Terms of Reference (ToR)

eeef Technical Assistance for the Reus City

Background

The European Energy Efficiency Fund (eeef) aims to support the goals of the European Union to promote a sustainable energy market and climate protection. eeef pursues environmental goals by offering funding for energy efficiency and small-scale renewable energy projects to public authorities, European municipalities and regions, and the private sector that acts on behalf of the public bodies.

The eeef dedicates its funding to upgrading public sector infrastructure to facilitate the EU clean energy transition. All the Fund's activities are focused around the public sector, with the majority of its capital being provided by public sources.

The Reus City, is a Municipality located in the Province of Tarragona (Catalonia), Spain, wishes to participate in the TA programme to develop the project ***"Smart Energy at Reus City: Energy Efficiency and Smart Management."*** The objective is to increase the overall energy efficiency levels in the city by (i) providing building renovation for 21 public buildings, which includes, among others: fluorescent lamps replacement in 20 buildings, old HVAC system replacement in 5 buildings and old boilers replacement for new ones primarily in 5 buildings, etc., (ii) installing PV system in 7 public buildings (four sport centers, one cementery building/canopies, one vehicle deposit/canopies with additional battery installation to increase PV coverage, and one brigade warehouse for self-consumption) and/ or energy communities development, if feasible (iii) providing energy efficiency upgrades in street lighting (i.e., 19,706 lighting points and 247control panels), and (iv) developing a digital platform for monitoring electric and thermal consumptions in 20 buildings.

These Terms of Reference (ToRs) aim to define the scope for all submitted proposals for a contract to perform the following advisory/consulting services:

- Completion of investment energy audits for 21 public buildings (which include the validation or feasibility studies of public buildings for renewable energy installations: PV installations for seven buildings selected and/or self-consumption evaluation, if feasible),
- Validation of public buildings infrastructure,
- Completion of an energy audit for the street lighting and validation of its infrastructure
- Completion of technical studies for the development of a digital platform,
- Preparation of the savings calculation and economic viability study of the global investment,
- Preparation of the public tender documentation,
- Assistance to the Public Authority during the evaluation phase of the bidder offers and legal advice until the signing of the ESCO contract.

Further specifications about the Project are included in the Project proposal (i.e., building specifications, etc), which will be published together with the ToRs on the Fund's website and TED (Supplement to the Official Journal of the European Union).

The subsequent implementation of the key measures shall be completed by the Energy Service Companies (ESCOs hereinafter) who are granted the Project tender (is not subject of these ToRs). The consulting/advisory services will be contracted by eeef and rendered to the Client.

The total budget of the TA proposal by the Consultant is not to exceed **€380,309.09**

This document states the requirements to enable the selection and appointment of technical, financial and legal advisors or a consortium of advisors that together possess the necessary

technical, financial and legal know-how for the Project. The advisors should provide reports/documents which permit the Client to understand the status/potential impact of the proposed project with respect to its energy consumption and a complete investment plan. The report should focus on how the potential project would improve energy performance and should centralise all project information regarding all energy drivers.

The advisors should present an economic and financial analysis for the proposed investment plan of the Project and should prepare the tender documents for the implementation of this investment plan through an ESCO/PPP model contract. Also, to assist the Public Authority during the evaluation phase of the bidder offers and legal advice until the signing of the ESCO contract.

With this work, eeef and the Client will ensure that the audited facilities follow energy efficiency best practice, as well as the efficient management of available resources.

The Advisor needs to have experience in dealing with the PPP structures and having experience with public authorities of the European Union, especially in Spain.

SCOPE OF WORK

This section outlines the three phases of work to be completed by the appointed Advisor; a) technical studies, such as energy audits, validation or feasibility study (e.g., PV systems), and a digital platform development, b) economic and financial analysis, and c) preparation of the tender documents, assist the Public Authority during the evaluation phase of the bidder offers and legal advice until the signing of the ESCO contract.

