



1st call Investors report

May 2021

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What is the European City Facility?

The European City Facility (EUCF) is funding facility set up under the Horizon programme for Research and Innovation of the European Union. It provides tailor made and simplified financial support (grants of EUR 60 000) and capacity building services to municipalities and local authorities in European Union. The objective is that these entities develop sound investment concepts and mobilise finance in the field of sustainable energy.

The EUCF provides support for investment projects within the field of sustainable energy, including all investments on the energy demand side, which contribute to the improvement of energy performance and the achievement of energy savings.

The EUCF 1st call was open from May 25th to October 2nd 2020. Amongst 257 applications from all over Europe, 30 beneficiaries received the EUCF grant to create their investment concepts.

What happens next?

The selected beneficiaries from the 1st EUCF call will create their investment concepts until the end of 2021. After validation, the investment concepts will be ready to be presented to potential investors. The resulting concepts will also be an initial step towards a fully-fledged business and financial plan.

Potential investors are invited to contact the EUCF by registering to the EUCF investors network and obtain more detailed information about EUCF supported projects and investment concepts. By joining the EUCF Investor Network, you will be given the chance to engage with EUCF cities, receive first-hand information on their investment concepts and seek opportunities to finance sustainable energy actions across Europe.

The current report provides a summary of the projects that have been selected in the 1st EUCF call, with an overview of investment sectors and locations.



Investment Sectors and Regions

The 30 local authorities that are beneficiaries from the 1st EUCF Call are divided into three regions: Central and Eastern Europe (CEE), Nordic countries & Western Europe (NC&WE) and Southern Europe (SE).

Among the investment sectors targeted by the call, beneficiaries can be found amongst a variety of sectors: public buildings, residential buildings, building integrated renewables, district heating, smart grids, sustainable urban mobility, and innovative energy infrastructure. The public buildings sector is the most targeted in the CEE and SE regions. In the NC&WE region, the development and use of building integrated renewables has been the most selected.

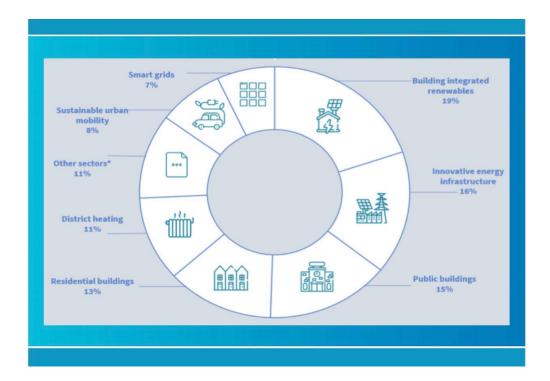


Figure 1: Distribution of the selected projects by Investment sector.

Please note that one investment project may target more than one sector.



Investment Size Per Region

Investment size per region (1St Call EUCF)

Region	Investment size (million EUR)	Expected energy savings (GWh/y)	Expected Renewableenergies (GWh/y)
Central and Eastern Europe	629	467.6	598
Nordic countries& Western Europe (NC&WE)	2,641	744	2,688
Southern Europe (SE)	449	67	287
Total	3,719	1,278	3,572

Beneficiaries by Country

Beneficiaries by Country (1st Call EUCF)

