

# **FRAMEWORK CONSULTANTS FOR THE RENEWABLE DISTRICT ENERGY IN WESTERN BALKANS PROGRAMME – THE ReDEWeB**

## **TERMS OF REFERENCE**

### **1. ABOUT ReDEWeB**

The Austrian Government funded Renewable District Energy in the Western Balkans Programme (“ReDEWeB”) was established in 2019 and aims to increase investment in Renewable District Energy (“ReDE”) systems in the Western Balkans (“WeB”). District Energy (“DE”) Systems produce and store hot or chilled water, which is then piped underground to individual residential and commercial buildings for space heating, domestic hot water, and cooling. The Fund is unique because it will:

- support an integrated urban-sustainability-energy focused approach within selected municipalities in the WeB;
- draw on the combined skills and experience of two Bank teams: the Sustainable Infrastructure Group (“SIG”) and Energy Efficiency and Climate Change (“E2C2”).

The Fund will support the establishment of a market for ReDE investment through a range of measures including: enabling integration of ReDE into energy and urban plans of municipalities, preparing respective preliminary designs and feasibility studies, and establishing policy frameworks that incentivise the private sector to prepare and submit self-initiated proposals (“SIP”) for developing ReDE infrastructure.

WeB (potential) candidate countries for the European Union (“EU”) and contracting parties to the Energy Community (“EC”), beneficiaries of ReDEWeB are:

- Albania
- Bosnia and Herzegovina
- North Macedonia
- Kosovo
- Montenegro
- Serbia

The Fund will work closely with the Energy Community Secretariat (“ECS”). The ECS is an international organization which brings together the EU and its neighbours to create an integrated Pan-European energy market. The key objective of the ECS is to extend the EU internal energy market rules and principles to the WeB, the Black Sea region and beyond on the basis of a legally binding framework to adopt core EU energy legislation within a fixed timeframe. Since 2012, the EC is implementing the 2009 EU Renewable Energy Directive, including binding national targets for renewables by 2020.

In 2016, a new EU Strategy on Heating and Cooling (“H&C”) was adopted. This strategy highlights the capacity of DE systems to integrate the increasing share of renewable electricity generation (providing balancing to the grid through electricity based heat generation and storage or flexible CHP generation) and to replace fossil fuels with waste heat and cold from industrial processes, waste-to-energy and renewable energy sources such as geothermal, biomass, biogas, solar thermal and heat pumps.

The Fund will provide support in four main areas of technical assistance:

- Framework policy activities
- City policy activities
- Technical assistance and investment preparation support (to municipalities and developers)
- Capacity building and networking.

In addition, the Fund may provide capex grants to eligible investments if resources allow.

## **2. BACKGROUND**

ReDE systems produce hot water or chilled water from renewable sources such as:

- biomass
- biogas
- geothermal
- solar thermal
- borehole geothermal / solar thermal
- waste heat (incineration plants, industrial waste heat, sewage)
- heat pumps
- sea, lakes and rivers

which is then distributed through the municipal DE network.

Major WeB municipalities mostly have a long tradition of DH, but have lost the momentum during the conflicts and transition in the 1990s. In some WeB countries DH is practically non-existent (Albania, Montenegro), and District Cooling (DC) is not currently practiced in any of the WeB countries.

DH systems are mainly fuelled with gas, fuel oil or coal, sometimes utilising cogeneration. Cooling is provided at an individual building level from electric chillers; electricity itself is largely generated on the basis of fossil fuels, mainly lignite coal.

Only 12% of commercial and residential buildings in the Western Balkans region use DH. Biomass use is already widespread, but not in DH; firewood is the largest source of heat generation, but is primarily used in inefficient individual stoves and burners. H&C is the biggest energy end-use sector, ahead of transport, constituting more than half of the overall final energy consumption.

There is potential in the WeB for improving existing and constructing new DE systems by introducing more renewable sources, and piloting DC, which would all help increase energy independence, efficiency, and reduce the carbon intensity of H&C. The main market barriers that need to be addressed to improve further and faster deployment of DE systems can be attributed to the following factors:

- limited application of integrated land-use planning for city infrastructure,
- limited awareness about technology applications and their multiple benefits and savings,
- limited knowledge and capacity in structuring projects to attract investments,
- limited data on available RE resources as well as municipal heating and cooling demand,
- affordability concerns.