The eeef Advisor should organize himself to agree on the scope of work in written form with the Client and present it to eeef for sign-off. All deviations from the working programme, the scope and the implementation timeline are to be agreed with the Client and discussed with eeef. According to the contractual obligation with eeef, the Client will be required to nominate at least one representative for the entire duration of the Project to work on the Project with the Advisor.

Phase 1: Scope of Investment Grade Energy Audits

Two examples (public buildings and street lighting) have been used to demonstrate the requirements for validated energy audits.

A. Scope of Energy Audits of Public Buildings

The work involves the realization of energy audits of public buildings and/or public facilities proposed by the Client.

The completion of the work for buildings will follow the following steps and have the scope as reflected below:

1. **Energy inventories**

21 public buildings located in the Catalonia region, proposed by the Client and included within the investment program, should be subject to an inventory. It is expected that the following work will be performed: replacement of fluorescent lamps in 20 buildings, renovation of boilers in 5 buildings and the replacement of HVAC systems in 5 buildings. Please see the Project proposal for further details about the building's specifications.

The inventory of buildings should include the following:

a) Documentary collection of information necessary for the preparation of the inventory,

b) Photographic annex, where the main details regarding constructive aspects, building facilities and equipment are collected (e.g., details about boiler/HVAC system model, luminaries system in buildings, capacity and energy performance, etc.). Information about the type of equipment should be collected.

c) Identification of electrical and thermal building supplies and obtain invoices for such supplies for a period of at least one year,

d) Validate and complete the proposed investment-specific' energy, primary energy and CO2e savings calculations. Once energy data (baseline and post-project estimated consumption) have been calculated and validated in accordance with IPMVP, data points need to be entered into greenstem™[1],

e) Assess the current state of the public buildings' infrastructure and identify the factors that determine energy costs.

f) Data of the curves of consumption of electricity by meter readings and habits of use,

g) Measurement of energy parameters *in situ*, (including, if possible, energy use breakdown by source),

h) Validation of the energy measures proposed (for instance, collect drawing details of the building infrastructure, with the situation of dashboards, electrical, lighting points, and HVAC systems, etc.

When the appointed Advisor undertakes field work, they should preferably always be accompanied by the Client's nominated representative for the Project. This staff member should be familiar with the buildings in question. The Advisor should propose (in advance) the schedule of site visits and data required for analysis and agree on this with the Client.

2. Energy audits memorandum

Below summarises the content of the energy audit memorandum requirements

a) Description of the buildings and energy-consuming systems,

b) Energy baseline based on IPMVP protocol

c) Measurements (baseline and post-implementation (estimated) measures),

d) Improvements in energy-consuming systems (e.g., lighting, remote management systems, thermostatic valves, variable speed drivers, etc.)

e) Feasibility of a biomass/heat pump-based heating system

B. Scope of Energy Audits of Street Lighting

The work involves conducting an energy audit of street lighting. This will include 19.706 light points and 247 control panels.

The completion of the work will follow the next steps, and the scope will then be reflected:

1. Energy inventories

The inventory will be conducted in accordance with the following:

[1] greenstem™ is an online energy, primary and carbon reporting platform, the access will be giving to qualified advisors.

a) Completion of the inventory records, including e.g., the technology used, lighting level, etc. (please specify what equipment you will use to conduct the inventory and how will you conduct this),

b) Paper drawing detail of street lighting networks, with the situation of dashboards, power grids and lighting points, with an appropriate include a legend for identification,

c) Identification of electrical supplies and obtain invoices for such supplies of a period of at least one year,

d) Validate and complete the proposed investment specific energy, primary energy and CO_2e savings calculations. Once energy data (baseline and post-project estimated consumption) have been calculated and validated in accordance with IPMVP, data points need to be entered into greenstem™[2].

