# EEEF Impact Report 2024

eeef
EUROPEAN ENERGY EFFICIENCY FUND

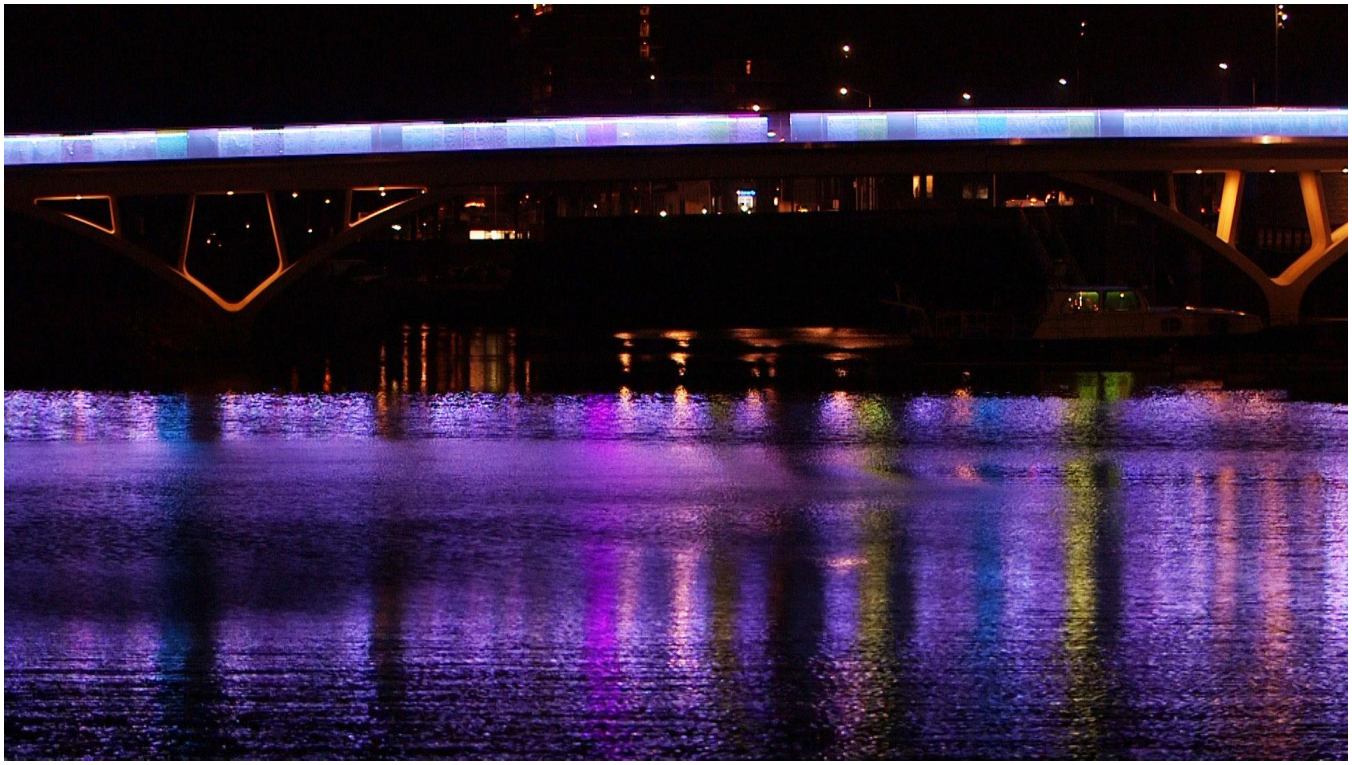
# Introduction

The European Energy Efficiency Fund (eeef) was established to support the decarbonisation of public infrastructure across Europe by financing energy efficiency, renewable energy and clean urban transport solutions. Municipalities, public institutions and local service providers are central to Europe's climate transition, yet often face financial, technical and operational barriers that slow the adoption of low-carbon technologies. The eeef responds to this challenge by offering tailored financing instruments that enable public-sector entities to modernise essential services while maintaining long-term affordability.

This Impact Report provides an overview of the Fund's activities and environmental performance during 2024. It explains the Fund's investment approach, describes the composition of the portfolio and outlines the role of the Social and Environmental Management System (SEMS) in maintaining high standards of environmental, social and governance performance across all investments. The report also details how the Fund aligns its investment processes with the EU Taxonomy for Sustainable Activities, ensuring that financed projects support climate objectives and adhere to the Do No Significant Harm (DNSH) principle and Minimum Social Safeguards.

In addition to quantitative impact metrics, the report presents qualitative information on project implementation and operational performance, including case studies from across the Fund's Direct Investment and Financial Intermediary portfolios. Technical Assistance (TA) programmes completed during the year are described as part of the Fund's broader contribution to future municipal investment readiness, although they do not contribute to the impact metrics presented in this year's results.

The Impact Report is intended to provide transparency to investors, public-sector partners and policymakers. It outlines how the eeef supports tangible reductions in energy consumption and greenhouse gas emissions and strengthens the resilience and efficiency of public infrastructure across Europe.



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# 1 / Executive Summary

In 2024, the eeef continued to deliver measurable progress in supporting Europe's municipal decarbonisation efforts. The Fund financed a portfolio of energy efficiency, renewable heat, public infrastructure and climate-aligned lending investments that contributed to long-term reductions in energy consumption and greenhouse gas emissions across multiple Member States.

Direct Investments continued to focus on environmental performance. LED street lighting modernisations in Portugal, Spain, Italy and the Netherlands continued to demonstrate substantial electricity savings, while large-scale energy infrastructure projects—including tri-generation at the Sant'Orsola hospital and biomass combined heat and power plants in Orléans and Rennes—maintained strong operational performance, providing reliable, low-carbon heat to public buildings and district heating networks. Public building upgrades in Germany and Spain further contributed to energy reductions through improved heating, ventilation and control systems.

Financial Intermediaries supported the expansion of decentralised climate finance in Lithuania, Latvia and Estonia. These facilities enabled residential associations, SMEs, public service operators and municipal entities to access long-term financing for energy efficiency improvements, renewable energy installations and heating system upgrades. While the maturity of these portfolios varies, disbursements continued to expand in 2024, contributing to national energy-saving and emissions-reduction objectives.

The Fund's Social and Environmental Management System (SEMS) ensured that all investments complied with national and EU environmental, social and governance safeguards. Reviews conducted during the year confirmed compliance across the portfolio and identified opportunities for further strengthening of monitoring processes, particularly in relation to early-stage operational data, FI sub-loan tracking and system-wide data quality.

All investments were screened for EU Taxonomy eligibility, including Do No Significant Harm (DNSH) and Minimum Safeguards (MS) criteria. Projects in the areas of municipal lighting, building renovation, clean mobility and efficient or renewable heat generation continued to demonstrate eligibility under climate change mitigation criteria, with alignment depending on data completeness and technical documentation.

Technical Assistance (TA) assignments advanced significantly in 2024, supporting municipalities in preparing investment-ready programmes for public buildings, lighting networks and renewable energy systems. These assignments do not contribute to the year's impact results but form an important pipeline for future climate investment readiness.

