

Required Content of the Feasibility Study

Annex B: The City-Level Feasibility Study

Priority Axis 2: Αστικά Λεωφορεία

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Urban Fleet projects should be presented as **Integrated Mobility Projects (IMPs)** for the individual cities. Such projects include not only fleet, but also include *ancillary measures* such as depot installations, bus priority infrastructure, ITS, passenger facilities, charging infrastructure etc, all of which are part of the operating environment for the new fleet.

Where the fleet element is procured through a Common Procurement, covering multiple cities, a **Programme-Level Feasibility Study** for this fleet element can be prepared by the procuring entity (i.e. the Ministry of Transport and Infrastructure) that covers the whole investment programme. This **Programme-Level Feasibility Study** presents a description and justification for the overall fleet purchase and also the definition and applicability of the ancillary measures.

At City-Level, authorities shall prepare a Feasibility Study for the implementation of the programme at city level, providing the following:

- A description of the deployment of the bus fleet to different bus lines, demonstrating that the fleet can operate within the operational requirements of those lines;
- A presentation of the approach to management of the fleet that is allocated to that city from the investment programme, and showing how all the necessary infrastructure (depots, charging, maintenance facilities) will be delivered;
- A presentation of the *ancillary measures* (depot installations, bus priority infrastructure, ITS, passenger facilities, charging infrastructure etc) showing their design and costing, and outlining the procedures for their implementation;
- A demonstration of the compatibility of the public transport operations with Regulation 1370/2007, namely that they are delivered under a Public Service Contract according to the template of the Ministry of Transport.

This Annex describes the required content for the City-Level Feasibility Study. It is prepared with reference to the document “*Preparation of Feasibility Studies for Transport Investments: Guidance for Practitioners*”, describing in detail the content of each section as it relates to the current Priority Axis.

1 Objectives

Required: YES

Specific Content:

Project Goal: Refer to the relevant legislation that sets a goal to decarbonise urban transport fleets (e.g. Alternative Fuels Regulation) and appropriate national policy that dictate the need to act. Also refer to national policy on decarbonisation and electromobility, the European Green Deal, European Climate Law and Sustainability and Smart Mobility Strategy, relating to policies to improve public transport operations in cities.

Specific Objectives: See paragraph 1.2.2 of FS Guide

Compatibility: See paragraph 1.2.3 of FS Guide

2 Existing Situation

Required: YES

Specific Content:

Current Situation: See paragraph 2.2 of FS Guide. Include description of the state of the existing system as follows:

- Fleet size, vehicle type, technology and age
- Routes, Frequencies, Fares, Ticketing
- Annual passenger volumes, vehicle-km
- Contracting arrangements with existing operator
- Depots
- Provision of street infra such as bus stops, interchange stations, telematic information, bus priority and set-down areas
- Operating costs, revenues and subsidies paid

Complementarity: Identify any complementary investments such as new public transport services or infrastructure that may be undertaken and which interface with the current project (including those proposed under a SUMP), and explain how the current project will accommodate them.

3 Demand Analysis

Required: YES

Specific Content:

Model Type: For large cities (Athens and Thessaloniki) or where they are already available, use *Mode Share* Models. For smaller Cities, use Simple Models that are based on existing passenger demand.

Parameters: User specified (elasticities and growth factors)

Without-Project: Use last full year of passenger data (2023) with demand allocated at route level (considering only those routes where investment is proposed). Assume project start year as 2026.

With-Project: As above for the With-Project Scenario. Assume project start year as 2026..

4 Options Development and Analysis

Required: Required only for **Athens and Thessaloniki** (or any city not covered within a Programme-Level Feasibility Study). **For other Cities, refer to the Programme Level Feasibility Study** (prepared by the Ministry of Transport).

Specific Content:

Strategic Analysis: Provide a reference to the SUMP, network planning study, or relevant Transport Plan that sets out the rationale for decarbonisation of the fleet and the ancillary measures proposed to support it (and so defining the overall investment concept).

Technical Analysis:

- *Define Options for fleet: List the technical options for bus fleet under a set of headings. Should consider as a minimum the following technical parameters:*
 - *Propulsion technology;*
 - *Bus sizes (8m, 12m, 18m);*
 - *Operating range (km);*
 - *Mechanisms for Depot provision;*
 - *Options for charging infrastructure delivery;*
 - *Options for maintenance;*
- *Screening: Not Required.*
- *Preliminary Appraisal: Use Economic Analysis Method 1 or 2 as appropriate for each technical parameter (or grouping of parameters) or ancillary measure. Prepare the summary table showing Economic, Environmental and Technical Feasibility. Make the final selection based on this table. Include the effect of the ancillary measures on performance of the investment.*

5 Project Definition

Required: YES

Specific Content:

Modifications: Describe (if applicable) any further variations or enhancements to the technical specification made following the Options Analysis in order to improve performance of the system without incurring significant cost changes.

