



ELENA Project Factsheet
Transition to Electric Buses and Boats in Movia
(TEBB)

Location	City of Copenhagen, Denmark
Beneficiary	Trafikselskabet Movia, Copenhagen
CoM signatory	City of Copenhagen and City of Roskilde both signed CoM in 2009
Sector	Urban public transport
Total PDS cost	EUR 1 243 456
ELENA contribution	EUR 1 119 109
Project Development Services (PDS) financed by ELENA	<p>The program includes seven work packages (WP):</p> <p>WP0: Project management WP1: Main challenges in tendering WP2: Electric buses in Roskilde WP3: Electric buses in Copenhagen WP4: Electric Harbour buses in Copenhagen harbour WP5: In-house capacity building and IT solutions WP6: Dissemination</p> <p>The main issues to be addressed during the ELENA project are:</p> <ul style="list-style-type: none"> • Final feasibility studies and cost calculations for operation for electric buses and ferries • Public procurement of transport services using electric buses and ferries • Public procurement of charging infrastructure for electric buses and ferries
PDS Timeframe	1 October 2017 – 30 September 2021
Investment programme description	<p>The project will result in the deployment of approximately 75 electric buses, 4 harbour buses and all related charging infrastructure, all deployed 2017-2021.</p> <p>An additional 285 buses and charging infrastructure are to be deployed 2022-2030 with based on the procurement strategy and process which will be developed in the project. Movia expects that by 2030 a minimum of 360 electric buses are in operation by private bus operators which will mean that all buses operating in the Municipality of Copenhagen will be electric. In addition, investments in the related and required charging infrastructure will be contracted and deployed.</p>

Investment to be mobilized	EUR 67.9m during the ELENA project period, and EUR 203.5m during 2017-2030.
Description of the approach to implement the Investment Programme	The project will be managed by Movia. A dedicated project team will be set up, and the project team will be composed of selected employees currently employed in different parts of Movia and newly hired staff, who will be dedicated full time to the project. The project manager is an existing staff from the contracts department to be seconded to the project. The project manager will be responsible for the daily activities of the project team, for contact with the EIB and for reporting obligations to the EIB and within Movia and the participating municipalities. The project will be overseen by a Steering Group to be composed by members of Movia's management. When required, representatives from the involved municipalities will also participate in the Steering Group.
Expected results	<p>The total estimated contributions for the full project completed in 2030 are:</p> <ul style="list-style-type: none"> • CO₂ reductions – annual total reductions 24 476 CO₂ eq t • NOx reductions – annual total reductions of 38.6 t <p>Since the project will focus on conversion from diesel to electric and no additional transport services are foreseen, the project is not expected to have any significant impact on modal share.</p>
Leverage factor (Minimum 10)	61
Market replication potential	<p>Movia's tendering of electric vehicles will become a show case of how political targets for non-emissions vehicles can be implemented in practice in large scale projects.</p> <p>Most PTAs in the Nordic countries have a structure that is similar to Movia, i.e. the transport authority is tendering out bus operation to private operators. There is a huge interest among Nordic PTAs for tendering out the operation of electric buses. For some cities, electrification of smaller ferries or harbour buses is also relevant. A number of Nordic cities such as Gothenburg, Stockholm, Umeå, Södertälje, Helsinki, Espoo and Turku have deployed opportunity charged e-bus systems. Other cities are in the process of deploying such systems, e.g. Oslo, Drammen, Aarhus and Trondheim. Movia and the City of Copenhagen cooperate closely with Nordic PTAs that make trials with and tender out operation of e-buses. Most projects are today trials were the operation of e-buses is not tendered out on commercial conditions.</p> <p>Movia's approach with separating the operation of e-buses from the deployment and operation of the recharging infrastructure is unique. Movia's model and the experiences that Movia obtains constitute high value for other PTAs.</p>
Status	Contract signed on 30/10/2017
Contact person at Beneficiary	Mr. Victor Hug, Project Manager – vih@moviatrafik.dk