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**United Nations Development Programme
Republic of Moldova**

**Terminal Evaluation of GEF Project:
ESCO Moldova - Transforming the market
for urban energy efficiency in Moldova by
introducing Energy Service Companies
(GEF PMIS No: 5157; UNDP PIMS No: 5135)**

Terminal Evaluation Report

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i. Executive Summary

Project Summary Table

Project Title:	ESCO Moldova- Transforming the market for urban energy efficiency in Moldova by introducing Energy Service Companies	
GEF Project ID:	5157	
UNDP Project ID:	5135	
Country:	Republic of Moldova	
Region:	Europe and Central Asia	
Focal Area:	Climate Change	
GEF Strategic Objective and Program:	Climate Change Objective 2: Promote market transformation for energy efficiency in industry and the building sector	
Executing Entity/Implementing Partner:	Ministry of Environment / Ministry of Economy	
Other project partners	<ul style="list-style-type: none"> - City of Chisinau - Energy Efficiency Fund (EEF) - Energy Efficiency Agency 	
	<i>at endorsement (Million US\$)</i>	<i>at completion (Million US\$)</i>
GEF financing:	1.300	1.300 (to be checked)
UNDP financing (cash):	0.150	0.150
IA/EA (in kind):	0.040	0.040
Government EEF:	1.000	0.000
City of Chisinau:	6.425	0.000
Total co-financing:	7.615	Xxx
Total Project Cost:	8.915	xxx
Project Start Date:	28 November 2014	
Inception workshop	1 April 2015	
Mid Term Review	February 2017	
Project End Date:	28 November 2018	

Project Description (brief)

The UNDP-supported GEF-financed project “ESCO Moldova- Transforming the market for urban energy efficiency in Moldova by introducing Energy Service Companies” (ESCO Moldova) aims to support the conversion of existing energy service provider companies into ESCO and thereby facilitate the development of an ESCO market in Moldova. This objective was planned to achieve through the setting up the financial mechanism, Loan Guarantee Fund (LGF), which should support the municipal sector to implement EE projects through the EPC modality and by providing established Energy Service Providers (ESPs) and financial institutions with a comprehensive capacity building program. One of the goals of the Project was development and implementation of the Green Urban Development Plan (GUDP) for Chisinau.

The development context for this project is also consistent with the UNDP and GEF priorities globally and in Moldova as well. It falls within: (i) GEF 5 Strategy, Objective 2; (ii) Moldova’s National priority: Promoting the principle of Sustainable Development through Green Economic Development; Increase EE and share of renewables, reduce GHG emissions; and (iii) UNDP Country Programme Document (CPD) for Moldova for 2013-2017.

The immediate objectives of the ESCO Moldova Project among others include: (i) Development and adoption of The Chisinau Green Urban Development Plan (UGDP); (ii) Development and operationalization of the ESCO Business Model in Moldova; (iii) Implementation of demonstration projects (retrofitted public buildings by the ESCO s through the EPC modality); and (iv) Creation of the Financial Mechanism available to ESCOs.

Evaluation Ratings Table

Monitoring and Evaluation	Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
M&E design at Entry			✓			
M&E Plan Implementation				✓		
Overall Quality of M&E				✓		
IA & EA Implementation/Execution	Highly Satisfactory	Satisfactory	Moderately Satisfactory	Moderately Unsatisfactory	Unsatisfactory	Highly Unsatisfactory
Quality of UNDP (Implementing Agency) Implementation				✓		
Quality of Executing Agency Execution				✓		
Overall Quality of IA & EA Implementation/Execution				✓		
	Highly Satisfactory	Satisfactory	Moderately Satisfactory	Moderately Unsatisfactory	Unsatisfactory	Highly Unsatisfactory
Achievement of Objective						✓
Achievement of Outcomes	Highly Satisfactory	Satisfactory	Moderately Satisfactory	Moderately Unsatisfactory	Unsatisfactory	Highly Unsatisfactory
Overall Achievement of Outcomes						
Outcome 1				✓		
Outcome 2					✓	
Outcome 3						✓
Outcome 4						✓

	Relevant (R)	Not Relevant (NR)				
Relevance	✓					
	Highly Satisfactory	Satisfactory	Moderately Satisfactory	Moderately Unsatisfactory	Unsatisfactory	Highly Unsatisfactory
Effectiveness					✓	
Efficiency				✓		
	Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MU)	Unlikely (U)		
Overall Sustainability			✓			
Probability of sustainability due to Financial risks				✓		
Probability of sustainability due to Socio-economic risks			✓			
Probability of sustainability due to Institutional framework and governance risks			✓			
Probability of sustainability due to Environmental risks	✓					

OVERALL RATING	U
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Summary of conclusions, recommendations and lessons

Overall, this ESCO Moldova Project has had very ambitious goals for improvement of energy efficiency in public and residential buildings sector in the Republic of Moldova. For this purpose, an innovative business model, ESCO model was proposed to operate under the Energy Performance Contracting modality to stimulate additional investment in energy efficiency in public buildings in Moldova. The additional (to regular EPC) financial incentives also were proposed (grant, LGF) to ensure the success of EE projects. However, it appeared that the proposed model for ESCO market development was too innovative to the country. The premature level of the market, lack of knowledge on EPC as well as limited financial and technical capacities of the Energy Service Providing companies, combined with bank scandals, political instability and corruption scandals in both the Energy Efficiency Fund and the City of Chisinau, made impossible to achieve the identified goals and achieve targets.

- Best practices:
 - o Equipping partner institutions with relevant information on ESCO by conducting a series of assessments, analysis, stakeholder consultations
 - o Equipping key stakeholders with better skills and knowledge on EPC and ESCO by preparation of training materials and organization of study tour
 - o Setting up of collaboration mechanisms (working group, committees, etc.) to facilitate ESCO model penetration on energy market

- Worst practices:
 - o Lack of in involving commercial banks for managing LGF
 - o Project didn't envisaged work on supporting the Government policies to support ESCO activities, including regulations, economic incentives, information policies, etc. If would, project results were much more positive.
 - o Inefficient cooperation with the EEF. During 2016 and 2017 there where corruption scandals with EEF involvement that paralyzed the activity of the fund.
 - o Lack of initiative and lack of a willingness to listen to advice from the long-term International Consultant(s) was a big problem for the project throughout the project lifetime
 - o Not changing the Project Manager at an earlier stage in the project to give it a chance of success
 - o Continuing with NIM modality under the circumstances of extremely low ownership of project by partner institutions

ii. Acronyms and Abbreviations

AMR	-	Adaptive Management Review of the ESCO Moldova Project
AWP	-	Annual work plan
BAU	-	Business-as-Usual
CPD	-	Country Programme Document
CTA	-	Chief Technical Adviser
DSM	-	Demand-side management
EE	-	Energy Efficiency
EEA	-	Energy Efficiency Agency
EEF	-	Energy Efficiency Fund
EMIS	-	Energy Management Information System
EPC	-	Energy Performance Contract
ESCO	-	Energy Service Company
ESP	-	Energy Service Provider
EU	-	European Union
GEF	-	Global Environment Facility

GHG	-	Greenhouse gases
GPG	-	Green Procurement Guidelines
GUDP	-	Green Urban Development Plan
LGF	-	Loan Guarantee Fund
M & E	-	Monitoring & Evaluation
MoE	-	Ministry of Economy
MoENV	-	Ministry of Environment
MoREEFF	-	Moldovan Residential Energy Efficiency Financing Facility
MoSEFF	-	Moldovan Sustainable Energy Financing Facility
MRDC	-	Ministry of Regional Development and Constructions
MTR	-	Mid-Term Review
NIM	-	National Implementation Modality
NPD	-	National Project Director
PA	-	Project Assistant
PB	-	Project Board
PIF	-	Project Identification Form
PIR	-	Project Implementation Review
PM	-	Project Manager
PPG	-	Project Preparation Grant
PPP	-	Public Private Partnership
ProDoc	-	Project Document
RTA	-	Regional Technical Adviser
SEAP	-	Sustainable Energy Action Plan
TA	-	Technical assistance
TE	-	Terminal Evaluation
ToR	-	Terms of Reference
TT	-	Tracking Tool
UNDAF	-	United Nations Development Assistance Framework
UNDP	-	United Nations Development Programme
UNFCCC	-	United Nations Framework Convention on Climate Change

1. Introduction

This Terminal Evaluation (TE) report is prepared in accordance with the contract signed between the United Nations Development Programme and the individual contractors (International Consultant on Energy Efficiency for Terminal Evaluation; National Consultant on Energy Efficiency for Terminal Evaluation) for performing the services of International Consultant on Energy Efficiency for Terminal Evaluation (the "TE Team"). The report summarizes the findings of the TE for the UNDP-supported GEF-financed medium-sized project entitled "ESCO Moldova- Transforming the market for urban energy efficiency in Moldova by introducing Energy Service Companies" (herein referred to as the "ESCO Moldova Project").

1.1 Purpose of the Evaluation

The GEF implementing agencies and UNDP among them, are required to conduct a TE at project completion for all GEF financed projects. The purpose of the TE is to assess the efficiency and effectiveness of a project in achieving its intended results. TE also assesses the relevance and sustainability of the outcomes. According to "Project-Level Evaluation. Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects"¹, evaluations have the following complementary purposes:

- To promote accountability and transparency, and to assess and disclose the extent of project accomplishments
- To synthesize lessons that can help to improve the selection, design and implementation of future GEF financed UNDP activities
- To provide feedback on issues that are recurrent across the UNDP portfolio and need attention, and on improvements regarding previously identified issues
- To contribute to the overall assessment of results in achieving GEF strategic objectives aimed at global environmental benefit
- To gauge the extent of project convergence with other UN and UNDP priorities, including harmonization with other UN Development Assistance Framework (UNDAF) and UNDP Country Programme Action Plan (CPAP) outcomes and outputs.

1.2 Scope & Methodology

The TE Team Leader (TL) has developed a methodology for the execution of the TE in accordance with the "Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects", according to which the TE among others shall include evaluation of:

- Project strategy (Project design / Formulation, Project planning matrix, use of SMART² indicators and targets, assumptions and risks): To what extent is the project strategy relevant to country priorities, country ownership, and the best route towards expected results?
- Project implementation (including Adaptive management): Review of management

¹<http://web.undp.org/evaluation/documents/guidance/GEF/UNDP-GEF-TE-Guide.pdf>

² Specific, Measurable, Achievable, Relevant and Time-Bound

arrangements, work planning, Monitoring and Evaluation system, reporting and communications, cost-effectiveness, risk management etc.

- Project results (evaluated against relevance, effectiveness, efficiency, sustainability and impact): Assessment of the extent of the achievement of the expected outcomes and objectives

As a first step, the TE Team, consisted of the International Consultant and National Consultant, developed an approach for conducting of TE, which was based on the clear understanding of the task and ways of addressing it. The main elements of the applied approach were as follows:

- The scope of the TE to cover the entire Project and its components
- The TE to be based on the analysis of Project-related documents as well as the evidenced information from different sources, which shall be cross-checked for consistency
- In accordance with the ToR, to conduct TE mission to hold interviews with the stakeholders. In order to use the TE mission period effectively, the interviews of the stakeholders should be thoroughly prepared. The interviews should help to better understand the Energy Efficiency (EE) policy priorities in Moldova, overall environment in which the project was being implemented, status of the stakeholders' involvement, etc.

TE mission was planned for August 5-11, 2018

The developed approach in general worked effectively.

This TE has been executed in accordance with the guidance provided in the ToR except that the Regional Technical Advisor (RTA) and international experts have been interviewed by Skype.

During the mission the TE Team has met all key stakeholders³. The stakeholders answered all the questions of the TE Team as well as provided valuable information from their fields of activities related either to the Project implementation and/or general policy, legal, regulatory, institutional frameworks, needs and actual opportunities for investments in public buildings in Moldova.

Based on the above it is the TE TEam's opinion that the information obtained during the TE and included in this Report is credible and reliable.

1.3 Structure of the evaluation report

This TE Report is structured according to the TE ToR, which in turn is compliant with "Project-Level Evaluation, Guidance for Conducting Terminal Evaluations of UNDP-Supported GEF-Financed Projects", UNDP 2012.

The report consists of three main parts and annexes:

Chapter 2 – description of the ESCO Moldova Project, problems sought to address, project objectives, baseline indicators, expected results, overview of stakeholders, etc.

Chapter 3 – description of the findings of the TE regarding:

- Project design/formulation
- Project implementation

³ Most of the stakeholders were interviewed by the both TE Consultants; after the TE mission, some stakeholders were interviewed by the National Consultant only (however, the evaluation questions were prepared by the TE Team)

- Project results
- Sustainability

Chapter 4 – Conclusions, Recommendations and Lessons

Annexes – TE ToR, Evaluation question matrix, List of persons interviewed, List of documents reviewed, etc.

2. Project Description and Development Context

The Project “ESCO Moldova - Transforming the market for urban energy efficiency in Moldova by introducing Energy Service Companies” aims to support the conversion of existing energy service provider companies into ESCO and thereby facilitate the development of an ESCO market in Moldova. This objective was planned to achieve through the setting up the financial mechanism, Loan Guarantee Fund (LGF), which should support the municipal sector to implement EE projects through the EPC modality and by providing established Energy Service Providers (ESPs) and financial institutions with a comprehensive capacity building program so as to turn into ESCO. One of the goals of the Project was development and implementation of the Green Urban Development Plan (GUDP) for Chisinau.

The development context for this project is also consistent with the UNDP and GEF priorities globally and in Moldova as well. It falls within the:

- Objective 2 of the GEF 5 Strategy: “Promote market transformation for Energy Efficiency in Industrial and the Building sector”. Project was aimed at stepping up policy interventions as well as scaling up EE investments
- Moldova’s National priority: Promoting the principle of Sustainable Development through Green Economic Development; Increase EE and share of renewables, reduce GHG emissions
- UNDP Country Programme Document (CPD) for Moldova for 2013-2017 / UNDAF Outcome 3.2: National policies and strengthened capacities enable climate and disaster resilient, low emission economic development and sustainable consumption.

2.1 Project Start and Duration

The ESCO Moldova Project officially started after the signing of the project document (ProDoc) on November 28, 2014. The Project Management Unit, which consisted of a Project Manager and Project Assistant, was appointed in December 2014. The inception workshop was held on April 1, 2015. The first meeting of the Project Board (PB) has held on March 30, 2015.

The duration of the ESCO Moldova Project was 4 years, i.e. until 28th November 2018.

The UNDP Moldova management decided not to seek a project extension beyond 28th November 2018.

2.2 Problems that the project sought to address

The problems to be addressed were identified at the early stages of the ESCO Moldova Project. As stated in the Project Identification Form (PIF), signed by the GEF Operational Focal Point (OFP) on December 27, 2012, urban development is primarily driven by economic considerations and “greening” considerations are for the most part not taken into account; 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. Despite the existence of a number of policy/strategy documents (Energy-Efficiency Law 142, Energy Strategy 2020; National Energy Efficiency Program for 2011-2020; Low Emission Development Strategy; etc.), none of them promoted the concept of ESCOs for green urban development due to the different barriers related to: (i) EE project financing; (ii) Low interest of existing Energy Service Providers to embark on the ESCO business model; (iii) Institutional barriers at the local level; (iv) Green urban development and EE awareness in the municipal sector.

In the Business-as-Usual (BAU) scenario Energy Service Providers (ESPs) were implementing EE projects in public buildings under the modality when the client pays the whole investment at the EE project commissioning stage. Under the ESCO modality ESPs should arrange financing for EE projects themselves through the loan financing.), technical (inadequate energy service levels in the baseline: by the ESCO Moldova Project start, satisfactory comfort standards were not met in the public buildings. In many schools and hospitals, other public buildings, the insufficient heating and lighting levels were observed, institutional, and awareness barriers were identified, which hampered the wide application of EE practices in the building sector of Moldova. And the ESCO Moldova Project was designed to address this problem, by creating solid basis for their removal with the key measure being to establish a loan guarantee fund to facilitate investment in energy efficiency

The ESCO Moldova Project consisted of four components aimed at achievement of four Outcomes; achievement of each of them would remove some of the above-mentioned barriers. As a result, the following was planned to be achieved:

In the absence of the ESCO Moldova Project (BAU scenario) the Green Urban Development Plan (GUDP) would have very low chance, to achieve its objective and even to be drafted and enforced; most of the ESPs would not have incentives to shift their current core business activity as ESP towards the ESCO business model due to their lack of financial capacity to support investments; the roll-out of EE projects in the municipal residential sector would never take place.

2.3 Immediate and development objectives of the project

The overall objective of the ESCO Moldova Project was to promote new investments in EE retrofits of municipal buildings by introducing the concept of Energy Performance Contracting (EPC) and creating of the ESCO market in Moldova as well as to demonstrate the above with a Green Urban Development Plan (GUDP) for Chisinau and 20 pilot projects. This objective was supposed to achieve through the four components: (i) Green Urban Development Plan (GUDP) for Chisinau; (ii) Creation and Operation of ESCOs; (iii) ESCO Market Operation; and (iv) ESCO Market Operation - Replication and Dissemination. The implementation strategy of the ESCO Moldova Project was focused on the demand-side rather than supply-side (meaning generation of energy for heating and preparation of hot water in more efficient way). It was supposed that the ESCO Moldova Project, as a result of 20 pilot projects, would reduce energy consumption and associated direct CO₂ emissions from energy use in renovated public buildings, over a 20-year lifetime, by 322 GWh of energy and 68 ktons of CO₂ (sum of direct project and post-project reductions).

The immediate objectives of the ESCO Moldova Project among others include:

- Development and adoption of The Chisinau Urban Green Development Plan (UGDP)
- Development and operationalization of the ESCO Business Model in Moldova
- Implementation of demonstration projects (retrofitted public buildings by the ESCOs through the EPC modality)
- Creation of the Financial Mechanism available to ESCOs

2.4 Baseline Indicators established

The indicators and targets for each project outcome for measuring progress and performance were established in the ProDoc. Baseline levels/values of each indicator, means of their verification, associated risks and key assumptions are well-defined in the Project Results Framework (LogFrame).