EU environment policy aims to promote sustainable development and protect the environment for present and future generations. It is based on preventive action, the polluter pays principle, fighting environmental damage at source, shared responsibility and the integration of environmental protection into other EU policies. The *acquis* comprises over 200 major legal acts covering horizontal legislation, water and air quality, waste management, nature protection, industrial pollution control and risk management, chemicals, noise, civil protection and climate change. Compliance with the *acquis* requires significant investment in the WeB, and is negotiated through Chapter 27, Environment and Climate Change, the largest of the 35 negotiation Chapters for EU membership. For this process to be a success, WeB countries need to move the Environment and Climate Change up their list of priorities

They are powerful and cost-efficient enablers to develop low-carbon and resilient local energy systems. At one end, DHC grids can be supplied by a very broad range of renewable and recycled energies, providing an off-take base for those local energies and stimulating their development. They are also linked, at the other end, to energy efficiency (“EE”) in buildings.”

The EBRD’s Green Economy Transition (“GET”) approach is the EBRD’s key strategic document guiding the Bank’s activities to assist WeB countries in making the transition to a green economy. As such, the GET introduces two dimensions of relevance to urban sustainability. First, the GET identifies three main instruments the Bank uses to support its objectives: a complementary package of investments, technical cooperation and policy dialogue. Second, the GET recognizes the importance of leveraging both public and private capital to address the many challenging urban environmental issues. In this respect, the GET provides a strong mandate for the Bank to engage in the urban environmental agenda.

In order to contribute to the goals outlined above, the EBRD is now **seeking to engage up to six framework consultants** (the “ReDEWeB Framework Consultants” or the “Framework Consultants”), who will provide external preparation and policy support to ReDEWeB-prepared projects over the 2019-2022 period. The intent of these TORs is to provide a description of the services to be provided and a profile of the Framework Consultants the Bank is seeking.

### 3. OBJECTIVES

The overall objective of the Framework assignments is to provide project preparation, policy and capacity building support to **Stakeholders in the WeB region** (DH operators – **the Company** and/or Municipalities – **the City** and/or Private companies – **the Developers**) which the Bank can use to appraise selected projects and take decisions on the prospective financing.

Specific objectives of the Framework assignments will include the following, *inter alia*:

- Assist WeB countries in meeting their ReDE contractual obligations coming from the EC Treaty and advancing in readiness to negotiate Chapter 27 of EU accession.
- Contributing to the establishment of a market for ReDE that in the future could reach EUR 50 million investment into ReDE generation, thermal storage and energy efficiency measures by 2025 contribute to achieving sustainable, liveable and vibrant municipalities in the EBRD WeB Region.

- Supporting the work with both public and private actors to deliver sustainable investments into ReDE.
- Support private companies in preparing renewable heating/cooling projects for their own use (industrial parks, shopping malls, retail parks, airports, railway stations, etc.).
- Evaluation and analyses of the potential for all applicable Renewable Energy Source (“RES”) technologies (solar thermal, geothermal, waste heat, heat pumps, biomass, biogas, etc.) suitable for ReDE generation in selected Cities / DE Systems.
- Identification of energy efficiency measures for DE infrastructure rehabilitation and upgrade.
- Development of the long-term strategies for the district heating sector and long-term strategic investment programmes (15-20 years) for selected Cities.
- Development of procurement and implementation strategies for selected Cities.
- Assessing the feasibility and bankability for potential projects to be structured on a PPP basis.

#### 4. SCOPE OF WORK

The following labels will be utilized in the text below to represent items that will be more precisely defined within Call-Offs:

- **the Country** – Any of the WeB region country(s),
- **the Company** - District energy system operator(s),
- **the City – Municipality** – Selected City or Municipality,
- **the Developer** - Private companies(s),
- **the Project** – Specific selected project.

**Typical tasks for the ReDEWeB Framework are presented in this Section (Section 4). The exact scope of each assessment will be determined in a separate project-specific ToR for each Call-Off and will include specific issues for the relevant project.**

Specific objectives of an assignment may include, *inter alia*:

##### 4.1 Technical assistance and investment preparation support

Pre-feasibility and feasibility studies

- 4.1.1. **Baseline study**
- 4.1.2. **Applicable renewable technologies for the ReDEWeB**
- 4.1.3. **Overall strategy**
- 4.1.4. **Long-term investment strategy**
- 4.1.5. **Priority investment programme (PIP)**
- 4.1.6. **Financial and economic analysis**
- 4.1.7. **Potential for carbon trade**
- 4.1.8. **Resource assessment and mapping**
- 4.1.9. **Private sector participation (PSP) in the Project(s)**
- 4.1.10. **Tendering and energy supply contracting**
- 4.1.11. **Environmental and social assessment**

