Sefton Council

Environment Centre | Lancaster University | centre for mobilities research

DePoLARiZE - Decision Pathway(s) towards Zero Emissions Freight at Port of Liverpool

time

EV HGV roll-out

- Vehicle tech change matures e.g. including AV/automation; micro-mobilities; improved route planning and freight data sharing – opportunities?
- Tech changes at points on route (around the UK and in the Port itself)
- Market for EVs stimulates production/ manufacture
- Cost of EV lorries falls dramatically
- Feeder vehicles developed
- HGV e-retrofitting sector emerges & matures
- Manufacturers cease to produce diesel vehicles
- Government sets/clarifies/ target for EV lorries replacing diesel
- Demonstrable evidence gathered that zero-C road freight will be available in adequate volume
- Incentives from (central) Govt (legal, financial e.g. including HGV EV
- Prohibition of conventional fuel vehicles

Inland Port Hub

- LCR/Freeport leads on inland hub(s) for:
  - EV charging
  - driver facilities
  - container park
- Pure EV truck and/or hybrid/ e-highways? (e.g. Scunthorpe
- Inland hub acts as interim interchange from ICE HGVs to EV shuttle to Port
- Lobbying central government for supportive regulatory environment
- Increased & adequate renewable (& nuclear) electricity supply

Infrastructural & sectoral transformation

- Port & haulage/ shipping co. buy-in
- New working conditions negotiated for drivers (re EVs & AVs)
- Adequate charging facilities locally, probably out of town (greater if motorways not electrified)
- Shipper investment in green supply chain (e.g. 'ESG'/ scope 3)
- Local grid reinforcements around HGV charging stations
- Much increased electricity storage (possibly in Port in vehicle batteries, re
- Funding for infrastructural redesign, inc. from private finance (banks, private equity), fuel companies, EV companies…
- (Ongoing) research commissioned into other ports/ airports with similar challenges & schemes
- New norms for Port access & turning times
- Exploration and plan for broader infrastructural redesign of Port access continues

Clean Air Zone

- New stringent Clear Air Zone air quality standards established by local government
- Public consultation – clearly explain why and longer-term strategy
- Future-proofed road-planning for infrastructure and (e.g.) dedicated EV-HGV lane (as interim measure)
  - safety
  - overhead cables?
- Deadline announced for prohibition of ICE HGVs accessing the Port
- Deadline – AQ-based ban on ICE HGVs accessing the Port
- CAZ policing & implementation
- What about PM2.5 and micro-particulates?
  - tyre & brake dust
  - 'smog stop' clear pollution barriers

Establish and maintain proper forums for participation of diverse stakeholders – inc. freight cos, shippers, local employers, education/training, residents, etc…

Port of Liverpool as (world leading?) zero-emissions freight hub