

Required Content of the Feasibility Study

Annex A: The Programme-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.

For the **Regional City Bus Programme (not including Athens and Thessaloniki)**, where the fleet element is procured through a Common Procurement covering multiple cities, a **Programme-Level Feasibility Study** for this fleet element **shall 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 is the subject of this annex, and** should present the following:

- Detailed analysis and presentation of the proposed fleet acquisition (and charging equipment); and
- A general description at programme level of the other *ancillary measures* (depot installations, bus priority infrastructure, ITS, passenger facilities, charging infrastructure etc) describing how they will be delivered. This detail of supporting measures for each individual city shall be expanded as part of the later project-specific Feasibility Studies for those cities).

In parallel, the development of the **Template Public Service Contract** must take place. This template will later be used to tender the Bus Operators for the Cities. Given the prominence of State Aid in the purchase of bus fleets, these two documents should be submitted for review by the Managing Authority prior to launch of bus fleet tender. This will, ultimately, allow the tender process to commence in parallel with the preparation of the **Feasibility Studies for the Integrated Mobility Projects** in each city.

This Annex describes the required content for the Programme-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. Cover all infrastructure, operating conditions and institutional setup. Refer extensively to city questionnaire circulated in December 2023. Include also aggregate data for the cities covered by this Feasibility Study. Use city data to report on measures of efficiency as derived from the December 2023 Questionnaire, showing how this varies across all cities.

Complementarity: Refer to complementary investments and activities such as:

- Implementation of the provisions of the Recovery and Resilience Facility relating to urban transport;
- Rollout of EV Charging according to the local charging plans (ΣΦΗΟ);
- The law and requirements regarding SUMP (national and about TEN-T Nodes)

3 Demand Analysis

Required: YES

Specific Content:

Model Type: Simple Model (considering Programme Level).

Parameters: User specified (elasticities and growth factors)

Without-Project: Build up an aggregate picture of existing operations and passenger activity in relevant cities, such as size and condition of fleet, average passenger-km per bus per annum, and average bus-km, established through questionnaire of December 2023. Assume base condition uses diesel buses of minimum standard. Include emissions/pollutant estimates.

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

4 Options Development and Analysis

Required: YES

Specific Content:

Strategic Analysis: Apply Method 3: Present alternative approaches to achieving the project goal (fleet decarbonisation). Consider and evaluate the following options (amongst others as relevant):

- *In-house operations through public companies, established as a subsidiary of the state, and equipped with new fleet funded through public acquisition;*
- *Open tendering to private companies, coordinated through the central ministry (as outlined in the PT law) and with new fleet funded centrally;*
- *Open tendering to private companies, under the authority of each city, with all new fleet provided by the private sector;*

Technical Analysis:

- *Define Options: 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. Prepare the summary table showing Economic, Environmental and Technical Feasibility. Make the final selection of the preferred technical parameter (or group of parameters) based on this table.*

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 of buses, type, power specifications, and technology to be procured. Justification for definition of 'lots' (if any). Information on charger type, number, power and management systems.*
- *For the ancillary measures: Describe in general the type of supporting measures to be included at city level (to be elaborated in more detail through the City Feasibility Studies) in order to support operations.*
- *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.*
- *Present the logic and final allocation of fleet and the budget for supporting measures across each city.*

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 measures, appropriately categorised. Include any costs relating to decommissioning of old equipment. Cost should include an allowance for all ancillary measures at city level, assumed as a percentage of the overall investment project (suggested 20%) for the purpose of the programme estimates. The need to construct depots should be added as an additional item if required for operation of services.

Operating Cost:

Present an analysis of all costs associated with operation, including staff, payments of software and hardware maintenance, maintenance of ancillary equipment, periodic planned maintenance. Project cost should be presented over the full operating period of 10 years and 15 years from start of operation, and may use benchmarks expressed as cost per vehicle-km for each vehicle type, balanced against an estimate of fare revenue. Provide (for each city separately and in aggregate) a calculation of the net compensation payable for the full programme of public service contracts, and also the change in annual compensation cost as a result of the provision of the new zero-emission fleet.

7 Financial and Economic Analysis

Required:	YES
Specific Content:	
<i>Financial Analysis:</i>	<i>Consider the full investment programme, including all operational costs. Should focus on the marginal effects of introducing new bus fleet and ancillary measures.</i>
<i>Economic Analysis:</i>	<i>Consider the full investment programme, including all operational costs and resulting benefits. Should focus on the marginal effects of introducing new bus fleet and ancillary measures.</i>
<i>Financing Plan:</i>	<i>See paragraph 7.4 of FS Guide.</i>
8	<i>State Aid</i>
Required:	YES
Specific Content:	
<i>Aid Assessment:</i>	<i>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 Template Public Service Contract should be included in an Annex to the Study, showing that the provision of fleet will be undertaken within the Public Service Contract. Explain how it will be protected such that there will be no disbursement of funds until there is an agreed Public Service Contract in the beneficiary city.</i>
9	<i>Procurement and Implementation Plan</i>
Required:	YES
Specific Content:	
<i>Procurement:</i>	<i>Describe procurement method to be used (for fleet and for ancillary measures), and rationale for selection of that method. Explain how funding will not be disbursed until the city-level project applications are finalised and financing agreements signed with the Managing Authority (through the prescribed approach of a Single Supplier Framework). Include copy of fleet tender specification, showing all technical and contractual terms including payments, bonus-malus, oversight, performance monitoring, provision for modification, risk allocation etc.</i>
<i>Implementation:</i>	<i>See paragraph 9.2 of FS Guide. Include item for testing and commissioning before live operation.</i>
10	<i>Operational Plan</i>
Required:	YES
Specific Content:	
<i>Scope:</i>	<i>Describe the operation of the investment, defining who will be the target users and describe the mechanism for defining service plans for each city. Make reference to the standard</i>

		<p><i>requirements for launching public service tenders. Include the PIN notice relating to the Public Service Contract procedure for the relevant cities, that makes reference to the indicative operating plan for each city.</i></p>
	Governance:	<p><i>Describe the following (with reference to the terms within the public service contract):</i></p> <ul style="list-style-type: none"> ▪ <i>Allocation of responsibilities for oversight of the public service contracts between the Ministry, Cities, Regions;</i> ▪ <i>Responsible entity for executing the fleet purchase contract and engagement with the supplier on follow-up issues during the warranty period;</i> ▪ <i>Ownership and responsibility for the maintenance and upkeep of the vehicles and of charging systems;</i>
	Modification:	<p><i>Describe specifically those aspects of the governance that are new and that have been developed to support the investment.</i></p>
11	<i>Risk Assessment</i>	
	Required:	YES
	Specific Content:	
	Categories::	<p><i>The Risk Assessment should include specific risks under the following categories:</i></p> <ul style="list-style-type: none"> • <i>Fleet performance and reliability</i> • <i>Depot availability or ownership</i> • <i>Power supply and charging equipment</i> • <i>Service Planning</i> • <i>Tendering of Service Contracts</i> • <i>Capital and Operating Costs</i> • <i>Other categories deemed appropriate on the basis of ongoing considerations</i>
	Risk Transfer:	<p><i>Describe what risks (if any) have been transferred to the contractor during the operation stage.</i></p>
12	<i>Climate Vulnerability and Risk Assessment</i>	
	Required:	NO – to be undertaken within the city-level Feasibility Studies.
13	<i>Environmental Impact Assessment</i>	
	Required:	NO – to be undertaken within the city-level Feasibility Studies.