# 2 / Portfolio Overview

In 2024, the European Energy Efficiency Fund maintained a diversified portfolio of investments across municipal energy efficiency, renewable heat, public building upgrades, smart lighting and climate-aligned lending. The structure of the portfolio reflects the Fund's mandate to support public-sector entities in delivering measurable energy and emissions reductions while ensuring long-term operational resilience and affordability for European municipalities.

The Fund's investments are organised into three core pillars: Direct Investments (DI) in municipal infrastructure, Financial Intermediaries (FI) that extend climate finance through local banks and national promotional institutions, and Technical Assistance (TA) assignments that prepare future project pipelines. Only DI and FI portfolios contribute to the environmental impact presented in this report; TA projects remain at the preparation stage and do not generate savings in 2024.

## Geographic Footprint

The Fund's investments in 2024 spanned nine EU Member States and the United Kingdom, reflecting a broad territorial reach:

- **Germany** – long-standing EPCs in major public institutions.
- **Italy** – significant hospital modernisation and multi-municipality lighting projects.
- **Spain** – large-scale street lighting and building retrofit investments.
- **Portugal** – regional lighting aggregation programmes.
- **France** – renewable heat generation through biomass CHP.
- **Netherlands** – smart lighting with advanced control systems.
- **Lithuania** – electric mobility and public building modernisation.
- **Estonia & Latvia** –lending for climate mitigation projects via financial intermediaries.

## Portfolio Composition

### Direct Investments

Direct Investments remain the largest driver of the Fund's climate impact. In 2024, the DI portfolio included street lighting upgrades, hospital energy infrastructure, public building modernisation and renewable heat generation assets across seven EU Member States. These projects continued to provide stable operational performance, demonstrating the enduring value of long-term, efficiency-oriented investments in public infrastructure.

Street lighting programmes in Spain, Portugal, Italy and the Netherlands continued to deliver significant reductions in electricity consumption. LED retrofits typically reduced energy use by more than half compared with the baseline fixtures, while smart controls in certain cities enabled additional optimisation through adaptive dimming and real-time monitoring. These projects also strengthened public safety and improved lighting quality across urban environments.

Large-scale energy infrastructure projects—including the tri-generation installation at Sant'Orsola-Malpighi Hospital in Bologna and the biomass CHP plants in Orléans and Rennes—remained among the most impactful assets in terms of cumulative emissions reductions. These projects provide stable, efficient thermal and electrical generation to public buildings and district heating networks, reducing reliance on fossil fuels and supporting predictable municipal energy costs.

Public building modernisation projects in Germany and Spain continued to demonstrate the effectiveness of energy performance contracting and targeted heating upgrades. These interventions delivered verified energy savings and improved operational control across university and administrative buildings, illustrating how relatively modest investments can generate durable environmental and economic benefits.

## Financial Intermediaries

The Fund's FI investments expanded access to climate finance across Latvia and Estonia. These facilities enable the eeef to reach smaller or more dispersed projects—such as residential renovations, SME efficiency upgrades, municipal heating improvements and rooftop solar installations—that would be challenging to finance directly.

Through subordinated loans and equity participation, the Fund strengthens the lending capacity of domestic financial institutions and national promotional bodies. This allows sub-borrowers to access longer-tenor financing on standardised terms, which is essential for building renovation and energy system upgrades with longer payback periods.

While disbursement patterns vary by institution, the FI portfolio continued to grow in 2024, contributing to the development of national-level climate investment markets and supporting the EU's wider decarbonisation objectives.

## Technical Assistance

Technical Assistance (TA) remained an important strategic pillar in 2024, supporting municipalities in preparing investment-ready, technically robust climate projects. TA assignments covered sectors such as public buildings, public lighting, hospital energy systems and digital energy management.

TA projects in Reus, the Barcelona Metropolitan Area, Castell d'Aro, Klaipėda University Hospital and Klaipėdos paslaugos advanced significantly in technical and financial preparation. Each assignment produced detailed baseline analysis, investment sizing, energy modelling, procurement frameworks and implementation roadmaps. These programmes now form a substantial pipeline of future municipal investments that, once financed, are expected to generate material energy and emissions reductions.

In line with the Fund's reporting principles, TA projects do not contribute to the 2024 impact metrics, as none have yet reached implementation or operational stages.

## 2024 Impact Positioning

The 2024 impact results reflect consistent performance across a technically diverse portfolio. Many projects continued to deliver long-term energy and emissions reductions in line with expectations. For several assets, a full year of operational data was not yet available at the time of reporting; in such cases, results are recorded as information not available (N/A), in line with the Fund's methodology and commitment to transparency.

The Fund continued to align its investment process with the EU Taxonomy and maintain strong environmental and social governance standards through the SEMS. Across the DI and FI portfolios, projects demonstrated compliance with applicable regulations and delivered meaningful contributions to municipal decarbonisation efforts.

## Summary Table

As of 2024, the portfolio maintained a balanced distribution across the Fund's target sectors:

- **Energy Efficiency in Public Infrastructure** (street lighting, public buildings, hospitals)
- **Renewable Energy and Efficient Heat Infrastructure** (biomass CHP, tri-generation)
- **Clean Urban Transport** (lightweight electric buses)
- **Climate-aligned Lending via Financial Intermediaries**

This diversification helps ensure resilience across varying project maturities, national contexts and regulatory environments. The portfolio remains anchored in public-sector entities and public-service operators, reflecting the Fund's mandate and ensuring alignment with EU energy and climate policy priorities.

| Category | Country | Project | Sector | Short Description |
|---|---|---|---|---|
| DI | Germany | Jewish Museum Berlin | Energy Efficiency (Buildings) | EPC improving HVAC, controls & energy management in iconic museum. |
| DI | Italy | Sant'Orsola-Malpighi Hospital, Bologna | Energy Efficiency (Hospitals) | Large-scale tri-generation plant & campus energy infrastructure upgrade. |
| DI | Italy | Illuminated Cities (Rozzano, Nogara, Concordia Sagittaria) | Energy Efficiency (Street Lighting) | LED lighting retrofit across three municipalities under joint venture model. |
| DI | Portugal | CIMAC – Alentejo Central | Energy Efficiency (Street Lighting) | Regional aggregation of 50k+ luminaires across 14 municipalities. |
| DI | Portugal | Vila do Conde | Energy Efficiency (Street Lighting) | Full modernisation of 18k+ luminaires with LED and improved controls. |
| DI | Spain | Santander | Energy Efficiency (Street Lighting) | LED upgrade of 22k+ luminaires with tele-management platform. |
| DI | Spain | Universidad Politécnica de Madrid | Energy Efficiency (Heating) | Replacement of 63 oil boilers with efficient gas units across 32 buildings. |
| DI | Spain | Gijón | Energy Efficiency (Street Lighting + Buildings) | 42,000 luminaires replaced; supported by eeef TA. |
| DI | Netherlands | City of Venlo | Energy Efficiency (Street Lighting) | LED & smart controls for 1,674 poles & 17,270 luminaires. |

| Category | Country | Project | Sector | Short Description |
|---|---|---|---|---|
| DI | France | Orléans Biomass CHP | Renewable Energy / District Heating | Biomass CHP supplying renewable heat to city network. |
| DI | France | Rennes Biomass CHP | Renewable Energy / District Heating | Biomass CHP delivering renewable heat to Rennes district network. |
| DI | Lithuania | Dancer Mobility (Klaipėda) | Clean Urban Transport | Electric bus deployment reducing emissions & noise pollution. |
| DI | Lithuania | VIPA – TIPS Platform | Multi-Sector: EE/RE | National platform financing building renovation & renewable energy. |
| FI | Latvia | Signet Bank | Multi-Sector: EE/RE/Clean Mobility | On-lending to EE, solar, heat system modernisation & sustainable transport. |
| FI | Estonia | Coop Pank | Multi-Sector: EE/RE/Clean Mobility | Climate lending facility supporting SMEs, municipalities & residential EE. |
| DI | United Kingdom | OVHA | Energy Efficiency / Renewable Energy | Boiler replacement and wind power |

