Minutes of the Zero Emission Truck Taskforce
Meeting 3: HGV Energy Infrastructure
25 August 2022, 9.30 – 11.30
Microsoft Teams

Organisation	**Name**
Ballard Motive Solutions	Ben Todd
British Vehicle and Licensing Association	Catherine Bowen
HV Systems	Daniel Musenga-Grant
John G Russell	Ken Russell
Logistics UK	Seamus Leheny
NEoT Capital	Aurelian Achard
Road Haulage Association	Chris Ashley
ScottishPower	Barry Carruthers
Scottish Wholesale Association	Colin Smith
Society of Motor Manufacturers and Traders	Sukky Choongh (Co-chair, rotating)
SSE plc	Neil S.Arnott
STUC - UNITE	Willie Thomson
Transport Scotland – Low Carbon Economy	Sara Grainger (Co-chair)
Volvo	Neil Park

1. Welcome and minutes of last meeting

The minutes of 23rd June 2022 were approved as an accurate record.

Action 2.4 (to highlight the construction skills requirements inherent in the move to zero emission transport to SG Skills and Energy teams) was closed.

2. HGV Energy Infrastructure

Michael Bunker of KPMG consultants gave a brief overview of the content of Paper 1 (*HGV Energy Infrastructure Opportunities and Challenges*) and Karen Geekie of Transport Scotland did the same for Papers 2-4 (*Energy supply and potential costs; Electricity networks - regulation and connections; Hydrogen in Scotland*).

A general discussion then took place under the following broad areas.

<u>En route energy infrastructure</u>

- OEMs are finding that:
  - energy infrastructure, both for BET and FCET, is a very significant barrier to adoption.
  - operators are unclear where to begin with the new energy infrastructure and find the large uncertainty in potential costs off putting.
  - the transition for lighter vehicles (cars and, increasingly, vans) benefits from low cost, low kWh home and workplace options to initially build momentum as well as public charging infrastructure
  - a planned approach to installing energy infrastructure aligned to the industry cycle would be of value

- Currently, depot fuelling is the most common model. There are concerns from both operators and DNOs that installing charging infrastructure in depots is not straightforward to cost or deliver – however, en route energy infrastructure should be a priority for action.
- Many HGV journeys follow trunk road routes. A small number of multi modal fuelling stations could serve substantial demand at regional level while also enabling longer journeys. A "Zero Emission Freight Route" could provide a much needed starting point.
- Hydrogen infrastructure is moving towards models which aggregate demand, eg providing 16 bays on a trunk road, or centralising production and trucking it elsewhere in a hub and spoke model. While hauliers are currently used to having their own infrastructure on site, high commodity and capex costs alongside supply chain constraints mean this model may have to shift. It was suggested that similar aggregation is likely to be desirable for high capacity charging.
- The phase out dates for the sale of new ICE trucks are 2035 (>26T) and 2040. Given lead in times of several years per site (2 years for hydrogen from decision to operational), an infrastructure plan is becoming a matter of urgency, both to ensure appropriate infrastructure and to encourage European OEMs to offer vehicle models in the UK – there are many more models available in Europe currently than in the UK. We need to start with these dates and understand the critical path.
- RIIO-ED2 plans will be the driver for MW charging. The 8 year investment plans will be key.
- A fundamental point is to understand where trucks stop currently and to plan for infrastructure there, recognising that drivers must stop every 4.5 hours and that currently they may do so in laybys or informal parking. There is a recognised lack of driver rest stops and an opportunity to address facilities for drivers alongside improved infrastructure.
- The move to zero emission is a huge change initiative. We need to consult with truck operators to understand what they feel they will need. For BET, en route infrastructure will be particularly important – what could work? This will also engage people so they feel more control over the change, rather than it being forced.
- The Traffic Commission might be able to support communications with all operators, as can the trade associations.
- It would be useful to understand what fuel forecourts on the main route to Inverness are planning for, and then we can identify gaps. Given that land availability will constrain location, it could be worth identifying some possible sites and seeking views on their viability for operators/ drivers.
- A brief discussion took place on the type of hydrogen that was desirable. It was strongly felt that consumer demand is already ensuring green hydrogen; that early adopters were primarily driven by reduction in greenhouse gases; and that some major Scottish producers are focusing solely on green hydrogen.

<u>Actions</u>

- Identify what data Transport Scotland holds on driver rest stops and public HGV refuelling points **- Secretariat**
- Consider if it is possible to identify and contact HGV public fuel points on trunk roads to explore their zero emission infrastructure plans **– Secretariat**

- Identify all known issues in the transition to zero emissions HGVs, whether real (planning, skills, legislative) or perceived, no matter how small – **all members**
    - **RHA** will develop a starter list based on the “prosaic issues” RHA members and others have raised to date
    - **Secretariat** will circulate using a cloud-based tool so others can add to the live list
    - **Secretariat** will make sense of them, identify any work in hand to address them already and reflect back to a future meeting
    - These can then form the basis for further action, process maps or additional guidance **– to be discussed at a later meeting**
- Consider a survey of operators to explore where they will require infrastructure and engage them in development – **to be discussed at a later meeting**

Decision
The ZETT will not mandate any specific type of hydrogen, recognising that factors such as customer demand are already leading the HGV market to green hydrogen.