##### 4.2 Policy support activities

- 4.2.1. **Framework policy activities**

**4.2.1.1 Supporting the development of country ReDe-related action plans derived from the EnC Treaty obligations and obligations from the Article 14 of of the Energy Efficiency Directive**

**4.2.1.2 Working on incentive mechanisms by the central government for the municipalities to advance the national renewable energy agenda**

**4.2.2. City policy activities**

**4.2.1.1 Billing according to actual consumption and heat cost allocation**

**4.2.1.2 Integration of ReDE sources, generation and storage into municipalities' urban planning**

**4.2.1.3 Assessment and improvement of local regulation in DE area**

**4.2.1.4 Tariff setting and Subsidy Payment Policy**

**4.2.1.5 Developing various formal or supporting documents (guidebooks, regulations, etc.) that will support cities DE operators in increasing share the of RES**

**4.2.1.6 Public service contract (PSC)**

**4.3 Capacity building**

**General description of the framework tasks listed above is as follows:**

**4.1.1 Baseline study**

This task involves the description and assessment of the present general situation in the City and the status of the DH services in technical, environmental, social, regulatory/legal and financial terms. Areas in the baseline study that might be in focus include: General Socio-Economic, Country, City, District energy sector and District heating / cooling company (general, the consumption, heat generation, heat distribution network, demand side).

**4.1.2 Applicable renewable technologies for the ReDEWeB**

The Consultant should be able to perform any task related to any of potentially applicable Renewable Energy Sources – RES technologies suitable for ReDE generation in the selected Cities / DE Systems, such as *inter alia*:

- biomass
- biogas
- geothermal
- solar thermal
- borehole geothermal / solar thermal
- waste heat (incineration plants, industrial waste heat, sewage)
- heat pumps
- sea, lakes and rivers

The Consultant will assess possibilities for the partial or full switch from a fossil fuel to the use of Renewable Energy Source (RES), as well as review local legislation, recommend the least-cost option or combination for the maximal utilisation of RES, etc.

### **4.1.3 Overall strategy**

The Consultant may be required to develop Overall strategy defining the strategic approach for the period up to 20 years. Areas that might be in focus are: reviewing the existing norms for the provision of heating services, metering the consumption, reducing water and heat losses, as well as examining possibilities for the expansion and demand forecasting, heat density, consumption patterns, etc.

### **4.1.4 Long-term investment strategy**

The Consultant may be required to develop a long-term investment strategy for the district heating system improvement, rehabilitation and expansion that should cover the period up to 20 years and should be based on the concept design. It should cover all components of the district heating system: fuel supply, generation, distribution, supply and demand side measures.

### **4.1.5 Priority investment programme (PIP)**

Based on the long-term investment strategy, the Consultant may be required to develop a short-term PIP for the subsequent period of 3 years which shall be oriented towards the maximisation of operational cost savings and improved operational efficiency of the Company. PIP should contain: least cost heating alternative and sensitivity analysis, cost-benefit analysis for the proposed solutions and affordability analysis for the consumers.

### **4.1.6 Financial and economic analysis**

The Consultant may be required to provide financial analysis and assess current financial capacities of the Company and the City. For the Project, financial and economic model(s) should be developed for the period up to 20 years. All the projections shall be fully consistent with the long-term investment strategy (Sec. 4.1.4).

### **4.1.7 Potential for carbon trade**

The Consultant may be required to identify expected emission reductions from the proposed investments compared with the baseline scenario, as well as quantify the related CO<sub>2</sub> equivalent (CO<sub>2</sub>e) emission reductions.

### **4.1.8 Resource assessment and mapping**

The Consultant may be required to perform mapping of actual and planned heating & cooling consumption, assessing and mapping potential for the renewable or waste heat resources integration district energy systems, all within selected municipalities, areas or countries.

### **4.1.9 Private sector participation (PSP) in the Project(s)**

The Consultant may be required to assess the feasibility and bankability of a PPP structure for the implementation and operation of the Projects and explore market interest for the Projects, taking into consideration the best international practices in the DH and energy sector. The Consultant should define tender strategy and range of available procurement models and project implementation options.