# 4 / Direct Investments

## GERMANY

### Jewish Museum Berlin — Energy Performance Contracting

The Jewish Museum Berlin was one of the first buildings in Germany to adopt an Energy Performance Contract (EPC) under an innovative financing structure supported by the eeef. Prior to the project, the museum operated with ageing HVAC and lighting systems, high electricity and heat consumption, and limited digital control over building services. In a cultural institution where stable indoor temperature and humidity are essential for the preservation of sensitive artefacts, the need for more precise and efficient energy systems was particularly pressing.

Through a forfaiting facility, the eeef enabled the museum to enter into a long-term EPC with an experienced energy services provider. The intervention included the optimisation of the heating, ventilation and air-conditioning systems, implementation of demand-driven control logic, installation of advanced energy metering, and improvements to the building management system. Lighting upgrades further contributed to reduced energy demand while improving visitor comfort.

At the outset, the project was expected to reduce emissions by approximately 1,800 tonnes of $CO_2$ per year against the 2010 baseline. As an early EPC in the Fund's portfolio, the project played an important demonstration role, showing how guaranteed-savings structures can be applied successfully to public cultural institutions with complex indoor climate requirements.

Through 2024, the project continued to provide reliable energy performance, although total cumulative results beyond the initial guarantee period are not fully available for this report. The project remains a relevant example of how targeted, medium-scale investments in public buildings can deliver sustained environmental benefits alongside improved operational control.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | 11,779 MWh |
| Annual $CO_2$ Savings (2024) | 2,667 $tCO_2e$ |
| Reference Annual $CO_2$ Savings (EPC guarantee) | ~1,800 $tCO_2$ |
| Reference Annual Cost Savings (EPC guarantee) | ~€294,000 |
| Scope | HVAC optimisation, lighting, BMS upgrades |
| Status | Operational |

## ITALY

## Sant'Orsola-Malpighi University Hospital, Bologna

The Sant'Orsola-Malpighi University Hospital in Bologna is one of Italy's largest and most complex medical campuses, comprising dozens of interconnected clinical, research and administrative buildings. Before the investment, the hospital relied on ageing thermal and cooling systems, an overstretched distribution network and fragmented controls. This led to high energy consumption, elevated maintenance requirements and operational inefficiencies across a site that must maintain strictly regulated indoor conditions to support patient care and sensitive clinical operations.

The eeef supported the hospital's modernisation through a combination of senior debt and a VAT facility, enabling the installation of a high-efficiency tri-generation plant capable of producing heat, cooling and electricity simultaneously. This central upgrade was complemented by the refurbishment of the heat distribution network, improvements to heat exchange substations, pumping optimisation and enhanced building management capabilities. The new system replaced outdated infrastructure and provided a more stable and efficient energy supply for continuous hospital operations.

The investment delivers significant and recurring energy savings. Historical performance data show that the hospital consistently reduced its primary energy demand and greenhouse gas emissions following implementation, making this one of the Fund's highest-impact energy efficiency projects. The tri-generation plant provides stable base-load thermal and cooling energy while reducing reliance on external electricity supply, supporting both resilience and cost predictability.

The project continues to stand out as a model for deep infrastructure upgrades in large public hospitals. Its long-term operational benefits extend beyond energy savings: improved system reliability supports patient safety, reduces operational disruption and enhances the hospital's capacity to manage peak loads during periods of high medical activity. As of 2024, the system remains a major contributor to the hospital's decarbonisation pathway and one of the strongest examples of large-scale public-sector energy transformation within the eeef portfolio.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | 66,198 MWh |
| Annual $CO_2$ Savings (2024) | 15,090 $tCO_2e$ |
| Reference Cumulative Primary Energy Savings | 462,964 MWh |
| Reference Cumulative $CO_2$ Savings | 122,549 $tCO_2$ |
| Scope | Tri-generation, heat distribution, pumps, controls |
| Status | Operational |

## ITALY

## Illuminated Cities (Rozzano, Nogara, Concordia Sagittaria)

Illuminated Cities (Città Illuminate S.r.l.) is a joint venture between the eeef and Siram Veolia created to implement smart, energy-efficient public lighting projects for small and medium-sized municipalities in Italy. The structure allows several local authorities to access advanced technical solutions and long-term private capital, overcoming typical barriers faced by smaller cities when procuring and financing modern energy infrastructure.

The joint venture initially focused on three municipalities: Rozzano, Nogara and Concordia Sagittaria, located in the provinces of Milan, Verona and Venice. In each case, the projects centre on the conversion of existing street lighting to high-efficiency LED systems combined, where applicable, with additional "smart city" functionalities such as remote control and monitoring, telemanagement, and the potential integration of services like video surveillance, public Wi-Fi or e-mobility charging. This approach goes beyond a simple lamp replacement to deliver a modern, multi-service urban lighting platform.

The eeef's investment, provided as a mix of equity and shareholder loan, supports a portfolio of street lighting concessions under a public–private partnership model. At portfolio level, the measures are designed to achieve substantial energy savings compared with the baseline, with reductions in primary energy consumption expected to exceed 50% and, in some projects, approach higher efficiency levels. These savings translate into lower municipal electricity bills, predictable operating costs and reduced greenhouse gas emissions, while improved lighting quality and control contribute to safer and more liveable public spaces.

The Illuminated Cities initiative remains in portfolio, with the three initial municipalities forming the core of the platform. As of 2024, the joint venture continues to provide municipalities with a scalable, replicable solution for modernising public lighting and deploying smart-city services.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | 22,380 MWh |
| Annual $CO_2$ Savings (2024) | 2,766 $tCO_2e$ |
| Reference Efficiency Range | ~56% to ~78% reduction vs baseline |
| Scope | LED lighting, smart-city features |
| Status | Operational / Portfolio ramp-up |

## ITALY

## Energetica – District Heating

The Energetica district heating retrofit covers two Alpine municipalities, Bardonecchia and Cervinia, where existing district heating networks required modernisation to improve efficiency, reliability and environmental performance. Prior to the investment, the thermal plants operated with ageing equipment, limited automation and suboptimal combustion efficiency, resulting in higher fuel consumption and elevated operating costs. The retrofit formed part of a broader effort to upgrade municipal energy infrastructure in Northern Italy's mountain regions, where cold climates create particularly high seasonal heating demand.

