WORK PACKAGE 25 ALTERNATIVE FUELS FOR FREIGHT STUDY

WP25 Alternative Fuels for Freight

8th December 2022

Please note that the following information recommendations is/are subject to consideration and determination by the Board before taking effect.

RECOMMENDATION

It is recommended that:

(a) The Alternative Fuels for Freight Study report is approved.
(b) The Board agree that Work Package 25 is signed off as complete and ready for publication.
(c) The Board approves the recommendations for Alternative Fuels for Freight as part of the study

1. Background/Introduction

The Peninsula Sub-national Transport Body (STB) is working with the Western Gateway STB to examine the opportunities and barriers associated with the transition to alternative fuels for freight vehicles across the South West. This study followed on from the success of the 2019-2020 study for Midlands Connect that provided the STB with guidance on how to influence and support the uptake of hydrogen, gas and electric power for freight vehicles within the midlands.

The study has been developed with technical input from consultants through a comprehensive review of national, region and local policy, stakeholder engagement and forecasting of future trends to identify high level cluster locations for refuelling infrastructure. The study highlights the current limitations and recommendations for the next steps in implementing alternative fuels for the freight and logistics industry.

2. Overview of the Alternative Fuels for Freight Study

The key objective of the study was to outline the opportunities and challenges facing businesses within the South West regarding alternative fuels. Subsequently actions were identified that will enable businesses to utilise these opportunities around to enable sustainable and dynamic growth.

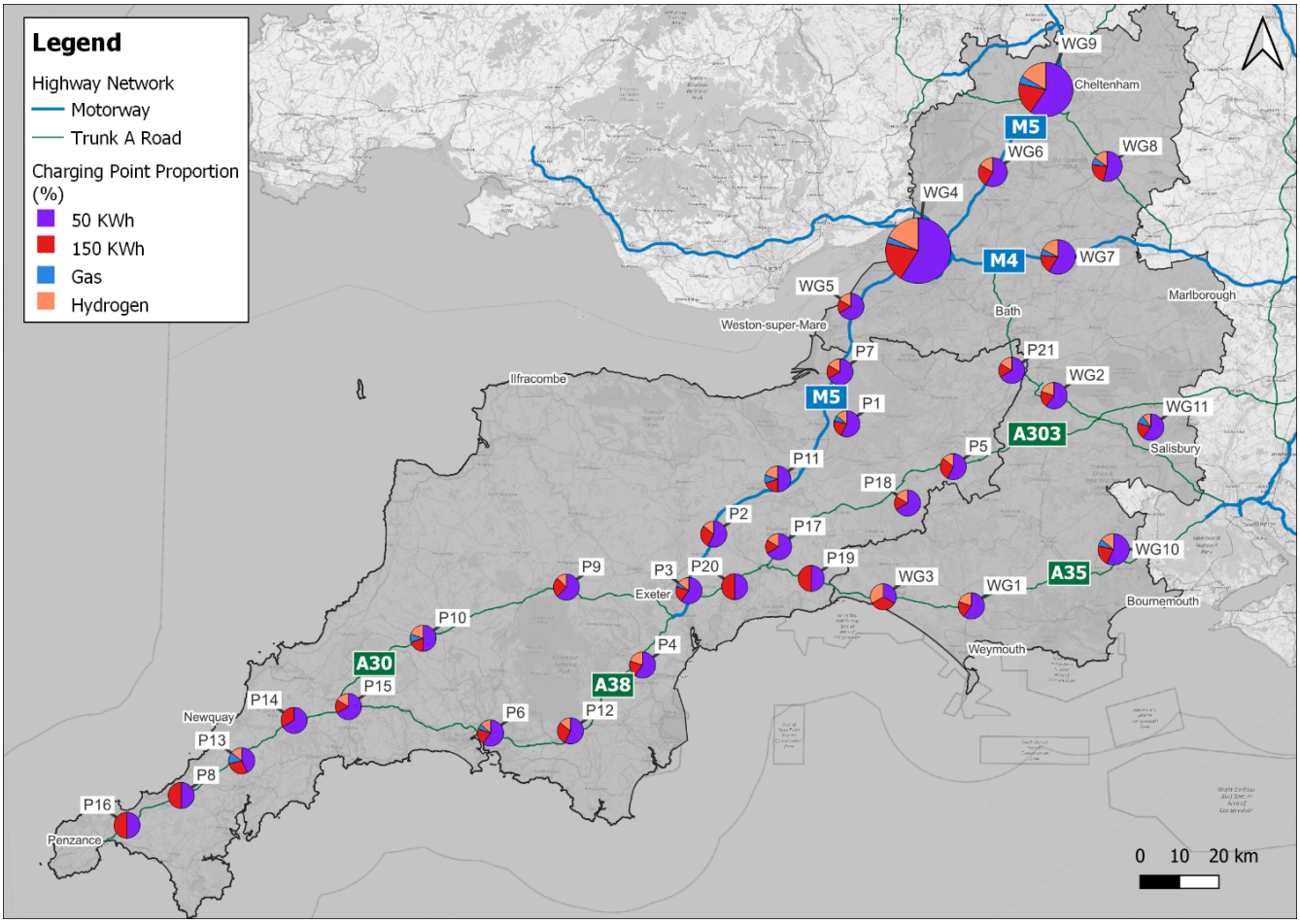
The policy review found that there are clear targets set within national policy which rely on the local and regional authorities to deliver. This includes the UK Government's aim to reduce the UK's net emissions of greenhouse gases by 100% by 2050 and encourages the transition to alternative fuels to achieve this target. From a regional perspective, some aspects of policy are still emerging, however, it highlights ambitions over clear and collaborative working. From a local perspective, freight and decarbonisation policy is still emerging with the declaration of climate emergencies the first step in this process.

