



# PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Medium-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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## PART I: PROJECT INFORMATION

Project Title:	ESCO Moldova - Transforming the market for Urban Energy Efficiency in Moldova by introducing Energy Service Companies (ESCO)		
Country(ies):	Republic of Moldova	GEF Project ID: <sup>1</sup>	5157
GEF Agency(ies):	UNDP(select)(select)	GEF Agency Project ID:	5135
Other Executing Partner(s):	Ministry of Environment, Climate Change Office	Submission Date:	2012-09-17
		Revised Submission Date:	2013-01-25
		Revised Submission Date:	2013-02-26
		Revised Submission Date:	2013-03-08
GEF Focal Area (s):	Climate Change	Project Duration(Months)	48
Name of parent program (if applicable):	n.a	Agency Fee (\$):	\$ 123,500
<ul style="list-style-type: none"> <li>• For SFM/REDD+ <input type="checkbox"/></li> <li>• For SGP <input type="checkbox"/></li> </ul>			

### A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CCM-2(select)	GEFTF	1,185,000	6,915,000
CCM-4(select)	GEFTF	115,000	385,000
(select)(select)	(select)		
Total Project Cost		1,300,000	7,300,000

### B. INDICATIVE PROJECT FRAMEWORK

<b>Project Objective:</b> To create a functioning, sustainable and effective ESCO market in Chisinau as the basis for scaling up mitigation efforts in other municipalities in Moldova						
Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Green Urban Development Plan for Chisinau	TA	1.1 Green Urban Development Plan Adopted by City of Chisinau and additional emission reduction projects are financed and implemented in Chisinau as a result of the Green Urban Development Plan 1.2 Green Urban Procurement Guide is being utilized by City of Chisinau	1.1 Resource Mobilization Plan for the Sustainable Energy Action Plan (SEAP) for Chisinau is prepared including platform for cooperation between the various Moldovan Cities signed up for EU Covenant of Mayors 1.2 Targets for emission reduction projects are defined and prioritized by the City of Chisinau 1.3 Urban Development Plan for	GEFTF	115,000	385,000

<sup>1</sup>Project ID number will be assigned by GEFSEC.

<sup>2</sup>Refer to the reference attached on the [Focal Area Results Framework](#) when completing Table A.

<sup>3</sup> TA includes capacity building, and research and development.

			the City of Chisinau is updated and becomes a Green Urban Development Plan 1.4 Green Procurement Guide for the City of Chisinau is developed and adopted			
2. Creation and Operation of ESCO Moldova	Inv	2.1 ESCO Moldova is successfully investing in energy savings green urban development projects in Moldova  2.2 Other ESCOs are launched/going to be launched in Moldova	2.1 ESCO Moldova Operational 2.2 Pre-investment activities are carried out for at least 20 energy savings projects in Chisinau , selected in partnership with the investor and the City of Chisinau 2.3 ESCO Moldova successfully implements at least 20 energy savings projects in Moldova during the lifetime of the project	GEFTF	900,000	2,500,000
3. ESCO Market Operation incl. support for financial mechanism development	TA	3.1 ESCO Market is operating in Moldova	3.1 ESCO Moldova Shareholders Agreement signed by all partners 3.2 ESCO Moldova business plan revised/updated 3.3 Energy Performance Contracts (EPC) developed and utilized 3.4 MoU between the Energy-Efficiency fund and ESCO Moldova is signed 3.5 Sub-laws and regulations are drafted and adopted in Moldova to improve the investment climate for ESCO activities	GEFTF	125,000	2,500,000
4. ESCO Market Operation - Replication and Dissemination	TA	4.1 ESCO(s) are designing, financing and successfully implementing energy-efficiency , and renewable energy projects in other cities in Moldova outside of Chisinau	4.1 Two ESCO Training Workshops conducted in other towns and cities in Moldova 4.2 Joint Ventures or Partnership Agreements signed by ESCO Moldova to implement ESCO activities in at least	GEFTF	100,000	1,615,000



- (upto)\$100k for projects up to& including \$3 million 60,000 5,700
- (upto)\$150k for projects up to & including \$6 million \_\_\_\_\_
- (upto)\$200k for projects up to& including \$10 million \_\_\_\_\_
- (upto)\$300k for projects above \$10 million \_\_\_\_\_

**PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY**

Trust Fund	GEF Agency	Focal Area	Country Name/ Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total PPG Amount</b>				<b>0</b>	<b>0</b>	<b>0</b>

MFA: Multi-focal area projects; MTF: Multi-Trust Fund projects.