Through its investment, the eeef supported Energetica in installing new high-efficiency turbines within the existing heating plants and upgrading associated distribution and control systems. The intervention focused on improving the overall thermal conversion efficiency of the networks, optimising heat production, and reducing technical losses across the two systems. The works were conducted within existing facilities, requiring no land conversion or expansion into sensitive areas.

The modernisation is intended to reduce fuel consumption and associated carbon emissions by improving plant efficiency and operational control. While verified 2024 energy and $CO_2$ savings were not available at the time of reporting, the project is expected to deliver measurable long-term reductions due to improved equipment performance and more efficient heat generation.
Overall, the Energetica retrofit demonstrates how targeted modernisation of existing thermal infrastructure can enhance service reliability and environmental performance in smaller municipalities while maintaining strong compliance with ESG safeguards.

| Indicator | Value |
|---|---|
| **Annual Primary Energy Savings** | Estimated 28,162 MWh |
| **Annual $CO_2$ Savings** | Estimated 5,366 tCO2e |
| **Scope** | Modernisation of district heating plants in Bardonecchia & Cervinia; installation of high-efficiency turbines; control system improvements |
| **Status** | Operational |

## PORTUGAL

## CIMAC – Alentejo Central Lighting Aggregation

The CIMAC programme is one of the eeef's largest and most representative regional street lighting modernisation initiatives. It covers the Comunidade Intermunicipal do Alentejo Central, a consortium of municipalities in Portugal's Alentejo region that jointly sought to reduce electricity consumption, modernise public lighting infrastructure and strengthen local climate resilience. Prior to the investment, participating municipalities operated highly heterogeneous networks of high-pressure sodium and mercury-vapour luminaires, many of which were beyond their useful life and required increasingly frequent maintenance.

Through a forfaiting facility provided by the eeef, CIMAC implemented a large-scale upgrade of public lighting infrastructure across 14 municipalities. The coordinated, inter-municipal structure was central to the project's feasibility: by aggregating demand under a unified programme, CIMAC achieved economies of scale in procurement, ensured consistent technical standards across jurisdictions and enabled smaller municipalities to access financing conditions and technical capabilities that would not have been available individually.

The programme replaced tens of thousands of outdated luminaires with new high-efficiency LED units, significantly reducing electricity use and improving lighting uniformity on local roads, public squares, pedestrian routes and historic areas. LED fixtures also reduce operational expenditure by lowering maintenance requirements and extending equipment lifespans. The project design incorporated detailed lighting calculations in line with national and European standards to ensure visual comfort and compliance across diverse urban and rural contexts.

The CIMAC initiative has consistently been highlighted within the eeef portfolio as a strong demonstration of how regional cooperation can accelerate municipal climate action. By bundling needs across multiple cities and towns, the programme delivers substantial and recurring reductions in primary energy consumption and greenhouse gas emissions. As of 2024, the upgraded lighting network continues to operate reliably across the region, contributing to improved public safety, reduced municipal energy bills and more sustainable local public services.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | 14,260 MWh |
| Annual $CO_2$ Savings (2024) | 1,018 $tCO_2e$ |
| Reference Annual Primary Energy Savings | 42,980 MWh |
| Reference Annual $CO_2$ Savings | 3,733 $tCO_2e$ |
| Scope | LED lighting across 14 municipalities |
| Status | Operational |

The annual savings are adjusted to the financing period: 4 months in 2024

## PORTUGAL

## Vila do Conde – Street Lighting Modernisation

The municipality of Vila do Conde, located in northern Portugal, implemented a comprehensive modernisation of its public lighting network to address rising electricity costs, outdated luminaires and increasing maintenance demands. Prior to the project, the city operated a dispersed network of conventional high-pressure sodium lamps with limited control options and declining performance. As in

many Portuguese municipalities, public lighting represented a significant share of municipal energy expenditure, and upgrading the network was identified as a highly effective means of achieving immediate energy savings.

With financing provided through an eeef forfaiting facility, Vila do Conde undertook the replacement of approximately 18,500 luminaires with high-efficiency LED technology. The programme was developed using detailed lighting designs and photometric calculations to ensure compliance with national road lighting standards and to improve lighting uniformity and visibility in both residential areas and primary road corridors.

The shift to LED technology reduces electricity consumption by more than half compared to the previous lighting stock and significantly extends maintenance intervals due to the longer lifespan and higher reliability of LED luminaires. These operational improvements help stabilise municipal budgets and reduce service disruptions associated with lamp failures. The project also improves the overall quality of urban lighting, contributing to safer public spaces and better night-time conditions for pedestrians, drivers and cyclists.

The lighting upgrade supports Portugal's national energy efficiency objectives and aligns with broader EU climate commitments. Historically, the project has been associated with annual primary energy savings exceeding 16 GWh and a reduction of more than 1,400 tonnes of $CO_2$ per year, based on portfolio reporting prior to 2024. As of this reporting year, the system continues to perform reliably and provides consistent environmental and financial benefits for the municipality.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | 17,144 MWh |
| Annual $CO_2$ Savings (2024) | 1,223 $tCO_2e$ |
| Reference Annual Primary Energy Savings | 16,517 MWh |
| Reference Annual $CO_2$ Savings | 1,435 $tCO_2e$ |
| Scope | LED retrofit of ~18,500 luminaires |
| Status | Operational |

## SPAIN

## Santander – LED Public Lighting Programme

The city of Santander, located on Spain's northern Atlantic coast, implemented one of the country's most comprehensive municipal lighting upgrades to modernise its extensive public lighting network and reduce electricity consumption. Prior to the project, Santander relied on more than 22,000 conventional luminaires, predominantly high-pressure sodium units with high energy demand and limited capacity for control or monitoring. These conditions resulted in significant electricity expenditure and operational inefficiencies, making public lighting a priority area for the municipality's broader energy efficiency strategy.

Supported by an eeef forfaiting facility, the project replaced approximately 22,300 luminaires with high-efficiency LED technology and introduced a centralised telemanagement system to monitor and control the lighting network. The digital platform enables real-time adjustments of lighting levels, fault detection and optimised scheduling, allowing the municipality to reduce energy use further during periods of lower demand while maintaining appropriate illumination in residential, commercial and coastal areas.

The upgrade has demonstrably improved the quality and uniformity of public lighting across the city's streets and pedestrian zones, contributing to enhanced visibility and safety. Historically, the project has been associated with annual energy savings of nearly 40 GWh and significant reductions in greenhouse gas emissions, reflecting the scale and impact of the intervention. In addition to these environmental benefits, modern LED fixtures require fewer maintenance interventions, leading to lower operating costs and improved service reliability for the municipality.

As of 2024, the lighting system continues to operate effectively, providing long-term reductions in electricity consumption and supporting Santander's municipal climate and energy objectives. The combination of LED technology and smart control functionality positions Santander as an early example of a Spanish city integrating energy efficiency and digitalisation within its core infrastructure.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | 39,795 MWh |
| Annual $CO_2$ Savings (2024) | 2,579 $tCO_2e$ |
| Reference Annual Primary Energy Savings | 39,822 MWh |
| Reference Annual $CO_2$ Savings | 2,623 $tCO_2e$ |
| Scope | LED retrofit + telemanagement |
| Status | Operational |

## SPAIN

## Universidad Politécnica de Madrid – Heating System Modernisation

The Universidad Politécnica de Madrid (UPM) is one of Spain's largest higher-education institutions, with a diverse building stock spread across multiple faculties, laboratories and administrative centres. Prior to the investment, many campus buildings relied on oil-fired boilers that were approaching end of life, required frequent maintenance and operated with low thermal efficiency. This resulted in high fuel expenditure, elevated emissions and increasing operational risk, especially during peak heating periods.