2.5 Main stakeholders

Due to the complex nature of the ESCO Moldova Project, it has assisted to / cooperated with various representatives of the parties involved. An overview of the key stakeholders is presented in Section 1.4 of the ProDoc. The main Project stakeholders include:

- **Implementing partner:** Ministry of Environment (MoENV)⁴ - the GEF and UNFCCC national focal point
- **Line ministries:**
 - ✓ Ministry of Economy (MoE)⁵ - empowered to set the state policy priorities in EE and the main activity directions in the field of energy efficiency for public authorities. The MoE drafted the new regulation related to ESCO development and Energy Performance Contract
 - ✓ Ministry of Regional Development and Constructions (MRDC)⁶ - coordinates the implementation of sustainable development principles in urban planning design. It also develops, promotes and implements state policy on regional development, land use planning, architecture, design and construction
- **Other Governmental Stakeholders:**
 - ✓ Energy Efficiency Agency (EEA) - implements the state policy in the field of energy efficiency and renewable energy sources. The EEA has been identified the key technical partner to advance the ESCO Moldova Project
 - ✓ Energy Efficiency Fund (EEF) - Independent government body established with the aim of attracting and managing financial resources to finance and implement energy efficiency and renewable energy projects. The EEF **was supposed to be a key partner and co-financer within the ESCO Moldova project:**
 - As lender for 20 municipal ESCO projects
 - As grantor for the same projects (USD 50,000 each)
 - As guarantor for the same projects using the UNDP-GEF USD 900,000
 - ✓ Municipalities of Chisinau and Balti – responsible for the promotion and implementation of state policy in the field of EE at local level
- Energy Service Providers - Local companies who were expected to transform into ESCOs (this did not happen) (actually the ESCO Moldova project was cooperating with TCD, Tehno Test, Diolum SRL, etc.)
- Energy audit companies
- Financial institutions

⁴ Ministry of Agriculture, Regional Development and Environment at present

⁵ Ministry of Economy and Infrastructure at present

⁶ Does not exist after the governmental reform

2.6 Expected Results

The expected results of the ESCO Moldova Project are specified in the ProDoc. After the implementation of four components of the ESCO Moldova Project four Outcomes were expected to be achieved along with a number of outputs. The following outcomes were planned in the ProDoc:

Outcome 1: Green Urban Development Plan Adopted by City of Chisinau

- Output 1.1: The Chisinau Urban Green Development Plan
- Output 1.2: Resource Mobilization Plan for the Sustainable Energy Action Plan (SEAP) for Chisinau
- Output 1.3: Green Procurement Guidelines (GPG) for the City of Chisinau
- Output 1.4: Targets for Emissions Reduction and Prioritization by the City of Chisinau

Outcome 2: ESCO Business Model in Moldova is operational as a result of strengthening Energy Service Providers capacities and implementation of EE projects using EPC modality

- Output 2.1: Training Program Design and Delivery
- Output 2.2: Technical Partnerships and Working Agreements with key partner institutions
- Output 2.3: EE Projects Selected for piloting the EPC modality
- Output 2.4: EE projects implemented using the EPC modality
- Output 2.5: ESCO M&E System and Reporting mechanism

Outcome 3: Financial Mechanism is available to ESCOs

- Output 3.1: Agreement on LGF Regulation and Operational Guidelines
- Output 3.2: Financial Institution and Partnership Agreement
- Output 3.3: Financial Partnership and Working Agreement with the EEF
- Output 3.4: Model Energy Performance Contract – EPC
- Output 3.5: LGF Management and Accountability Arrangements
- Output 3.6: LGF Operations Monitoring and Reporting mechanism
- Output 3.7: LGF Exit Strategy and New Regulation Framework

Outcome 4: EPC Projects and GUDP replicated in other Municipalities and Information Dissemination

- Output 4.1: EPC Case Studies and GUDP Lessons Learnt Study
- Output 4.2: GUDP and EPC replication in other cities
- Output 4.3: Information- Sharing and Project Closing Workshop
- Output 4.4: Mid-term Evaluation
- Output 4.5: Final Evaluation

It must be noted that MTR and TE are “required” activities and they shouldn’t be outputs of the ESCO Moldova Project.

Neither the Inception report nor MTR report requested revision of the outputs and established indicators and targets; they remained unchanged. The Adaptive Management Review (AMR) of the

ESCO Moldova Project, Report #1 - Assessment of the Mid-Term Review, dated February 2018, refers to Report #2 - Revised Project Strategy, “which has new activities and outputs but retains the overall project objective and outcomes”. However, the alternative scenarios proposed in the Adaptive management report were not convincing enough to let the project change the course of action and implement the EPCs in the timeframe of up to 2020. The implementing parties (UNDP and Ministry of Economy) have concluded that the options are theoretically robust but not politically acceptable and practically implementable in Moldova.

3. Findings

(As requested by the ToR, in addition to a descriptive assessment, all criteria marked with (*) must be rated)

3.1 Project Design / Formulation

As recommended by the Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects the findings of this chapter are based on the analysis whether or not:

- The ESCO Moldova Project objectives and components were clear, practicable and feasible within its time frame
- The capacities of the Executing Agency and its counterparts were properly considered when the project was designed
- Lessons from other relevant projects (if any) were properly incorporated in the project design
- The partnership arrangements were properly identified, and roles and responsibilities negotiated prior to project approval
- Counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements were in place at project entry
- The project assumptions and risks were well-articulated in the ProDoc

An additional important point in terms of project formulation is to consider whether the planned outcomes were "SMART" (S - Specific: Outcomes must use change language, describing a specific future condition; M - Measurable: Results, whether quantitative or qualitative, must have measurable indicators, making it possible to assess whether they were achieved or not; A - Achievable: Results must be within the capacity of the partners to achieve; R - Relevant: Results must make a contribution to selected priorities of the national development framework; T - Time- bound: Results are never open-ended. There should be an expected date of accomplishment).

Project objectives

The ESCO Moldova Project is focused on creation of a functioning, sustainable and effective ESCO market for scaling up mitigation efforts in the whole municipal building sector in Moldova in line with the GUDP. This goal was supposed to be achieved through the implementation of four components: (i) GUDP for Chisinau; (ii) Creation and operation of ESCOs; (iii) ESCO market operation; and (iv) Replication and dissemination. The ESCO Moldova Project thus has been designed to provide technical assistance and investment in demonstration activities and thereby reduce existing financial, technical, institutional and awareness barriers.

As stated in the ProDoc, the ESCO Moldova Project supports a broader ESCO market development approach, as opposed to the original concept (in PIF), which supported the creation of a single company, a public private partnership (PPP), which would act as a catalyst to the development of the ESCO market. The rationale for this was that neither the City of Chisinau nor commercial banks or financial institutions were willing to invest or finance in the PPP, and all ESPs met during the preparatory phase were not interested in partnership under the PPP. Therefore, more ambitious objective has been identified. However, the implementation of the ESCO Moldova Project clearly showed that ESPs are not interested in EPC modality as well, despite the awareness about ESCO model capacity building. The political and financial risks has driven to uncertainties of practical matter. Companies, willing to embark on the EPC model were cautious and were reluctant to make the first

step, because of the multiple bank frauds and corruption scandals registered in the energy efficiency sector in 2014-2017. It has influenced at the end also the potential beneficiaries, making them resistant to the new financing modality. As soon as the business was considered the professional service provider, and which could not convince the public sector of the success of the model, the latter reacted consequently.

The project team was the only ambassador of ESCO model and its benefits, which was however not sufficient enough to play the role of ESCO driver and pro-active information. In order to find the large number of credible investment proposals there was a need of a larger team, that would mostly work in the field, identify willing partners, identify possible energy efficiency investments and constantly oversight the level of partners' empowerment to implement the project, rather than focus only on desk work analysis. For this purpose, an expanded multi-skilled specialists project team (engineer, finance expert, communication, community engagement, etc.) should have been designed in ProDoc.

The ProDoc concluded that the Ministry of Economy, with the support of USAID financed SYNENERGY, developed the draft regulation on energy services in the public sector and created a basis for the removal of legislative and non-legislative barriers to the implementation of EPCs in Moldova. Therefore, no outcome was planned related to the legal and regulatory framework. The assumption that the legislative barriers will be removed didn't materialized and lack of legal provisions for operating of ESCO Market created issues for project implementation. Project didn't envisaged work on supporting the Government policies to support ESCO activities, including regulations, economic incentives, information policies, etc. The fact that even at the EU level there were different interpretations on recording of Energy Performance Contracts (EPCs) in government accounts until September 2017, when Eurostat guidance notice was issued, shows how uncertain was to reach the objectives for ESCO Moldova Project. Not mentioning that the necessary national legal provisions for EPC operationalization (new Law on Energy Efficiency and Law on Condominium) were passed by Moldovan Government in late 2018.

Relevance of the problem addressed

The need in creating market conditions for EE retrofits of public buildings under the EPC modality and demonstration local solutions through the pilot/demo projects, is justified in the ProDoc. Based on the analysis it has been concluded that policy and regulation, and awareness and decision-making barriers either have been removed or were on the way to being overcome. And thus, the focus was on removal of barriers related to the EE project financing and EE business skills and business model to advance EE investments.

However, the planned outcomes and proposed implementation strategy are lacking consistency. As correctly mentioned in the MTR report, there is a disconnect in the Project design; Component 1 is not a good fit with the other components of the Project. Main reasons for that are, that GUDP involves not only EE buildings but also road and street design, land use, water supply and sewerage, waste management, air quality, transportation, etc. while investing in existing municipal buildings to generate energy savings through EPC is a narrow, specific theme.

Interest of ESPs in transforming themselves into ESCOs

The interest of the private sector in investing in energy savings projects following an ESCO model has been confirmed by the letters of support provided. However, the following banking sector crisis, triggered in December 2014, contributed to a financial and economic downfall and a considerable

depreciation of the local currency and determined private sector to be cautious in commercial lending for ESCO investments.

At the same time the ProDoc identified a barrier to attracting the interest of the identified private implementation partners related to the features of baseline scenario of EPC projects, which in many cases were related to inadequate energy service levels in the country Moldova before the ESCO Moldova project start.

Project budget

Out of total budget of USD 1.45 million, USD 900,000 was considered for the LGF. Thus, USD 550,000 was planned over 4 years to fund a PMU, consulting support for technical, financial and other experts to carry out training, capacity-building, technical support for ESCOs and many other Project outputs and activities. This is a very small budget. The MTR report states the same: “The Project has an over-sized LGF, an under-sized management budget and insufficient budget to achieve its Objectives and Outcomes”.

3.1.1 Analysis of Logical Framework (Project logic /strategy; Indicators)

The Logical Framework (LogFrame) is a key basis for planning of detailed activities under the implementation framework that was defined in the ProDoc. The LogFrame shall in principle serve to monitor and evaluate the overall project achievements – based on defined targets and indicators to measure these targets.

The LogFrame, at some level, is lacking internal logic, clarity and consistency; planned activities are not always appropriate and/or adequate towards the identified targets; targets are not consistent throughout the ProDoc. For instance:

- **Project Objective:** in the Log-frame, the GHG reduction targets are confusing. Indeed, the target for cumulative (2014-2038) direct reductions is 68 ktons of CO₂, which is consistent with the Appendix 2: Calculation of GHG Emissions Reductions (in Table 11 direct project emission reductions during 2014-2018 equals to 6.28 ktons and direct post-project reductions during 2018-2038 – 61.6 ktons), i.e. the lifetime of investments is more than 20 years. If correctly calculated, the cumulative target for 20-year lifetime should be 3.08 (annual GHG savings) x 20 = 61.6 ktons of CO₂. Further, it is assumed that TA provided by the ESCO Moldova Project to Chisinau City could include feasibility analyses and replication of building retrofitting design and that a number of additional EE retrofit projects would be carried out by ESCOs. Those projects were supposed to achieve the same savings per EPC as demo projects implemented during the ESCO Moldova Project timeframe. Based on these assumptions the direct post-project emission reductions were calculated in the Appendix 2, as 3.08 x 15 = 46 ktons of CO₂ (40 ktons in the LogFrame). It must be noted that firstly, such emission reductions can be accounted more to consequential (formerly determined as indirect) reductions rather than direct ones; and secondly, it is unclear, where the 15-year period comes from. Indirect emissions in the Appendix 2 are estimated as 694 ktons (bottom-up approach) and 278 ktons (Top-down approach) while in the LogFrame target for indirect emissions equal to 240 ktons of CO₂. And finally, it is unclear what is meant under the “Total emissions” (381 ktons of CO₂ as per the LogFrame).

- **Outcome 1:** as mentioned above, this outcome doesn't look as an integral part of the ESCO Moldova Project. As stated in the MTR report, the consultant suggested (and UNDP comments on the draft of this report concurred) that reference to a GUDP for Chisinau should be removed from the logframe. Instead, the MTR recommended (recommendation 4) to consider a GUDP for a city other than Chisinau as part of Component 1. However, this recommendation hasn't been followed for the same reason: Outcome 1 is not strongly related to other outcomes and requires more project resources than envisaged in the ProDoc.

Output 2.4: EE projects implemented using the EPC modality, clearly refers to the completed implementation and thus the established targets, Target 1: 20 EE projects selected and documented, Target 2: 20 EE projects using EPC modality are under implementation, are inadequate

- **LGF related outputs** (Outputs 3.5: LGF Management and Accountability Arrangements; Output 3.6: LGF Operations Monitoring and Reporting mechanism; and Output 3.7: LGF Exit Strategy and New Regulation Framework): there are two targets established, (i) number of Loan Guarantee approvals (20 in total out of which 5 in year 1; 10 in year 2; and 5 in year 3); and (ii) size of LGF and loans (at least US\$ 2.7 million). It seems not realistic to expect 5 loan guarantee approvals in one year, when there are no ESCOs existing, no energy audits conducted, no FIs identified for LGF, etc.

In general, it must be noted that there are a large number of indicators and targets established for the planned outcomes; some of them might be not included in the LogFrame (e.g. selection of 20 projects and then implementation of the same projects, are established as separate targets).

The original LogFrame has not been updated during the inception phase; the MTR of the ESCO Moldova Project didn't recommend any changes in the LogFrame. While analyzing LogFrame the MTR proposed to use two more SMART indicators: (i) Number of known non-Project EPCs taking place in Moldova; and (ii) Estimated value of non-Project EPCs taking place in Moldova. However, this wasn't included into the recommendations. With the above mentioned log frame design inconsistencies on outputs and indicators, it was of outmost importance to pay a better attention to project implementation and exert the risk management functions.

3.1.2 Assumptions and Risks

Assumptions

Assumptions and risks are outlined in the Project Results Framework for each project indicator and target and built around the continued commitment of all ESCO Moldova Project Partners:

- The Municipal Council is willing to approve the Green Urban Development Plan
- Sustained and consolidated political support and commitment to promote low-carbon development
- Key stakeholders understand the benefits of the greening the policy document and engage in implementation
- The donor community is responding and supports the GUDP implementation
- ESCOs are in a position to co-finance 20% of the whole project cost
- EEF provides grants to EE projects

- At least 1 other city will be willing to develop a GUDP and carry out energy-efficiency investment projects using the ESCO business model and EPC modality

Unfortunately, these assumptions haven't been confirmed during the ESCO Moldova Project implementation.

Risks

Initially the risks have been identified in the ProDoc (ten different risks in total). Probability of impact of some of those risks were rated as high enough. Among them:

- Political risk: Resistance of local public authorities to engage in ESCO business model creation and promotion – Probability 3 (highest 5); Impact 5 (highest 5)
- Political/organizational risk: Lack of inter-institutional ownership and co-operation in implementing the project activities – Probability 2; Impact 4
- Financial risk: The projected co-financing does not materialize – Probability 2; Impact 5
- Operational risk: Lack of adequate and reliable market data to facilitate the monitoring of project impact and planning of further policy measures – Probability 4; Impact 3

In the Inception report no new risk has been identified and ratings of risks (probability, impact) remained unchanged.

During the MTR, the analysis of the risk management has been conducted and it was concluded that probabilities of some risks were overestimated and of some others – underestimated.

The following risks might be identified additionally:

- Energy Service Providing (ESP) companies might be not interested in ESCO modality (EE retrofits under the EPC). The ProDoc identified a risk: Lack of interest of the managers of the construction companies and other building professionals to attend and apply in practice the training provided by the project. But the problem is that ESPs felt (and still feel) OK with the "traditional" scheme of payment for EE retrofits and it was unclear for them why should they move to the EPC modality where they incur significant risk from using their own money to finance the retrofits. Consultations also showed the ESPs did not view and do not view the City of Chisinau as a reliable partner.
- Low level of the energy consumption in the baseline scenario. The ProDoc clearly stated that difficulty in figuring out the baseline of EPC projects because of inadequate current energy service levels in Moldova is an important barrier to attracting the interest of the identified private implementation partners, no further analysis was provided on this matter. In fact, due to the lack of budgetary funds, the owners of the public buildings couldn't afford to ensure satisfactory comfort level and as a result: (i) not all the space was being used and thus heated; (ii) temperature in the heated area was below the standard; (iii) less electric energy was used for lighting and air conditioning, and thus the corresponding standards were not met. After the EE retrofit of building, due to the energy saving, the energy bills would be reduced only in case if the same comfort level would be met. However, the owners of the buildings likely would use those savings in funds for ensuring the higher comfort level, i.e. the energy consumption (of both, heat and electricity) would be higher and net energy saving (a difference between the consumptions before and after the retrofit of building) might be insignificant (even zero, if the comfort level before the retrofit is very low). If the EE retrofit

is implemented under the EPC, then ESCOs might be not paid. This potential situation should be addressed in the ProDoc.

Based on the abovementioned is the TE Team's opinion that not all the potential risks have been identified in the ESCO Moldova Project design.

3.1.3 Lessons from other relevant projects incorporated into project design

Before the ESCO Moldova Project start some donor-funded projects with the objectives, related to EE-in buildings, were either completed or under the implementation. Among them:

- UNIDO-implemented, GEF-financed project Reducing Greenhouse Gas Emissions through improved Energy Efficiency in the Industrial Sector in Moldova (2011-2013)
- EBRD's two sustainable energy financing facilities (MoSEFF and MoREEFF, implemented during 2012-2017), under which credit lines to local banks were created for on-lending to corporate and residential borrowers for sustainable energy investments. It is also stated in the ProDoc that the municipal sector already takes advantage of those facilities for major-retrofitting of public buildings, including EE components
- GIZ-funded project Modernization of Local Public Services in the Republic of Moldova, one of the focus of which was on investment attraction in EE in public buildings.

The ProDoc does not provide how the lessons learned (LL) from the above projects were considered in the design of the ESCO Moldova Project.

3.1.4 Planned stakeholder participation

Key stakeholders of the ESCO Moldova Project, including governmental agencies and ministries, and first of all, the Ministry of Environment as the Executing Agency of the project, have been identified during the design phase. Planning of the stakeholder participation has started from the early stages of the ESCO Moldova Project development. The planning was based on clear understanding of the features of Moldova regarding the building sector, namely roles played by key institutions. Based on the abovementioned text it is the TE Team's opinion that stakeholder participation has been planned adequately.

Another key stakeholder in the project should have been the EBRD who have lots of activities in Moldova on green urban development and on funds for financing for energy efficiency in public buildings. There is no evidence that the project actively engaged with the EBRD.

Another key stakeholder in the project were ESPs or Energy Service Providers who were expected to transform into ESCOs. Aside from their participation in the training workshops on ESCO market development, there is no evidence to suggest that ESPs were strongly involved in the implementation of this project.

3.1.5 Replication approach

The replicability belongs to the key GEF operational principles and thus, it was incorporated in the ESCO Moldova Project design. According to the ProDoc the outputs of demo projects (GUDP and EPC) should be further replicated in other municipalities in Moldova and scaled up through attracting private EE investments. For this purpose, the sustainable Loan Guarantee Fund (LGF) was planned to

be allocated not to Chisinau only but be used by all other municipalities to replicate the same business model. The LGF should be transferred to the EEF at the end of the ESCO Moldova Project to be used for the same purpose.

3.1.6 UNDP comparative advantage

In general, the UNDP comparative advantage lies in its experience in integrated policy development. UNDP's assistance in designing and implementing activities is consistent with both the GEF mandate and national sustainable development plans.

UNDP has implemented over 25 EE in buildings projects in Central and Eastern Europe and in the CIS region.

UNDP Moldova by the start date of the ESCO Moldova Project had the adequate administrative capacity for implementation of the project

It must be noted that comparative advantage was the decisive factor for choosing the relevant GEF Agency for the implementation of this project. As a result, the UNDP was selected for the ESCO Moldova project while the industrial sector has been identified as an area of UNIDO, not UNDP, and UNIDO was selected for another GEF project Reducing Greenhouse Gas Emissions through improved Energy Efficiency in the Industrial Sector in Moldova (2011-2013).

