

**GOOD PRACTICE EXAMPLES - APPENDIX B
ELENA FUNDS FACT SHEETS**

ELENA Project Factsheet

Central Denmark Energy Planning and Investment (CeDEPI)

Location	Central Denmark Region												
Beneficiary	Central Denmark Region												
CoM signatory	Out of the associated 11 municipalities, 9 have signed the CoM												
Sector	Energy efficiency in buildings and in street lighting, RE in related to buildings												
Total PDS cost	EUR 2,567,000												
Elena contribution	EUR 2,310,000												
Project development services (PDS) financed by ELENA	The creation of a project department (support unit) assisted by external consultants for specific assignments, which will support 11 municipalities and the Region itself in preparing the planned investment programme. The Project Department will consist of a Programme Manager and 9 technical experts. It will deliver technical assistance to the partners through procurement of external expertise according to the partners' needs, and through the technical experts, part of whom will be seconded to several municipalities.												
Description of ELENA operation	The work programme consists of three phases: 1. Project-start : set up of the project department and tendering of external consultancy, final choice of buildings 2. Preparation of tender: building energy audits, PV design, street lighting audits, tender preparation and evaluation 3. Implementation of investment programme: contract signature and commissioning of works												
Timeframe	June 2014 till May 2017												
Basis for investment identification	Preliminary study and a data collection concerning potential investment projects in cooperation with the interested municipalities to prepare ELENA application												
Investment programme description	Building refurbishment (building shell improvement, upgrade of energy building equipment's) : around 100 buildings identified RE electricity generation: installation of PV plants on foreseen 17 buildings Street lighting upgrade and replacement: approx. 5,700 lighting columns, 20,000 fixtures Purchase of electrical vehicles and charging stations: 2 municipalities												
Investment to be mobilized	<table border="1"> <thead> <tr> <th>Sectors</th> <th>Investments (mEUR)</th> </tr> </thead> <tbody> <tr> <td>Building refurbishment (envelope and equipment)</td> <td>32.4</td> </tr> <tr> <td>PV plants on roof tops</td> <td>4.5</td> </tr> <tr> <td>Street Lighting</td> <td>20.5</td> </tr> <tr> <td>Electrical vehicles</td> <td>0.4</td> </tr> <tr> <td>Total</td> <td>57.8</td> </tr> </tbody> </table>	Sectors	Investments (mEUR)	Building refurbishment (envelope and equipment)	32.4	PV plants on roof tops	4.5	Street Lighting	20.5	Electrical vehicles	0.4	Total	57.8
Sectors	Investments (mEUR)												
Building refurbishment (envelope and equipment)	32.4												
PV plants on roof tops	4.5												
Street Lighting	20.5												
Electrical vehicles	0.4												
Total	57.8												
Expected results	Energy Efficiency – Annual total energy saved 30,680 GWh. Renewable Energy – Annual renewable electricity generation 1,600 GWh. CO ₂ reductions –Annual total reductions of CO ₂ emissions 7,040 CO ₂ eq t.												
Leverage factor (Minimum 20)	25												
Market replication potential	The delivery of attractive packages of energy efficiency and renewable energy investments to municipally owned buildings is one of the key elements under the SEAPs and for municipalities. Its concrete application by a regional authority in bundling projects and supporting smaller municipalities might encourage others to adopt similar approaches.												
Project status	Contract signed in June 2014												
Contact Person at Beneficiary	Martin Petersen, Programme manager												

Electrobus: Energy Efficient Bus Network for Barcelona

Location	City of Barcelona, Spain.
Beneficiary	Transports de Barcelona, S.A (TB)
CoM signatory	YES (November 2008)
Sector	Urban Public Transport EE. (Bus network and operation)
Total PDS cost	EUR 2 260 000
ELENA contribution	EUR 1 921 000 (85%)
Project development services (PDS) financed by ELENA	<p>The ELENA assistance will support the first large scale investment programme in Europe to retrofit existing diesel and GNC buses into hybrids, with:</p> <ul style="list-style-type: none"> • Technological studies on electric and hybrid buses (including retrofitting) • Support in the definition of tailored financial instruments to finance the bus fleet renewal • Studies for a new Bus Network (including Traffic engineering) • Studies on new signals network and LED technology
Description of ELENA operation	<p>The tasks will be carried out through the creation of an implementation unit, made up by representatives of both entities Transports de Barcelona and Mobility Department of the Municipality of Barcelona (TB and MD). This new unit will incorporate internal staff from the two entities and additional staff (TB) hired exclusively for this project (one technical senior expert and three technical staff).</p> <p>ELECTROBUS will also receive support from external consultants.</p>
Timeframe	2011-2014
Basis for investment identification	<ul style="list-style-type: none"> • Energy efficiency action plan 2000-2010 • New energy efficiency, climate change and air quality action plan 2010-2020, including the objectives of the Covenant of Majors (under preparation by the Barcelona City Council) • The ELECTROBUS umbrella program (TB)
Investment programme description	<ul style="list-style-type: none"> • New Bus Network and Bus Rapid Transport-BUS) • Technology to implement LED technology into the traffic signaling system • Bus fleet renewal: The plan foresees to retrofit 220 existing buses into hybrid buses and to integrate electric and hybrid vehicles
Investment to be mobilized	EUR 163.88 m.
Expected results	<p>Energy savings: 61.4 GWh by the end of the three year project period</p> <p>CO₂ reduced: 16 400 CO₂-eq [t] by the end of the three year project period</p> <p>Jobs created/sustained: No data regarding employment is currently available.</p>
Leverage factor	85
Market replication potential	There is a high replication potential for other municipalities, notably in the Spanish market, but not only.
Project status	Approved
Contact person at Beneficiary	Francisco González Balmas fagonzalez@tmb.cat