With financing provided through an eeef forfaiting facility, UPM implemented a modernisation programme that replaced 63 outdated gas-oil boilers across 32 buildings with more efficient natural gas systems. The intervention also improved associated distribution infrastructure and enabled more precise temperature control and scheduling. These upgrades significantly reduced the environmental footprint of the campus heating system while improving indoor comfort conditions for students, staff and research activities.

The transition to higher-efficiency gas boilers delivers meaningful reductions in energy consumption and operating costs. Historically, the project has been associated with annual primary energy savings of more than 11 GWh and $CO_2$ emission reductions exceeding 1,000 tonnes per year, based on the performance monitoring undertaken prior to 2024. The modernised system also reduces maintenance requirements and increases the reliability of thermal supply across multiple university buildings.

The UPM project remains a strong example of how relatively modest, targeted interventions across a large public-sector campus can produce material and recurring environmental benefits. As of 2024, the system continues to operate reliably, contributing to the university's broader sustainability objectives and supporting Spain's national energy efficiency targets in the public buildings sector.

| Indicator | 2024 Result |
|---|---|
| Annual Primary Energy Savings | 1,216 MWh |
| Annual $CO_2$ Savings | 782 $tCO_2e$ |
| Reference Annual Primary Energy Savings | 11,826 MWh |
| Reference Annual $CO_2$ Savings | 1,042 $tCO_2e$ |
| Scope | Heating system modernisation across multiple university buildings |
| Status | Terminated |

The annual savings adjusted to the financing period: for 9 months in 2024.

## SPAIN

## Gijón – Smart Lighting and Public Buildings Retrofit

The city of Gijón, located in the Asturias region of northern Spain, undertook a large municipal energy efficiency programme supported by the eeef. Before the investment, Gijón's public lighting network comprised approximately 42,000 luminaires, many of which were outdated high-pressure sodium units with limited control capability and high electricity consumption. Several municipal buildings also operated with ageing electrical infrastructure and limited metering or energy management systems. Combined, these assets represented one of the city's largest sources of energy expenditure.

The eeef supported Gijón's modernisation effort through a forfaiting facility, enabling the municipality to implement a comprehensive upgrade of its lighting network and selected public-building installations. Crucially, this project was prepared through the eeef Technical Assistance Facility, which supported the municipality with energy audits, technical design, lighting calculations, procurement preparation and financial modelling. This ensured that the investment programme entered implementation with a robust technical specification and a clear savings structure.

The project involved the replacement of approximately 42,000 luminaires with high-efficiency LED fixtures designed to improve lighting uniformity and reduce electricity consumption substantially. The upgrade covers a wide range of urban environments — major avenues, neighbourhood streets, coastal promenades, parks and public squares — improving visibility and safety across the city. In parallel, public-building measures included electrical system optimisation and improved control capacity, strengthening the city's ability to monitor and manage energy use in municipal facilities.

The expected environmental impact is significant. Based on the technical assistance energy modelling, the programme is associated with anticipated annual primary energy savings of around 37 GWh and annual emissions reductions of roughly 2,400 tonnes of $CO_2$. These values position Gijón's project among the larger energy efficiency interventions in the eeef street lighting portfolio. Beyond energy savings, the lighting upgrade reduces maintenance requirements due to the durability of LED technology and improves operational reliability for the municipality.

As of 2024, the modernised network continues to deliver stable performance, with the city benefiting from reduced electricity costs, improved public lighting quality and more efficient building operations. The combination of technical assistance and long-term financing demonstrates how coordinated support can help municipalities design and implement large-scale, high-impact energy efficiency programmes.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | 37,005 MWh |
| Annual $CO_2$ Savings (2024) | 2,446 $tCO_2e$ |
| Expected Annual Primary Energy Savings (TA) | 37,005 MWh |
| Expected Annual $CO_2$ Savings (TA) | 2,446 $tCO_2e$ |
| Scope | 42,000 luminaires + public building upgrades |
| Status | Operational |

## NETHERLANDS

## City of Venlo – Smart Public Lighting Programme

The City of Venlo, located in the southeastern Netherlands, modernised its public lighting network as part of a strategy to reduce municipal energy consumption, improve lighting quality and introduce digital management capabilities across the city. Prior to the investment, Venlo operated a large number of conventional luminaires with high electricity demand, limited controllability and rising maintenance needs. As public lighting represented a sizeable share of municipal operational costs, upgrading the network was identified as an effective way to improve both energy performance and public service quality.

Supported by an eeef senior debt facility, the project involved the replacement of approximately 17,270 luminaires and the upgrade of around 1,674 lighting poles with modern LED technology. The intervention also integrated smart lighting controls, enabling real-time monitoring, adaptive dimming and remote fault detection. These digital features allow Venlo to adjust lighting levels in response to local conditions — such as time of night or traffic activity — while maintaining safety and visibility.

The transition to LED luminaires delivers substantial energy savings, historically estimated at nearly 5 GWh per year, alongside reductions in greenhouse gas emissions. The improved reliability and longevity of LED equipment significantly reduce maintenance needs, helping the municipality to stabilise operating costs and limit service interruptions. The enhanced lighting quality also contributes to improved night-time safety and comfort for residents, pedestrians, cyclists and road users.

By combining high-efficiency lighting with digital control capability, the Venlo project exemplifies how municipalities can leverage smart-city approaches to modernise essential public infrastructure. As of 2024, the system continues to operate effectively, delivering stable savings and supporting Venlo's municipal sustainability objectives.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | 4,868 MWh |
| Annual $CO_2$ Savings (2024) | 654 $tCO_2e$ |
| Reference Annual Primary Energy Savings | 4,868 MWh |
| Reference Annual $CO_2$ Savings | 633 $tCO_2e$ |
| Scope | 17,270 luminaires + 1,674 poles + smart controls |
| Status | Operational |

## FRANCE

## Orléans – Biomass Combined Heat and Power (CHP) Plant

The Orléans biomass combined heat and power (CHP) plant is one of the eeef's flagship renewable energy investments, supporting the long-term decarbonisation of the city's district heating network. Before the project, a significant portion of Orléans' heat supply was generated from conventional fossil-fuel sources, exposing the municipality to fuel price volatility and limiting progress toward national and EU climate targets.

Through an equity and shareholder loan investment, the eeef supported the construction and operation of a high-efficiency biomass CHP facility that produces renewable heat for the municipal district heating network alongside electricity generation. The plant is fuelled by sustainably sourced biomass from regulated regional supply chains, ensuring adherence to national environmental standards and sustainable forestry practices.

The introduction of the biomass plant has substantially reduced fossil fuel use in the district heating system and improved the stability of long-term heat supply for residential users, public buildings and social infrastructure. The project has consistently delivered significant greenhouse gas emissions reductions and continues to operate reliably, contributing directly to the city's climate and sustainability objectives.