3.1.7 Linkages between project and other interventions within the sector

As mentioned above, there are a number of projects in Moldova, with the similar objectives, either already implemented or being under the implementation. ESCO Moldova Project design calls for cooperation with those activities in the sector, to consider their lessons and avoid overlapping/duplication of activities. However, the linkages with them are fragmental. The ProDoc does not really provide details about the linkages and co-operation opportunities with other interventions within the sector nor does explain how the ESCO Moldova Project complements the results of the earlier projects. During the implementation, there were weak linkages between the ESCO Moldova Project and other ongoing interventions (e.g. with the EBRD-funded MoREEFF).

3.1.8 Management arrangements

The ESCO Moldova Project was designed for the National Implementation Modality (NIM). The original management arrangements were specified in PIF and ProDoc in a following way:

- National Project Implementing Partner – Ministry of Environment (MoENV). The Implementing Partner was identified in the PIF and then ProDoc. The rationale was that the MoENV is responsible for reducing GHG emissions and thus is directly interested in the result of EE implementation. Nevertheless, the Ministry of Economy (Department for Energy Efficiency and Security), responsible for policies and legal framework development, or the Energy Efficiency Agency, responsible for their implementation, probably would be better candidates. Based on the analysis conducted the TE Team has got an opinion that the role of the Implementing partner was not fully understood by the ESCO Moldova Project management. Indeed, according to the Inception Report, the ESCO Moldova Project “will be

implemented in close collaboration with the Energy Efficiency Agency, Energy Efficiency Fund, Municipality of Chisinau and Ministry of Environment” (MoENV was listed among the key stakeholders but not an Implementing Partner; Inception report doesn’t refer to the Implementing Partner at all

- In November 2015 the ESCO Moldova Project developed the Financial and Procurement Micro-Assessment Report, in order to grant to Energy Efficiency Fund the role of LGF implementer (EEF -UNDP Agreement has been signed in December 2015) (i.e. the role of the Implementing Partner is given to the EEF)

It must be noted that at the LPAC meeting the Ministry of Economy expressed its readiness to chair the Board, however this proposal was not accepted. Instead it was agreed that two ministries will co-chair the Board. However, due to the insignificant collaboration between ministries, only one Board meeting was organized in 2015, immediately after the inception workshop. Under those circumstances, the project board was less responsive in overseeing the project implementation and after the negotiations the Government made a Decision (#60 as of 06.05.2016) assigned the Ministry of Economy as project board chair.

According to the MTR the MoENV was not the “natural home for governmental leadership of the project, as this ministry is involved in the impacts of CO2 emissions but not the day-to-day business of energy-saving”. It is also stated in the MTR report that this issue was resolved by moving leadership of the project to the Ministry of Economy.

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- Project Board (PB) – to monitor the ESCO Moldova Project progress, to guide its implementation and to support the project in achieving its listed outputs and outcomes. In some other similar UNDP/GEF projects the PB is a key structure for the overall management of the project by making management decisions and playing critical role in quality assurance of monitoring and evaluation. In case of ESCO Moldova Project the PB has less active role, and as a result, its contribution to the project in terms of the strategic guidance and the management advice, was limited. Four meetings of PB were organized in total. At each of PB meetings the achievements to date and future plans were discussed, assessed and agreed.
- Project Management Unit (PMU), staffed with a Project Manager (PM) and Project Assistant, and occasionally with support from an international CTA, was responsible for assistance to the MoEconomy and Ministry of Environment and other responsible institutions in the implementation of the ESCO Moldova Project. The PMU should ensure results-based project management and successful implementation, close monitoring and evaluation of project progress, transparency and efficient use of funds, quality of works. It must be noted that the lack of capacity of the PMU (Inadequate and/or non-capacitated human resources to successfully implement the project and support the mainstreaming of its results) was identified as a critical risk (Probability – 3; Impact – 5) in the ProDoc. It was also noted that the project management unit did not interact frequently with international consultant and there were consistently long delays and slow follow up time. This risk was supposed to be mitigated by the Adequate training of the key project team members through the training program, and the hands-on training provided by the international consultants. The MTR concluded that this risk was overestimated. According to the MTR report “This Project is well-managed but in hindsight this comment appears very optimistic because the Project Manager was not using at all the advice of an international CTA. Adaptive management was used

extensively and necessarily to adapt the Project for the new financing realities that followed the banking scandal of 2014". However, considering that none of the outcomes has been achieved, probably the Implementing Partner and UNDP should pay more attention to the strengthening of the PMU. The UNDP request (project manager and assistant to pass an additional management training in 2016) appeared insufficient to really improve the project management.

- Unlike similar UNDP/GEF building EE projects in CIS countries, ESCO Moldova PMU was not for the most time supported by the long-term International Chief Technical Advisor (CTA), partially due to the limited budget but mainly because the project manager had extremely high belief in his own abilities. Involvement of short-term International consultants prior to the MTR was limited (Konstantinos, Lavoie) whereas after they became more involved (Velody) but by that time it was too late
- Use of the capacity of the international company to provide training related to ESCO (Enviros) was extremely poor and in the end most of their contract was not used up, mainly due to the lack of a proactive approach by the project manager
- Based on the abovementioned, it is the TE Team's opinion that planned management arrangements were not fully adequate.

3.2 Project Implementation

As recommended by the Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects, TE findings in this chapter are based on assessment of implementation approach, whether or not: (i) The logical framework is used during implementation as a management and M&E tool; (ii) Effective partnerships arrangements are established for implementation of the project with relevant stakeholders involved; (iii) Lessons from other relevant projects are incorporated into project implementation; and (iv) Feedback from M&E activities used for adaptive management.

3.2.1 Adaptive management (changes to the project design and project outputs during implementation)

The implementation of the ESCO Moldova Project can be divided into two periods, before and after the MTR. Before the MTR (March 2017) the PMU (Project Manager) was in a position that all planned activities of ProDoc are logical and feasible; the ESCO Moldova Project is on track and there were no critical risks, which would decrease the likelihood of achievement of the planned outcomes. The reports prepared by the International Consultants (L.P.Lavoie, K.Konstantinou, T.Crawshaw) also didn't flag issues, addressing of which would require application of the adaptive management with the exception when the Consultant requested adjustments to the financial mechanism (Loan Guarantee Fund) because of not willingness of the commercial banks to provide loans (and in this case the LGF was becoming useless).

The change of the Board Chair (Ministry of Economy instead of the Ministry of Environment), initiated by the ESCO Moldova Project, can be considered as the first application of the adaptive management, which really improved effectiveness of the Board.

Under the Component 1, which was aimed at development and adoption of Green Urban Development Plan (GUDP) of Chisinau, it was initially planned, to take the existing UDP as a basis, add “green” elements and arrive at a Green UDP. Instead, the adaptive management has been applied and a report on essential elements of a Green UDP has been prepared⁷. The Project Board and Chisinau Municipality have both confirmed in writing that they are satisfied with this outcome. Nevertheless, Outcome 1 per se hasn’t been achieved and thus, it cannot be counted as a proper application of adaptive management. At the same, it must be noted that there were issues beyond the control of the ESCO Moldova project, which didn’t allow to achieve the target (for instance, the position of Chisinau municipality: to have updated UDP by integrating “green elements”, rather than developing a new GUDP).

In PIR 2016 the PM reported that LGF couldn’t been put with the local banks and thus, the decision was made (adaptive management) for its location within the Energy Efficiency Fund and make USD 900,000 available for this purpose. In fact, this appeared not a right decision because the EEF took on the triple-role of grantor, lender and guarantor to enable private sector ESCOs to invest in municipal EE projects using Energy Performance Contracts (EPC).

The Project Document does not specify whether the pilot project should be residential or public buildings (only in Appendix 3, 14 public and 6 residential buildings are mentioned), and therefore, the ESCO Moldova Project has focused only on public sector energy efficiency investments. This represents a sensible adaptive management considering the Moldovan circumstances (underheating due to the low affordability).

According to the MTR report, Project was very well-managed, has used adaptive management intelligently to overcome major hurdles and has credible proposals for recovery and therefore, Project implementation and Adaptive Management was rated as Satisfactory (S). However, given that the project fell into crisis only a few months after the MTR one can only conclude that the MTR was quite optimistic and that it took place at a time in late 2016 and early 2017 before the real problems of the project were fully known. At the same time, the MTR underlined a need of the extensive application of the adaptive management in the future.

In response to this challenge the UNDP CO has initiated the adaptive management procedure which consisted of: (i) MTR Assessment; and (ii) Revision of the ESCO Moldova Project design and strategy following the corruption scandals of April 2017. The MTR Assessment analyzed the extent to which recommendations from the MTR have been considered, and the extent to which the recommendations are still relevant in 2018. In the Revised Design and Strategy report different options for adaptive management were proposed, but none of them were selected by the UNDP Moldova CO Management due to not proven commitments (on co-financing of the pilot projects), from the project partners’ side and diverging opinion between UNDP-GEF RTA, Moldova CO and national partners. The decision was grounded also on existing country implementation context challenges, such as unstable political and financial situation, weak institutional capacities of EEF and EEA, as well as immature capital markets. Adopting a strategy option for further project implementation and extension of project by 2020 (1,5 years in addition), was considered as not opportune, given the administrative reform of energy institutions in 2018-2019 and upcoming parliamentary and City Hall elections in 2019. Bearing in mind this risks, UNDP has requested reimbursement of LGF amounts, transferred in 2015 to EEF and go ahead with project terminal evaluation, which would allow to close the project by the end of 2018. Therefore, not too much have

⁷ Chisinau General Urban Plan. A Practice Guide to Green Urban Development Planning

been achieved after the MTR and none of the adaptive management options as per the Report #2 “Revised Project Design and Strategy” was practically not applied.

3.2.2 Partnership arrangements (with relevant stakeholders involved in the country/region)

Ensuring the long term, efficient and trustful partnership with the stakeholders has a crucial importance for such a complex project as the ESCO Moldova Project is, especially if the activities are either not precisely described in the ProDoc or due to the changing environment of the project implementation, some risks are becoming critical and adaptive management is to be applied. The ESCO Moldova Project from the beginning was trying to establish effective partnership with the key stakeholders by engaging them into the PB, organizing information exchange meetings and discussions on the matters related to the project planning and implementation.

Developing the ESCO market is impossible without incentives and technical support and with ESCOs. The ESCO Moldova Project has established partnerships with the parties involved (stakeholders) and provided a number of trainings to them. The Project also initiated signing of an Partnership Agreement between the UNDP and Energy Efficiency Fund in December 2015.

Other general mean for establishment of the effective partnership was organization of study tour to Czech Republic with participation of representatives of EEF, EEA, Chisinau Municipality, ESPs – helped in establishing trust and relationships.

In addition, the project hired a Czech company, Enviros to carry out trainings in Moldova related to the ESCO business model. While this training was well received, a lot more could have been done if not the corruption scandals in 2017 in energy efficiency sector, which lead to dismissal of the deputy minister, responsible for energy sector coordination. While one month later, 19 mayors, heads of engineering and construction companies and headmasters of lyceums were detained by National Anticorruption Center officers and anticorruption prosecutors for faking public tenders and embezzlements from financings of the Energy Efficiency Funds. For a country of 3,5 M population and a small energy market, this the scandals had negatively impacted the trainees/potential ESCO firms and decreased their interest in investing in energy efficiency works, as well as those related to optimizing the consumption of energy, thermal insulation, repairs and capital constructions.

In conclusion, the training opportunities were not fully reaped, including due to lack of initiative and poor communication and convincing skills by the project manager.

3.2.3 Feedback from M&E activities used for adaptive management

In accordance with the ProDoc, the ESCO Moldova Project should regularly use feedback from M&E to appropriately and adequately address any new challenges (issues) and thereby ensure the achievement of established targets. The M&E plan includes the LogFrame, Inception Report, Mid-Term Review. Other activities under the M&E plan were: status- and progress reports, field visits, findings and recommendations of analytical/technical reports prepared by the experts and consultants.

During the first half of the project two international consultants advised the project sporadically on small contracts, Mr Louis Philippe Lavoie and Mr Konstantin Konstantinos. Neither had much impact

on the project at all and in fact the main idea of Mr Lavoie (that the loan guarantee fund be placed in a commercial bank) was replaced with the idea to put the loan guarantee fund in the energy efficiency fund, which came as a conclusion of the study aiming at identification of the most favorable conditions and potential institutions where the LGF would function. The study also outlined the most recent disturbance factor, which influenced the financial market and the repercussions on the macroeconomic situation of the country and the banking sector crisis that was triggered in December 2014 by a series of non-performing loans that have bankrupted lenders of three financial institutions. This extraordinary situation and unpredictability of further financial market evolution represents a high degree risk to the implementation of the project's activities to set up an ESCO market and stimulate commercial lending for ESCO investments. In conclusion, a high cost loan at 17-24 % bank interest becomes ultimately non-attractive for an ESCO company. It is in this context and because of extremely high bank interest rates and considering that, the LGF represents a payment security mechanism, which does not envisage direct investment financing. Its set-up arrangements and management by one of the local banks, implying commercial costs, will lead to lack of demand for ESCO/EPC dedicated commercial loans and consequently will pose high risks to the achievement of project's outcome and to justification for GEF funding. Based on the above-mentioned reasons, the study recommendation of setting up the LGF within the Energy Efficiency Fund as in one of the most viable alternative for its operationalization and successful implementation, was approved by the project Board.

Over the second half of the project following on from the MTR carried out by Mark Velody, adaptive management was carried out more vigorously as the project explored alternative options for ESCO market development once it became clear following the April 2017 corruption scandals that an ESCO business model within the Energy Efficiency Fund was never going to work.

The RTA flagged many issues based on the M & E. For instance, in PIR 2016 he stated that only one Project Board meeting was held before the first PIR; in PIR 2017 he stated that Outcome 2 and Outcome 3 are not working and require significant adaptive management. It was only after the MTR that adaptive management has been applied. Before the MTR the project manager had been stating repeatedly that it was not required.

In general, there are just few examples of the application of adaptive management prior to the mid-term review. E.g. the decision to put the loan guarantee fund in the Energy Efficiency Fund and not with a commercial bank, the draft LGF Operational Guidelines and the LGF Regulation were developed and consulted with Energy Efficiency Fund as the institution selected to manage the LGF. A Practice Guide to Green Urban Development Planning was in line with the municipality expectations, in this sense a letter confirming the satisfaction with the achieved result has been signed by the Deputy Mayor of Chisinau.

Also, during 2017 under the roof of Ministry of Economy a working group has been created to offer solutions for overcoming barriers of EPC implementation in Moldova. During the meeting, several issues regarding the fiscal and accounting of energy savings in public sector have been approached. Possible solutions were listed and were planned to be solved until the end of the year. Some solutions were identified and checked against the Czech experience, but should have been validated by the relevant authorities, such as Ministry of Finance and Public Procurement Agency. The follow up on these was difficult do to public administration reform, and consequent merging of governmental institutions and staff cut off.

After the MTR, adaptive management efforts intensified as the UNDP CO hired international consultant, Mark Velody, to work on adaptive management options for the project. Some

Recommendations of the MTR were not followed, recommendations of “Adaptive Management Review, Report #2 - Revised Project Design and Strategy”, were also not followed due to the limited time left before the ESCO Moldova end and the possible extension of the duration would not ensure the achievement of the planned outcomes. After the extensive consultations between UNDP-GEF RTA, Moldova CO and national partners, and diverging opinions, the decision was taken of not extending the project and go ahead with its terminal evaluation, which would allow to close the project by the end of 2018

1.1.1 Project Finance

For the evaluation of ESCO Moldova Project finance, the key financial aspects of the actual costs and leveraged and financing have been assessed. Differences between planned and actual expenditures also were assessed and explained:

Table 1: Planned and Actual Co-financing (in USD million)

Co-financing (type/source)	UNDP own financing		Government		Partner Agency		Total	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants	0.150	0.150			1.000	0	1.150	0.150
Loans/Concessions								
- In-kind support					0.040	0.040	0.040	0.040
- Other					6.425	0	6.425	0
Totals					7.445	0.040	7.615	0.150

Since no pilot project has been implemented, no grant was provided by the partner Agency (EEF); no and co-financing was provided by the Municipality of Chisinau.

Financial oversight of the project is provided by UNDP under the National Implementation Modality (NIM). Combined Delivery Reports (CDRs) have been prepared thoroughly, on a timely basis, and in a manner consistent with regulations on financial reporting. The annual disbursements amounted to:

- ✓ USD 53,365 in 2018
- ✓ USD 42,674 in 2017
- ✓ USD 134,693 in 2016
- ✓ USD 1,094,119⁸ in 2015
- ✓ USD 10,492 in 2014
- ✓ **Total (as of 31 July 2018): USD 435,343** (considering that USD 900,000 has been returned by the EEF)

1.1.2 Monitoring and evaluation: design at entry and implementation (*)

M&E Design at Entry

The ProDoc among other includes description of the budgeted Monitoring and Evaluation (M&E) plan with identified responsible parties for M&E activities, allocated indicative budget, and specified time

⁸ Including USD 900,000 transferred to the EEF for LGF. In 2018 these funds have been returned to the UNDP and should be returned to the GEF.

frame for each M&E activity. According to M&E plan, M&E should be conducted in accordance with established UNDP and GEF procedures. The indicative M&E budget was USD 51,400 or about 4% of the total GEF grant.

M&E activities among others include measurement of means of verification for project indicators and measurement of means of verification for project progress and performance (measured on an annual basis), etc.

Standard M&E tools include LogFrame (contains performance and impact indicators as well as means of verification), Inception Report, Mid-Term Review, Terminal Evaluation as well as standard UNDP and GEF project progress reports.

At the same time, as mentioned above in Chapter 3.1.1, the original LogFrame, at the certain level, was lacking internal logic and consistency and therefore, some indicators and targets had to be redefined to better and more specifically reflect project outputs.

Based on the above mentioned the M&E design at project start up is rated as Moderately Satisfactory (MS).

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
		✓			

Implementation of M&E

In general, the actual implementation of M&E is in compliance with the M&E plan, because:

- The ESCO Moldova Project is subject to regular review of the UNDP CO and has been supervised regularly
- Project implementation has been reviewed by the PB. AWP's have been regularly developed and submitted for approval to the PB. Four meetings of the PB were organized in total (No.1: 30.03.2015; No.2: 31.05.2016; No.3: 28.12.2016; No.4: 07.03.2017). At each PSC meeting the achievements to date were discussed, assessed and agreed. The PB should play a critical role in M&E by quality assurance of the activities and outputs; it should ensure that required resources are committed and negotiates solutions to any problems with external parties. Unfortunately, the PB was unable to provide adequate guidance to ensure the above mentioned.
- Inception Workshop was held on April 1, 2015 with participation of UNDP CO, UNDP RTA, National Implementing Partner and key stakeholders.
- The MTR mission was conducted in November 2016, MTR report delivered in March 2017.

