



ELENA Completed Project Factsheet

Green Net

Location	Municipalities of Sittard-Geleen, Beek and Stein, The Netherlands
Beneficiary	Municipality of Sittard-Geleen
CoM signatory	No
Sector	Renewable Energies and District Heating
Total PDS costs	EUR 816 238
ELENA contribution	EUR 668 000
Project development services financed by ELENA	<p>The main activities developed under the technical assistance program were:</p> <ul style="list-style-type: none"> • Preliminary analysis in order to develop a public-private partnership for the implementation and operation of district heating network • Preparation of investment decision for the involved municipalities; • Preparation and process of the tender procedure following the competitive dialogue rules • Continued acquisition of potential district heating customers • Legal and financial structuring of the project
Description of ELENA operation	<p>The operation consisted of the following activities:</p> <ul style="list-style-type: none"> • Set-up of a dedicated Project Implementation Unit with internal and additional staff that was involved in the preparation and implementation of the entire investment programme • External advice during the project management and implementation phase • Legal and financial design of contracts for heat producers and costumers • Development of technical studies in order to validate the technical concepts proposed by private bidders • Legal, financial expertise during the development of the tender documents for the development of the public private partnership
Timeframe	Jan 2012– June 2015
Basis for investment identification	<p>The basis for investment identification were preliminary studies that the involved municipalities had already developed, namely:</p> <ul style="list-style-type: none"> • City development strategy to increase energy efficiency through residual heat use, increase RE and avoid CO₂ emissions; • The development of preliminary studies concerning district heating potential, heat master plan set-up and preliminary business plan.
Investment programme description	<p>The investment programme resulted in following deliverables:</p> <ul style="list-style-type: none"> • Construction of a complete district heating network (DHN) on the territory of the three municipalities (Sittard-Geleen, Beek and Stein); • Promotion of renewable energy sources once the DHN is supplied by an existing biomass cogeneration plant and by residual heat from an industrial park plant that produces steam for industrial customers; • During the technical assistance period, was developed a PPP in order to ensure the adequate development and implementation of the district heating network; • Based on the business plan developed under the ELENA technical assistance contract, it was established that the project will be developed in 9

	<p>phases, being already defined the time-schedule for the first 7 phases, that are expected to be finished until the end of 2018, being still necessary to define when will the district heating expanded to Sittard-Noord and to Maastricht Aachen airport.</p>
Investment in implementation phase	EUR 80.00m
Expected results	<ul style="list-style-type: none"> • RES energy production: 108.3 GWh/y (2016) • CO₂ reduction: 5 900 t/y (2016)
Leverage factor	120
Lessons learnt	<ul style="list-style-type: none"> • Project management: a lot of time and resources were necessary to align and manage all the stakeholders (municipalities, region and national government, utilities, and costumers organizations). • Time: the development of this district heating project showed that the substantial legal assistance was necessary, much more than initially expected • Public partners: the public partner's involvement is a complex activity because their political objectives/priorities are usually diverse, and elections (every 4 years) can bring different priorities during the project development, causing some uncertainty • Legal assistance: the legal support was underestimated in the application phase, and it was necessary to have substantial legal support during the project • Procurement risks: the procurement process was quite challenging during the project implementation and the technical assistance period. It was necessary to replace the private partner that was primarily chosen to developed the public-private partnership with the public promoters causing a delay of one and a half years in the project time schedule • Financing: the financial institutions were not available to finance a district heating project during the development phase. As soon as the project shows a sound and stable cash flows, based on predictable incomes (signed contracts) it is easier to attract financing • Complexity: the faced project complexity during project development phase was not due to the technologies involved, that already proved its performance, but due to the complexity of management activities. It was necessary to ensure that all stakeholders were aligned and agreed on the different project phases in order to work together, and in this way contribute to reach project objectives • In June 2015, the company "Het Groene Net" was created, which was responsible to operate and develop the district heating network for the municipalities of Sittard-Geleen, Beek and Stein
Further information sources	http://www.hetgroenenet.nl/over-het-groene-net/
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