Definition: Present a comprehensive description of the investment including, but not limited to:

- *For the fleet aspect: Number, type, power specifications, and technology to be procured. Justification for definition of 'lots'. Information on charger type, number, power and management systems.*

- *For Bus Operations: An outline of the selection of bus lines chosen for deployment of the fleet, including the logic for selection and the allocation of buses to each route. Show how other constraints such as depots, power supply, range and route characteristics have informed the selection of bus lines.*
- *For the depots: Describe availability, locations, ownership and maintenance. Present preliminary designs (general layout of charging infrastructure, structures and electrical installations) where they are in depots owned by the public operator, along with demonstration of power availability.*
- *For the ancillary measures: Describe works on-street to include stops, bus priority, ITS, ticketing etc.*
- *Describe the mechanisms put in place to ensure these ancillary measures will be delivered by others under future arrangements (e.g. through the PSC) at programme delivery level.*

Indicators:

Present a table showing project indicators, which should include:

- *RCR29: Estimated GHG emissions (tn equivalent CO₂/year)*
- *RCR62: Annual number of users of new or upgraded public transport services.*

6 Cost

Required:

YES

Specific Content:

Capital Cost:

Include all systems plus ancillary infrastructure, appropriately categorised. Include any costs relating to decommissioning of old equipment. Cost should include all ancillary measures at city level.

Operating Cost:

Include all costs associated with operation, including staff, payments of software and hardware maintenance, maintenance of ancillary equipment, periodic planned maintenance. Present without-project and with-project costs and present the marginal cost. Project cost covers the full operating period of 10 years from start of operation. In most cases, it is expected that this operating cost will equal the payments for the Public Service Contract, which will include all such costs.

7 Financial and Economic Analysis

Required:

YES

Specific Content:

Financial Analysis:

To consider the full investment programme, including ancillary costs.

Economic Analysis: To consider the full investment programme, including ancillary costs and resulting benefits.

Financing Plan: See paragraph 7.4 of FS Guide.

8 State Aid

Required: YES

Specific Content:

Aid Assessment: Step 1 should conclude that the funding constitutes State Aid. Step 2 should refer to the intention to deliver the aid under a Public Service Contract in compliance with Regulation 1370/2007. A copy of the Public Service Contract should be included in an Annex. A copy of the notification of award of the PSC should be included in an Annex.

9 Procurement and Implementation Plan

Required: YES

Specific Content:

Procurement: Describe the contracting authority and the procurement method to be used for the fleet and for the ancillary works and present the rationale for selection of that method. If applicable, this can refer to the Programme Level Feasibility Study prepared by the Ministry of Transport).

Implementation: See paragraph 9.2 of FS Guide. Include item for testing and commissioning before live operation.

10 Operational Plan

Required: YES

Specific Content:

Scope: Describe the operation of the investment, defining who will be the target users. Make reference to the standard requirements for launching public service contract tenders.

Governance: Describe the following (with reference to the terms within the public service contract):

- Allocation of responsibilities for oversight of the public service contracts between the Ministry, the relevant city, and Regions. If applicable, this can refer to the Programme Level Feasibility Study prepared by the Ministry of Transport);
- Define the responsible entity for executing the fleet purchase contract and engagement with the supplier on follow-up issues during the warranty period;
- Describe the ownership and responsibility for the depots, the maintenance and upkeep of vehicles and that of charging systems;

Modification: Describe specifically those aspects of the governance that are new and have been developed in order to support the investment.

11 Risk Assessment

Required: YES

Specific Content:

Categories:: The Risk Assessment should include specific risks under the following categories:

- *Fleet performance and reliability*
- *Depot availability or ownership*
- *Power supply and charging equipment*
- *Service Planning*
- *Tendering of Service Contracts*
- *Capital and Operating Costs*
- *Other categories deemed appropriate on the basis of ongoing considerations*

Risk Transfer: Describe what risks (if any) have been transferred to the contractor during the operation stage.

12 Climate Vulnerability and Risk Assessment

Required: YES (only for those components considered “Infrastructure”)

Specific Content:

Climate Assessment: As outlined in Section 12 of the Guide, for the vulnerable elements of the proposed investment (see Annex I of the FS Guide for definition of vulnerable elements).

13 Environmental Impact Assessment

Required: YES (only for those components considered “Infrastructure”)

Specific Content:

Impacts: As outlined in Section 13.1 of the Guide, where an EIA has not been undertaken.