Evaluation of the monitoring results was not always adequate. For instance:

- Overall Project Achievement and Impact was rated by the MTR as Moderately Unsatisfactory (MU). Rating for project design & strategy was Moderately Satisfactory (MS); Project Objective: Indicator 1: Satisfactory (S); Indicator 2: not rated; Indicator 3: S; Indicator 4: MS; Outcome 1: Unsatisfactory (U); Outcome 2 – S; Outcome 3 – Highly Satisfactory (HS); Outcome 4: MS; Project implementation and adaptive management – S; Sustainability – MU. These ratings seem not always logical. Indeed, if the achievement of the Objective was satisfactory and of outcomes satisfactory on average (except of Outcome 1), then it is not clear why the sustainability was rated as unsatisfactory. In addition, the above mentioned Adaptive Management Review, Report #2 - Revised Project Design and Strategy, which was produced

by the MTR reviewer just a year after the MTR, concluded: The Project today - no strategy, plenty of budget, not enough time.

- Project Manager and partially, UNDP CO were overestimating progress in achievement of development objective and implementation progress, especially before the MTR. In Table 2 ratings by the Project manager, CO and RTA are sourced from PIRs.

Table 2: Ratings for the Progress of Development Objective and Implementation

	PIR 2016		PIR 2017		PIR 2018	
	DO	IP	DO	IP	DO	IP
PM	S	S	MS		U	
CO	S	S	MS	MS	HU	U
RTA	MS	MS	MU	MU	HU	U

DO - Development Objective Progress Rating

IP - Implementation Progress Rating

As it can be seen from the table, in July 2017, the UNDP CO was still thinking that the “Project is on track to achieve its end-of-project targets by project closure with minor shortcomings only”⁹ and that “Implementation is proceeding as planned with minor deviations. Cumulative financial delivery and management of risks are mostly on track, with minor delays. The project is managed well”¹⁰. On the other hand, there was a clear indication that there are high risks that the ESCO Moldova Project cannot achieve the Overall Objective and Outcomes, especially after the April 2017 corruption scandals in the energy efficiency fund and the city of Chisinau. Indeed, if in PIR 2016 only 2 critical risks were presented (1 organizational and 1 financial), in PIR 2017 – 15 (!) out of which 6 strategic risks, 4 operational risks and 5 political risks. This means that the likelihood of the successful achievement of the expected results was sharply decreased and thus, the rating MS seems not adequate.

In contrary, the RTA flagged a number of issues and among them: (i) Tenders for the 20 EPC contracts were cancelled; (ii) EEF has lost the confidence of investors and companies following recent scandals and the fund has not disbursed any funds for EE projects over the past 2 years; (iii) Private sector investors are not comfortable in working with the City of Chisinau and ESPs still want to work as ESPs and not ESCOs; (iv) Outcome 2 and Outcome 3 are not working and require significant adaptive management. And the RTA concluded that “At the current time, evidence suggests that the project is currently not on track to prove that the concept of ESCO can work in Moldova. ... This project unfortunately faces the situation where it will be a U¹¹ rated project next year if current situation continues and cannot be turned around and improved”.

Based on the abovementioned, implementation of M&E plan, is rated as Moderately Unsatisfactory (MU).

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
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⁹ Development Objective Progress Ratings Definitions, MS - Moderately Satisfactory

¹⁰ Implementation Progress Ratings Definitions, MS - Moderately Satisfactory

¹¹ Unsatisfactory

			✓		
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Overall rating for M & E if Moderately Unsatisfactory (MU)

1.1.3 UNDP and Implementing Partner implementation / execution coordination, and operational issues (*)

UNDP (Implementing Agency) implementation

This ESCO Moldova Project was implemented under the National Implementation Modality (NIM) and thus the role of UNDP in the implementation is not as high as under the Direct Implementation Modality (DIM). Nevertheless, a number of direct responsibilities of the UNDP was described in the ProDoc and first of all, UNDP (along with RTA and PM) was responsible for Measurement of Means of Verification of project results.

The key aspects of the UNDP implementation are as follows:

- UNDP was continuously looking at whether the ESCO Moldova Project is being implemented based on the Results Based Management with focus on established targets
- UNDP CO has been conscientious since the project started on national context and the existing barriers for implementing ESCO Moldova project though EPC modality and has constantly addressed them in the risk logs, PIRs, etc. UNDP has started to address the identified and/or updated risks through multiple meetings with project stakeholders (Ministry of Finance, Ministry of Economy, EEF, etc.), building the capacities of potential ESCO companies, as well as addressing them at the PB meetings and requesting the Board the guidance and support.
- UNDP developed the Management Response to the MTR recommendations; it took practical steps to address them. When it became obvious that there is a high likelihood that the planned outcomes wouldn't be achieved (After the MTR and PIR 2017), an International Consultant on adaptive management was hired in late 2017 and worked on adjusting of the implementation strategy. Unfortunately, it was too late to change the situation (there was no evidenced indication for that), and after reviewing the proposed implementation strategy, UNDP CO correctly concluded that it would not work even in case of the no-cost extension of the ESCO Moldova Project and took the decision in early 2018 not to ask for the extension of the ESCO Moldova Project duration beyond November 2018.

UNDP CO, RTA regularly were warning project manager about the delays, worsened implementation environment and high risks. For instance, in PIR 2017 the RTA stated that “the external situation (Mayor left, problems with EEF) have unfortunately had a major impact on the implementation progress of the project. Situation is difficult due mainly to the changes that are taking place in both the EEF and City of Chisinau and a reluctance of private companies to work with them given current scandals. This requires innovative thinking and strong adaptive management”.

There were frequent changes in the UNDP CO environment team during the lifetime of the project (3 environment team leads in 4 years), which at the certain level might affect the effective monitoring and evaluation from the UNDP side

It must be noted that some critical factors conditioned the failure of the ESCO Moldova Project, were beyond the control of the UNDP and Implementing Partner (financial crisis, corruption scandal,

frequent changes of the EEF management). Nevertheless, adaptive management took time to be implemented and it was not until late in 2017, some six months after the mid-term review that the UNDP CO hired international consultant, Mark Velody, to focus on developing an adaptive management strategy for the project.

Finally, the overall performance of the project manager must be rated as poor. As stated by some interviewed stakeholders, he did not want to use international advisors for the first half of the project and was only willing to embark on real adaptive management after the MTR when even then it took him some six months to hire an international advisor. The project manager underutilized the international company for ESCO capacity building and training services. In addition, the project manager focused on always telling good news and in selling tomorrow as a result of which a lot of time passed before the UNDP CO realized that this project faced major problems.

Based on the abovementioned it can be concluded that UNDP has made many efforts to monitor and evaluate the implementation of ESCO Moldova project and then based on M&E to effectively apply adaptive management and thus, its implementation could be rated as Moderately Satisfactory (MS). The TE Team has had long discussion on this matter and concluded that despite the abovementioned evidenced efforts, the failure of the project in achieving the Objective and Outcomes indicates that made attempts were done late, mostly after the MTR. Therefore, the UNDP implementation is rated as Moderately Unsatisfactory (MU)

Rating for UNDP implementation:

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
			✓		

Executing Agency implementation

As mentioned above, Executive Agency was not changed officially. Only Project the Board’s leadership was changed from the MoENV to MoE. The MoENV practically didn’t play any role in the implementation of the ESCO Moldova Project except attending the Board meetings. Ministry of Economy also could contribute more. It only became active when the UNDP CO made a decision not to extend the project. The Ministry of Economy has provided a letter committing USD 2 million for the co-financing (for pilot projects). However, taking into accounts its ownership towards the ESCO Moldova Project in the past, as well as negative position of the EEF regarding the financing of the selected pilot projects, the UNDP hasn’t agreed on the project extension.

Based on the abovementioned the Implementing Partner’s execution is rated as Moderately Unsatisfactory (MU)

Rating for Executive Agency execution:

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
			✓		

Thus, Rating for IA/EA Implementation/Execution is rated as Moderately Unsatisfactory (MU).

1.2 Project Results

In this chapter ESCO Moldova Project results including direct project outputs, short- to medium-term outcomes, and longer-term impact including global environmental benefits, replication effects and other local effects are evaluated. The detailed milestones of the ESCO Moldova Project, are as follows:

- 14.03.2013 - ESCO Moldova preparation grant and concept note approved by GEF
 - 15.08.2014 - ESCO Moldova project approved for implementation by GEF
 - 21.08.2014 - UNDP-GEF ESCO Moldova Local Project Appraisal Committee (LPAC).
 - 22.09.2014 - UNDP started recruitment processes to staff the Project
 - 28.11.2014 - UNDP-GEF ESCO Moldova Project start date (duration 4 years)
 - December 2014 - Moldovan banking fraud crisis - three banks lost 1 billion USD.
 - 13.03.2015 - UNDP-GEF ESCO Moldova call for a International Green Urban Development Consultant
 - 29.03.2015 - 1st mission of STE Konstantinos KONSTANTINOU for stakeholder training
 - 29.03.2015 - 1st mission of STE Louis-Philippe LAVOIE, Outcome 2 and stakeholder training
 - 01.04.2015 - Official launch of UNDP-GEF ESCO Moldova (Inception workshop)
 - 09.04.2015 - LGF Operational Guidelines issued (by L-P.Lavoie)
 - 30.03.2015 - First Project Board Meeting
 - 23.06.2015 - STE Louis-Philippe LAVOIE - ESCO training for candidate ESCO, AEE and FEE.
 - 27.07.2015 - STE Konstantinos KONSTANTINOU - two days ESCO training for stakeholders
 - 08.11.2015 - STE company ENVIROS conducted two days of ESCO training for stakeholders
 - 26.11.2015 - EEF issues a technical proposal to UNDP to manage the \$900,000 GEF Loan Guarantee Fund and to finance selected EE projects in Chisinau.
 - 17.12.2015 - ESCO-FEE LGF agreement signed, contract value 900,000 USD, guarantees for 20 projects, due date 31.12.2018.
 - 18.12.2015 - (or shortly thereafter) 900,000 USD transferred to EEF.
 - 31.05.2016 - Second Project Board Meeting (8 Board members + Project team and others)
 - 01.08.2016 - UNDP GEF ESCO Moldova contracts ENVIROS as consultant facilitator for 20 EPC contracts for 440 days to November 2017 (3x international and 3x local experts). Hence there were two ENVIROS contracts - the first as trainers, the second as facilitators.
 - 28.11.2016 - ENVIROS international event for ESCOs (within a wider energy event)
 - 07.03.2017 - MTR issued
 - 26.02.2018 - Adaptive Management Review (AMR), Report #1 - Assessment of the Mid-Term Review, issued
 - March 2018 - Adaptive Management Review (AMR), Report #2 – revised Project Strategy, issued
- The following publications have been prepared by the ESCO Moldova Project:

- Review of all national and municipal energy efficiency programs and action plans, ongoing programs, green development trends and key barriers to green growth economic instruments implementation
- Gap Analysis Report - The Status of the Current Urban Development Plan for the City of Chisinau in Relation to Green Urban Development
- Chisinau General Urban Plan. A Practice Guide to Green Urban Development Planning
- Sustainable Energy Action Plan. Municipality of Chisinau
- Support the ESCO Market Development in Moldova. Methodology Outline
- Support the ESCO Market Development in Moldova. Institutional Recommendations towards WSCO Development
- Support the ESCO Market Development in Moldova. Methodology Outline on training needs assessment for the project target groups
- Capacity Building and Training for Developing of ESCO Market in Moldova. Final Report by ENVIROS

1.2.1 Overall results (attainment of objectives) (*)

In this Chapter, the achievements of expected results are evaluated in terms of attainment of overall objective as well as identified outcomes and outputs. For this the performance by components is analyzed by looking at: (i) general progress towards the established baseline level of the indicators; (ii) actual values of indicators by the end of the ESCO Moldova Project vs. designed ones; (iii) evidences of relevance, effectiveness and efficiency of the results as well as how these evidences were documented.

Overall results of the ESCO Moldova Project are rated as Unsatisfactory (U)

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
				✓	

The summary of evaluation of attainment of Objective and Outcomes of the ESCO Moldova Project are presented in Table 3.

Table 3: Matrix for Rating the Achievement of Outcomes

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
Project Objective - to create a functioning, sustainable and effective ESCO market in Moldova, as the basis for scaling up mitigation	Number of EE projects implemented under the EPC modality and loan guarantee to ESCOs	0	20 buildings financed using EPC modality	The Project has undertaken some steps in implementation of the pilots (energy audits conducted, tender documents for EPC contracts prepared), but none of selected projects (EE retrofit of 15 public buildings),	Even though there were objective reasons (continuous structural changes in partner organizations, including the EEF), not all the possibilities were used (lack of adaptive management in the pre-MTR period of	HU

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
efforts in the whole municipal building sector in Chisinau and Moldova in line with the Green Urban Development Plan				have been actually implemented. Moreover, the activities in this direction, have been cancelled. Target has not been achieved	the implementation; project was for the most part of implementation not using international advisors properly). As a result, the EEF refused to finance EPCs because of (i) technically complex solutions proposed for the pilot projects (opinion of EEF); and (ii) lack of experience in on-lending for such projects. The Project tried (via engagement of the International Consultant) to revise the implementation strategy and offer alternative financial mechanism but the proposed solution was found by the CO not convincing enough, and thus the extension of the implementation duration was not requested.	
	Loan Guarantee Fund		Loan guarantees of at least 2.7 million USD have been signed with the Financial institution managing the Loan Guarantee Fund	No Loan Guarantee has been signed. Target has not been achieved	The April 2017 corruption scandals and continuous structural changes in the partner organizations, have had a negative impact on the achievement of this target. Though some ESP companies were interested in ESCO model, still their preference was not implementation of EE renovations under the EPC but a "traditional contracts even if the LGF is established.	HU
	Energy Service Providers (ESPs) operating as ESCOs	0	At least 5 companies in Moldova which previously worked as ESPs	No former Energy Service Providing company is operates as ESCO due to the	Same as above. In addition, the TE Team through the interviews has got an opinion that	U

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
			now operate as ESCOs (it could also be new companies)	ESCO Moldova Project ¹² . Target has not been achieved	under the current market conditions, ESP companies feel comfortable working under the BAU (i.e. traditional way of contracting) modality. At the same time, the EPC scheme was welcome by the private companies interviewed during the TE mission in other sectors, and first of all, in EE street lighting. Therefore, achievement of this target is rated as U but not HU	
	Energy savings and cumulative direct, post project and indirect CO2 emissions reduction from the building sector	0	Cumulative (20 year) energy saving of 295 GWh as a result of 20 demo projects Cumulative (2014-2038) Direct: 68 ktons CO2 Post-project (2024-2038): 40 ktons CO2 Indirect (2018-2038): 240 Ktons CO2 Total: 381 ktons CO2	No pilot project has been implemented and thus no direct emission reduction has been achieved. Target has not been achieved	The ESCO Moldova Project has implemented capacity building activities (conducted trainings, prepared awareness raising materials, developed a Practice Guide to GUDP); it prepared 15 energy audits and prepared 10 pilot projects. At present, it is difficult to judge whether these activities may lead to the practical implementations after the ESCO Moldova Project closure and thereby consequential (indirect) emission reductions. Therefore, the achievement of this target is rated as HU	HU
Overall rating for the Objective: Highly Unsatisfactory (HU)						
Outcome 1: Green Urban Development Plan adopted by City of Chisinau	Green Urban Development Plan (GUDP)	There is no green urban development plan but Chisinau already approved the Urban	Chisinau Green Urban Development Plan approved and the Resource	GUDP was developed neither for Chisinau (identified in ProDoc) nor other city	Due to political instability and scandals it was impossible to insert GUDP into the agenda of Chisinau.	HU

¹² It is not known for the TE Team whether any ESP company is working as ESCO in other sectors (e.g. street lighting)

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
and additional emission reduction projects are financed and implemented in Chisinau. In addition, Green Urban Procurement Guide is being utilized by City of Chisinau		Development Plan	Mobilization Plan is implemented	(recommended by the MTR)	Therefore, in line with the MTR recommendation the Project was trying to develop GUDP for Balti, because it had UDP, which, in principle, could be transformed to a GUDP with the assistance of the Project. However, this attempt also was unsuccessful. The Board at its 4 th meeting approved the elaboration of GUDP for a municipality willing to produce, approve and apply such a plan. However, this decision hasn't been followed.	
	The municipal Green Procurement Plan	There is no Green Public Procurement guidelines enforced in Chisinau	Public Green Procurement Plan applied by Chisinau	Public Green Procurement Guideline was developed, approved by the PB and handed over to the Municipality of Chisinau. A set of standard public procurement documents for the acquisition of energy services were also developed, endorsed by Public Procurement Agency and delivered to Municipality of Chisinau. But the PGPG wasn't approved by Chisinau	Formally, the achievement of this target should be rated as U because the Plan was actually applied neither by Chisinau nor other city. However, the Project has prepared necessary materials, which were approved by the Board. Therefore, this target is rated as MU (MS in MTR)	MU
	Awareness raising and replication mechanism	No information available	Information related to GUDP is available to all other municipalities through documents and workshops	GPPG, other relevant materials, were developed, approved by the project board and handed over to the Municipality of Chisinau. The information is available for other cities as well. No evidence on existence of the replication mechanism Target has been partially achieved	This is one of the few targets, that were achieved, even though partially. According to ProDoc the Project should develop GUDP for Chisinau and also make possible its replication. Actually, the Project developed not GUDP but the Guideline and thereby achieved not that particular target	MS

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
					(GUDP developed) but prepared a basis for GUDP development	
Overall rating for Outcome 1: Moderately Unsatisfactory (MU)						
Outcome 2: ESCOs are successfully investing in energy savings green urban development projects in the building sector using Energy Performance Contracting modality (EPC)	- Number of municipal staff members capable of implementing EPC projects and evaluating results - Number of building managers trained in ESCO business model - Staff from financial institutions in a position to evaluate EPC projects and ESCO proposals	ESCO business model does not exist in Moldova and there are no dedicated trainings in the area for the relevant stakeholders	3 target beneficiaries groups and 3 training sessions: - At least 20 ESPs are trained on the ESCO business model - Public Building managers and Maintenance Managers, at least 20 staffs, are trained on ESCO business model - Financial Institutions (5), including the EEF are trained on the ESCO business model	A training program developed and delivered. 12 trainings organized for 17 ESPs, 5 local banks, local public administration, etc. In total, around 150 participants representing 3 target groups. Though the project did not organize formal dedicated training events for EEF, the details of EPC, Financial Mechanism, ESCO business model, were explained to EEF staff (through working sessions, continuous dialog). Target has been partially achieved	Training materials were professionally prepared; the evaluation by the participants were high. Thus, through the trainings awareness on EPC has been raised. Nevertheless, none of the target group used the acquired knowledge further (meaning that no pilot project has been implemented). Therefore, the achievement of this target is rated as MS but not S	MS
	Long-term agreement between the EEA, Chisinau and PMU	Although the EEA is active in the building sector, the EEA did not develop any special acquaintance with the municipal sector to advance EE in the public and residential building sector owned and operated by the municipality	Framework Agreement jointly signed by 3 parties	Long-term agreement between the EEA, Chisinau and PMU hasn't been signed and thus, the target is not achieved	It must be noted that drafts of agreements were developed but since there was no progress in financing the EPCs and thus, there was no need in signing of the agreements.	U
	Documented long-list of EE projects	9 EA were already carried out by Chisinau	30 to 40 Energy Audits carried out in buildings owned and operated by the municipality	Energy audits were conducted for 15 public buildings Target has been partially achieved	During the TE mission the PMU and stakeholders confirmed that the energy audits among others consider recommendations for EE measures to be implemented and also cost-	MS

