



## ELENA Project Factsheet

### Energy Efficiency in social housing - Frederikshavn Housing Association

<b>Location</b>	Frederikshavn Municipality, Region of North Denmark
<b>Beneficiary</b>	Frederikshavn Housing Association
<b>CoM signatory</b>	Frederikshavn Municipality is a member of Covenant of Mayors and the results on energy savings from Frederikshavn Housing Association are an important part of the aims on energy savings in Frederikshavn Municipality.
<b>Sector</b>	Energy Efficiency and Renewable Energy in buildings
<b>Total PDS cost</b>	EUR 1 732 000
<b>ELENA contribution</b>	EUR 1 553 760 (89.71%)
<b>Project Development Services (PDS) financed by ELENA</b>	<p>The ELENA secretariat financed by ELENA will provide support to implement substantial EE refurbishment programmes and renewable energy investments in 286 buildings managed by the association.</p> <p>The ELENA secretariat will be integrated into the housing association and will consist of 8 existing and newly-hired staff (working part time or full time). In addition, the ELENA secretariat will be supported by external consultants.</p> <p>The ELENA secretariat will primarily:</p> <ul style="list-style-type: none"> <li>• Manage all the technical assistance needed during the project;</li> <li>• Ensure the communication with all of the project's stakeholders;</li> <li>• Establish a contractual framework for the use of external consultants and sign and monitor the consultancy contracts;</li> <li>• Carry out buildings' inspections and energy audits, as well as studies for PV installations and energy storage;</li> <li>• Assess the most cost-efficient solutions to carry out the renovations (including the bundling of projects in bankable and cost-effective investment programmes and evaluation of financial instruments);</li> <li>• Prepare the tender for construction works, evaluate bids and monitor quality during implementation.</li> </ul>
<b>PDS Timeframe</b>	Q3 2018 to Q3 2021
<b>Investment programme description</b>	The investment programme consists of energy efficiency (EE) refurbishments in residential buildings as well as investments in building-integrated renewable energy (RE) technologies.

	<p>The expected number of refurbished buildings is projected to reach 286, representing 1 860 flats and an area of 159 276 sqm.</p> <p>The current condition of the buildings will determine the level of refurbishment and the energy performance to be targeted. The global target is to reach a reduction of 30% energy savings on average. Proposed measures include the improvement of the building envelope, lighting systems, windows, HVAC and smart energy monitoring systems for the tenants. The RE measures will comprise integrated PV panels, and the possibility of installing a battery for energy storage will be assessed.</p>
<b>Investment to be mobilized</b>	EUR 36 527 200
<b>Description of the approach to implement the Investment Programme</b>	<p>The final investments will depend both on the approval of the sub-associations and the results of the renovation assessment studies. The implementation of the renovation project will consist of four key phases. ELENA will support specifically phases 2 and 3:</p> <ul style="list-style-type: none"> <li>• Phase 1: approval from the residents</li> <li>• Phase 2: renovation assessment</li> <li>• Projects start with condition assessments of buildings in groups by age, architectural features, construction methods, and installations types This step will determine the final EE measures to be implemented to reach the planned energy savings targets (30%)</li> <li>• Phase 3: tenders and decision</li> <li>• The technical assistance supported by ELENA will provide the basis for a call for tenders for the projects</li> <li>• Phase 4: implementation</li> </ul>
<b>Expected results</b>	<p>The total estimated contributions are:</p> <ul style="list-style-type: none"> <li>• Energy Efficiency – Annual total energy saved 6.4 GWh;</li> <li>• Renewable Energy – 0.46 GWh RE electricity generation;</li> <li>• CO2 reductions – Annual total reductions of 1 750 CO2 eq t;</li> <li>• Jobs retained or created - in 134 equivalent FTE.</li> </ul>
<b>Leverage factor (Minimum 10)</b>	Expected 23.5
<b>Market replication potential</b>	<p>The market replication potential of the project is significant.</p> <p>It is expected that lessons learnt from carrying out the Frederikshavn Housing Association project will allow other Danish housing associations/real estate entities as well as those in other European countries to follow a similar way.</p>
<b>Status</b>	Contract signed on 11/12/2018
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