (average). Peninsula experiences greater seasonality than Western Gateway. The uplift varies between local authorities.
- 3.8. By 2030, an estimated 5,900 and 8,600 sockets across the south west region, equivalent to 21% additional chargepoints would be required to service this higher demand for charging during peak season.
- 3.9. It is predicted that the private sector will provide most of this tourism related infrastructure. Mainly the local authorities will need to intervene in council car parks which serve tourist destinations. Further analysis will need to be carried out to identify these locations.

4. Key changes

- 4.1. The WSP work has largely progressed as planned and to an acceptable high standard of quality. Only minor delays of a couple of weeks have been experienced compared to the original agreed 14 week programme. The work is nearing completion with the final report due imminently. Meetings are regularly taking place with WSP and Peninsula to discuss local authority engagement, reporting to the Board and next steps.
- 4.2. WSP are available to present the study and outcomes at the 06 December 2023 board meeting.

5. Next Steps

- 5.1. The study data will be provided in a GIS format to be disseminated to local authorities, allowing individual authorities to use this data alongside their own local datasets.
- 5.2. Undertake a survey of Local Authorities across the region to ascertain their progress, ambitions, and what support they would need from the STB.
- 5.3. Set up an officer working group to engage officers preparing Local Electric Vehicle Infrastructure LEVI bids and EV strategies to ensure a regional approach to delivery of EVCPs.
- 5.4. Create a SW electric vehicle charging infrastructure forum to engage more widely with other stakeholders such as the Distribution Network Operators (DNO), large employers and landowners such as the NHS and National Trust among others, with a view to discuss and address common strategic issues including future grid capacity requirements.

5.5. Going forward, the future role of the STB with regards to EV charging will need to be clearly defined. Does the STB want to:

1. take a lead such as Transport for the North and Midlands Connect who have a dedicated team responsible for securing funding, procurement activities, liaising with Distribution Network Operators and National Grid, etc. This will require significant additional resources.

or

2. adopt a more bottom-up approach and provide local authorities with support outlined by the next steps (below).

It is our recommendation due to the current human resource available to the STB for this workstream that option b) should be adopted.

5.6. Develop a regional strategy, potentially in conjunction with the Peninsula STB.

6 Equalities Implications

6.1 No adverse impact on any protected groups is expected as part of the foundation work.

6.2 An Equality Impact Assessment (EqIA) could be undertaken alongside the strategy due to the scale of the work so as to identify at an early stage any mitigating measures that may be required. It is anticipated that Local Authorities would also carry out their own EqIAs as part of their delivery programme.

7. Legal Considerations

7.1 The Western Gateway STB remains an informal non-statutory partnership.

8. Financial considerations

8.1 Funding for the Electric Vehicle Charging Study was provided jointly by the Western Gateway and Peninsula Transport STBs from 2022/23 budgets. The budget for 2023/24 and 2024/25 is £50k per annum for taking forward regional EV strategy development, providing local authority EV support, and setting up and administering an EV charging infrastructure forum.

9. Conclusion

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- 9.1. The Board is asked to agree the recommendations set out at the beginning of this report.

Contact Officer

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