BUS FLEET INVESTMENT THROUGH DEPLOYMENT OF LOW EMISSION VEHICLES

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An Overview of considerations for Fleet Investment

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Context

- National fleet of approx. 5,850 vehicles
- Dominant use of Diesel Buses (80%)
- In 2016, payments of approx. 400m LEI
But...LEV is not a new concept
E-buses were 1.6% of all municipal buses on the roads in Europe in 2017.

Source: Bloomberg New Energy Finance, EAFO
Established in 2007

Technical Assistance to 17 Member States, plus IPA

Partnership of European Commission, European Investment Bank

‘Regional’ Offices
Components of an LEV Transition

VEHICLES

OPERATIONS

INFRASTRUCTURE
DEFINING THE PROJECT OPTION AND TECHNOLOGY REQUIREMENTS

- Define an Investment Option
  - Define an investment option in outline, including technology to be adopted, extent of fleet investment, routes to be operated.
  - Clearly highlight all the other (complementary) interventions needed on the system (e.g. bus lanes, traffic management, integrated fare system, etc.)

- Strategic Considerations
  - Is the project consistent with European transport policies? Does it comply with NTS and National/Regional Energy Strategy? Can synergies or constraints be identified?

- Local Considerations
  - Is there a local transport plan in place? What are the main issues with the local public transport/bus offer? How can they be tackled most effectively? Can a renewed bus fleet assist in addressing these issues and how?

ELABORATE ADDITIONAL REQUIREMENTS FOR THE SELECTED OPTION & VEHICLE TECHNOLOGY

- Infrastructure Needs
  - Identify infrastructure that is required to support the operation of the new fleet, with account of associated technology choices.

- Operating Needs
  - Identify resources required to maintain and operate the new fleet, with account of associated technology choices.

- Fleet Requirements
  - Identify the conditions under which the vehicles will be required to operate on the network.

- Risk Assessment
  - Consider risks associated with significant change to existing operations.

INCLUDE AND COST FOR ANCILLARIES IN THE PROJECT PROPOSAL:

- Fuelling and charging (plug in, fast charging) infrastructure
- Maintenance depot
- Safety upgrades
- Utility upgrades

INCLUDE AND COST FOR OPERATION & MAINTENANCE NEEDS:

- Vehicle and infrastructure (incl. fuelling/charging) maintenance
- Build local capacity, additional staff needs
- Maintenance equipment
- Need for major overhaul and/or replacements

DEFINE OUTLINE VEHICLE SPECIFICATION:

- Anticipated demand and capacity requirements
- Network (spatial constraints, gradients, dedicated bus facilities)
- Local conditions (e.g. climate)
- Safety

RISK ASSESSMENT:

- Redundancy (should there be a system-wide failure)
- Escalating costs (can these be accommodated)
- Required increase in fleet size (based on operational analysis)
- How can risks be mitigated
Some Key Questions

- Vehicle Range – how have buses performed?
- Refueling Infrastructure – any challenges in delivering?
- Solutions for dealing with fleet maintenance?
- Capital and Operating Costs?
- The need for market involvement and early testing?
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