

Terms of references

Job Title: National Energy Sector Expert for the ESCO Moldova Project

Project Reference: Transforming the market for urban energy efficiency in Moldova by introducing Energy Service Companies (ESCO Moldova Project)

Duration of Employment: August – 31 December 2013

Contract type: Individual Contract

Expected workload: 37 working days

I. Background

In accordance with UNDP and GEF procedures, a team of four consultants is being hired to develop the ESCO Moldova full project. The project is intended to support the development of the first commercial ESCO (Energy Service Company) in Moldova, a public-private partnership between the City of Chisinau and selected investor(s). The ESCO is intended to be launched as a tool to help promote additional investments in the field of energy-efficiency in the municipal sector in Moldova. The purpose of the project preparation grant is to fully design the activities, outputs, and outcomes of ESCO Moldova project in close cooperation with a team of 3 other consultants (2 international, 1 national), UNDP Moldova office and the UNDP Bratislava Regional Centre.

The documents to be prepared include (i) a UNDP Project Document (ii) a Request for CEO Endorsement and (iii) a GEF Tracking Tool. Copies of the GEF documents can be found: http://www.thegef.org/gef/guidelines_templates

In addition, an investor attraction report shall be prepared, a termsheet, and a draft business plan for the new company, ESCO Moldova.

Project description

The ESCO Moldova project is being developed by UNDP and the Global Environment Facility (GEF). The project aims to promote green urban development in Moldova using the ESCO (Energy Service Company) modality as the means of promoting sustainability. The focus of the ESCO investments will be in areas where the potential for emission savings is largest such as the housing, municipal heating, and industrial sectors that are concentrated in urban centers. In Moldova, there are no cities that can currently be described as green cities, only cities that aspire to become green as for example Chisinau. Urban development is primarily driven by economic considerations and 'greening' considerations are for the most part not taken into account. Most Moldovan cities are increasingly in decay and have outmoded urban infrastructure, deteriorated communal housing, poor planning, lack of municipal budget to meet the needs of growing urban populations and urban poverty. All these problems are present in the capital city of Chisinau. Specifically, ensuring maintenance and communal services for multifamily housing remains a key priority for all cities. Multi-family apartment blocks account for 157.2 million m² or 60% of the housing stock; one out of three (or 50 million m²) is in need of capital renovation, while 3.8 million m² is in emergency state and has to be demolished. Regardless of technical conditions, over 70% of multifamily apartment buildings have very low thermal performance (especially buildings constructed in 1950 -1980s): thermal losses account for up to 50% of heat consumption.

ESCOs, a concept widely proven in the United States and Europe, and has proven a useful tool to promote energy savings through energy performance contracting and shared savings agreements. In the baseline situation, no municipal ESCOs are likely to be successfully launched in Moldova in the next four years. In Moldova, as of early 2013, not a single ESCO exists in the country and there is almost no experience with working with ESCOs. In the absence of this project, and in the absence of GEF funding it is highly unlikely that a properly capitalized ESCO with the proper expertise will exist in Moldova in the next four years. The reason is simple. The ESCO concept is new to Moldova and there is no prior successful experience with energy performance contracting and there is no advantage in being a first mover. The first mover in the ESCO business in Moldova will have additional costs associated with legal and regulatory issues and related to the fact that energy performance contracts are new instruments which have not yet been tested in the market place. However, the regulatory basis for ESCOs in Moldova is moving in the right direction with a new law energy-efficiency, Law 142, which was adopted in 2010.

Energy-Efficiency Law 142 has as its main purpose to harmonize Moldovan law related to energy-efficiency with the relevant EU directives. The Energy-efficiency Law 142 a) establishes main directions for energy efficiency national policy; b) Approves national energy efficiency programs and action plans; c) Elaborate and apply energy efficiency mechanisms and financial instruments for and d) Establish organizational order, structure and activity procedures for the state energy efficiency authority. In particular, it sets minimum standards for energy-efficiency, requires energy audits, and promotes the establishment of a regulatory framework which would encourage the creation of ESCOs. The law defines ESCOs¹ and the concept of Energy Performance Contracts (EPC).

Despite the existence of Energy-Efficiency Law 142, there are no sub-laws or regulations which would define how ESCOs would operate in Moldova. There are several other baseline activities that Moldova is participating in including the Economic Stabilization and Recovery Plan 2009-2011 (2009); National Development Strategy 2008-2011 (2008); Energy Strategy 2020 (2007); Copenhagen Accord to the Kyoto Protocol (2010); National Energy Efficiency Program for 2011-2020 (2010); Low Emission Development Strategy (LEDS) to year 2010 (pending adoption 2012);- Government's Activity Program 2011-2014 (2011); National Strategy for Development Moldova 2020 (2012). However, none of these activities specifically promotes the concept of ESCOs for green urban development. Therefore, in the baseline situation and without this project it can be concluded that it would be unlikely for a municipal ESCO to successfully be launched under the business-as-usual scenario.

II. Scope of work and responsibilities

A National Energy Sector Expert will be responsible for assisting the international consultants with collecting data and information and helping them to finalize their work. In particular, the National Energy Sector Expert will assist with providing baseline data about energy consumption and practices in the municipal sector in Chisinau which will enable the international ESCO expert to complete the baseline sections of the GEF Request for CEO Endorsement and UNDP project document. The baseline data should include both information about current energy consumption and practices and also estimates of the possible energy savings from different energy efficiency investments (boiler rehabilitation, lighting, insulation, ventilation etc). The focus of data collection should be on all different types of public buildings such as hospitals, schools, kindergartens, libraries, municipal buildings and national government buildings. The focus should be to collect data on buildings in the capital city of Chisinau. Data should also be collected from the industrial and manufacturing sector so that there is the possibility to do energy savings projects with private sector clients also. As part of the exercise, data gaps should be collected and explained. It is suggested to use the Sustainable Energy 4 All (SE4All) tracking methodology for data collection as it relates to the area of energy-efficiency. In addition, as part of the baseline data report that consultant will identify some of the most cost-effective low cost energy-efficiency investments that might be made in future by ESCO Moldova.