The Orléans CHP plant illustrates how targeted investment in renewable heat infrastructure can create immediate, measurable climate benefits while strengthening the resilience and predictability of municipal energy systems.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | -22,477 MWh |
| Annual $CO_2$ Savings (2024) | 11,110 $tCO_2e$ |
| Reference Annual $CO_2$ Savings | ~13,900 $tCO_2e$ |
| Scope | Biomass CHP supplying district heating |
| Status | Operational |

The annual savings are adjusted to the financing period: 9 months in 2024.

## FRANCE

## Rennes – Biomass Combined Heat and Power (CHP) Plant

The Rennes biomass combined heat and power (CHP) plant is a major component of the city's transition toward low-carbon heating and one of the most impactful renewable energy assets in the eeef portfolio. Prior to the investment, the Rennes district heating network relied heavily on natural gas and other fossil fuels, creating both cost exposure and a barrier to achieving the city's long-term emissions reduction goals.

With support from the eeef through an equity and shareholder loan investment, a high-efficiency biomass CHP installation was developed to supply renewable heat to the expanding district heating network. The plant uses sustainably sourced biomass and operates in accordance with national environmental and forestry regulations. The combined production of heat and electricity enables efficient fuel utilisation and provides a stable heat supply throughout the heating season.

The project has delivered substantial annual reductions in greenhouse gas emissions and has materially reduced the share of fossil fuels in the district heating system. The facility also supports the regional bio-economy by relying on local biomass supply chains and creating long-term operational employment.

The Rennes biomass CHP project demonstrates the effectiveness of large-scale renewable heat solutions in decarbonising urban energy systems. As of 2024, it continues to operate reliably and remains one of the Fund's most significant contributors to annual emissions reductions.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | -22,709 MWh |
| Annual $CO_2$ Savings (2024) | 11,911 $tCO_2e$ |
| Reference Annual $CO_2$ Savings | ~17,266 $tCO_2e$ |
| Scope | Biomass CHP supplying district heating |
| Status | Operational |

## LITHUANIA

## VIPA TIPS (Technical Investment Projects for Sustainability)

The VIPA TIPS platform is one of the eeef's most important Financial Intermediary investments, enabling large-scale deployment of climate and energy efficiency financing across Lithuania. As a national promotional institution, VIPA plays a central role in delivering Lithuania's renovation, energy efficiency and distributed renewable energy objectives, particularly in segments where direct financing can be administratively burdensome or too small to address through individual transactions.

Through an equity investment, the eeef strengthens VIPA's capital base and supports the expansion of the TIPS platform, which finances a broad range of energy efficiency and renewable energy improvements. Typical sub-projects include building insulation and envelope upgrades, heating modernisation, heat pump systems, high-efficiency boiler replacements, rooftop solar PV installations and small-scale renewable heat sources. Many of these interventions target older residential buildings and public facilities, which account for a significant share of Lithuania's national energy consumption.

The TIPS model enables municipalities, public-sector bodies and housing associations to access structured long-term financing under harmonised terms. This centralised structure improves investment readiness, accelerates implementation and ensures consistent technical assessment across a fragmented building stock. As individual loans are repaid, capital can be recycled back into new projects, increasing long-term climate impact.

VIPA applies robust credit, technical and environmental due diligence processes consistent with national regulation and the Fund's SEMS requirements. This ensures that energy savings and emissions reductions from diverse sub-projects are captured systematically and aggregated for reporting. As of 2024, the platform continues to support a growing pipeline of building renovation and renewable energy measures, contributing to national targets for reducing energy intensity and improving the performance of public and residential buildings.

| Indicator | Value |
|---|---|
| Number of Sub-Projects (2024) | 4 |
| Annual Primary Energy Savings (2024) | 42,942 MWh |
| Annual $CO_2$ Savings (2024) | 2,819 $tCO_2e$ |
| Scope | Building retrofits, heating upgrades, PV, DH improvements |
| Status | Active portfolio |

## LITHUANIA

## Dancer Mobility – Electric Bus Deployment (Klaipėda)

The Dancer Mobility investment supported the introduction of lightweight electric buses in the city of Klaipėda, offering a locally developed zero-emission transport alternative for urban routes. The vehicles were designed using composite materials to reduce weight and improve energy efficiency, enabling fast charging and lower operational costs compared with conventional diesel buses. For several years, these buses contributed to reduced noise levels, improved local air quality and lower greenhouse gas emissions in areas with high passenger demand.

The financial condition of the manufacturer began to deteriorate during 2023 and continued throughout 2024. The company entered a formal restructuring process, which created uncertainty around its long-term viability and its ability to meet maintenance and warranty obligations. By the end of 2024, the buses remained in service, but operational and counterparty risks had increased significantly, requiring close monitoring under the Fund's risk and SEMS procedures.

Although the investment provided meaningful short-term environmental improvements, the worsening financial position of the manufacturer represented a material challenge for the continuation of the project. These factors are reflected in the 2024 assessment of this investment.

| Indicator | Value |
|---|---|
| Annual Primary Energy Savings (2024) | Information not received |
| Annual $CO_2$ Savings (2024) | Information not received |
| Electric Buses in Operation (end-2024) | Information not received |
| Scope | Lightweight electric buses |
| Status | Operational but with significant counterparty risk (manufacturer restructuring) |

## UNITED KINGDOM

## OVHA - Cardenden Heat & Power Boiler Replacement and Wind Project

The project modernises heating systems across Ore Valley Housing Association's social housing stock in the Fife Council Area, Scotland, and is combined with a local onshore wind turbine. In total, heating upgrades were carried out in 202 homes across 15 municipalities, with the majority of installations in Cardenden. To deliver the investment, OVHA established the project company Cardenden Heat & Power (CHAP), which receives a senior loan from the eeef alongside a subordinated facility from the Renewable Energy Investment Fund (REIF), while OVHA provides equity.

The programme replaces old, inefficient boilers with high-efficiency Worcester 30i units and programmable Danfoss TP7000 thermostats, improving heating efficiency, comfort and reliability for residents. The project company also owns and operates a wind turbine, which generates renewable electricity and supports the overall energy and emissions performance of the scheme. All works take place within existing sites and comply with UK building, safety and labour regulations. No material environmental or social risks were identified during due diligence, and implementation has proceeded without incidents.

| Indicator | 2024 Result |
|---|---|
| Annual Primary Energy Savings | 4,903 MWh |
| Annual $CO_2$ Savings | 447 $tCO_2e$ |
| Reference Efficiency Measures | High-efficiency gas boilers (Worcester 30i) + programmable thermostats |
| Renewable Generation | Onshore wind turbine owned by CHAP |
| Homes Upgraded | 202, >170 boilers |
| Scope | 15 municipalities in the Fife Council Area (majority in Cardenden) |
| Status | Operational |

# 5 / Financial Intermediaries

## ESTONIA

### Coop Pank Climate and Energy Efficiency Lending Facility

The eeef's investment in Coop Pank supports the expansion of climate-aligned lending in Estonia across sectors that are traditionally underserved by long-term, affordable financing. As a rapidly growing Estonian bank with a strong regional footprint, Coop Pank is well positioned to channel capital into small and medium-sized energy efficiency, renewable energy and clean mobility projects that collectively deliver meaningful climate impact at national level.