**PART II: PROJECT JUSTIFICATION<sup>7</sup>**

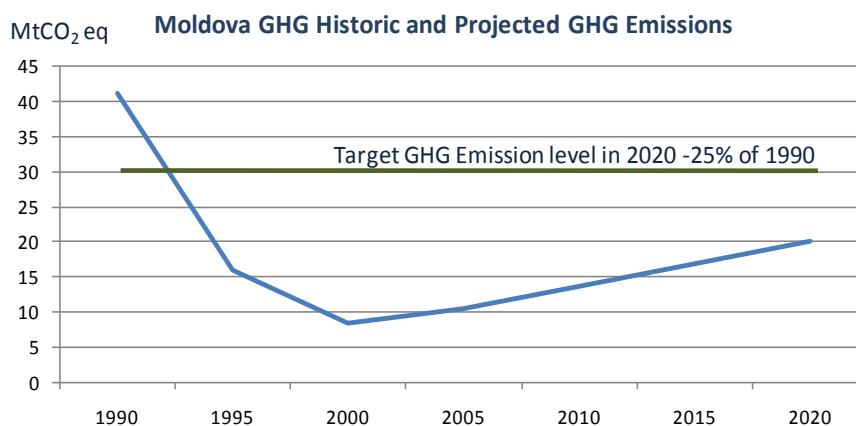
**A. PROJECT OVERVIEW**

**A.1 Project Description**

*Global environmental problems, root causes and barriers that need to be addressed*

1. The Republic of Moldova is located in Central Europe between Romania and Ukraine in the north-western Balkans in the region of the Black Sea. In 2008, Moldova’s population stood at 4.1 million people of which the urban population is 1.8 million or 44.9% of the population. The capital Chisinau is the largest city of Moldova. The climate of Moldova is moderately continental, characterized by relatively mild winters with little snow and long hot summers with low humidity. The main industries in Moldova are the agricultural production and food industry businesses. During the period of 1990 to 2005, greenhouse gas emissions in Moldova decreased by some 78% from 34.7 million tones of CO<sub>2e</sub> to 7.5 million tones of CO<sub>2e</sub>. In recent years, as the Moldovan economy has started to grow again, GHG emissions have started to increase and are projected to continue rising, mainly from urban centers.

**Table 1: Moldovan GHG Historic and Project GHG Emissions**



2. This project aims to promote green urban development, as the potential for emission savings is largest in the housing and industrial sectors that are concentrated in urban centers. In Moldova, there are no cities

<sup>7</sup>Part II should not be longer than 5 pages.

that can currently be described as green cities, only cities that aspire to become green as for example Chisinau. Urban development is primarily driven by economic considerations and ‘greening’ considerations are for the most part not taken into account. Most Moldovan cities are increasingly in decay and have outmoded urban infrastructure, deteriorated communal housing, poor planning, lack of municipal budget to meet the needs of growing urban populations and urban poverty. All these problems are present in the capital city of Chisinau. Specifically, ensuring maintenance and communal services for multifamily housing remains a key priority for all cities. Multi-family apartment blocks account for 157.2 million m<sup>2</sup> or 60% of the housing stock; one out of three (or 50 million m<sup>2</sup>) is in need of capital renovation, while 3.8 million m<sup>2</sup> is in emergency state and has to be demolished. Regardless of technical conditions, over 70% of multifamily apartment buildings have very low thermal performance (especially buildings constructed in 1950 -1980s): thermal losses account for up to 50% of heat consumption. The key barriers that the project intends to address and remove are presented in the table below.

**Table 2: Key Barriers to Sustainable (“Green”) Urban Development in Moldova**

<b>Barriers</b>	<b>Barrier Explained</b>	<b>Means of Overcoming Barrier</b>
Legal & Regulatory Barriers	There are legal and regulatory barriers to implementing energy-efficiency measures: there are no specific incentives; tariff regime does not encourage less use; there are no or outdated building standards; current urban planning does not integrate EE goals. The new EE law will need additional by-laws and regulation to be fully and effectively implemented, in particular with regards to ESCOs.	The project will address these barriers as part of the green urban development plan for Chisinau focusing on municipal level incentives given that national level work related to green tariffs, energy-efficiency building standards and fuel emissions standards is already ongoing.
Institutional Barriers	The City of Chisinau has no clear institutional division of responsibilities for green urban planning. The new State Energy Efficiency Authority has no particular focus on urban level measures.	The project will work with the City of Chisinau to develop a Green Urban Development Plan where institutional structures and roles will be better defined and a Green Procurement Guide will be prepared and widely distributed.
Financial Barriers	There is a lack of funds available for the green urban development projects that the City would like to carry out, as local banks are reluctant to lend for EE measures. The newly established EE has no specific focus on ESCOs and is unfamiliar with its concept	The Municipal ESCO will aim to work successfully with the Energy-Efficiency Fund on a number of pilot/demo projects. In addition, a resource mobilization plan will be developed for the City of Chisinau
Private Sector Investment Barriers	Private sector companies with a business model based around investing in energy-efficiency/renewable energy are not created in current environment and there is no previous experience with this model in Moldova. “First mover risk”.	The project will aim to create and operationalize a successful ESCO as a public-private partnership with the City of Chisinau focused on investments in energy-efficiency and energy performance contracting (EPC)
Awareness & Knowledge Barriers	There is a lack of information available and/or awareness concerning green cities and green urban development issues	Seminars and workshops will be held throughout the project to increase awareness on green urban development issues and improve knowledge on the options available to develop green cities with a particular focus on the ESCO business model.