2. Energy audits memorandum

a) Description of the consuming power installations and primary energy consumption,

b) Photometric measurements,

c) Electrical measurements, defining as well representative parameters of control panels – i.e., active power, power factor, etc, and/or placement of equipment analyzers of triphase networks that will record a complete cycle of street lighting (ignition, stabilization, regulation, and switch off) by control panel or a significant sample of them,

d) The results of energy parameter measurements in the form of graphs or tables are attached to the audit report,

e) Diagnosis and analysis. Proposals for improvements/potential primary energy savings with new solutions/proposed equipment manufacturers.

C. Scope of validation and or feasibility study of seven (7) public buildings for the renewable energy installation

Of the 21 public buildings audited, it has been considered that photovoltaic systems will be feasible in seven public buildings. Validation for the installation of the PV systems is required in the seven identified buildings and/or facilities. The following four sports centers and the urban maintenance brigade warehouse, where the estimated generated energy exceeds consumption, will be considered for a shared self-consumption facility through PV installation, if feasible. The remaining buildings will be considered for PV installations, i.e., in the cemetery building/facility through canopies, as well as in the vehicle deposit, where additional battery installation is expected to increase the PV system coverage.

Photovoltaic solar plants are considered for public buildings: a) 4 sport centers, b) urban maintenance brigade warehouse, c) cemetery building and d) vehicle deposit. The possibility of shared self-consumption PV in these facilities will be considered, if feasible. The work involves the following:

a) Data collection and analysis for PV installations and/or shared self-consumption in public buildings, i.e., taken photographs of the rooftops for PV installation, baseline definition and data to establish the curves of consumption of electricity by meter readings and interviews with users, collect drawings of each building and electricity bills, etc. if it is used by the building and/or facilities users, or if it is part of the energy community project.

[2] greenstem™ is an online energy, primary and carbon reporting platform.

b) Technical analysis and viability of each PV facility (e.g., identification of surface available for the PVs, energy consumed by the buildings, and an estimation of the energy consumed by the neighbours, etc. Analysis of the necessary investment and payback of each facility and, if possible, development of a savings plan,
c) Analysis of energy performance (e.g., habits of use) and measurement of energy parameters in situ.

D. Scope of validation of the digital platform

It is a tool that will include the remote management system for 20 buildings. The work of the platform development involves conducting the following assessments (but not limited to), such as[3]:

a) Technical analysis of the functionalities that need to be incorporated into the platform, considering a staged release and a modular platform,

b) Prepare the study of hardware and software solutions to include in the buildings in order to monitor their energy consumption and control it.

Phase 2: Scope of economic and financial analysis of the proposed energy efficiency measures/investment plan

The economic and financial analysis should confirm and define the conditions for the viability to tender the Project as an ESCO/PPP model and allow the Client to formulate payment conditions/modalities to an ESCO company winning the tender.

In each case, the economic and financial analysis should be presented in the form of an Excel workbook. The workbook should include, but not be limited to the following:

- Energy saving improvements: absolute and percentage savings relative to current consumption (baseline) for the total investment. Savings should be listed following eeef due diligence / greenstem™ requirements. Energy consumption / savings should be validated by the technical Advisor, calculated following IPMVP principles. Validated consumption values should be entered into greenstem™ to calculate project primary energy and carbon savings,

- Economic/financial model representing during the project's life (to be outlined) the cash flows estimates and projections, detailing: savings per energy type, current energy prices, (changes in) operating costs, interest and capital,

- Financial conditions assumed as the annual payments to the ESCO

The financial analysis should be fully justified from the view of the economic requirements to require the ESCO to implement the measures, whilst also considering the costs associated with both the PPP contract and the construction/implementation, maintenance and operation of the energy efficiency project, including the tax treatment and tax costs to be borne by the ESCO company.

The economic and financial analysis will include a sensibility analysis to the annual savings and annual payments to the ESCO Company considering changes in the main inputs.