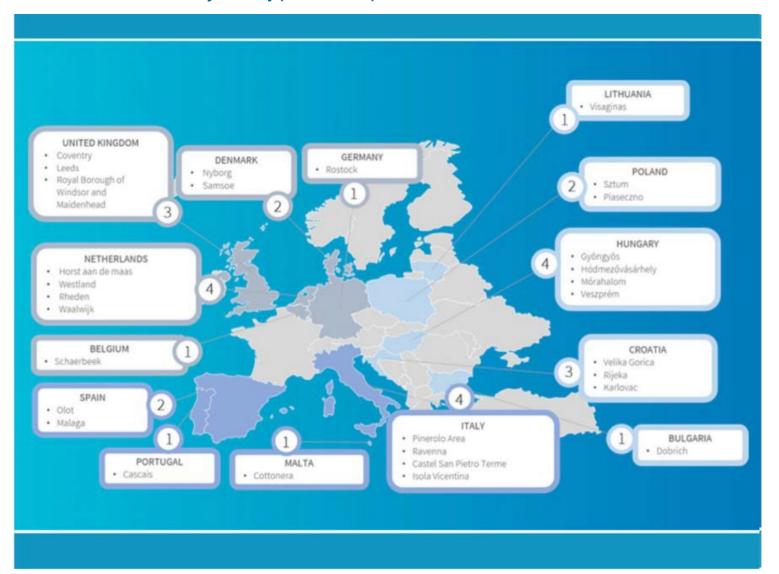


Figure 2: Map of the 30 projects selected in the 1St call of the EU City Facility. The detailed descriptions of these projects can be found in the summary, in the section titled "Intended measures by country".



Intended Measures by Country: Detailed Overview

Detailed Overview – Belgium (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Investment size: 886 million €	Renewable Energies: 13 (GWh/y) Energy Savings: 197 (GWh/y)	The investment concept targets major energy renovation of public buildings, mainly administrative offices, municipal schools and sport facilities through retrofitting of HVAC installations with advanced regulation, relighting/re-lamping, renewable energy (heat pump, water solar heating, PV), envelope insulation, smart metering and monitoring of energy efficiency, possibly using the IPMVP protocol. Targeted sectors: Public buildings

Detailed Overview – Bulgaria (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Dobrich Investment size: 40 million €	Renewable Energies: 30 (GWh/y) Energy Savings:	Implementation of integrated package of energy efficiency measures in municipal buildings and multifamily residential buildings including thermal insulation of walls, replacement of windows, changing the lights with LED, PV installations for hot water and roof photovoltaic
	66 (GWh/y)	systems for electricity production. Targeted sectors: Public buildings, Building integrated renewables, Residential buildings



Detailed Overview – Croatia (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Velika Gorica Investment size: 23 million €	Renewable Energies: 15 (GWh/y) Energy Savings: 20 (GWh/y)	The technology measures include a deep renovation of almost 1000 houses and three public buildings in order to reach nZEB or positive energy building standard, containing buildings envelope, new doors, windows and in-house heating and cooling installations. A 1.8 MW PV installation, a new district heating system with a 4 MW heating plant along with 1.5 km heating interconnection with an industrial facility and a 5.5 MW biomass heating plant are planned. Moreover, installation of district heating pipes and substations is considered. All public lighting will be changed to new LED. Targeted sectors: Public building, Building integrated renewables, Residential buildings, District heating, Innovative energy infrastructure, Smart Grids
Rijeka Investment size: 78 million €	Renewable Energies: 150 (GWh/y) Energy Savings: 138 (GWh/y)	The investment concept includes various technological solutions for environmental protection, energy and mobility such as production of biogas from municipal bio-waste, design and construction of plant withUHTH technology for production of synthetic gas from the waste material, public lighting, electrical mobility and on-site production of hydrogen from excess renewable electricity sources ("green hydrogen"). Targeted sectors: Public building, Residential buildings, District heating, Sustainable Urban mobility
Karlovac Investment size: 32 million €	Renewable Energies: 41 (GWh/y)	Geothermal energy utilization in the city of Karlovac, including borehole drilling, heat storage tank construction, transceiver station construction, accession pipeline construction, pump room/station construction, improving eco package of the current boiler (58MW), construction of a solar power plant, refurbishment of the existing district heating system and plant operation and maintenance. Targeted sectors: Building integrated renewables, innovative energy infrastructure, Smart Grids.