Through a subordinated loan, the eeef strengthens the bank's capital base, enabling it to increase its lending capacity and extend financing on longer tenors that better match the needs of public-sector entities, SMEs and housing associations. Many of the projects supported by this facility fall within Estonia's priority areas for the energy transition, including building renovation, heating system upgrades, distributed renewable energy generation and small-scale low-emission transport investments.

Typical sub-projects financed through the facility include insulation and building envelope improvements, window and roof replacements, switching from legacy boilers to modern, efficient systems, rooftop solar PV installations, and efficiency upgrades for commercial or municipal service providers. These smaller-scale measures are central to reducing Estonia's overall energy consumption, particularly in its residential and municipal building stock, much of which dates from periods with lower construction efficiency standards. Working through a domestic financial intermediary ensures that the loans are deployed in line with local market needs and regulatory frameworks. Coop Pank applies its internal credit and risk assessment processes in combination with environmental and social safeguards aligned with the Fund's SEMS requirements. This ensures that sub-projects comply with national environmental legislation and that their climate benefits can be reported in an aggregated and consistent manner.

The facility remains an important channel for supporting Estonia's progress toward its national energy and climate objectives. Throughout the period up to 2024, the investment continued to enable demand-driven, decentralised climate action across multiple sectors, illustrating the role of financial intermediaries in reaching projects that are too small or diverse for direct financing.

| Indicator | Value |
|---|---|
| Number of Sub-Projects (2024) | Information not received |
| Annual Primary Energy Savings (2024) | Information not received |
| Annual $CO_2$ Savings (2024) | Information not received |
| Representative Sub-Project Types | Renovation, heating systems, PV, SME efficiency |
| Instrument Type | Subordinated Loan |
| Status | Active portfolio |

## LATVIA

## Signet Bank Climate Lending Facility

The eeef's subordinated loan to Signet Bank supports the expansion of climate-aligned lending across Latvia, enabling the bank to finance energy efficiency, small-scale renewable energy and clean mobility investments that would otherwise face limited access to capital. Signet operates nationwide and serves both public-sector entities and private-sector clients, making it well positioned to reach a broad mix of smaller projects with meaningful cumulative climate impact.

The facility strengthens the bank's capacity to offer longer-tenor loans aligned with the needs of energy renovation and equipment modernisation. Sub-projects financed through the facility typically include thermal insulation, heating system upgrades, efficient boiler replacements, rooftop solar PV installations, heat pumps and building electrical improvements. In addition, the bank can support SMEs and municipal service providers in upgrading vehicle fleets or implementing other low-emission mobility measures.

As these projects are varied in size and sector, the FI structure allows for standardised assessment and aggregation of climate benefits while maintaining strong oversight of credit and environmental risks. Signet Bank incorporates environmental and social checks consistent with Latvian regulation and aligned with the Fund's SEMS requirements, ensuring responsible on-lending and verifiable climate impact.

The facility provides a channel through which the eeef can reach a wide range of decentralised investments that are critical for reducing Latvia's energy consumption and emissions. As of 2024, the investment continues to support a growing portfolio of eligible energy and climate projects across the country, illustrating the value of financial intermediaries in expanding the depth and reach of the Fund's impact.

| Indicator | Value |
|---|---|
| Number of Sub-Projects (2024) | Information not received |
| Annual Primary Energy Savings (2024) | Information not received |
| Annual $CO_2$ Savings (2024) | Information not received |
| Representative Sub-Project Types | Insulation, boilers, PV, heat pumps, mobility |
| Instrument Type | Subordinated Loan |
| Status | Active portfolio |

# 7 / Social and Environmental Management System

The Fund's Social and Environmental Management System (SEMS) provides a structured and proportionate framework to identify, assess, mitigate and monitor Environmental, Social and Governance (ESG) risks across the entire portfolio. As a public-sector oriented fund investing in municipal infrastructure and public service providers, the eeef operates in sectors where environmental and social performance is essential to both regulatory compliance and project success. The SEMS ensures that every project entering the portfolio adheres to robust ESG safeguards and that risks are managed consistently throughout the lifecycle of each investment.

## SEMS Scope and Objectives

The SEMS covers all stages of project development and implementation, from initial screening through due diligence, investment approval, contracting, construction and operation. Its primary objectives are to:

— Ensure that all financed activities comply with applicable EU and national environmental, social and labour legislation.
— Identify and mitigate environmental and social risks early in the process.
— Promote responsible procurement, transparency and good governance in municipal and public-sector entities.
— Ensure ongoing monitoring and reporting, including annual ESG performance reviews.
— Support alignment with EU Taxonomy minimum safeguards and Do No Significant Harm (DNSH) requirements, where applicable.

The Fund applies the SEMS consistently across Direct Investments (DI), Financial Intermediaries (FI) and Technical Assistance (TA) assignments, with consideration for differences in scale, sector and risk profile.

### Environmental Risk Management

Environmental risks in the Fund's sectors primarily relate to:

— Air emissions from heating or CHP systems
— Construction-phase impacts (dust, noise, waste management)
— Waste handling from equipment replacement (e.g. luminaires, boilers)
— Local biodiversity considerations for outdoor works
— Pollution prevention and resource efficiency

In 2024, no material environmental incidents were reported across the portfolio. LED street lighting and building-level thermal upgrades present minimal environmental risk, and municipalities adhered to local requirements for the safe disposal of replaced luminaires, lamps and electrical equipment.

For biomass CHP, environmental performance was monitored through:
— Fuel sourcing documentation
— Compliance with emissions standards
— Ash management and disposal procedures
— Sustainable forestry certification for feedstock

Both Orléans and Rennes maintained compliance with national environmental permits.

## Social and Labour Considerations

The Fund invests primarily in projects implemented by public authorities and regulated utility or service companies. As a result, labour standards, health and safety frameworks, and stakeholder engagement processes follow EU and national legislation.

Across 2024:
— No significant labour or occupational safety incidents were reported.
— Public procurement followed transparent procedures, consistent with EU directives.
— Municipalities ensured compliance with working-hour rules, safety equipment requirements and contractor training obligations.
— Projects involving upgrades in hospitals, schools and public spaces placed emphasis on avoiding disruption and maintaining safe conditions for users.

Several TA assignments included dedicated assessments of accessibility, public safety and the social benefits of improved lighting or building comfort.

## Governance, Compliance and Procurement

Governance forms a core pillar of the SEMS due diligence process. The Fund evaluates:
— Institutional capacity of the beneficiary
— Procurement procedures
— Anti-corruption and conflict-of-interest safeguards
— Transparency and oversight mechanisms
— Compliance with state-aid and public-sector frameworks

In 2024, governance across municipalities remained strong, supported by clear internal procedures and well-established public procurement regimes.

Financial Intermediaries implemented E&S screening and anti-money-laundering controls through their internal risk systems, supplemented by SEMS alignment requirements at the Fund level.