[3] Please note, more detail will be provided by the Client

The financial feasibility study, including a detailed risk allocation of the Project, will form the framework for defining the economic and financial requirements and conditions when drafting the tender documents for the PPP/ESCO contract. The global investment must be attractive.

Phase 3: Scope of tender documents preparation for the implementation through an ESCO/PPP model contract. Assistance during the evaluation of bidders offers and legal assistance until contract signing

The scope of this phase will be the preparation of a complete set of tender documents for the implementation of the Project through an ESCO/PPP model contract, considering technical, legal and financial/economic requirements and conditions.[4] Also, to assist the Public Authority during the evaluation phase of the bidder offers and legal advice until the signing of the ESCO contract.

The tender documentation will include (but not be limited to) information such as:

- The broader context of the Project,
- An overview of the Project, including the intended allocation of major risks and envisaged responsibilities of each party,
- A list and summary of the major studies that will be made available to bidders concerning the Project,
- The intended procurement process and implementation time table,
- The qualifications that companies can put forward (e.g. parent or subsidiary companies' qualifications),
- The criteria and tests that will be used to evaluate the prequalification statement,
- Detailed information memorandum about the Project,
- A summary of the key commercial principles, including the obligations of each party and risk allocation,
- Detailed output specifications and the minimum required technical design and technical features,
- A full draft PPP contract (which, in some countries, would be based on mandatory standard contract terms or on required guidelines of some kind),
- Instructions to bidders concerning all the information they must submit and the detailed procedures for submission,
- The evaluation criteria; and,

[4] It is recommended to develop tender documents for the complete package and publish them as a unique project (which comprises public buildings, street lighting, digitalization and e-mobility operations). However, if it is not possible, it will be also considered the possibility to launch the tender documents separately (e.g., one for the public buildings and another for the street lighting project).

- Requirements for bid bonds or equivalent security (if required).

From a legal point of view, the document will analyse and incorporate (but not be limited to) the following:

- Applicable procurement requirements at Municipal and/or Regional and/or National level,
- Advice on mechanisms to maximize competition while avoiding unrealistic bids and project vulnerability from overly aggressive bidding,
- Information to be provided by the Client,
- Designing tender procedure, assisting the Client in its assessment of different key aspects of the tender procedure, for example, what rules to set in relation to the assessment of bids (scoring regimes, timing of bids and rejecting of excessively low bids) and how to maximize competition without sacrificing the quality of bids,
- Drafting of tender and contractual documentation governing the Project during construction/implementation, operation and maintenance phases. The tender documents need to be agreed upon with the internal legal department and treasury/fiscal department of the Client and signed off by these for publication.

ADVISOR PROFILE AND RESPONSE TO TORs

This section outlines the Advisor' role regarding human and technical resource.

Human Resources:

The Advisor shall be responsible for the mobilization of qualified human resources with proven experience in the scope of work. It is anticipated that the Advisor's team shall include the following key expertise, with support as required in other disciplines:

- Two industrial engineers with proven experience in energy audits and energy efficiency related installations
- Financial advisor who can demonstrate experience in economic and financial viability analysis and the structuring of ESCO/PPP contracts,
- Lawyer or financial expert with legal background with specialization in national/local regulatory framework (Spain) and proven experience in structuring and drafting of ESCO/PPP tender documents and contracts
- The Advisor needs to have experience dealing with PPP structures, have experience with the public authorities of the European Union, especially from Spain and/or the Catalonian region, and be fluent in Spanish and English.

All experts shall have a minimum of 8 years of experience within a similar role to which they are proposed to complete for the eeef. The support team must be composed of at least 5 professionals to meet the deadlines and work.

