Pathway themes identified at January workshops and potential workstreams arising

Two workshops for ZETT members were held in January 2023:

- ZETT Workshop 1 (23rd January) centred on back to base use cases and depot charging/ fuelling.
- ZETT Workshop 2 (24th January 2023) centred on long distance use cases and en route charging/ fuelling.

Pathway themes identified

➢ **Are these the right themes to build an HGV Decarbonisation Pathway around? Is anything missing?**

The following themes emerged from the workshops:

- There is potential (for **electricity DNOs, operators and RTPs)** to develop a **nationwide understanding of the electricity upgrades that will be needed to support charging for battery-electric HGVs**. Likely to include:
  - Depot charging (including potential for electric charging infrastructure installed in one depot to be made available for use by other fleet operators, subject to all parties' business considerations)
  - En route - high capacity charging for short driver breaks (eg along trunk roads, at existing fuelling sites)
  - En route - lower capacity layover charging for longer driver breaks (eg driver rest stops)
  - Destination charging – available at places HGVs load/ unload (eg factories, ports, rail freight depots, retail sites etc)

- Building on the above, DNOs could potentially look to **set out the long term investment planned in each area** to stimulate investment into vehicles and allay haulage industry concern about pace of infrastructure installation for battery-electric vehicle charging.

- Hydrogen refuelling infrastructure will also be necessary, and a **strategic approach to hydrogen refuelling development** could be developed. Specific suggestions raised included clarifying SG ambition in this space and identifying where a minimum network of en route refuellers should be; mapping to existing and planned developments (including ports + large depots); and developing/ aggregating regional demand around those points.

- The benefits from deepening **international partnerships** were discussed, with participants referencing the following benefits that could result:
  - Opportunity to participate in multinational trials, and/or access to vehicle trial data and broader learning at the earliest stages

    - Evidence Scottish demand for zero emission vehicles to manufacturers based in Europe, helping to secure an adequate supply of vehicles
    - Potentially participate in demand aggregation projects with similarly small and ambitious nations to overcome barriers of cost and supply

- Potential to explore **the co-ordination and dissemination of trial data** from existing ZE HGV trials, drawing on member networks.

- Need to explore **potential business models for hydrogen HGVs**, improving shared understanding of the relevant elements of Total Operating Costs and where Scottish or collaborative action could positively impact on lifetime costs.

- Benefits of **raising awareness of and confidence in ZE HGVs**, for example through a ZE truck expo or roadshow.

- Importance of improving access to **zero emission technology training for future and existing technicians and engineers**

- Willingness, where **reserved matters such as legislation and tax** hinder progress, to identify these and lobby for change.