## Application of SEMS to Financial Intermediaries

The Fund applies a tailored approach to FIs, reflecting their role in deploying capital to smaller, decentralised projects. Each FI must:
— Apply an internal environmental and social checklist aligned with the Fund's SEMS
— Ensure compliance with national environmental regulations for all sub-loans
— Monitor and record energy and $CO_2$ savings at portfolio level
— Report any environmental or social incidents

— Maintain transparency on sub-project eligibility

VIPA, Signet Bank and Coop Pank all maintained appropriate internal processes in 2024. Some sub-projects required additional verification or clarification of technical details, which was resolved through normal monitoring engagement.

### Portfolio Monitoring and Performance in 2024

Monitoring during 2024 confirmed:
— Strong implementation quality across all DI projects
— Good governance standards and transparent procurement in municipal projects
— No material non-compliance cases requiring corrective action
— Proper application of environmental safeguards in biomass and heating projects
— Regular reporting from FIs consistent with SEMS requirements
— Full adherence to national labour and safety regulations

The Fund continued to track and verify project performance where necessary, including reviewing environmental permits and technical documentation for large energy infrastructure projects.

### SEMS Risk Event Handling (2024 Observations)

The 2024 portfolio remained stable; however, the Fund monitored one case where counterparty financial risk increased during the reporting period, highlighting the value of SEMS in identifying governance and continuity risks early. While environmental and social performance remained positive, the weakening financial standing of the counterparty underscored the importance of strong monitoring mechanisms and contingency planning.

## Overall SEMS Assessment 2024

The 2024 SEMS review confirms that:
— The portfolio remains low to moderate risk overall.
— Municipal partners and public-sector operators continued to comply with environmental, social and governance requirements.
— Technical Assistance projects incorporated SEMS considerations from the planning stage onward.
— No high-risk projects were financed, and no critical SEMS incidents occurred.
— FI portfolios remained compliant with national regulation and SEMS-aligned E&S protocols.

Projects excluded from SEMS audit:

Universidad Politécnica de Madrid – project matured
Livland Biomethane- No funds were disbursed in 2024
Cogeme Green- No funds were disbursed in 2024
Banca Transilvania- Investment fully repaid by the end of 2023
University of Applied Sciences- Investment fully repaid by the end of 2023

# 8 / Conclusion

The 2024 Impact Report reflects a year of stable performance across the European Energy Efficiency Fund's portfolio, demonstrating the continued value of long-term investment in public-sector energy and climate infrastructure. Despite varying levels of data availability across projects, the portfolio as a whole delivered sustained environmental benefits by reducing energy consumption, lowering greenhouse gas emissions and strengthening the resilience and efficiency of municipal services.

Direct Investments continued to anchor the Fund's impact, particularly through large-scale renewable heat assets and major municipal lighting upgrades that consistently deliver significant annual savings. Financial Intermediary facilities expanded access to climate finance for smaller, decentralised projects, ensuring that households, SMEs, public institutions and service providers could implement energy-saving measures that contribute to national and EU climate goals.

Throughout the year, the Social and Environmental Management System ensured that all projects complied with applicable environmental, social and governance safeguards, while ongoing EU Taxonomy screening supported alignment with climate change mitigation objectives and the Do No Significant Harm principle. The Fund maintained its strong focus on accountability, transparency and responsible investment, particularly in relation to projects in their first operational year and facilities still in portfolio ramp-up.

Technical Assistance continued to support municipalities in preparing robust pipelines of future investments across public buildings, lighting, renewable heat and energy management. While these assignments do not contribute to the quantitative impact results for 2024, they represent important foundations for the next phase of municipal decarbonisation and will enable more cities to access investment-ready projects in the years ahead.

The Fund remains aligned with the EU's long-term decarbonisation objectives and continues to support the transition to efficient, resilient and low-carbon public infrastructure.

# Glossary

**Baseline**
The reference year or period used to measure energy consumption, emissions and performance prior to project implementation.

**Building Management System (BMS)**
A digital control system that manages heating, cooling, ventilation, lighting and other building services to optimise energy use and indoor comfort.

**Biomass Combined Heat and Power (CHP)**
An energy system that uses sustainably sourced biomass to produce heat and electricity simultaneously at high efficiency.

**Clean Urban Transport (CUT)**
Low-emission mobility solutions, including electric buses or vehicles, that reduce air pollution and greenhouse gas emissions in urban areas.

**Cumulative Savings**
Total energy or emissions savings achieved from financial close to the reporting year.

**Direct Investments (DI)**
Projects financed directly by the eeef, typically involving municipal infrastructure such as street lighting, public buildings, hospitals or renewable heat systems.

**Do No Significant Harm (DNSH)**
A principle of the EU Taxonomy requiring that an activity does not significantly harm environmental objectives beyond its primary contribution.

**Energy Efficiency (EE)**
Measures that reduce energy consumption while maintaining or improving service levels, such as LED lighting, efficient heating systems or building upgrades.

**Energy Performance Contract (EPC)**
A contractual arrangement where an energy service provider implements efficiency measures and guarantees a level of energy savings.

**EU Taxonomy**
A regulatory classification system defining which economic activities are environmentally sustainable, based on contribution to climate objectives, DNSH criteria and social safeguards.

**Financial Intermediary (FI)**
A bank or national promotional institution that receives eeef financing and on-lends it to smaller or decentralised climate projects.

**Forfaiting Facility**
A financing instrument where the Fund purchases receivables from an energy performance contract or similar service contract, enabling municipalities to implement projects without upfront capital expenditure.

**Greenhouse Gas Emissions (GHG)**
Emissions of gases, including $CO_2$, that contribute to global warming. Reported as carbon dioxide equivalents ($tCO_2e$).

**Heating, Ventilation and Air Conditioning (HVAC)**
Systems responsible for regulating indoor temperature, humidity, and air quality.

**Impact Modelling**
The process of estimating expected energy and emissions reductions using standardised methodologies, baseline consumption and technical calculations.

**Minimum Social Safeguards**
EU Taxonomy requirement ensuring compliance with human rights, labour laws and responsible business conduct frameworks.

**Primary Energy Savings**
Reductions in the total energy required to meet end-use demand, before conversion or distribution losses.

**Public–Private Partnership (PPP)**
A contractual arrangement where public-sector entities collaborate with private companies to deliver infrastructure or services.

**Renewable Heat**
Heat generated from renewable sources such as biomass, solar thermal or waste heat recovery.

**SEMS (Social and Environmental Management System)**
The Fund's framework for screening, assessing, mitigating and monitoring environmental, social and governance (ESG) risks throughout the project lifecycle.

**Smart Lighting / Telemanagement**
Digital systems that monitor and control public lighting networks remotely, enabling adaptive dimming, real-time fault detection and energy optimisation.

**Sub-Project (FI context)**
Individual investments financed by a Financial Intermediary using eeef funds, typically involving small-scale efficiency or renewable measures.

**Subordinated Loan**
A financing instrument where the eeef's claim ranks below senior lenders, enhancing the FI's capital structure and lending capacity.

**Technical Assistance (TA)**
Support provided to municipalities for preparing energy efficiency or renewable energy projects, including audits, feasibility studies, and procurement frameworks. TA projects do not generate impact until implementation.

**Tri-Generation (CCHP)**
A system that simultaneously produces electricity, heat and cooling from a single energy source.