Detailed Overview – Denmark (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Nyborg Investment size: 66 million €	Renewable Energies: 223 (GWh/y)	Transition to renewable energy sources by producing enough green electricity to cover the need of electricity in the municipality (citizens, public buildings, businesses and industries). The main focus is PV technologies and solar cell parks. Targeted sectors: Innovative energy infrastructure
Samsoe Investment size: 13 million €	Renewable Energies: 55 (GWh/y) Energy Savings: 40 (GWh/y)	The project aims to investigate and develop options for a biogas liquefaction according to the approved SECAP action to meet the ambitious climate plan for Samsoe municipality. The project will analyse investment into the innovative micro-scale liquefaction processes using purification and biogas upgrading, bio methane liquefaction and potential use of "waste" CO ₂ . Targeted sectors: Sustainable urban mobility, Innovative energy infrastructure, Others

Detailed Overview – Germany (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Rostock Investment size: 24 million €	Renewable Energies: 35 (GWh/y)	The aim of the investment concept is to expand the solar energy production in the region of Rostock expanding solar parks, photovoltaic and solar thermal plants in open space.
		<u>Targeted sectors</u> : Building integrated renewables



Detailed Overview – Hungary (1st Call EUCF)

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Municipality and investment size	Expected Impact	Measures to be financed and sectors
Cyongyos	Renewable Energies: 1.9 (GWh/y)	The intended measures include a two-circles 350 MW geothermal power plant with a heat exchanger and a power generating steam turbine, 13 production and 9 reinjection thermal wells. The 4.7-kilometer-long district heating line will be renewed. Expanding the district heating system aims to supply several public and residential buildings.
		Targeted sectors: Public building, Building integrated renewables, Residential buildings, District heating, Innovative energy infrastructure
Investment size:	Renewable Energies: 103(GWh/y) Energy Savings: 95 (GWh/y)	The investment concept targets four investment objectives, including 10 investment components (ICO), which are a complex renewable energy investment program (renewable energy production of 102,8 GWh/year) based on geothermal energy and district heating.
		<u>Targeted sectors</u> : Public building, Building integrated renewables, Residential buildings, District heating, Innovative energy infrastructure
	Renewable Energies: 100 (GWh/y)	The aim is to stablish a large-scale geothermal district heating system. The investment concept includes assessment of geological and technological (inparticular drilling) risks and their mitigation solutions in order to establish arealistic default rate. Targeted sectors: District Heating
Investment size: 108 million €	Renewable Energies: 35 (GWh/y) Energy Savings: 115 (GWh/y)	The intended technology measures are: energy efficient renovation of public buildings with building integrated renewable energy generation, energy efficient renovation of residential buildings with building integrated renewable energy generation or/and green energy purchase option for the inhabitants, energy efficient transformation of the industrial and service sector, off-site renewable energy generation wit PV power plants, sustainable urban mobility and smart energy projects (intelligent traffic control system, intelligent public lighting system, smart grids). Targeted sectors: Public building, Building integrated renewables, Residential buildings, Sustainable Urban mobility, Smart Grids



Detailed Overview – Italy (1st Call EUCF)