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
					benefit analysis of such measures. However, energy audit reports, presented to the TE Team, don't provide any evidence on that. They are very short (up to 6 pages, out of which 50% - photos) and not much informative. No list of proposed measures are presented in the reports and no calculations as well (probably they are presented in annexes). These documents do not correspond to the requirements of GD Nr. 884 from 27.11.2012 http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=345666	
	Short-list of 20 EE projects selected for investment using EPC contracting modality	No EE projects are identified yet	20 EE projects selected and documented	It is stated in the PIR 2018 that the list of 20 EE projects, to be implemented under the EPCs, was developed. This is doubtful because the energy audits were conducted for 15 buildings only. 10 projects were approved by the Project Board for pilot implementation The target is partially achieved	Formally, this target should be rated as MS. However, considering that EEF didn't approve loans to the selected projects (due to the high technical risks), it can be concluded that the selected EE projects were not fully appropriate. Therefore, this target was evaluated at the lower rate	MU
	Steady stream of payments by Chisinau in line with the EPC modality	There are no EE projects using EPC modality currently under implementation in Moldova	20 EE projects using EPC modality are under implementation using EPC modality	No EE project is under implementation Target has not been achieved	The Project couldn't manage to finance any project under any circumstances (e.g. by offering extended TA, performance-based grant, etc.)	HU
	Data available in regard to actual ESCO Moldova	UNDP BAU M&E guidelines	M&E plan drafted and implemented within 3	No M&E plan drafted and implemented	No project has been approved and thus, actually started.	HU

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
	progress		months after the project start-up	Target has not been achieved	Therefore, there was no need in development of M&E plan	
Overall rating for Outcome 2: Unsatisfactory (U)						
Outcome 3: Financial Mechanism is set up and functional, providing financing to ESCOs	Loan Guarantee Fund (LGF) Regulation and Operational Guidelines	EE project loan guarantee scheme is already available in its draft version	LGF Regulation Document negotiated and duly signed by all parties: Chisinau, PMU, UNDP and the financial partner (bank) to be selected through a Reque- st for Proposal Procedure by the PMU and UNDP	The draft LGF Opera- tional Guidelines and the LGF Regulation were developed and consulted with EEF as the institution selec- ted to manage the LGF. Corresponding Agreement between the UNDP and EEF was signed in Decem- ber 2015 and USD 900,000 transferred to the EEF. However, the main role the EEF played, was a role of the financial partner and under that it had a negative opinion on financing of the selec- ted EE project. There- fore, just before the TE mission, EEF retur- ned to UN those funds for LGF The target hasn't been achieved	Formally, if consider only the final result, this target should be rated as U or even HU. However, consi- dering that LGF was established (but not operationalized), this target was evaluated at the higher rate	MU
	Financial Frame- work Agreement between the Pro- ject (PMU), the municipality, and the Energy Effici- ency Fund (EEF): Number of pro- jects approved by the EEF - Total project- based co-finan- cing (EEF's grant)	The EEF agreed on the princi- ples of the Fina- ncial Frame- work Agree- ment, but this is not finalized yet	Financial Framework Agreement duly signed	No such agreement has been signed The target hasn't been achieved	Signing the financial framework agree- ment was supposed to come as a logical continuation of all loan provision procedures alignment, which was refused by EEF	HU
	LGF Performance indicators: - Number of projects appro- ved by the FI; - Total amount of loans (\$)		- 20 Loan Guar- antee approvals: (i) 5 in year 1; (ii) 10 in year 2, and (iii) 5 in year 3	No loan guarantee was approved	Same as above	HU

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
	<ul style="list-style-type: none"> - Total amount of loan guarantees (commitment) - Default of payment: total amount and % - Number of requests rejected by the FI - Duration of the decision-making procedure from the LGF request and the final approval 		<ul style="list-style-type: none"> - At least \$2.7 million approved (LGF and loans) - There is no target in regard to default of payment. A default of payment means the project investment is not fully repaid - If the training program has the expected impact in term of EE projects design and financial analysis, the rate of reject should be very low. No special target. - LGF approval delay should be 1 month if the request does not need improvements 			
Overall rating for Outcome 3: Highly Unsatisfactory (HU)						
Outcome 4: ESCO(s) are designing, financing and successfully implementing energy efficiency projects using EPC modality in at least one (1) other city in Moldova outside of Chisinau	EPC projects	<p>EPC projects were not implemented in Moldova: no case studies or lessons learnt reports were drafted.</p> <p>EPC and ESCO concept (model) start from scratch</p>	<p>10 EPC Case Studies identified and made available</p> <p>EPC replicated in another town/city</p> <p>One short project video is made available on the EPC projects carried out by the project</p> <p>At least 3 EPC projects are implemented at least in one other city</p> <p>GUDP lessons learnt reports made widely available</p>	<p>Activities aimed at achievement of this outcome even haven't been started</p> <p>The target has not been achieved</p>	No EPC has been implemented so far	HU

Objective/ Outcome	Performance Indicator	Baseline	End of ESCO Moldova Project Target	End of ESCO Moldova Project Status	TE Comments	Rating
			At least another town will have developed or started to develop a Green Urban Development Plan			

Color coding:

Green: completed, indicator shows successful achievement

Yellow: indicator shows expected completion by the end of the project

Red: indicator shows poor achievement – unlikely to be completed by project closure

As it is clear from the Table, the ESCO Moldova Project has not achieved most of the targets. There were some critical factors for that. Among them:

- Low interest of ESP companies in ESCO business modality under the EPC. Despite the organized trainings, study tour and other capacity development and awareness raising activities, the interest of energy service providing companies in working under the Energy Performance Contract modality has not reached the critical value and none of them plans to really become an ESCO. There are two main reasons for that:
 - o Long payback period of EE projects (less energy savings; low energy tariffs)
 - o Mistrust to the long-term contract in general (political risks, not reliable client)

The above-mentioned concerns/risks/barriers could be only mitigated through the successful implementation of the pilot projects, in the process of which acceptable, for each party, rules could be worked out and agreed.

- Triple role of EEF. Initial setting (in ProDoc) considered “de-bundled” financing scheme: different parties should be responsible for loan financing, grants and managing LGF. In reality EEF took responsibility of all three roles. As a result, initial risk sharing scheme became not valid, EEF should deal with all the risks. In addition, there was no use of LFG for EEF as an on-lender. Indeed, if the ESCO wouldn’t be able to pay principal and/or interest to the bank (EEF in this case), LGF (again EEF) should provide (temporary, until the ESCO would pay debt) necessary funds for that. In practice it would mean, that the EEF should transfer its own funds from one account (LGF) to another and after ESCO would pay it, to transfer the same amount back (to the LGF account). And the EEF should administer all the above on the expense of ESCO (by charging for this services).
- Low or no financial feasibility of the EE projects. In the project document (Appendix 3) payback for EE in public buildings (with average investment costs of USD 59,588 loan and USD 50,000 grant) was estimated as 4 years and for residential buildings (average investment costs USD 233,220 loan; USD 50,000 grant) as 6 years. Under the current Moldovan reality, the payback might be longer (higher interest rates, higher transaction costs). As mentioned above, energy audits should provide exact financial indicators but the TE Team couldn’t check them and thus, it is unclear on calculated payback periods for selected 10 projects. Another issue is that EEF

might have its own criteria for approval of grant amounts, which in turn might be not fully consistent with the ProDoc.

- It must be noted that ESCO Moldova project failure is very much attributable to external factors and also lack of commitments from national partners. But the most negative external factor was unfavorable financial environment, in which the project was being implemented. Despite all the preparatory work that the project has done, and continuous lobbying and advocacy by UNDP CO during the implementation, most of the planned activities were either not effectively started (e.g. related to the financing of pilot projects) or there was a general lack of commitment from the partners.

There are two critical factors affecting the financial feasibility of the EE projects to be implemented under the ESCO Moldova Project:

- o Low energy savings due to the low energy consumption in the baseline scenario. As mentioned above, the buildings in Moldova, due to the low affordability of residents of insufficient budgetary funds for public buildings, are consuming less heat (for heating, hot water) and electric (for air conditioning, ventilation, lighting) energies compared with those ones, necessary to meet the established standards. Moreover, parts of facilities (e.g. basements, garages, etc.; some rooms might be emptied) are not heated/lighted at all. Therefore, after the EE retrofit the saved funds (from energy savings) would be not released for other than energy purposes but most likely would be used for meeting the heating/lighting standards, i.e. more space heated. In this case the net energy savings would equal to energy savings due to the EE measures less increased energy consumption due to the increased comfort level. The ESCO Moldova Project has identified this problem but addressed it inadequately. It was looking for the buildings with high energy consumption, e.g. sport schools with swimming pools. Therefore, 6 out of 10 EE projects approved by the Board for the implementation, were EE retrofits of sport schools. However, such buildings should have not only high energy consumption patterns, but also higher investment costs and might require more grant financing (than USD 50,000 identified in the ProDoc). The Project also was trying to lobby the idea, to estimate baseline energy consumption based on the assumption that the sanitary norms and standards are met (i.e. all the building is heated and lighted as required by the standards/norms) but unsuccessfully.

The ESCO Moldova Project could try the following:

- ✓ To design dynamic baseline vs. static baseline. The energy consumption in this case would be gradually increased in line with the planned/anticipated economic growth.
- ✓ To allocate some funds from the LGF for compensation of the difference between the costs of monitored and estimated energy savings. Monitored energy savings would reflect the situation when the additional energy is consumed (to ensure the necessary comfort level) due to the saved funds (higher EE). The estimated energy savings could be based on the above-mentioned assumption, that the standard comfort level is ensured in the baseline. Of course, this scheme should be agreed with the UNDP and the Implementing Partner and approved by the Board; it might require

substantive revision of the Project. But by doing so, the ESCO Moldova project could develop technically not very complex EE projects with modest investment costs, which is one of the crucial success factor for the projects with innovative business model. However, if doing so the GHG targets wouldn't been achieved (modest investments, naturally, would lead to the modest energy savings)

- ✓ More attention could be paid to the residential buildings. It has to be noted that the project team, RTA and UNDP CO have had many discussions about how to approach the residential buildings; number of meetings with the ministry of development have been conducted and it was understood that for the ESCO modality in residential buildings extensive work with the home owners associations would be needed, which have proved to be very difficult and thus, the UNDP CO has drafted other project proposals and sought funding from donors and bilateral development partners for specific work with the home owners associations aimed at engagement of ESCOs in the residential sector. Another barrier was the Condominium Law, which has not been approved during ESCO Moldova project implementation. Due to these factors the decision has been made to focus on public sector at least for the first 20 EPCs
- ✓ The experience of MoREFF, which stimulated the implementation of EE projects (including by offering a grant component funded by the EU and the Swedish International Development Cooperation Agency - up to 35% of the loan amount), showed that EE windows were the most demanded measures for investments (total value of over EUR 3.5 million); Loans for hot water gas boilers amounted to EUR 1.4 million; more than EUR 1 million was allocated for wall, floor and roof insulation, as well as solar water heating systems, biomass boilers and other EE heating systems. This shows that there is a certain demand on the EE measures in the residential buildings, where the ESCO model would potentially work.
- ✓ Lack of really detailed engagement with ESPs – No evidence has been shown to the terminal evaluators that the project really worked in a thorough way with ESPs, and managed to convince them that the ESCO business model has low risks and high reward and that they should change their business model from being service providers into ESCOs.

1.2.2 Relevance (*)

Relevance of the problem addressed by the ESCO Moldova Project is already demonstrated above in introduction to Chapter 2 and Chapter 3.1. During the TE mission the TE Team obtained evidence on that. After the TE mission the TE Team has spent significant time (including on additional interviews of the International Consultants involved) to understand whether or not the project strategy was relevant and provided the most effective route towards expected/intended results.

Interviewed stakeholders underlined that the ESCO Moldova Project was highly relevant to the country. In fact, one of the changes attributed to the ESCO Moldova Project was the treatment of

energy efficiency more broadly as a “hot topic” at the highest levels of government. Unfortunately, the ESCO Moldova Project couldn’t manage to achieve planned results. There were subjective reasons for that (inadequate managerial capacity, in some cases not fully cooperative partners) but there were also circumstances that prevented the achievement of the Overall Objective and Outcomes. Among them premature market conditions for the ESCO development needs to be mentioned. The situation in Moldova is that ESP companies are implementing building renovations under the “traditional” contracts but not EPC and they are not interested in getting paid from the energy savings unless there are many such companies at the market and due to the client prefers EPC option. Another issue is the low consumption in the baseline (at least, low pre-implementation consumption). Adequate addressing of these issues was a big challenge and required very strong results-based management in place with permanent application of the adaptive management due to the permanently changing implementation environment. Unfortunately, the ESCO Moldova Project couldn’t manage to offer acceptable solution to potential ESCOs and neither the Implementing Partner nor International Consultants involved could really assist in this.

Based on the abovementioned the Relevance is rated as Relevant (R).

Relevant (R)	Not Relevant (NR)
✓	

1.2.3 Effectiveness & Efficiency (*)

Effectiveness

The ESCO Moldova Project didn’t succeed to reach its overall Objective - to create a functioning, sustainable and effective ESCO market. The goal was ambitious and necessitated a strong partners commitment to be successful. Nevertheless it has greatly contributed to the awareness of ESCO model and launch the creation of ESCO market, be developing local capacity with a series of trainings and conducting energy audits. Due to UNDP testing of ESCO model were identified major barriers for ESCO market development in Moldova, and brought to MEI and MF attention, which in its turn have facilitated adoption of pending legal and regulatory frameworks for energy market (EE Law and Condominium Laws adopted in November 2018) . Even though the impact of ESCO project is very limited from the project objectives point of view, (implementation of EE projects in buildings), the efforts invested by UNDP project team have been catalytical for national market. A series of assessments, analysis, stakeholder consultations, collaboration mechanisms, as well as trainings and study tours helped understand the barriers and raise knowledge of relevant stakeholders As result of ESCO project the country now is better prepared for the 2nd try to establish an ESCO market. None of the ESCO Moldova Project’s Outcome has been fully achieved during project implementation timeline, nevertheless the prospects for ESCO are rather positive, if considering the preparatory work done and legal framework approved in 2018 .

Based on the above mentioned the Effectiveness is rated as Unsatisfactory (U).

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
				✓	

Efficiency

The ESCO Moldova Project couldn’t leverage necessary co-financing and support from ESCO Moldova because the pilot projects were planned but never implemented. Project Partners for implementation

of planned activities did not commit their co-financing At the same time, it must be noted that it would be very difficult to achieve the planned results within the existing budget (USD 550,000 for all activities except the LGF). It must be also noted that USD 900,000 supposed for LFG, has been transferred back to UNDP and will be transferred then to the GEF. Issuing from the limited budget allocated according to inadequate project design, UNDP has invested more resources of its own for project implementation and coordination, dedicated more time for ESCO market awareness and established partnership related problems, facilitated promotion of ESCO inducive legal framework and maintained the balance of the market after corruption scandals, that have undermined the companies interest in the project.

Based on the above mentioned the Efficiency is rated as Moderately Unsatisfactory (MU).

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
			✓		

1.2.4 Country ownership

Despite continuous UNDP CO advocacy of introducing innovative ESCO business model and support offered by PMU, country Ownership was modest during the whole implementation period of the ESCO Moldova Project. Energy Efficiency Fund didn't approve any loan and grant to the selected pilot projects; Municipality of Chisinau didn't show an interest in GUDP; Ministry of Economy (informal Implementing Partner) didn't provide continuous guidance and support in resolving the problems.

1.2.5 Mainstreaming

The ESCO Moldova Project couldn't ensure mainstreaming other UNDP priorities. In particular:

- The ESCO Moldova's contribution to the job creation is very modest (energy efficiency specialists – energy audits, technical designs of buildings)
- ESCO Moldova Project raised capacity of practicing professionals, as well as decision makers, with regard to EE improvement in the building sector but this capacity hasn't been further used

1.2.6 Sustainability (*)

The ESCO Moldova Project has been designed to deliver sustainable impact in Moldova. As stated in the UNDP-GEF guideline for TE, sustainability is generally considered to be the likelihood of continued benefits after the project ends. Consequently, the assessment of sustainability considers the risks that are likely to affect the continuation of project outcomes.

Financial risks

Question¹³: What is the likelihood of financial and economic resources not being available once GEF grant assistance ends? (This might include funding through government - in the form of direct subsidies, or tax incentives, it may involve support from other donors, and also the private sector. The analysis could also point to macroeconomic factors.)?

Answer: None of the planned outcomes has been achieved and thus the risk remains high and ESCOs still are not operating in the energy efficiency market in Moldova. At the same time, it must be noted that the LGF was supposed to be operational based on a guide/manual which would have included a strong M&E and sustainability plan; given that manual was not applied and LGF did not become operational it is very difficult to assess this risk

Therefore, the sustainability is rated as Unlikely (U)

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MU)	Unlikely (U)
			✓

Socio-economic risks

Question: Are there social or political risks that may threaten the sustainability of project outcomes? What is the risk for instance that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained?

Answer: None of the planned outcomes has been achieved and thus the risk remains high

Question: Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?

Answer: Most of the stakeholders understand the importance of improvement of EE in buildings. Key stakeholders have got very negative result and likely, will act differently in the future.

Based on the above-mentioned the Socio-economic Risks are not high and the sustainability is rated as Moderately Unlikely (MU)

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MU)	Unlikely (U)
		✓	

Institutional framework and governance risks

Question: Do the legal frameworks, policies and governance structures and processes, within which the project operates, pose risks that may jeopardize sustenance of project benefits?

Answer: It is difficult to judge when no tangible result was achieved. Nevertheless, this risk seems to be low.

Question: Are requisite systems for accountability and transparency, and required technical knowhow, in place?

¹³ Questions are taken from the ToR and Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects

Answer: Same as above

Based on the above-mentioned the Institutional framework and governance risks are low and the sustainability is rated as Moderately Likely (ML)

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MU)	Unlikely (U)
	✓		

Environmental risks to sustainability

Question: Are there ongoing activities that may pose an environmental threat to the sustainability of project outcomes? For example, biodiversity-related gains or water quality-related gains at risk due to frequent severe storms?

Answer: No, there might be no such activities (in case of implementation of the pilot projects).

Based on the above-mentioned the Environmental risks are negligible and the sustainability is rated as Likely (L)

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MU)	Unlikely (U)
✓			

Overall rating for Sustainability is Moderately Unlikely (MU)

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MU)	Unlikely (U)
		✓	

1.2.7 Impact

Unfortunately, the ESCO Moldova project has not made tangible advances in promoting EE in the building sector of Moldova. Therefore, the impact is very modest.

2. Conclusions, Recommendations & Lessons

Conclusions

Overall, this ESCO Moldova Project has had very ambitious goals for improvement of energy efficiency in public and residential buildings sector in the Republic of Moldova. For this purpose, an innovative business model, ESCO model was proposed to operate under the Energy Performance Contracting. The additional (to regular EPC) financial incentives also were proposed (grant, LGF) to ensure the success of EE projects. However, it appeared that the proposed model for too innovative to the country. UNDP CO team, with the support of all stakeholders has made considerable efforts to achieve the project objectives, including to make the LGF operational. Given some external factors, such as the low interest of the market in the ESCO model, uncertainties around the reform of the institutions dealing with energy efficiency which have weakened institutional capacities of partner institutions, lack of knowledge on EPC, limited financial and technical capacities of the ESPs and the instability of the financial markets in the country, the project has registered a slow implementation pace and made impossible to achieve the identified targets within the project timeframe. Nevertheless, the project had a catalytic role and accelerated adoption of necessary EE legal framework, contributed to building foundations of ESCO market through a series of assessments, analysis, stakeholder consultations, collaboration mechanisms, as well as trainings and study tours. It has helped to understand the barriers and raise knowledge of relevant stakeholder. As result of ESCO project the country now is better prepared for the 2nd attempt to establish an ESCO market.