ELENA Project Factsheet

Global Roadmap for Energy Efficiency and New Energy Resources in Extremadura (GREENER-EX)

Location	Extremadura Region, Spain								
Beneficiary	Extremadura Energy Agency (AGENEX)								
CoM signatory	No								
Sector	EE and RES in Buildings Street lighting e-Mobility								
Total PDS cost	EUR 1 397 144								
Elena contribution	EUR 1 257 430 (90%)								
Project development services (PDS) financed by ELENA	The project development services will support a large investment programme to improve the energy efficiency in street lighting and public buildings, as well as electrical transport to be implemented predominantly by ESCOs. The final beneficiaries include 163 municipalities, two county councils and the regional government. These entities will benefit from lower energy costs and new or renovated installations.								
Description of ELENA operation	AGENEX will develop an investment programme focused on public buildings, biomass, street lighting and electric vehicles. The ELENA operation will support AGENEX in the first stages of project development. AGENEX will, in close cooperation with regional and local authorities, develop and bundle investment projects and support public procurement. The final beneficiaries are public entities that will benefit from lower energy costs and new installations. AGENEX will recruit 20 new members of staff to support the implementation of the project and in addition external legal, financial and technical expertise.								
Timeframe	2014-2017								
Basis for investment identification	The investment programme has been prepared on the basis of information provided by local and regional authorities.								
Investment programme description	<ul style="list-style-type: none"> • Measures to improve EE and increase RES generation in 326 public buildings • Realisation of three regional biomass collection centres • Energy efficient street lighting systems in three municipalities • Investments in e-mobility, including 26 charging points and 49 electric vehicles 								
Investment to be mobilized	46.5 MEUR								
Expected results	<table style="width: 100%; border: none;"> <tr> <td>Renewable energy production:</td> <td>23.5 GWh/year</td> </tr> <tr> <td>Energy-efficient street lighting</td> <td>23.0 GWh (saved)/year</td> </tr> <tr> <td>Energy-efficiency in buildings</td> <td>1.6 GWh (saved)/year</td> </tr> <tr> <td>Energy savings mobility</td> <td>4.3 GWh (saved)/year</td> </tr> </table>	Renewable energy production:	23.5 GWh/year	Energy-efficient street lighting	23.0 GWh (saved)/year	Energy-efficiency in buildings	1.6 GWh (saved)/year	Energy savings mobility	4.3 GWh (saved)/year
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Energy-efficient street lighting	23.0 GWh (saved)/year								
Energy-efficiency in buildings	1.6 GWh (saved)/year								
Energy savings mobility	4.3 GWh (saved)/year								
Leverage factor (Minimum 20)	37								
Market replication potential	The market replication potential for other Spanish regions is considered high, notably for street lighting projects, the use of biomass for heating, and the innovative bundling approach.								
Project status	Contract signed 17.12.2014								
Contact person at Beneficiary	Javier Ordóñez Muñoz								

MADEV (MADrid Electric Vehicles)