Municipality and investment	nt Expected Impact	Measures to be financed and sectors
Pinerolo Investment size: 14 million €	Renewable Energies: 0.8 (GWh/y) Energy Savings: 8.6 (GWh/y	The technology measures are related to energy efficiency improvement to the building envelope and building system including insulation systems for external walls, roof and ceiling, new windows, new heat generator, gas-fired small boilers, smart meters, building automation. Integrated renewable power plants (PV) on public buildings and connected with storages and smart grid, LED technologies, replacement of public buses with new electric or hydrogen vehicles, electric recharging grid and new bicycle lanes will be also considered. Targeted sectors: Public Buildings, Building integrated renewables, Sustainable urban mobility
Ravenna (Alfonsine) Investment size: 16 million €	Renewable Energies: 0.9 (GWh/y) Energy Savings: 6.9 (GWh/y)	The investment concept will set up a moderate & deep retrofitting strategy of buildings reducing up to 60% primary energy by applying an EPC scheme through renewables integrated in buildings, district heating, innovative energy infrastructures in residential and public buildings. Targeted sectors: Public Building, Building integrated renewables, Residential buildings, Innovative energy infrastructure.
Castel San Pietro Terme Investment size: 3 million €	Energy Savings: 19 (GWh/y)	The project foresees to realise investment and manage the sustainable mobility of the APEA industrial district including Metrobus service for the companies, integrated ticket to use different mobility services, Smart Bus stations, creation of bicycle paths, electric charging stations, bike sharing and car sharing services, car-pooling platform etc. Targeted sectors: Innovative energy infrastructure
Isola Vicentina Investment size: 12 million €	Renewable Energies: 1.2 (GWh/y) Energy Savings: 4.4. (GWh/y)	The technology measures include energy web-GIS upgrade, structuring of a digital abacus, streamlining of the bureaucracy and online support service, business model of the "standard neighbourhood", new online system to grant and gain tax credits under the supervision of the Local Authority and creation of a standard contract to introduce ESCOs in the local market. Targeted sectors: Residential buildings



Detailed Overview – Lithuania (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Visaginas Investment size: 24 million €	Energy Savings: 1.5 (GWh/y)	 The intended technology measures are: CHP, which uses woodchips material.: installation of CHP, connection to heat and electricity networks. Modernization of street lightning: replacements - existing sodium lamps to LEDs, old lighting bearers; reconstruction - street lighting network; modernization - control station; installation of intelligent street lighting system control equipment. Solar power plant: installation of solar cell systems, connection of solar power plant to the electricity network of national grid. Storage power plant to provide grid energy storage. The SPP operates in conjunction with all LT green electricity energy producers. As the time of energy production and consumption may differ, the storage will allow to match it. That can lead to reduced price of the electricity. Installation and connection SPP to the national grid is foreseen. Targeted sectors: Public buildings, Building integrated renewables, Residential buildings.

Detailed Overview – Malta (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Isla (Cottonera)		The investment concept will focus on the on-site energy generation through the use of building integrated photovoltaic systems on the roofs of selected warehouses to replace asbestos roofs as well as BIPV with a low architectural impact for the building envelope for buildings
Investment size: 14 million €		in the three localities. <u>Targeted sectors</u> : Building integrated renewables



Detailed Overview – Netherlands (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Hoorst aan de Maas Investment size: 796 million €	Renewable Energies: 78 (GWh/y) Energy Savings: 242 (GWh/y)	Replacing the use of natural gas for cooking and heating with sustainable electric alternatives, installation of heat pump, upgrading the energy efficiency of buildings to level B (preferably A) and installing more solar panels on roofs. Targeted sectors: Public Buildings, Building integrated renewables, Residential buildings, Innovative energy infrastructure
Westland Investment size: 250 million €	Renewable Energies: 1850 (GWh/y)	Creating a regional 5 th generation heat system, covering the entire municipality connecting the various heat clusters with each other and with customers (greenhouse horticulture and the built environment) by building a pipe network and an intelligent dynamic supply-demand parity operating system. Targeted sectors: District heating, Innovative energy infrastructure, Smart Grids
Rheden Investment size: 136 million €	Renewable Energies: 5.3 (GWh/y) Energy Savings: 61 (GWh/y)	The investment project focuses on renovation of housing to a higher energy standard: isolation, restoration, and it may include integrating renewables (e.g. solar panels) and the heating system as an integral part of the energy system of residential and public buildings, or buildings for small businesses. Targeted sectors: Building integrated renewables, Residential building, Innovative energy infrastructure
Waalwijk Investment size: 69 million €	Renewable Energies: 83 (GWh/y) Energy Savings: 12 (GWh/y)	The investment concept aims to develop the Smart port Waalwijk including EV shipping, EV trucking, charging stations, battery storage and sustainable terminal. Targeted sectors: Building integrated renewables, Sustainable urban mobility, Innovative energy infrastructure, Smart Grids