3. The concept of an ESCO (‘Energy Service Company’) is well known in Western Europe and in the United States and has been proven in many cases to work as an effective tool to reduce energy consumption and promote energy-efficiency. It is an especially effective modality in an urban and industrial context, where many business opportunities exist. The central idea of this project is therefore to introduce the ESCO concept in Moldova by creating an effective market in Chisinau and lay the basis for a national up take in all major urban centers in Moldova.

## *Baseline scenario and associated baseline projects*

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

5. Energy-Efficiency Law 142 has as its main purpose to harmonize Moldovan law related to energy-efficiency with the relevant EU directives. The Energy-efficiency Law 142 a) establishes main directions for energy efficiency national policy; b) Approves national energy efficiency programs and action plans; c) Elaborate and apply energy efficiency mechanisms and financial instruments for and d) Establish organizational order, structure and activity procedures for the state energy efficiency authority. In particular, it sets minimum standards for energy-efficiency, requires energy audits, and promotes the establishment of a regulatory framework which would encourage the creation of ESCOs. The law defines ESCOs<sup>8</sup> and the concept of Energy Performance Contracts (EPC)<sup>9</sup>.

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

7. The co-financing from the Energy Efficiency Fund will go for loans related to the creation and operation of the ESCO market in Moldova (component 2 and component 3). Funding for these two components (2 & 3) will also come from the private sector partner in ESCO Moldova and the City of Chisinau for a total estimated co-financing of \$5 million USD for component 2 and 3 combined. The City of Chisinau will also contribute co-financing to the green urban development plan and to the replication and dissemination of ESCO market operation meaning that the City will be involved in co-financing all four components of the project. The Ministry of Environment co-financing will related to components 1 & 2 including support for the green urban development plan and for the replication and dissemination of ESCO activities. The role of the Ministry of Environment will be organize the Project Board meetings which includes the participation of all other key project stakeholders as well as to Chair meetings of the

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<sup>8</sup>Energy service company (ESCO) - natural or legal person that delivers energy services and / or other energy efficiency improvement measures in an user's facilities or premises, and accepts some degree of financial risk in doing so. The payment for the services delivered is based (in whole or in part) on achievement of energy efficiency improvements and on the meeting of the other agreed performance criteria

<sup>9</sup>a contractual agreement between the beneficiary and the supplier on energy efficiency improvement measures according to which the investments associated with this measure shall be paid proportionally to the level of energy efficiency improvement agreed by the contract

Environment Sector Coordination Council which is the main mechanism in Moldova for coordinating activities among various donors in the country. USAID cofinancing on the local government support project will be also related to component four with the objective of transferring the ESCO market experience to other towns and municipalities in Moldova. Finally, UNDP co-financing will be related to awareness and dissemination activities under component 4 including support for workshops, seminars, and conferences.

*Proposed alternative scenario: brief description of expected outcomes and components of the project*

8. In the proposed alternative scenario a municipal ESCO will be created, which invests in energy savings projects that are consistent with the green urban development plan of the City of Chisinau. The municipal ESCO will be a public private partnership between the City of Chisinau and a private investor or investors that will seek to maximize its profitability and prove its business model, focusing on the capital city of Chisinau, to be viable. Once the business model has been proven in Chisinau, ESCO Moldova will be able to replicate its success in other cities and towns in Moldova. The municipal ESCO should focus on investments related to municipal heat supply and public and residential buildings. The key consideration of the ESCO in selecting new investments will be the profitability of the new energy savings investment and the payback period. Typically, the ESCO should seek investment with a payback period of 4 years or less (18% IRR) to help the business achieve scale and replication. The focus should therefore be on low cost investment projects which can achieve a quick return and to demonstrate a new business model that can help promote energy savings projects in Moldova in the municipal sector.