#### **4.1.10 Tendering and energy supply contracting**

The Consultant may be required to draft contract template for energy supply contracting (ESC) and develop documentation (including tender documents) required for project approval by the Cities and competent authorities at the relevant administrative levels. The Consultant may be required to assist the Cities throughout any phase(s) of the tender / procurement process.

#### **4.1.11 Environmental and Social Assessment**

The Consultant may be required to develop an Environmental and Social Assessment in order to identify and assess the potentially significant existing and future adverse environmental and social impacts associated with the Client's current operations and the proposed Project; assess compliance with applicable laws and the EBRD ESP and PRs; determine the measures needed to prevent or minimise and mitigate the adverse impacts; as well as identify potential environmental and social opportunities, including those that would improve the environmental and social sustainability of the Project.

## **4.2 Policy Support activities**

### **4.2.1 Framework policy activities**

#### **4.2.1.1 Supporting the development of country level ReDe-related action plans derived from the EnC Treaty obligations and obligations from the Article 14 of the Energy Efficiency Directive**

The Consultant may be required to provide support to the countries to meet their Energy Community Treaty obligations, especially in relation to the implementation of the Directive for the promotion of the use of energy from renewable sources<sup>1</sup> and Article 14 of the Energy Efficiency Directive<sup>2</sup>.

#### **4.2.1.2 Working on incentive mechanisms by the central government for the municipalities to advance the national renewable energy agenda**

The Consultant may be required to work on incentive mechanisms by the central government for the municipalities to advance the national renewable energy agenda.

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<sup>1</sup> Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.

<sup>2</sup> Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, OJ L 315, 14.11.2012, p. 1.

## **4.2.2 City policy activities**

### **4.2.2.1 Billing according to actual consumption and heat cost allocation**

Support for introduction or improvement of consumption based billing and incorporating the infrastructure (monitoring and control systems, bulk heat metering and heat cost allocators) required to move to a system of tariffs where a portion of payments are based on actual consumption.

### **4.2.2.2 Integration of ReDE sources, generation and storage into municipalities' urban planning**

The Consultant may be required to support integration of ReDE sources, generation and storage into municipalities' urban planning.

### **4.2.2.3 Assessment and improvement of local regulation in DE area**

The Consultant may be required to work on improving and standardizing (city by city) local regulation, based on present successful international experiences in similar countries and with special focus on implementation of ReDE technologies.

### **4.2.2.4 Tariff setting and subsidy payment policy**

The Consultant may be required to develop a tariff setting formula that allows the recovery of all recurrent costs including capital investment costs, adequate billing and collection practices; and receipt of adequate subsidy payments when consumer tariffs are below cost recovery levels. The proposed formula should be based on the existing billing and collection methodologies, industry best practices, existing tariff levels, and legal and regulatory framework for tariff setting.

### **4.2.2.5 Developing various formal or supporting documents (guidebooks, regulations, etc.) that will support cities DE operators in increasing share the of RES**

The Consultant may be required to develop various formal or supporting documents (guidebooks, regulations, etc.) that will support cities DE operators in increasing share the of RES.

### **4.2.2.6 Public service contract (PSC)**

The Consultant may be required to structure and draft a new individual performance based PSC between the Municipality/City and the Company aimed to streamline and advance the operational performance for more cost effective services, based on present successful international experiences in similar countries.

### 4.3 Capacity Building

The Consultant may be required to provide support and facilitate ReDE-related capacity building and knowledge sharing to strengthen the implementation of ReDE in the WeB region through the following activities *inter alia*:

- Organising workshops focused on introducing and integrating the ReDE technologies.
- Providing capacity building and assistance in adopting international best practice in ReDE implementation, managing resources (incl. management systems), energy efficiency standards for equipment and processes (ISO certification, labelling scheme, etc.).
- Promoting knowledge sharing by drawing lessons learned and disseminating the results of various ReDEWeB related activities.
- Institutional strengthening and capacity building at the national and local government levels to adequately tackle resource challenges, building up a critical mass of local capability to plan, prepare, structure, manage and deliver ReDE projects.
- Identifying opportunities for integrating a participatory approach that aims at raising awareness and promoting meaningful involvement of representatives of local communities and civil societies.

## 5 IMPLEMENTATION ARRANGEMENTS AND DELIVERABLES

It is anticipated that the Framework Consultancy Contract for the ReDEWeB (the “Framework”) will have an overall duration of 36 months, with a level of work depending on the ReDEWeB Programme development. The commencement of work under the Framework is expected to be January 2020.