Location	City of Madrid, Spain
Beneficiary	Empresa Municipal de Transportes de Madrid S.A. (EMT) Public Transport company owned by Madrid City Council.
CoM signatory	YES (28 th November 2008)
Sector	Urban Public Transport EE. Electromobility
Total PDS cost	EUR 1 304 640
ELENA contribution	EUR 1 148 083 (88%)
Project development services (PDS) financed by ELENA	<p>The ELENA assistance will support the first large scale investment programme for electric vehicles in Spain.</p> <ul style="list-style-type: none"> ▪ Assessment and support for the selection of the best business models ▪ Support for the legal implications of the project ▪ Support the identification of administrative requirements ▪ Implementation of management and monitoring tools to ensure a proper coordination ▪ Support on the development of public charging network
Description of ELENA operation	A Project Implementation Unit will be established within the EMT to manage the investment programme. This unit will coordinate, promote and analyse the proposals from the sector stakeholders (energy companies, vehicle and charging station manufacturers, etc.) and from the Municipality of Madrid. It will also support them technically in the implementation. The unit will be made up of existing staff and additional staff working at EMT and will receive support from external consultants.
Timeframe	2011-2013
Basis for investment identification	<ul style="list-style-type: none"> ▪ SEAP developed in the framework of the Covenant of Mayors: Plan de Uso Sostenible y Prevención del Cambio Climático de la Ciudad de Madrid 2008. ▪ Project MOVELE (2009-2010). ▪ Integrated Strategy for Electric Vehicles Promotion in Spain, presented on 06 April 2010
Investment programme description	<ul style="list-style-type: none"> ▪ Acquisition of 1 400 Electric Vehicles (EV) ▪ Acquisition of 1 870 charging points (CP)
Investment to be mobilized	The expected investments amount to EUR 53,4 million
Expected results	<ul style="list-style-type: none"> ▪ Energy savings: 4160 MWh/year ▪ CO2 reduced: 1800 CO2-eq [t]/year
Leverage factor	47
Market replication potential	The market replication potential for other municipalities, notably in the Spanish market, is considered high.
Project status	ELENA contract signed on 25 November 2010.
Contact Person at Beneficiary	Sergio Fernández Balaguer Sergio.fernandez@emtMadrid.es

The Zero Emission Buses in Netherlands

Location	Dutch southern provinces North Brabant and Limburg.
Beneficiary	Zero Emission Bus Transport Foundation (ZEB),
CoM signatory	The cities of Helmond, Eindhoven, Breda, 's-Hertogenbosch and Tilburg in the province of North Brabant have signed the Covenant of Mayors in February 2009.
Sector	Public Transport
Total PDS cost	EUR 2 733 250
Elena contribution	EUR 2 459 925 (90%)
Project development services (PDS) financed by ELENA	<p>The ELENA support will include external experts to focus in the following activities:</p> <ul style="list-style-type: none"> • Programme Coordination • Decision Support for Investments: business and financial models • Investment validation: energy infrastructure • Investment validation: available zero emission bus concepts • Legal implications, tax system and finance • Preparation for Procurement and Implementation
Description of ELENA operation	The ZEB Foundation will hire specialist consultants to support them to organise, coordinate, procure and facilitate all relevant actions and expertise in order to realise all investments in the provinces of North Brabant and Limburg implementing successful tenders for Public Transport concessions featuring large-scale zero emission investments.
Timeframe	2012-2015
Basis for investment identification	<p>In the previous research phases, all partners and stakeholders of the ZEB Foundation are contributing to the proof of principle of the proposed TCO, business and service provider models, and have proven the economic feasibility and bankability of the envisaged new business models within Zero Emission concessions, through representatives of the Dutch Association of Banks (NVB).</p> <p>Representatives from PTO's, automotive supply chains and OEM's have confirmed the feasibility of the proposed production of series of electrical bus configurations for The Netherlands. Main other technical issues have been solved i.e. available power trains, battery stacks, and (fast) charging systems. The main types stakeholders that have been contributing to the ZEB.</p>
Investment programme description	<p>The objective of the project is to replace the complete fleet of diesel buses currently used in the province of North-Brabant and Limburg by Zero Emission Buses.</p> <p>A total of 626 zero emission buses and related charging infrastructure is included in the investment programme.</p>
Investment to be mobilized	EUR 587 million

Expected results	<p>The planned investment programme is expected to reduce energy consumption by a total of 72,7 GWh per year.</p> <p>Energy savings will reduce CO2 emissions by an estimated 26,9 k-ton per year, if the average energy mix of the Netherlands is assumed. The reduction of CO2 emissions would roughly double (to 53,9 kton per year), if the energy were sourced from green alternative sources.</p> <p>Other impacts are related to of noise levels and PM reduction.</p>
Leverage factor (Minimum 20)	238
Market replication potential	<p>The market replication potential is considered high, notably the development and implementation of new (tenders for) concession contracts, based on a novel business model that enables public transport operators to purchase and operate Zero Emission buses. Unique feature of this business model is the mix of public and private financing in order accelerate implementation of zero emission bus fleets within current boundaries of public funding.</p>
Project status	Contract signed on 28.11.2012
Contact person at Beneficiary	<p>Zero Emission Bus Transport Foundation (ZEB) Mrs. Maria H.H Van Haaren – Koopman, Chairwoman info@zero-emissiebusvervoer.nl</p>