The advisor team will be requested to respond to these TORs in English (proposal) until **18 September 2025** per email to t.caporali@susi-partners.com, krosales@eeef.lu and technical_assistance@eeef.eu . It should include, but not be limited to, the following:

a) Present a general company presentation, the relevant project list related to the scope of work included in these TORs, and **CVs** of the related personnel to be involved in the project.
Please note that the awarding of the contract is done on the basis of the CVs included in the response to these ToRs and the evaluation and selection criteria of the Fund.

b) Proposal to include how it will intend to manage the workflow described above and organize the Advisor's consortium (i.e., in case the Advisor is a Consortium of companies, please also add the division of work for each company regarding the technical, legal, and economic/financial aspects required).

c) Present the budget distribution for the TA project, detailing the costs associated with each activity requested.The advisor consortium/consulting company is expected to present the reports and tender documents in Spanish and/or English, accordingly.

d) Present the technical resources and equipment used.

e) eeef is not covering any travel costs or accommodation. The Advisor is requested to present an all-inclusive price for the whole scope of work.

Please see on the Fund's TA website https://www.eeef.lu/eeef-ta-facility.html the evaluation and selection criteria for further details.

Technical Resources:

The Advisor should provide a list of all technical equipment that they propose to use to conduct the energy audits.

Regarding the project development services, the total scheduled execution time and maximum delivery time are 12 months.[5] , i.e., for the preparation of the technical and financial studies, tender documents, etc. At the end of the first year or the beginning of the second year, the tender publication of the ESCO contract is expected to occur. After that, the Advisor will assist the Public Authority during the tender phase and commercial close.

For the effective control and monitoring of the work, the following meeting schedule with specified attendees should be adhered to:

- Kick-off Meeting.
  A detailed project plan should be presented for approval. This will list the tasks, responsibilities, key dates/milestones and execution time and also confirmed participation by each of the Client

- Progress meetings and monthly updates.
  The meetings/updates should be organised by the Advisor. Meetings/updates should summarise project status, completed tasks, and upcoming tasks to execute. The meeting will be held on the premises of the Client.

- Final presentation.

[5] The 12-month timeframe starts once a technical assistance contract between the eeef and the Client has been executed. Advisors are expected to complete and deliver Phase 1-3 of the Scope of Work within 12 months i.e. complete all energy audits, complete economic and financial analysis and prepare the tender documents and final reports.

Presentation of the work to the Client. Once the Client has signed off, the final report(s) also need to be signed off by the eeef.

Organisational requirements

- The Advisor has to ensure that one person from the Client is collaborating and providing access to documents/infrastructure, etc. required to enable them to perform their duties,
- The Advisor agrees on the timeline with the Client and achieves their sign-off for it,
- All works to be performed on the Client's site should be agreed with the Client and signed off by the Client,
- The Advisor could replace the proposed experts only with prior approval of the Fund
- The Advisor prepares monthly time sheets that include Euro (€) value and presents these to the Client for approval. Approved timesheets should be forwarded to the eeef, eeef sign off time sheets every month only after these have been signed off by the Client.
- The Advisor reports all project delays and conflicts that arise in above-mentioned points to the eeef.
- The relationship between eeef and the Advisor is regulated by the contract, which is concluded when the bid is firmly awarded.

EVALUATION AND SELECTION CRITERIA

The Fund will evaluate the proposals in accordance with the selection criteria published on the Fund's Technical Assistance website under the **"Information for Consultants" section** at https://www.eeef.lu/eeef-ta-facility.html.

The Fund's TA Facility team will conduct a deep assessment to select the best Advisor(s) for the particular consultancy services: i.e., review the advisor(s) eligibility, alignment with the ToR guidelines, eeef selection criteria and the overall portfolio fit.

The eeef selection criteria comprise two key aspects: **(i) the scope of work, and (ii) the team members provided by the bidders.** Detailed and relevant information will be required in the selection process. The Fund will assign a score in accordance with its selection criteria and deep evaluation, with the maximum possible value of 100.

eeef will invite the bidder, if necessary, to discuss their offers in an interview in person or over the phone after the submission date.

The final decision to award the contract will be taken by **the end of September** so that works could be started immediately on **1 October 2025**. Term of the Technical Assistance Contract, Control and Monitoring.