Detailed Overview – Poland (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Piaseaczno Investment size: 13 million €	Renewable Energies: 53 (GWh/y) Energy Savings: 30 (GWh/y)	Construction of an energy complex in Piaseczno including the construction of an ecological heat and power plant and expansion of the heating network with the connection of new customers. In the planned combined heat and power plant, heat and electricity will be produced from several sources: a heat pump collecting heat from treated sewage, cogeneration based on biogas obtained from a biogas plant for biodegradable waste and sewage sludge, and a biomass boiler. Targeted sectors: Building integrated renewables, Residential buildings, District heating.
Sztum Investment size: 11 million €	Renewable Energies: 1.8 (GWh/y) Energy Savings: 2.1 (GWh/y)	The included measures are: sewage treatment plant-RES powered, new energy sources (wind, solar) ensuring coverage of energy needs for transport, water supply and sewage networks (minimum of 1.83 GWh/y), energy storage – battery (>1MWh), use of water & sewage networks as an energy storage, thermal modernization of buildings, coal to heat pumps and old cars to e-vehicles. Targeted sectors: Public building, Building integrated renewables, Innovative energy infrastructure, Sustainable Urban mobility



Detailed Overview - Portugal (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Cascais	Renewable Energies:	The intended measures focus on installing 184 MW of photovoltaic solar energy representing a total generation of 213 GWh per year or 24% of the total electricity consumption within the municipality. With a
Investment size: 250 million €		decentralized energy production and consumption based on self- sufficiency (when possible), the development of innovative smart grids is also considered.
		<u>Targeted sectors</u> : Others (renewable, solar energy)

Detailed Overview – Spain (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Olot (Girona) Investment size: 106 million €	Renewable Energies: 2.4 (GWh/y) Energy Savings: 28 (GWh/y)	Measures involve substantial building renovation to achieve significant energy efficiency (EE) improvements with a user centred approach sensitive to user motivations (which tend to focus more on health and wellbeing than on EE). Targeted sectors: Building integrated renewables, Residential buildings
Malaga Investment size: 34 million €	Renewable Energies: 54 (GWh/y)	Development and implementation of photovoltaic solar parks on municipal land which use the Power Purchase Agreement model for virtual self-consumption. Targeted sectors: Building integrated renewables



Detailed Overview – United Kingdom (1st Call EUCF)

Municipality and Investment size	Expected Impact	Measures to be financed and sectors
Coventry Investment size: 235 million €	Renewable Energies: 302 (GWh/y) Energy Savings: 1.3 (GWh/y)	The investment concept focuses on the creation of smart solar PV integrated electric charging hubs to support wider adoption of electrified vehicle fleets at least cost. Enable high-capacity charging infrastructure by using of local generation and battery storage systems. Targeted sectors: Public Buildings, Building integrated renewables, Sustainable urban mobility, Innovative energy infrastructure.
Leeds Investment size: 112 million €	Renewable Energies: 0.5 (GWh/y) Energy Savings: 187 (GWh/y)	The measures assessed in the net zero roadmap for public and commercial buildings include building integrated renewables (solar PV, heat pumps) and energy efficiency measures relating to heating, cooling and lighting. Targeted sectors: Public Buildings, Building integrated renewables, District heating, Others.
Royal Borough of Windsor and Maidenhead Investment size: 55 million €	Renewable Energies: 42 (GWh/y) Energy Savings: 5.2 (GWh/y)	The intended technology measures include: district heat networks for 2000 new homes, installation of integrated Solar PV/thermal (GSHP/ASHP package) on residential buildings using heating oil, energy efficiency (solid/cavity wall insulation, loft insulation etc.) on domestic households, renewable energy generation on domestic buildings, by solar installs (PV and/or thermal). Targeted sectors: Public Buildings, Building integrated renewables, Residential buildings, District heating.