The ESCO Moldova Project team has demonstrated adaptive management in a very complex implementation environment, which was characterized by the financial scandals, frequent changes in the managements of the partners, but unfortunately it was not applied in a timely manner and was not sufficiently insistent to be able to get back on track. Frequent changes of UNDP and national partner institutions management, have weakened institutional memory and making the project vulnerable in reaching the objective of the project.

After the MTR and followed Adaptive Management Review it was understood that the outcomes wouldn't be delivered even in case of the extension of duration. Therefore, the Project has "slowed-down" its activities and ended within the timelines planned by the ProDoc.

In conclusion, this ESCO Moldova Project, which was rated as MU or moderately unsatisfactory at the time of mid-term review in March 2017, when it was still thought that the pilot projects might be able to be implemented by the end of the ESCO Moldova project, got worse and the rating has dropped to U or Unsatisfactory by the end of the project.

Lessons learnt

- **The project was highly relevant, responded to country needs and priorities, however the national political and financial context have undermined its success**
- **There was a need for a stronger will of project partners and beneficiaries to achieve the specific objectives of this project and establish a long term, trustful, financially viable solution for energy efficiency investments.**
- **Chisinau municipality as the main beneficiary of the project was too vulnerable and could not put the necessary stake into achieving the initially set objectives.**

- It is clear that NIM has not worked and it was necessary to shift to DIM, as part of adaptive management
- Selection of financing beneficiaries should be done all the time based on open competition, otherwise there is a perpetual issue of beneficiary ownership.
- Immature capital markets did not allow to fully reap the benefits of the opportunities envisaged by the ESCO model and triggered delays in project implementation.
- The benefits of collaborating with the public sector are outweighed by the lack of capacity, flexibility and ownership comparing to the similar private one.
- Lack of knowledge about ESCO model. Some constant drivers of pro-active information dissemination and stronger emphasis on the benefits of ESCO model should have been considered. The project team of 2 persons was not sufficient to play the role of “ESCO driver”

The overall rating of the project is Unsatisfactory.

2.1 Corrective actions for the design, implementation, monitoring and evaluation of the project

Design

No Corrective Action Request (CAR) has been raised

Monitoring and Evaluation

No CAR has been raised

2.2 Actions to follow up or reinforce initial benefits from the project

No CAR has been raised

2.3 Proposals for future directions underlining main objectives

No CAR has been raised

2.4 Best and worst practices in addressing issues relating to relevance, performance and success

- Best practices:
 - o Equipping partner institutions with relevant information on ESCO by conducting a series of assessments, analysis, stakeholder consultations
 - o Equipping key stakeholders with better skills and knowledge on EPC and ESCO by preparation of training materials and organization of study tour

- Setting up of collaboration mechanisms (working group, committees, etc.) to facilitate ESCO model penetration on energy market
- ,
- Worst practices:
 - Lack of in involving commercial banks for managing LGF
 - Project didn't envisaged work on supporting the Government policies to support ESCO activities, including regulations, economic incentives, information policies, etc. If would, project results were much more positive.
 - Inefficient cooperation with the EEF. During 2016 and 2017 there where corruption scandals with EEF involvement that paralyzed the activity of the fund.
 - Weak project management: Lack of initiative and lack of a willingness to listen to advice from the long-term International Consultant(s) was a big problem for the project throughout the project lifetime
 - Not changing the Project Manager at an earlier stage in the project to give it a chance of success
 - Continuing with NIM modality under the circumstances of extremely low ownership of project by partner institutions

3. Annexes

Annex 1: ToR

Terms of Reference

Terminal Evaluation of the UNDP GEF project

ESCO Moldova-Transforming the market for urban energy efficiency in Moldova by introducing Energy Service Companies

Job title:	International Consultant on Energy Efficiency for Terminal Evaluation
Type of Contract:	Individual Contract (IC)
Assignment type:	International Consultant
Section/Unit:	Environment and Energy Cluster
Duty Station:	Home based with one mission of 5 working days to Moldova (not including travel days)
Languages required:	English
Starting Date:	18 June 2018
Duration of Assignment:	24 working days (17 home based, 2 travel days, 5 working days on mission) over the period 18th June 2018 – 17st September 2018.
Payment arrangements:	Lump sum contract (payments linked to satisfactory performance and delivery of outputs)
Evaluation method:	Lowest priced technically compliant offer

1. Introduction

This is the Terms of Reference (ToR) for the UNDP-GEF Terminal Evaluation (TE) of the full-sized project titled ESCO Moldova- Transforming the market for urban energy efficiency in Moldova by introducing Energy Service Companies, PIMS 5135, implemented in partnership with the Ministry of Environment. The project started on November 2014, had the inception workshop in June 2015 and it the Mid Term Review was completed in February 2017. The project is due to be completed no later than November 2018.

More information about the project, including the project document, can be found here.

See link:

<http://www.md.undp.org/content/moldova/en/home/projects/esco-moldova.html>

The terminal evaluation (TE) will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects. The Terminal Evaluation must follow the guidance outlined in the document found her.

See link:

<http://web.undp.org/evaluation/documents/guidance/GEF/UNDP-GEF-TE-Guide.pdf>

I. Project Background Information

The UNDP GEF “ESCO Moldova project - Transforming the market for Urban Energy Efficiency in Moldova by introducing Energy Service Companies”, funded by the Global Environment Facility (GEF), and co-financed and implemented by the United Nations Development Program has an implementation timeframe of 4 years with a total budget of 1.45 million USD of which \$1.3 million USD comes from the GEF and \$150,000 USD from UNDP.

The project objective has been to create a functioning, sustainable and effective ESCO market in Moldova by converting existing energy service provider companies into ESCO companies, as the basis for scaling up mitigation efforts in the whole municipal building sector in Moldova, leading to CO2 emission reductions by implementing energy performance contracts. The project has been trying to work on the largely untapped energy efficiency market in the municipal sector, especially in facilities owned and operated by municipalities, in the Chisinau area for the first stage and then to other parts of Moldova.

The main barriers that the project has been trying to address are related to:

- Energy efficiency project financing;
- The eagerness of existing Energy Service Providers to embark on the ESCO business model;
- Institutional barriers at the local level;
- Energy efficiency awareness in the municipal sector.

The ESCO Moldova Project has been trying to eliminate/address these impediments through the following project outputs:

- Green Urban Development Plan adopted by city of Chisinau;
- ESCO Business model in Moldova is operational;
- Financial mechanism and financial support available to ESCOs;
- EPC projects replicated in other municipalities and information disseminated.

The main targets to be achieved by the end of the project have been:

- A functional ESCO market with a functional LGF in place;
- ESCO companies created and consolidated; creation of new investments in EE measures that will lead to long term energy consumption savings and 20 EE projects implemented;
- Better conditions in public and residential buildings and overall Chisinau will advance in its sustainable green development.

The Project activities were designed to respond all the outlined challenges and consequently offer feasible solutions to the requirements of the energy efficiency financing market needs. Also they envisaged the opportunity of creating synergies with local stakeholders as well as offer incentives for the ESCO market to start developing. A specific attention of the project was aimed at developing the capacities of local energy service providers (potential ESCOs), local authority as well as the banking sector. The overall project activities also aimed to develop amendments to the legal framework for energy services and green procurement, will facilitate the improvement of the Urban Development Plan by adding energy efficiency elements, and ultimately will incentivise the implementation of the first 20 projects using the guaranties of a fund established to secure the participation of all stakeholders in the financing scheme.

The mid-term review of the project was completed in February 2017 and main recommendations included specific recommendations for adaptive management to improve the project over the second

half of its lifetime. The mid-term review concluded that major changes were required as the Project in early 2017 had an over-sized loan guarantee fund, an under-sized management budget, insufficient remaining time and no clear path for a no-cost extension, beyond the end of 2018.

Unfortunately, in April 2017 issues related the Energy Efficiency Fund meant that the Fund was no longer able to provide loans or a loan guarantee and in late 2017 the project once again went through an adaptive management exercise to look at alternative approaches to helping stimulate the ESCO market in Moldova. An international consultant was hired and a variety of various options were considered and discussed but with the Energy Efficiency Fund not working properly, none of the options were actually implemented. In addition, new legislation before the Moldovan parliament in mid-2018 seeks to actually disband the Energy Efficiency Fund.

Ultimately, in May 2018, the UNDP Moldova took the decision to close the project and not apply for the 12 or 18 months project extension beyond the end of 2018. Developing the ESCO market in Moldova, as in other countries, is a challenging and difficult task and it takes a long time.

Because the project will shortly be closing, in accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation.

II. Objectives of the FE:

The Terminal Evaluation will assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

III. Terminal Evaluation Approach & Methodology

An overall approach and method¹⁴ for conducting project terminal evaluations of UNDP supported GEF financed projects has developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact**, as defined and explained in the [UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects](#). A set of questions covering each of these criteria have been drafted and are included with this TOR ([Annex C](#)) and will be discussed with UNDP IRH. The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the UNDP Istanbul Regional Hub, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a 5 days field mission to Chisinau, Moldova within a maximum of 3 weeks of starting the contract. The 5 days field mission does not include 2 travel days meaning that they shall be 5 full working days to be spent in Chisinau, Moldova, not including the 2 travel days. During the mission, interviews will be held with the following organizations and individuals at a minimum: Project Management Unit, UNDP Moldova, UNDP Istanbul Regional Hub Regional Technical Advisor, International and National

¹⁴ For additional information on methods, see the [Handbook on Planning, Monitoring and Evaluating for Development Results](#), Chapter 7, pg. 163

Consultants to the project, Ministry of Economy, Ministry of Environment, Energy Efficiency Agency, Energy Efficiency Fund, City of Chisinau, all international and national consultants who have worked on the project, including the international consultant who designed the project and wrote the project document. It is also important that the Terminal evaluator consults with ESCOs or energy service provider companies that interacted with the project and gets their views on how the project has succeeded or where it has struggled. One roundtable meeting with private sector ESCOs should be organized in Chisinau during the course of the Terminal evaluation.

The Terminal evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, final evaluation, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in [Annex A1](#) of this Terms of Reference.

An outline of an evaluation approach is provided below. However, it should be made clear that the Terminal evaluation consultant is responsible for revising the approach as necessary. Any changes should be in-line with international criteria and professional norms and standards cleared by UNDP. The evaluation must provide evidence-based information that is credible, reliable and useful. It must be easily understood by project partners and applicable to the remaining period of project duration. The evaluation should provide as much gender disaggregated data as possible. The evaluation mission will include a visit to Bucharest and some of the project pilot sites. The international consultant is expected to follow a participatory and consultative approach ensuring close engagement with the government counterparts, UNDP IRH, Steering Committee, project team, and key other stakeholders such as ESCOs. The Terminal evaluator will work with a national consultant whose job will be to organize the stakeholder meetings and to prepare a baseline and stocktaking report which analyses the impact of the project on the project outcomes vis-à-vis what would have happened under a business as usual scenario. The Evaluator is expected to consult all relevant sources of information, such as the project document (“prodoc”), project reports – incl. Annual Reports, project budget revision, progress reports, CTA mission reports, project files, national strategic and legal documents, GEF Capacity Development scores from inception to end of project, and any other material that s/he may consider useful for evidence based assessment.

The methodology to be used by the Evaluation International Consultant should be presented in the report in detail. It shall include information on:

- Documentation reviewed;
- Interviews;
- Field visits;
- Questionnaires;
- GEF CD Scorecard completed at the time of TE (by the Evaluator);
- Participatory techniques and other approaches for the gathering and analysis of data.

Although the Evaluator should feel free to discuss with the relevant authorities concerned all matters relevant to its assignment, it s/he is not authorized to make any commitment or statement on behalf of UNDP or GEF or the project management.

The international consultant’s main responsibilities (24 working days over a period of several months) includes the following:

- Desk review of documents, development of detailed work plan and TE (Terminal Evaluation) outline (maximum 3 days by International Consultant; home-based);
- Debriefing with UNDP IRH, agreement on the methodology, scope and outline of the TE report (1 day, home based);
- Interviews with project implementing partner (executing agency), relevant Government, NGO and donor representatives and UNDP/GEF Project Coordinator and/or Regional Technical Advisor (5 days in-country mission + 2 travel days);
- Completion of the first TE report draft The draft will be shared with the UNDP IRH, UNDP-/GEF (UNDP-/GEF IRH – Istanbul Regional Hub) and key project stakeholders for review and commenting; (8 days)
- Finalization and submission of the final TE report through incorporating suggestions received on the draft report (maximum 5 days);

EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework ([Annex A2](#)), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact**. Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in [Annex D](#).

Evaluation Ratings:			
1. Monitoring and Evaluation	rating	2. IA& EA Execution	rating
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	rating	4. Sustainability	rating
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental:	
		Overall likelihood of sustainability:	

PROJECT FINANCE / COFINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of cofinancing planned and realized. The analysis of project finance will include an analysis of the effectiveness of the funds spent. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator will receive assistance from the Istanbul Regional Hub (IRH) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	UNDP own financing (mill. US\$)		Government (mill. US\$)		Partner Agency (mill. US\$)		Total (mill. US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants								
Loans/Concessions								
- In-kind support								
- Other								
Totals								

MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project has successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluator will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.¹⁵

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of conclusions, recommendations and lessons. It is recommended that the total number of recommendations does not exceed 15 recommendations.

IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP IRH. The UNDP IRH will contract the evaluator and ensure the timely provision of per diems and travel arrangements

¹⁵ A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: [ROtI Handbook 2009](#)

within the country for the Evaluator. The Project Team will be responsible for liaising with the Evaluator to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

EVALUATION TIMEFRAME

The total duration of the evaluation will be 24 working days over a period of several months for the assignment of the Evaluator according to the following plan:

Activity	Timing	Completion Date
Preparation	3 days to review documents by International Consultant and conduction phone interviews and request additional information	End June 2018
Debriefing	1 day to agree with IRH on the methodology, scope and outline of the TE report	Early July 2018
Evaluation Mission	7 days: 5 days in Moldova and not including 2 travel days	End July 2018
Draft Evaluation Report	8 working days by International Evaluator	End August 2018
Final Report	5 days by the international evaluator	17 September 2018

EVALUATION DELIVERABLES

The Evaluator is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and method	No later than 2 weeks before the evaluation mission	Evaluator submits to UNDP IRH
Presentation	Initial Findings	End of evaluation mission	To project management, UNDP IRH
Draft Final Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission	Sent to PMU, reviewed by RTA, UNDP Programme Specialist, GEF OFPs
Final Report*	Revised report	Within 1 week of receiving UNDP comments on draft	Sent to PMU for uploading to UNDP ERC.

* When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

TEAM COMPOSITION

The Evaluator will be composed of 1 International Evaluator and 1 national evaluator from Moldova. Both consultants will have contracts for 24 working days, spread out over a period of several months. The international consultant shall have prior experience in evaluating at least 1 or more technical assistance projects, either working for the United Nations Development Programme and/or other international organizations or in the private sector. Experience with GEF financed projects is an advantage. Experience with evaluation/audit in the private sector or outside of the UN system is also an advantage. The evaluator selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities in Moldova, meaning that the international consultant shall not have been hired by this project previously.

The evaluator must be independent from both the policy-making process and the delivery and management of assistance. Therefore applications will not be considered from evaluator who has had any direct or indirect involvement in the design or implementation of the project. This may apply equally to evaluator who is associated with organizations, universities or entities that are, or have been, involved in the delivery of the project. Any previous association with the ESCO Moldova project, the Energy Efficiency Agency or the Energy Efficiency Fund in Moldova will be considered as grounds for disqualification. If selected, failure to make the above disclosures will be considered just grounds for immediate contract termination, without recompense. In such circumstances, all notes, reports and other documentation produced by the evaluator will be retained by UNDP.

If a proposal is accepted from a consulting firm, the firm will be held responsible for the delivery and quality of the evaluation products.

EVALUATOR ETHICS

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the [UNEG 'Ethical Guidelines for Evaluations'](#)

PAYMENT MODALITIES AND SPECIFICATIONS

%	Milestone
20%	Upon approval of Inception report, prior to mission #1
50%	Upon approval of the 1st draft version of the terminal evaluation report, following mission #1
30%	Upon approval of the final terminal evaluation report (by UNDP IRH and UNDP RTA), following incorporation of all comments into the final report

APPLICATION PROCESS

The applications in English should contain the following:

- Cover letter explaining why you are the most suitable candidate for the advertised position and a brief methodology on how you will approach and conduct the work (based on or commenting on the requirements indicated in this TOR) and explain when, if selected, you can start work.
- Filled P11 form or CV including past experience in similar projects and contact details of referees (blank P11 form can be downloaded from):
http://europeandcis.undp.org/files/hrforms/P11_modified_for_SCs_and_ICs.doc.
- Financial Proposal* - specifying a total lump sum amount for the tasks specified in this announcement. The financial proposal shall include a breakdown of this lump sum amount (number of anticipated working days – in home office (16) and on mission (7), international travel (2), per diems and any other possible costs), using the template below. Local travel should not be included in your proposal. Refer Annex H for more details on financial proposal. Incomplete applications will not be considered. Please make sure you have provided all requested materials.

4. Detailed Scope of the TE

The International consultant will assess the following four categories of project progress. See the Guidance for Conducting Final Evaluations of UNDP-Supported, GEF-Financed Projects for extended descriptions.

1. Project Strategy

Project design:

- Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?
- Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country (or of participating countries in the case of multi-country projects)?
- Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?
- Review the extent to which relevant gender issues were raised in the project design. *See Guidance for Conducting Final Evaluations of UNDP-Supported, GEF-Financed Projects* for further guidelines.
- If there are major areas of concern, recommend areas for improvement.

Results Framework/Logframe:

- Undertake a critical analysis of the project's logframe indicators and targets, assess how "SMART" the midterm and end-of-project targets are (Specific, Measurable,

Attainable, Relevant, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.

- Are the project’s objectives and outcomes or components clear, practical, and feasible within the project's time frame?
- Examine if progress so far has led to, or could in the future catalyse beneficial development effects (i.e. income generation, gender equality and women’s empowerment, improved governance etc...) that should be included in the project results framework and monitored on an annual basis.
- Ensure broader development and gender aspects of the project are being monitored effectively. Develop and recommend SMART ‘development’ indicators, including sex disaggregated indicators and indicators that capture development benefits.

2. Progress Towards Results

Progress Towards Outcomes Analysis:

- Review the logframe indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and following the Guidance For Conducting Final Evaluations of UNDP-Supported, GEF-Financed Projects; colour code progress in a “traffic light system” based on the level of progress achieved; assign a rating on progress for each outcome; make recommendations from the areas marked as “Not on target to be achieved” (red).

Table: Matrix for rating the Achievement of Outcomes

Objective/ Outcome	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
Objective:						
Outcome 1:	Indicator 1					
	Indicator 2					
	...					
Outcome 2:	Indicator 1					
	Indicator 2					
	...					
Outcome 3:	Indicator 1					
	Indicator 2					
	...					
Outcome 4:	Indicator 1					
	Indicator 2					
	...					