For each call-off assignment under the framework, the Framework Consultants will be responsible for arranging their work from their home/local offices, and covering all costs associated with accommodation, travel and living expenses, communications, materials, printing, translation and report preparation, etc. The EBRD will provide access to all relevant information to enable work to commence under each assignment.

The Framework Consultants will report to the Bank and liaise with the Bank’s nominated Operation Leader on all aspects of the assignment.

### **Selection of consultant and contract award for individual assignments (Call-Off Notices).**

**The selected firms will be awarded Framework Agreements with the Bank. In accordance with the Bank’s Procurement Policies and Rules (PP&R), for each specific assignment over EUR 75,000, a secondary competition based on technical or technical and financial criteria will be undertaken. The Consultants will be expected to respond within 2 weeks. The selection process for each specific assignment is expected to be concluded within 6 weeks from the launch, through the process of evaluation to the call-off notice award. The timetable may be extended, depending on the complexity of the proposed assignment.**

**All deliverables, timeframes and payment schedules will be agreed under each Call-Off Notice and not the Framework Agreement level.**

The relation between the Client (Company and / or City) and the Consultant will be defined within each Call-Off in relation to:

- Working space, necessary furniture and telephone connections.
- Officials to be the primary contact persons with specific responsibility for assisting the Consultant and co-ordinating activities.
- Availability of all Company records, plans, reports, designs and other documents as appropriate; however, it will be the responsibility of the Consultant to translate these documents, if necessary;
- Accessibility of all Company facilities and employees for interviews or assistance relative to an understanding of the functioning of system facilities.

The Consultant will be responsible for paying for international telephone calls, office supplies and external printing. The Consultant shall pay for all local transportation required by the Consultant's staff throughout the duration of each assignment.

The Consultant shall be responsible for providing suitably qualified interpreters/translators to work with their staff.

Each Call-OFF will outline the deliverables and the timeframe for each task.

## **6 CONSULTANT'S PROFILE**

The project work of the ReDEWeB Programme requires highly qualified specialists who can provide expertise in all fields relevant to each assignment. Due to the nature or size of a given project, some resources may be required to have skills and experience that span all tasks listed in this ToR. Additional skills and experience beyond those listed in the scope may be required for a given project.

The Consultant should ensure that appropriately qualified experts are available, as required, for each of the different tasks outlined above. It is expected that each individual assignment will be led by an appropriately qualified team leader/district heating engineer, accompanied by both key and supporting experts. Based on the fields of expertise and the tasks mentioned above, it is proposed that the team of the Consultant should consist at least of the following international and local experts:

- **Project Managers/Team Leaders** with a preferred minimum of 15 years professional experience in the field of district heating, with comprehensive experience of similar assignments in WeB, as well as in institutional and commercial management of district heating companies. He/she should demonstrate management and administration experience, including experience with procedures of international financing agencies (preferably EBRD procedures).
- **Technical specialists and engineers** preferably with at least 7 years of experience in district heating and with specific experience in all above mentioned RES technologies with preference for experience in the field of large scale solar thermal systems and thermal storage, geothermal energy, heat pumps and biomass, ideally in Western Balkans.

- **Financial analysts** preferably with at least 5 years of experience of due diligence in companies and/or municipal and extensive experience in public financing and modelling.
- **Policy and regulation experts** preferably with at least 7 years of experience in institutional and regulatory issues in the WeB.
- **Environmental and social specialists** preferably with at least 5 years of experience in DH projects. These experts must have a good knowledge and understanding of the EBRD environmental requirements, demonstrated experience of previous work with IFIs and with utilities in the WeB.
- **Legal experts** preferably with at least 7 years of experience in the areas of natural monopolies regulation and knowledge of WeB tariff legislation.
- **Procurement and implementation experts** preferably with at least 5 years of experience in DH projects.
- **Local experts** preferably with at least 5 years of experience and with good communication skills and evidenced technical knowledge of the district heating sector planning, design, implementation and operations.

Experience gained working in the Western Balkans / CoO EBRD, knowledge of local languages and experience of working with IFIs will be highly desirable for all teams and individual experts involved in each assignment.

All experts must be independent and free from conflicts of interest in the responsibilities accorded to them. The Consultant shall supply all support staff (administrators, secretaries, interpreters, drivers, etc.) as necessary for the proper fulfilment of its obligations.