Stakeholder workshops and an online survey was carried out and gave valuable insight into the development of the government's decarbonisation and EV strategy development. Workshops were carried out with the STBs, study leads, local authorities and industry stakeholders. The key findings from this engagement were:

- Sustainability, safety and reliability are the most important factors when acquiring vehicles
- The cost of zero emission vehicles and their performance are major perceived challenges
- The primary concern is the risk of investing in a technology which falls out of favour in the future
- There is a negative opinion of infrastructure in the region due to the lack of planned grid enhancements and the lack of planned infrastructure restricts the achievement of decarbonisation goals
- The most popular fuel types were battery EV and hydrogen
- There was a perceived lack of clarity and certainty regarding ownership and delivery of national level policy

The future forecasting work showed that the main area of uncertainty is around charge point locations. This is because the requirement of charge points is dependent on utilisation rates which is turn will be driven up by battery capacity, charging compatibility and the prices charged by network operators. There is currently no forecasting tool available for these factors which means there is uncertainty around the number of charge point sockets that will be required by 2040.

Forecasting of likely demand and consideration of existing freight and logistics clusters have led to the identification of 21 potential locations for refuelling infrastructure in the Peninsula Transport area and 11 potential locations in the Western Gateway area. These are shown below and include the estimated refuelling and recharging infrastructure needed at each location. This was allocated based on the HGV flows on the regions A-roads and motorways.



The recommendations from the report are outlined below and are designed to help Western Gateway and Peninsula Transport to work with their partners and stakeholders to implement the findings from this study.

Work with other public sector organisations and the freight and logistics industry to identify ownership and key accountabilities for the decarbonisation of the industry, overcoming the current confusion and uncertainty which will delaying the transition from fossil fuels. To overcome these barriers, it will be necessary to work with stakeholders to ensure the development of a cohesive refuelling network, which meets the needs of freight and logistic operators. It may also be necessary to support the industry to overcome funding barriers for both refuelling infrastructure and vehicles, and to help influence strategy, vehicle acquisition, and fuel choice in the short-to-medium-term to provide confidence in the long-term viability of vehicle and infrastructure investments.
1. Engage with partner local authorities to secure their buy in to this strategy, and influence their policy development processes to ensure freight, logistics and decarbonisation are adequately represented, particularly in any electric vehicle infrastructure strategies which they develop or adopt. At present, the local policy and strategy landscape for freight and logistics is mixed; greater consistency across local authority boundaries will be beneficial to the sector as a whole.
2. Investigate the potential need for upgrades to electricity infrastructure as part of the rollout of EV changepoints by engaging with distribution network operators to develop and publish capacity maps, helping identify areas where upgrades will be necessary prior to the rollout of charging infrastructure.
3. Further investigate and prioritise the suggested refuelling locations identified by this report to understand their feasibility alongside the monitoring the uptake of alternative fuels to ensure this remains in line with the forecasts outlined in this report. Depending on the outcome of these activities, it may be necessary to make changes to proposals in line with feasibility and market uptake.

3. Financial Considerations

The cost of commissioning and producing the Alternative Fuels for Freight document are from allocated funds from the Department for Transport (DfT). From FY 21/22The work has been undertaken within approved budgets.

4. Legal Considerations

There are no specific legal considerations associated with this paper.

5. Risk Management Considerations

The Peninsula Transport Programme Management Group reviews risk and assigns the required mitigation actions across the Peninsula Transport work packages on at least a monthly basis. The group reports monthly to the DfT in compliance with the terms of the DfT's funding support letter.

6. Reasons for Recommendation

The work on the Alternative Fuels for Freight study has adopted a consistent approach with other STBs in order to identify the appropriate interventions that should be considered for taking forward in the Peninsula STB area. This report sets out a number of options and recommendations for taking this work forward in coming years in association with the SW Freight Forum.