Color coding:

Green: completed, indicator shows successful achievement

Yellow: indicator shows expected completion by the end of the project

Red: Indicator shows poor achievement – unlikely to be completed by project closure

In addition to the progress towards outcomes analysis:

- Compare and analyse the GEF Tracking Tool at the Baseline with the one completed right before the Final Evaluation.
- Identify remaining barriers to achieving the project objective in the remainder of the project.
- By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits;
- By reviewing the aspects of the project that were not successful, in order to learn lessons for future interventions

3. Project Implementation and Adaptive Management

Management Arrangements:

- Review overall effectiveness of project management as outlined in the Project Document.
- Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.
- Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.
- Review the quality of support provided by the GEF Partner Agency (UNDP) and recommend areas for improvement.

Overall Effectiveness

- Did the project achieve 20 building rehabilitations financed in Moldova, using the ESCO modality, before the end of the project?
- Did the project deliver cumulative (20 years) energy savings of 295 GWh as a result of the 20 demo projects selected?
- Did the loan guarantee fund on track to deliver \$2.7 million dollars of loan guarantees to be signed with the Energy Efficiency Fund?
- Did the project leave behind a market in Moldova for ESCOs in which there are at least 5 companies, which previously worked as engineering companies, now working as ESCOs?

Component 1

- Did the project have a green urban development plan for Chisinau, including a resource mobilization plan, developed and approved, with support from this project, by the end of the project?
- Did the project have a public green procurement plan developed and applied by the City of Chisinau by the end of the project?

Component 2

- What did the project achieve related to training on the ESCO business model which includes 3 target beneficiaries' groups and 3 training sessions, at least 20 ESPs are trained on the ESCO business model, public Building managers and Maintenance Managers, at least 20 staffs are

trained on ESCO business model, and Financial Institutions (5), including the EEF are trained on the ESCO business model

- Did the project achieve to have 20 projects selected and contracted and under implementation using the EPC modality before the project ends?
- Did the project achieve to have a framework agreement signed with the Energy Efficiency Agency, the City of Chisinau, and the PMU

Component 3

- Was a loan guarantee mechanism adequately designed and set-up? Have the adaptive management changes to the loan guarantee mechanism from how it was described and defined in the project document helped to strengthen the project or otherwise? Please explain.
- To what extent is the loan guarantee mechanism likely to be sustainable beyond the lifetime of the project? What will happen to the mechanism once the project ends and is this a sustainable solution?
- To what extent, if any, has the banking sector in Moldova worked with the loan guarantee mechanism? What further could be done in this regard?
- What changes, if any, could have been used to strengthen the loan guarantee mechanism?

Component 4

- To what extent did the project achieve replication and dissemination to another town/city in Moldova and to what extent have initial discussions been held with another town/city regarding working with the ESCO Moldova project
- To what extent is the project on track to support the development of a green urban development plan in another city?

Work Planning:

- Review any delays in project implementation, identify the causes and examine if they were resolved and if not examine the reasons why they were not resolved Has the work planning been carried out in a manner which is consistent with the project document and with the project workplan or were there significant deviations or delays?
- Are work-planning processes results-based? If not, what was the reason results were not achieved?
- Examine the use of the project's results framework/ logframe as a management tool and review any changes made to the logframe since the project started.

Finance and co-finance:

- Consider the financial management of the project, with specific references to the cost effectiveness of interventions.
- Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions. Have the budget revisions strengthened or weakened the project overall?
- Did the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds?
- Informed by the co-financing monitoring table to be filled out, provide commentary on co-financing: is co-financing being used strategically to help the objectives of the project?

- Is the Project Manager meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?

Project-level Monitoring and Evaluation Systems:

- Review the monitoring tools that were being used including PIR reporting and quarterly financial reporting: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?
- Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?

Stakeholder Engagement:

- Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?
- Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?
- Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?

Reporting:

- Assess how adaptive management changes have been reported by the project management and shared with the Project Board including assessing how well the project has worked with UNDP Moldova and the UNDP Istanbul Regional Hub in identifying and implementing adaptive management measures
- Assess how well the Project international consultant and partners undertake and fulfil GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs, if applicable?)
- Assess how lessons derived from the adaptive management process has been documented, shared with key partners and internalized by partners.

Communications:

- Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?
- Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)
- For reporting purposes, write one half-page paragraph that summarizes the project's progress towards results in terms of contribution to sustainable development benefits, as well as global environmental benefits.

4. Sustainability

- Validate whether the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.
- In addition, assess the following risks to sustainability:

Financial risks to sustainability:

- What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income generating activities, and other funding that will be adequate financial resources for sustaining project's outcomes)?
- What is the likelihood of the financial support mechanism being established by the project being sustainable (meaning that it will continue to operate and function beyond the lifetime of the project)

Socio-economic risks to sustainability:

- Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained?
- Do the various key stakeholders see that it is in their interest that the project benefits continue to flow? Is there sufficient public / stakeholder awareness in support of the long term objectives of the project? Are lessons learned being documented by the Project team a continual basis and shared/ transferred to appropriate parties who could learn from the project and potentially replicate and/or scale it in the future?

Institutional Framework and Governance risks to sustainability:

- Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.
- To what extent has the project managed to improve or contribute to legal frameworks related to the development of the ESCO market in Moldova

Environmental risks to sustainability:

- Are there any environmental risks that may jeopardize sustenance of project outcomes?

Conclusions & Recommendations

The TE International consultant will include a section in the report setting out the FE's evidence-based conclusions, in light of the findings with the main goal of making recommendations on how to significantly improve the project (i.e – how to implement adaptive management) over the second half of the project lifetime¹⁶. UNDP and GEF rules for adaptive management allow for change of activities and outputs to better achieve the project objective and main outcomes. However, they do not allow

¹⁶ Alternatively, TE conclusions may be integrated into the body of the report

for the project objective or outcomes to be changed. There should be no more than 15 recommendations.

5. Final Evaluation Arrangements

Institutional arrangements

The principal responsibility for managing this Final Evaluation resides with the UNDP Moldova Country Office which is the Commissioning Unit. The Project team will be responsible for liaising with the TE International consultant and national consultant to provide all relevant documents, set up stakeholder interviews and agenda, and arrange field visits if necessary. The TE consultant should review all documents and request meetings and interviews to take place prior to the mission.

Duty station

Home-based with 5 working days mission to Moldova which should be carried out within 3 weeks of the signing of the contract between the Parties.

Travel:

- **International travel** (5 working days - mission) will be required to Moldova which is called the Final Evaluation mission; This 5 working days mission does not include travel days or weekend days which means that the consultant will need to travel on the weekend. Weekend days are not considered working days but are part of the 2 travel days allocated to this assignment. Travel costs need not to be included in the financial proposal. They will be paid for separately by UNDP Moldova.

6. Qualifications and experience requirements

The TE International Consultant should be an international expert with experience and exposure to energy efficiency projects and will have some prior experience in carrying out mid-term or final evaluations. It is preferable that the international consultant has some prior familiarity with the ESCO business model. The international consultant cannot have participated in the project preparation, formulation, and/or implementation (including the writing of the Project Document) and should not have a conflict of interest with project's related activities.

The International Consultant on energy-efficiency - TE Consultant should have the following qualifications and experience:

Academic qualifications:

- Master's degree in Energy, Environment, Business Administration, Economics, Engineering, or other closely related field. PhD is an asset;

Experience:

- At least 5 (five) years work experience in providing advice to energy-efficiency projects funded by international donors including UNDP or other donors;
- At least 7 (seven) years work experience and proven track record with policy advice and/or project development/implementation in energy efficiency in transition economies;

- Experience in working with the UNDP or another GEF agency or GEF project evaluations, including experience with SMART based indicators (Project evaluation/review experiences within United Nations system will be considered an asset);
- Experience in evaluating performance based energy efficiency projects. Proven knowledge of energy performance contracting, ESCO mechanism;
- Experience in working with international technical assistance projects in the Europe and CIS region with international organizations;
- Demonstrated understanding of issues related to gender; experience in gender sensitive evaluation and analysis;
- Proven experience in preparation of written reports in an accurate and concise manner in English;

Language requirements:

- Writing and verbal skills in English, knowledge of Romanian or Russian would be an asset.

Because this tender process is working through the roster, all candidates to whom this request for proposals has been sent is automatically assumed to meet this criteria. This means that the roster rules will apply, meaning that there will be no technical scoring, but instead the applicants who apply will be selected upon the basis of who is offering the best value for money.

7. Application process

All applications should include the following:

1. Personal information (Personal History Form/P11) including past experience in similar projects.
2. Financial proposal (in USD, specifying the total lump sum amount as well as the requested amount of the fee per day). The financial proposal shall not include travel costs which will be paid for separately by UNDP. (See Annex I)

Incomplete applications will not be considered.

ANNEXES to TE TOR

ToR ANNEX A: List of Documents to be reviewed by the International consultant

1. PIF
2. UNDP Initiation Plan
3. UNDP Project Document
4. UNDP Environmental and Social Screening results
5. Project Inception Report
6. All Project Implementation Reports (PIR's)
7. Quarterly progress reports and work plans of the various implementation task teams
8. Audit reports
9. Mid-Term Review (MTR) of the project
10. Finalized GEF focal area Tracking Tools at CEO endorsement and midterm GEF Climate Change Mitigation Tracking Tool (https://www.thegef.org/documents/tracking_tools)

11. Oversight mission reports
12. All monitoring reports prepared by the project
13. Financial and Administration guidelines used by Project Team

The following documents will also be available:

14. Project operational guidelines, manuals and systems
15. UNDP country/countries programme document(s)
16. Minutes of the ESCO Moldova Board Meetings and other meetings (i.e. Project Appraisal Committee meetings)
17. Project site location maps

ANNEX A2: PROJECT LOGICAL FRAMEWORK - PROJECT RESULT FRAMEWORK

UNDP Strategic Plan: Growth and development are inclusive and sustainable, that create employment and livelihoods for the poor and excluded					
Output 1.5. Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)					
Expected CP Outcome 3.2 – Low Emission and Resilient Development: Strengthened national policies and capacities enable climate and disaster resilient, low emission economic development and sustainable consumption					
Country Programme Outcome Indicator: Energy Intensity reduced by 7% till 2017 in comparison with 2010					
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Mainstreaming environment and energy OR 2. Catalyzing environmental finance OR 3. Promote climate change adaptation OR 4. Expanding access to environmental and energy services for the poor.					
Applicable GEF Strategic Objective and Program: Climate Change Objective 2: Promote market transformation for energy efficiency in industry and the building sector					
Applicable GEF Expected Outcomes: CC Objective 2: Sustainable financing and delivery mechanism established and operational					
	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Project Objective The project objective is to create a functioning, sustainable and effective ESCO market in Moldova, as the basis for scaling up mitigation efforts in the whole municipal building sector in Chisinau and Moldova in line with the Green	Number of EE projects implemented under the EPC modality and loan guarantee to ESCOs	0	20 buildings financed using EPC modality	Project monitoring system and reporting. EE projects completion reports Number of ESCO submitting proposals	<ul style="list-style-type: none"> - Feasibility studies prove cost-effectiveness of EE projects - Required investments are forthcoming through the EEF and the selected commercial bank. - Private investors (ESCOs) can get access to project
	Loan Guarantee Fund		Loan guarantees of at least \$2.7 million USD have been signed with the financial institution managing the Loan Guarantee Fund		
	Energy Service Providers (ESPs) operating as ESCOs	0	At least 5 companies in Moldova which previously worked as ESPs now operate as ESCOs (it could also be new companies)		

Urban Development Plan	Energy savings and Cumulative direct, post direct and indirect CO2 emissions reduction from the building sector	0	Cumulative (20 year) energy saving of 295 GWh as a result of 20 demo projects Cumulative (2014-2038) Direct: 68 ktonsCO2 Post-project (2024-2038): 40 ktonsCO2 Indirect (2018-2038): 240 ktonCO2 Total: 381 ktonsCO2		financing from the financial institution and are in a position to invest about 20 to 25% of the EE project costs (equity). – The Municipal Council is willing to approve the Green Urban Development Plan
Outcome 1: Green Urban Development Plan Adopted by City of Chisinau and additional emission reduction projects are financed and implemented in Chisinau. In addition, Green Urban Procurement Guide is being utilized by City of Chisinau	Green Urban Development Plan (GUDP)	There is no green urban development plan but Chisinau already approved the Urban Development Plan	Chisinau Green Urban Development Plan approved and the Resource Mobilization Plan is implemented	GUDP Report Decision of the Municipal Council	Sustained and consolidated political support and commitment to promote low-carbon development. Key stakeholders understand the benefits of the greening the policy document and engage in implementation. The donor community is responding and supports the GUDP implementation
	The municipal Green Procurement Plan	There is no Green Public Procurement guidelines enforced in Chisinau	Public Green Procurement Plan applied by Chisinau	Report and decision of the Municipal Council	
	Awareness raising and replication mechanism	No information available	Information related to GUDP is available to all other municipalities through documents and workshops	Documents (Cases studies, lessons learned)	
Outcome 2: ESCOs are successfully investing in energy savings green urban development projects in the building sector using Energy	- Number of municipal staff members capable of implementing EPC projects and evaluating results	ESCO business model does not exist in Moldova and there are no dedicated trainings in the area for the relevant stakeholders	3 target beneficiaries groups and 3 training sessions: - At least 20 ESPs are trained on the ESCO business model - Public Building managers and Maintenance Managers, at	Training sessions, evaluation reports Quality of ESCOs' technical and financial proposals	ESCOs must agree to attend the training sessions, no fee. EEA agrees to intensively support the project by providing key experts to attend the training

Performance Contracting modality (EPC)	<ul style="list-style-type: none"> - Number of building managers trained in ESCO business model - Staff from financial institutions in a position to evaluate EPC projects and ESCO proposals 		<p>least 20 staffs, are trained on ESCO business model</p> <ul style="list-style-type: none"> - Financial Institutions (5), including the EEF are trained on the ESCO business model 	Fls readiness to analyse and approve (or reject) loan and loan guarantee request	<p>sessions and further to serve as trainers in other municipalities.</p> <p>EEA and the municipality express their willingness to work together</p>
	Long-term agreement between the EEA, Chisinau and PMU	Although the EEA is active in the building sector, the EEA did not develop any special acquaintance with the municipal sector to advance EE in the public and residential building sector owned and operated by the municipality	Framework Agreement jointly signed by 3 parties	Framework Agreement EEA's readiness to provide effective, quality and relevant TA	
	Documented long-list of EE projects	9 EA were already carried out by Chisinau	30 to 40 Energy Audits carried out in buildings owned and operated by the municipality	Energy Audit Reports	The municipality includes a budget provision in its annual budget to outsource a series of 40 EA
	Short-list of 20 EE projects selected for investment using EPC contracting modality	No EE projects are identified yet	20 EE projects selected and documented	Joint decision: Chisinau, PMU and EEF	EE projects meeting the selection criteria in term of cost, payback and measurable savings
	Steady stream of payments by Chisinau in line with the EPC modality	There are no EE projects using EPC modality currently under implementation in Moldova	20 EE projects using EPC modality are under implementation using EPC modality	Quarterly LGF activity reports from the selected Financial institution	Project financing available from the financial institution and grants provided by the

					<p>EEF to shorten the payback period</p> <p>The municipality is in a position to face its obligations in regard to EPC Quarterly payments)</p> <p>EE projects reach on target in term of energy savings and timeliness to carry out quality EE projects</p> <p>ESCO are in a position to provide the expected cofinancing</p>
	Data available in regard to actual ESCO Moldova progress	UNDP BAU M&E guidelines	M&E plan drafted and implemented within 3 months after the project start-up	M&E Plan Quarterly and Annual progress reports	The UNDP project monitoring reporting systems and template are appropriate for the purpose of the current project. If needs be the UNDP CO will provide guidelines and guidance to this end
Outcome 3: Financial Mechanism is set up and functional, providing financing to ESCOs	Loan Guarantee Fund (LGF) Regulation and Operational Guidelines	EE project loan guarantee scheme is already available in its draft version	LGF Regulation Document negotiated and duly signed by all parties: Chisinau, PMU, UNDP and the financial partner (bank) to be selected through a Request for Proposal Procedure by the PMU and UNDP	LGF regulation enforced	<p>Tripartite joint agreement on the way to manage the LGF bank account is drafted at the earliest stage of the project</p> <p>The LGF trust bank account belongs to the UNDP up to the end of the project (EOP)</p>

	<p>Financial Framework Agreement between the Project (PMU), the municipality, and the Energy Efficiency Fund (EEF):</p> <ul style="list-style-type: none"> - Number of projects approved by the EEF - Total project-based cofinancing (EEF's grant) 	<p>The EEF agreed on the principles of the Financial Framework Agreement, but this is not finalized yet</p>	<p>Financial Working Agreement dully signed</p>	<p>Framework Agreement</p>	<p>The EEF will redesign the grant component to support ESCOs rather than energy users</p>
	<p>LGF Performance indicators:</p> <ul style="list-style-type: none"> - Number of projects approved by the FI; - Total amount of loans (\$) - Total amount of loan guarantees (commitment) - Default of payment: total amount and % - Number of requests rejected by the FI - Duration of the decision-making procedure from the LGF request and the final approval 		<ul style="list-style-type: none"> - 20 Loan Guarantee approvals: (i) 5 in year 1; (ii) 10 in year 2, and (iii) 5 in year 3 - At least \$2.7 million approved (LGF and loans) - There is no target in regard to default of payment. A default of payment means the project investment is not fully repaid - If the training program has the expected impact in term of EE projects design and financial analysis, the rate of reject should be very low. No special target. - LGF approval delay should be 1 month if the request does not need improvements 	<p>LGF quarterly and Annual Activity reports</p>	<p>ESCOs are in a position to submit a quality technical project design and comprehensive and reliable financial analysis in accordance with guidelines</p> <p>ESCO are in a position to cofinance 20% of the whole project cost (out of the financing cost)</p> <p>The selected FI is efficient as expected</p> <p>EEF provides grants to EE projects</p>

<p>Outcome 4: ESCO(s) are designing, financing and successfully implementing energy efficiency projects using EPC modality in at least one (1) other city in Moldova outside of Chisinau</p>	<p>EPC projects</p>	<p>EPC projects were not implemented in Moldova: no case studies or lessons learnt reports were drafted.</p> <p>EPC and ESCO concept (model) start from scratch</p>	<p>10 EPC Case Studies identified and made available EPC replicated in another town/city</p> <p>One short project video is made available on the EPC projects carried out by the project</p> <p>At least 3 EPC projects are implemented at least in one other city</p> <p>GUDP lessons learnt reports made widely available</p> <p>At least another town will have developed or started to develop a Green Urban Development Plan</p>	<p>Documents:</p> <ul style="list-style-type: none"> - EPC projects and GUDP lessons learnt report - Mid-term and Final Project Review reports - Project final report 	<p>At least 1 other city will be willing to develop a GUDP and carry out energy efficiency investment projects using the ESCO business model and EPC modality</p>
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TOR ANNEX B: GUIDELINES ON CONTENTS FOR THE FINAL EVALUATION REPORT¹⁷

- i.** Opening page:
 - Title of UNDP supported GEF financed project
 - UNDP and GEF project ID#s.
 - Evaluation time frame and date of evaluation report
 - Region and countries included in the project
 - GEF Operational Program/Strategic Program
 - Implementing Partner and other project partners
 - Evaluation team members
 - Acknowledgements
- ii.** Executive Summary
 - Project Summary Table
 - Project Description (brief)
 - Evaluation Rating Table
 - Summary of conclusions, recommendations and lessons
- iii.** Acronyms and Abbreviations
(See: UNDP Editorial Manual¹⁸)
 - 1.** Introduction
 - Purpose of the evaluation
 - Scope & Methodology
 - Structure of the evaluation report
 - 2.** Project description and development context
 - Project start and duration
 - Problems that the project sought to address
 - Immediate and development objectives of the project
 - Baseline Indicators established
 - Main stakeholders
 - Expected Results
 - 3.** Findings
(In addition to a descriptive assessment, all criteria marked with (*) must be rated¹⁹)
 - 3.1** Project Design / Formulation
 - Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
 - Assumptions and Risks
 - Lessons from other relevant projects (e.g., same focal area) incorporated into project design
 - Planned stakeholder participation
 - Replication approach
 - UNDP comparative advantage
 - Linkages between project and other interventions within the sector
 - Management arrangements
 - 3.2** Project Implementation
 - Adaptive management (changes to the project design and project outputs during implementation)
 - Partnership arrangements (with relevant stakeholders involved in the country/region)
 - Feedback from M&E activities used for adaptive management

¹⁷ The Report length should not exceed 40 pages in total (not including annexes)

¹⁸ UNDP Style Manual, Office of Communications, Partnerships Bureau, updated November 2008

¹⁹ Using a six-point rating scale: 6: Highly Satisfactory, 5: Satisfactory, 4: Marginally Satisfactory, 3: Marginally Unsatisfactory, 2: Unsatisfactory and 1: Highly Unsatisfactory, see section 3.5, page 37 for ratings explanations.