¹ Energy service company (ESCO) - natural or legal person that delivers energy services and / or other energy efficiency improvement measures in an user's facilities or premises, and accepts some degree of financial risk in doing so. The payment for the services delivered is based (in whole or in part) on achievement of energy efficiency improvements and on the meeting of the other agreed performance criteria

A key task of the National Energy Sector Expert will be to calculate the estimated CO2 emissions reduction from the ESCO Moldova project using the GEF standard methodology for calculating energy-efficiency in buildings. The National Energy Sector Expert will also proceed with the data collection and provide comments and feedback to the international consultants helping them to finalize their work. This includes providing the draft and final report on project baseline, written comments and feedback to the draft UNDP project document and GEF Request for CEO endorsement.

In addition, the National Energy Sector Expert will organise and participate in two project seminars/workshops/round tables that will be held during the course of the work including (i) Presentation of the ESCO Moldova Project seminar/round table (at the initiation of the assignment but the format and timing to be determined) and (ii) the GEF Logical Framework Analysis Workshop (during the second mission of the international consultants). The National Energy Sector expert will support both missions of the international consultants which include organizing and participating in all the meetings of the international consultant, as required.

Products expected from the National Energy Sector Expert

The key products to be delivered are as follows:

- 1) Participation in ESCO Moldova Project seminars/workshops/roundtables and their organization (format of the events and the timing to be discussed and agreed in the team, but it is expected that the national legal expert will provide the necessary support in drafting the agenda and contacting the relevant people as well; it is also expected that no more than 2 such major events would take place during the project preparation phase)
- 2) Baseline data report which provides among others, (i) all information related to energy consumption and practices in the city of Chisinau in target facilities (Municipal heating – boiler reconstruction; Industrial heating – boiler reconstruction for private companies; Public Buildings – energy savings agreements for public buildings); (ii) an estimation of the best opportunities for EE and GHG savings in Chisinau and over Moldova; (iii) investment cost estimate and cost-effectiveness in term of payback period of such investments for a representative sample of EE projects in target sectors; (iv) preliminary breakdown of investment projects potential in term of EPC projects, BOT projects or through another investment partnership instrument to be determined. The Baseline draft report must be prepared before the first mission and the final Baseline report must be submitted 2 weeks after the first mission.
- 3) Direct Energy savings and CO2 emissions calculation report (following mission1) and spreadsheet and expected indirect impacts estimate. This includes the expected GHG emissions reduction abatement cost per ton CO2
- 4)

In addition, the national consultant on stakeholder consultations should be available to assist with arranging other meetings, as required.

The timeframe and duration of activities are estimated to be broken down as follows:

Activity	Duration (estimated) / days	Estimated Timing and deadline
Mission 1 –Support to ESCO Int'l expert during the first mission	6	September 2013
Draft Baseline Data Report on Energy Consumption, and Practices in Chisinau; energy savings and GHG emissions reduction potential in target sectors. Final Baseline report after the first mission in early September	19	August 2013 and September
Mission 2 – Support to ESCO Int'l expert during the second mission	6	November 2013

Activity	Duration (estimated) / days	Estimated Timing and deadline
CO2 emission reduction calculations using GEF methodology	3	October 2013
Detailed comments on draft UNDP Project Document and GEF Request for CEO Endorsement	3	November 2013
TOTAL working days	Approx.37	

All work is expected to be completed by **31 December 2013**.

UNDP and the stakeholders will submit comments and suggestions within 10 working days after receiving the draft. It is envisaged that the finalized package of documents shall be submitted by the end of end of 2013 to GEF Secretariat.

III. Management Arrangements:

Responsibility for Managing the Consultant

The principal responsibility for managing the consultant will lie with the Head of Environment Section of UNDP Moldova and with the international ESCO expert who is responsible to prepare the GEF Request for CEO endorsement and the UNDP project document.

Payment for Services

The National Energy Sector Expert shall be paid in four installments as follows:

Installment	Payment Amount
1 – ESCO Moldova first mission support	25%
2 – Baseline Data Report 1) and project Impacts estimate.	25%
3 – ESCO Moldova second mission support	25%
4 – Detailed Comments on draft GEF RCE and ProDoc	25%

Each payment shall be made within 30 working days of receiving a valid invoice from the consultant. All travel and expenses should be paid for by the expert as part of the lump sum for services.

Responsibility for Expenses and their Reimbursement

The Consultant will be responsible for all personal administrative and travel expenses associated with undertaking this assignment including office accommodation, printing, stationary, telephone and electronic communications, and report copies incurred in this assignment.

IV. Requirements for experience and qualification

Academic Qualification

- Graduate degree related to energy, environment, engineering or related field

Experience

- At least 3 years of working experience in the energy-related field in the country and outside Moldova
- Extended working experience with public sector in Moldova
- Extended working experience with energy-efficiency
- Experience of working with international organizations

Competencies

- Strong competency in energy-efficiency field
- Strong interpersonal skills, communication and diplomatic skills, ability to work in a team
- Ability to plan and organize his/her work, efficient in meeting commitments, observing deadlines and achieving results
- Openness to change and ability to receive/integrate feedback
- Ability to work under pressure and stressful situations
- Strong analytical, reporting and writing abilities

Language requirements:

- Fluent in written and oral communication in English and Romanian
- Knowledge of Russian is a strong asset