Depot energy infrastructure

- There is a need for training around hydrogen use, and improved legislation around the use of hydrogen in enclosed spaces. It is possible that “enclosed spaces” may include tunnels, for example. There was discussion around public perceptions of hydrogen, and a recognition that work may be needed to reassure communities/ neighbours. [Point of clarity - Health and safety law is the same across Great Britain but there are differences in how offenses are prosecuted in Scotland.]
- Operators are doing detailed work on transition, but may not have a ready understanding of their options or where to find support. Many have installed infrastructure for cars but are unsure how to progress to heavier vehicles.
- Some operators are looking at offering access to energy as an income stream, eg a distributer charging while the truck is unloaded. There are third parties who specialise in these services, including billing so that it is similar to a fuel card.
- Where public money has supported bus charging infrastructure, bus operators are encouraged to open up access and some are trialling this although there are issues around security and layout. Some kind of certification could provide reassurance that visitors have sufficient skills and awareness.
- There is a lack of information flowing between sectors – haulage and logistics operators are not aware of what bus operators are doing and vice versa.
- Some discussion took place around a process map/ flowchart which could clarify who to speak to and where to get further information/ support. It could include when to begin discussions with DNOs; with engineers; when to consider depot location etc; what to do if you are leasing a depot or there are constraints with current depot location.
- Planning issues are beginning to occur, with a lack of consistency across areas. Experience is showing that a major planning issue for FCET is noise, with noise baffles required by compressors and sometimes at vent points.

Actions

- Pull together and share learning from the transition of bus + public sector depots (to include installation of infrastructure, upskilling staff) **– Secretariat**
- Circulate DNO heat maps **– Secretariat**
- Make contact with Scottish Government planning team to explore confidence and consistency in applications for zero emission depot sites **– Secretariat**
- Research successful planning applications and share knowledge **– Secretariat**

3. Trials

Meeting 2 agreed an action to:

> Define clearly what we need to know from trials (both the data outputs required and the range of contexts which will inspire confidence)

Discussion took place around how best to take this forward.

Actions

- To identify what information is required from trials, a template will be developed **by the Secretariat** and circulated to members. This will seek to identify the information various sectors (Operator, Financier, Policy, Energy network, OEM) require from trials; what proof are they looking for that a transition is worth doing.
- **All members** will complete the template from the perspective(s) they are most familiar with, seeking views from members/ stakeholders/ customers where applicable.

4. Next meeting – 13th October, 9.30 – Financing the transition

Views were sought on the information members wished to see in advance of the next meeting.

- The status quo - what are the fiscal incentives and current business models
- The different potential business models of the future and opportunities/ challenges.
- The components of a Total Cost of Ownership model, drawing on experience of members

Meeting 4 offers an opportunity to take stock of progress in understanding the issues before moving to a more development of the pathway. Members agreed that the initial four meetings cover the major strategic issues, and a comprehensive list of all known issues will be identified though the actions from this meeting.

Actions

- Share the Bus Decarbonisation finance pack **– Secretariat**

Action log

Reference	Action	Owner	Due date	Status
2.1	Define clearly what we need to know (both the data outputs required and the range of contexts which will inspire confidence)	See 3.9	Autumn 2022	Open
2.2	Establish whether that information can be gained from trials that are already complete/ underway/ planned, drawing on existing relationships and reaching out to Innovate UK and others	All members	To be discussed at a later meeting	Open
2.3	Bring forward proposals for trials that will fill any gaps in the information needed. The Taskforce will consider how gaps in information needed can best be addressed and by whom	All members	To be discussed at a later meeting	Open
3.1	Identify what data Transport Scotland holds on driver rest stops and public HGV refuelling points	Secretariat	October 2022	
3.2	Consider if it is possible to identify and contact HGV public fuel points on trunk roads to explore their zero emission infrastructure plans	Secretariat	October 2022	
3.3	Identify all known issues in the transition to zero emissions HGVs, whether real (planning, skills, legislative) or perceived, no matter how small • RHA will develop a starter list based on the “prosaic issues” RHA members and others have raised to date • Secretariat will circulate using a cloud-based tool so all members can add to the live list • Secretariat will make sense of them, identify any work in hand to address them already and reflect back to a future meeting • These can then form the basis for further action,	RHA All members Secretariat	End September 2022 To be discussed	

	process maps or additional guidance		at a later meeting	
3.4	Consider a survey of operators to explore where they will require infrastructure and engage them in development		To be discussed at a later meeting	
3.5	Pull together and share learning from the transition of bus + public sector depots (to include installation of infrastructure, upskilling staff)	Secretariat	October 2022	
3.6	Circulate DNO heat maps	Secretariat	September 2022	
3.7	Make contact with Scottish Government planning team to explore confidence and consistency in applications for zero emission depot sites	Secretariat	September 2022	
3.8	Research successful planning applications and share knowledge	Secretariat	Autumn 2022	
3.9	To identify what information is required from trials, a template will be developed and circulated to members. This will seek to identify the information various sectors (Operator, Financier, Policy, Energy network, OEM) require from trials; what proof are they looking for that a transition is worth doing. All members will complete the template from the perspective(s) they are most familiar with, seeking views from members/ stakeholders/ customers where applicable.	Secretariat All members	September 2022	
3.10	Share the Bus Decarbonisation finance pack	Secretariat	October 2022	