- Project Finance:
 - Monitoring and evaluation: design at entry and implementation (*)
 - UNDP and Implementing Partner implementation / execution (*) coordination, and operational issues
- 3.3 Project Results
- Overall results (attainment of objectives) (*)
 - Relevance(*)
 - Effectiveness & Efficiency (*)
 - Country ownership
 - Mainstreaming
 - Sustainability (*)
 - Impact
4. Conclusions, Recommendations & Lessons
- Corrective actions for the design, implementation, monitoring and evaluation of the project
 - Actions to follow up or reinforce initial benefits from the project
 - Proposals for future directions underlining main objectives
 - Best and worst practices in addressing issues relating to relevance, performance and success
5. Annexes
- ToR
 - Itinerary
 - List of persons interviewed
 - Summary of field visits
 - List of documents reviewed
 - Evaluation Question Matrix
 - Questionnaire used and summary of results
 - Evaluation Consultant Agreement Form

ToR ANNEX C: Evaluation Questions

Evaluative Criteria	Questions	Indicator	Sources
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			

ToR ANNEX D: UNEG Code of Conduct for Evaluators/Terminal Evaluation Consultants

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrong doing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form²⁰

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: _____

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at *place* on *date*

Signature: _____

²⁰www.unevaluation.org/uneqcodeofconduct

ToR ANNEX E: TE Ratings

<p>Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution</p> <p>6: Highly Satisfactory (HS): no shortcomings 5: Satisfactory (S): minor shortcomings 4: Moderately Satisfactory (MS) 3. Moderately Unsatisfactory (MU): significant shortcomings 2. Unsatisfactory (U): major problems 1. Highly Unsatisfactory (HU): severe problems</p>	<p>Sustainability ratings:</p> <p>4. Likely (L): negligible risks to sustainability 3. Moderately Likely (ML): moderate risks 2. Moderately Unlikely (MU): significant risks 1. Unlikely (U): severe risks</p>	<p>Relevance ratings</p> <p>2. Relevant (R) 1. Not relevant (NR)</p> <p>Impact Ratings:</p> <p>3. Significant (S) 2. Minimal (M) 1. Negligible (N)</p>
<p><i>Additional ratings where relevant:</i> Not Applicable (N/A) Unable to Assess (U/A)</p>		

ANNEX G: TE REPORT CLEARANCE FORM

(to be completed by PSO and UNDP GEF Technical Adviser based in the region and included in the final document)

Evaluation Report Reviewed and Cleared by	
UNDP PSOcountry Office	
Name: _____	
Signature: _____	Date: _____
UNDP GEF RTA	
Name: _____	
Signature: _____	Date: _____

Annex 2: Itinerary

Date, time	
Sunday, 5 August 2018	
	Arrival of TE Team Leader to Chisinau
Monday, 6 August 2018	
8.00-8.45	Internal meeting of TE Team
9.00-10.00	Meeting in UNDP CO with: <ul style="list-style-type: none"> - Inga Podoroghin Cluster Lead / Climate change, Energy and Environment - Silvia Pana-Carp, Programme Analyst
10.30-11.30	Meeting in the Ministry of Agriculture, Regional Development and Environment (former Ministry of Environment with Vasile Scorpan, Head, Climate Change Office
12.00-13.00	Lunch
13.30-14.30	Meeting in the Energy Efficiency Agency with Alexandru Ciudin, Director
14.30-15.00	Meeting in the Energy Efficiency Agency with Igor Zanoaga, national expert of ESCO Moldova Project
16.00-17.30	Desk work
Tuesday, 7 August 2018	
9.00-11.00	Meeting with Nicolae Zaharia, ESCO Moldova Project Manager
11.00-15.00	Desk work
15.30-17.00	Meeting in Energy Efficiency Fund with: <ul style="list-style-type: none"> - Sergiu Corin, Executive Director - Eugen Cozmulici, Expert in Attracting Investments - Olga Capitan, Project Expert
17.00-18.00	Meeting with UNDP/GEF project Moldova Sustainable Green Cities: <ul style="list-style-type: none"> - Alexandru Rotaru, Project Manager - Simion Berzoi, Business Development officer
Wednesday, 8 August 2018	
9.00-10.30	Internal meeting of TE Team
11.00-12.00	Meeting with Sergiu Robu, , Energplan, Director, national expert in Energy efficiency
13.00-14.00	Meeting in Ministry of Economy and Infrastructure with: <ul style="list-style-type: none"> - Calin Negura, Head of Energy Politics Directorate - Denis Tumuruc, Deputy head of Energy Policies Department - Alexandru Sandulescu, EU High-level Adviser on Energy Policy
16.00-17.00	Meeting in UNDP CO with:

Date, time	
	<ul style="list-style-type: none"> - Stefan Liller, Deputy Resident Representative - Inga Podoroghin, Cluster Lead
Thursday, 9 August 2018	
9.00-11.30	Desk work
12.00-13.30	Meeting with ESP companies <ul style="list-style-type: none"> - Gheorghe Burdila, Tehno Consulting & Development and also Tehno Test, Director - Iurii Zama, Tehno Test, Head of Marketing Department - Alexandr Matrohin, Diolum SRL, Energy Efficiency and Renewable Energy Expert
14.00-15.00	Meeting with Octavian Costas, Senior Banker, EBRD
18.00-19.30	Skype interview with John O'Brien, RTA
Friday, 10 August 2018	
9.30-10.30	De-briefing in UNDP CO
11.00-17.00	Desk work
18.00-19.30	Meeting with Nicolae Zaharia, PM
Saturday, 11 August 2018	
	Departure of TE Team Leader

In addition, after the TE mission, the TE Member has conducted the meetings/interviews with:

- Municipality of Chisinau (Olga Ursu, Head of Financial department; Natalia Lipca, formerly responsible for communication with ESCO Project)
- Local private bank

The TE Lead and TE Member also have conducted Skype interviews after the TE mission with:

- John O'Brien - Regional Technical Advisor on Climate Change Mitigation, UNDP IRH
- Louis Philippe Lavoie – International consultant for ESCO Moldova project (Prepared Project Document; Designed the FSM)
- Mark Velody – Mid-Term reviewer, International consultant (Revision of the Implementation Strategy)

Annex 3: List of persons interviewed

Project Team	<ul style="list-style-type: none">- Nicolae Zaharia, Project Manager- Igor Zanoaga, national expert
UNDP Country Office Moldova	<ul style="list-style-type: none">- Stefan Liller, Deputy Resident Representative- Inga Podoroghin Cluster Lead- Silvia Pana-Carp, Programme Analyst
UNDP Regional Hub	<ul style="list-style-type: none">- John O'Brien, Regional Technical Advisor on Climate Change Mitigation
Ministry of Economy and Infrastructure	<ul style="list-style-type: none">- Calin Negura, Head of Energy Politics Directorate- Denis Tumuruc, Deputy head of Energy Policies Department
Ministry of Environment	<ul style="list-style-type: none">- Vasile Scorpan, Head, Climate Change Office
Energy Efficiency Agency	<ul style="list-style-type: none">- Alexandru Ciudin, Director
Energy Efficiency Fund	<ul style="list-style-type: none">- Sergiu Corin, Executive Director- Eugen Cozmulici, Expert in Attracting Investments- Olga Capitan, Project Expert
Energy Service Providing companies	<ul style="list-style-type: none">- Gheorghe Burdila, TCD and Tehno Test, Director- Iurii Zama, Tehno Test, Head of Marketing Department- Alexandr Matrohin, Diolum SRL
Energy Efficiency experts	<ul style="list-style-type: none">- Sergiu Robu, Energplan, Director
EU High-level Advisers Mission	Alexandru Sandulescu, EU High-level Adviser on Energy Policy
EBRD	<ul style="list-style-type: none">- Octavian Costas, Senior Banker
UNDP/GEF project Moldova Sustainable Green Cities	<ul style="list-style-type: none">- Alexandru Rotaru, Project Manager- Simion Berzoi, Business Development officer

Annex 4: List of documents reviewed

Project documentation

- Project Identification Form (PIF)
- Environmental and social screening summary
- Request for CEO Endorsement
- Project document
- Minutes of LPAC meeting
- Country Programme Document (CPD) for the Republic of Moldova (2013-2017)
- Project Inception Report
- Project Mid-Term Review Report, 2017
- UNDP Management Response to the Mid-Term Review
- Annual work plans (2014-2017)
- Annual GEF Project Implementation Reports (PIRs) for 2016-2018
- CDRs (2016-2017)
- Project Annual Progress Reports, 2015-2016
- Project Final Report, 2018
- Minutes of the Project Board Meeting dated 30.03.2015, 31.05.2016, 28.12.2016 and 30.03.2017
- Risk log
- Adaptive Management Review, Report #1 - Assessment of the Mid-Term Review
- Adaptive Management Review, Report #2 – revised Project Strategy
- GEF Tracking Tool for Climate Change Mitigation Projects

Project reports

- Review of all national and municipal energy efficiency programs and action plans, ongoing programs, green development trends and key barriers to green growth economic instruments implementation
- Gap Analysis Report - The Status of the Current Urban Development Plan for the City of Chisinau in Relation to Green Urban Development
- Chisinau General Urban Plan. A Practice Guide to Green Urban Development Planning
- Sustainable Energy Action Plan. Municipality of Chisinau
- Support the ESCO Market Development in Moldova. Methodology Outline
- Support the ESCO Market Development in Moldova. Institutional Recommendations towards WSCO Development
- Support the ESCO Market Development in Moldova. Methodology Outline on training needs assessment for the project target groups
- Capacity Building and Training for Developing of ESCO Market in Moldova. Final Report by ENVIROS
- Reports of ITA on LFG (2 in total)

- Energy audits (15 in total)

Other relevant documentation

- Citrus, PROJECT ID: 29975, Moldova: Study into Improving the Energy Efficiency of Residential Buildings, 2011
- Energy Savings International AS, Energy Efficiency in Buildings in the Contracting Parties of the Energy Community, 2012
- Energy Community, Report on the Implementation of the Energy Performance of Buildings Directive, Republic of Moldova, 2013

Annex 5: Evaluative Question Matrix

• Evaluative Criteria Questions	• Indicators	Sources	Methodology
• Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
<ul style="list-style-type: none"> How did the project support the GEF focal area and strategic priorities? 	<ul style="list-style-type: none"> Compliance with GEF strategic priorities 	<ul style="list-style-type: none"> GEF-5 Focal Area Strategy, Project Document 	<ul style="list-style-type: none"> Comparative analysis of documents
<ul style="list-style-type: none"> How did the project support the energy efficiency/energy saving and climate objectives of Moldova? 	<ul style="list-style-type: none"> Stated objectives of Project Document and national policies and strategies on climate change mitigation 	<ul style="list-style-type: none"> Project Document, national policies and strategies on climate change mitigation 	<ul style="list-style-type: none"> Comparative analysis of PSC meetings, ESCO Moldova Project reports, interviews
<ul style="list-style-type: none"> How did the project support the needs of relevant stakeholders and has the implementation of the project been inclusive of all relevant stakeholders? 	<ul style="list-style-type: none"> Stated objectives, stakeholder analysis of Project Document 	<ul style="list-style-type: none"> Project Document, project reports, Board meetings 	<ul style="list-style-type: none"> Analysis of Project reports, Board meetings, interviews, own observations
<ul style="list-style-type: none"> Are there logical linkages between expected results of the project (log frame) and the project design (in terms of project components, choice of partners, structure, delivery mechanism, scope, budget, use of resources, etc.)? 	<ul style="list-style-type: none"> Consistency between the LogFrame and general design 	<ul style="list-style-type: none"> Project document, Inception report, MTR report, interviews 	<ul style="list-style-type: none"> Analysis of ProDoc, LogFrame, Interviews, own observations
• Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
<ul style="list-style-type: none"> Has the project been effective in achieving its expected Outcomes? 	<ul style="list-style-type: none"> Achieved Objective, Outcomes, and Outputs 	<ul style="list-style-type: none"> Project Document (LogFrame), PIRs, other reports, Board meetings 	<ul style="list-style-type: none"> Analysis, own observations
<ul style="list-style-type: none"> What lessons have been learned from the project regarding achievement/failure of outcomes? 	<ul style="list-style-type: none"> Lessons Learned 	<ul style="list-style-type: none"> PIRs, other project documentation, interviews 	<ul style="list-style-type: none"> Analysis of Project reports, interviews, own observations
<ul style="list-style-type: none"> What changes could have been made (if any) to the design of the project in order to improve the achievement of the project's expected results? 	<ul style="list-style-type: none"> Need in adaptive management 	<ul style="list-style-type: none"> Annual Work Plans, Project Implementation Reviews, other project documentation, interviews 	<ul style="list-style-type: none"> Analysis of PIRs, other reports, interviews
• Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
<ul style="list-style-type: none"> To what extent did the Project Manager, staff, consultants, national partners, and the UNDP Country Office carry out the work of the project with efficiency, in terms of time and project funds? 	<ul style="list-style-type: none"> Content and timing of reported outputs, as compared with targets of Project Document and Annual Work Plans 	<ul style="list-style-type: none"> Interviews, Project Implementation Reviews, other project documentation 	<ul style="list-style-type: none"> Analysis of PIRs, CDRs, interviews

<ul style="list-style-type: none"> • Did the leveraging of funds (co-financing) happen as planned? Were financial resources utilized efficiently? Could financial resources have been used more efficiently? 	<ul style="list-style-type: none"> • Actual co-financing 	<ul style="list-style-type: none"> • Co-financing table, PIR, other project documentation 	<ul style="list-style-type: none"> • Analysis of reports, interviews
<ul style="list-style-type: none"> • To what extent partnerships/linkages between institutions/organizations were encouraged and supported? What was the level of efficiency of cooperation and collaboration arrangements? 	<ul style="list-style-type: none"> • Existing cooperation with the stakeholders 	<ul style="list-style-type: none"> • PIRs, other reports, official documents, interviews 	<ul style="list-style-type: none"> • Analysis of documentation, interviews
<ul style="list-style-type: none"> • Was an appropriate balance struck between utilization of international expertise as well as local capacity? 	<ul style="list-style-type: none"> • State of balance International expertise vs. local expertise 	<ul style="list-style-type: none"> • AWP, CDRs, interviews 	<ul style="list-style-type: none"> • Analysis of CDRs, interviews
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
<ul style="list-style-type: none"> • How well were risks, assumptions and impact drivers for financial, institutional, social and economic changes managed? 	<ul style="list-style-type: none"> • Status of risks 	<ul style="list-style-type: none"> • PIRs, risk logs, Board meetings, interviews 	<ul style="list-style-type: none"> • Review of risk logs, interviews, own assessment
<ul style="list-style-type: none"> • Has the experience of the project provided relevant lessons for other future projects targeted at similar objectives? 	<ul style="list-style-type: none"> • Lessons Learned 	<ul style="list-style-type: none"> • PIRs, other project documentation, interviews 	<ul style="list-style-type: none"> • Analysis of Project reports and publications, interviews
<ul style="list-style-type: none"> • What lessons can be learnt from the project regarding sustainability? 	<ul style="list-style-type: none"> • Lessons learned 	<ul style="list-style-type: none"> • Interviews, PIRs 	<ul style="list-style-type: none"> • Interviews and analysis
<ul style="list-style-type: none"> • What changes could have been made (if any) to the project in order to improve its sustainability? 	<ul style="list-style-type: none"> • Need in adaptive management 	<ul style="list-style-type: none"> • Interviews, PIRs 	<ul style="list-style-type: none"> • Analysis of PIRs, interviews, own assessment
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			
<ul style="list-style-type: none"> • Has the project adequately taken into account the national/international realities, both in terms of institutional and policy framework towards the realization of project's components? 	<ul style="list-style-type: none"> • Relevance of the achieved results 	<ul style="list-style-type: none"> • Policy documents; project reports, interviews 	<ul style="list-style-type: none"> • Analysis of existing institutional and policy framework, interviews

Annex 6: Questionnaire used and summary of results

Interviews with the Project Team, Project Experts and Consultants, key stakeholders were focused on standard questions presented in the TE ToR; all these questions are appropriate and thus the TE Team used them. These are already incorporated into the evaluative matrix (Annex 5 above) and therefore, are not reproduced here.

Annex 7: Ratings Scales

Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	Sustainability ratings	Relevance ratings	Impact ratings
6: Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency	4. Likely (L): negligible risks to sustainability	2. Relevant (R)	3. Significant (S)
5: Satisfactory (S): There were only minor shortcomings	3. Moderately Likely (ML): moderate risks	1. Not relevant (NR)	2. Minimal (M)
4: Moderately Satisfactory (MS): there were moderate shortcomings	2. Moderately Unlikely (MU): significant risks		1. Negligible (N)
3. Moderately Unsatisfactory (MU): the project had significant shortcomings	1. Unlikely (U): severe risks		
2. Unsatisfactory (U): there were major shortcomings in the achievement of project objectives in terms of relevance, effectiveness, or efficiency			
1. Highly Unsatisfactory (HU): The project had severe shortcomings			
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A)			

Project Sustainability rating		
4	Likely (L)	Negligible risks to sustainability, with key outcomes expected to continue into the foreseeable future
3	Moderately Likely (ML)	Moderate risks, but expectations that at least some outcomes will be sustained
2	Moderately Unlikely (MU)	Substantial risks that key outcomes will not carry on after project closure, although some outputs and activities should carry on
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained
Not Applicable (N/A) Unable to Assess (U/A)		

Annex 8: Evaluation Consultant Agreement Form

Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: Paata JANELIDZE

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Chisinau, 06.08.2018

Signature:  _____