9. This proposed project aims to promote sustainable green urban development in Moldova. The **project objective** is *to create a functioning, sustainable and effective ESCO market in Chisinau as the basis of scaling up mitigation efforts in other municipalities in Moldova*. This is intended to contribute to and be the first critical step towards achieving a transformation in the market for urban energy efficiency measures. The project has 4 components:

10. Component 1 of the project will focus on *developing the green urban development plan for Chisinau* building on the already existing urban development plan to add a 'greening focus' and specifically increase the focus on energy efficiency. Component 1 is important as it will help define: i) the specific areas in which the municipal ESCO will invest; ii) a strategy to finance the necessary investments to achieve the emission reduction targets established by the City; iii) the development of a 'Green Procurement Guide' for adoption by the City of Chisinau which will ensure that all public tenders meet minimum standards of environmental integrity. GEF support for this procurement guide will be for regulations concerning greenhouse gas emissions limits and public procurement. The Green Procurement Guide will be written with the aim of utilizing and replicating it in other towns and cities in Moldova.

11. Component 2 deals specifically with *investment for the ESCO Moldova* which will be a new company created as a public private partnership with the City of Chisinau. UNDP will provide grants to the City of Chisinau in the form of cash and/or assets on the condition that they are then used to invest in ESCO Moldova. The City of Chisinau will then invest a combination of its own cash and assets and the UNDP grants into ESCO Moldova in return for equity. The key features of an ESCO are that an ESCO actually invests, taking on financial risk, in green urban development projects (in particular municipal heating energy-efficiency projects and energy savings projects in public and residential buildings) and takes a return partially through the financial savings resulting from the reduced energy costs. For an ESCO to work effectively an appropriately robust legal framework needs to be in place and there needs to be confidence that the ESCO will benefit financially from the energy savings investments that it makes. Component 2 will focus on the development and further refinement of the strong business plan and the shareholders agreement, on ensuring that ESCO Moldova is appropriately capitalized and has a strong

management team in place and then on developing model ESCO contracts and on business development. Different financing schemes will be explored and implemented. In line with private sector practices, the ESCO will seek to be innovative and adapt to emerging market conditions. Because it can take time to develop a business plan and put together an acceptable shareholders agreement and capitalize an ESCO company with cash and assets, it is recommended that the search for an appropriate partner for the ESCO Moldova takes place during the project preparation grant (PPG) phase with options for consideration could include a utility, the energy-efficiency fund, a private fund, or a private investor or a private company with an interest and/or investments in the energy sector in Moldova. Component 2 represents \$900,000 in grants by UNDP to the City of Chisinau which will then be invested into ESCO Moldova. In addition, some \$2,500,000 in co-financing is being sought to help ensure ESCO Moldova is sufficiently well capitalized to increase the chances of it being successful. The investment mandate of ESCO Moldova will be developed and formulated consistent with and complementing the green urban development plan of the city of Chisinau.

12. Component 3 focuses on *improving the capacity of municipal authorities* (and specifically the City of Chisinau) to work successfully with the Energy-Efficiency Fund and other financial mechanisms and this will be measured by the fact that more fund-financed energy-efficiency projects implemented in the City of Chisinau will be successfully implemented. Specific activities under component 3 will include building the capacity of the municipality and ESCO Moldova include the development and agreement of a shareholders agreement necessary to launch ESCO Moldova, a detailed business plan, model energy performance contracts, and the development of an MoU between ESCO Moldova and the energy-efficiency fund. Given the existence of the Energy-Efficiency Fund, launched in 2012, it makes no sense to create a new financial mechanism when such a mechanism has already been put in place by the Government of Moldova and is in the process of starting up activities. It makes more sense to focus on building the capacity of ESCO Moldova to work with the Energy-Efficiency Fund. The Energy-Efficiency Fund of the Energy-Efficiency Agency within the Ministry of Economy currently (early 2013) has approximately \$7 million USD per annum available for investments in energy-efficiency and renewable energy. Component 3 aims to enhance the ability of the City of Chisinau and the new Municipal ESCO to work with the Energy-Efficiency Fund by making funds available for detailed pre-feasibility studies, feasibility studies and business plans. Component 3 will also provide assistance for launching the new municipal ESCO.

13. Component 4 focuses on enabling this project to have a transformative impact on the greening of cities and towns in the Republic of Moldova. A replication strategy for ESCO activities for green urban development needs to be elaborated and implemented. The municipal ESCO needs to be active in other cities and towns in Moldova. Training seminars on ESCO activities need to be organized. Support for the establishment of other ESCOs should be provided. ESCO Moldova needs to be encouraged to be involved in joint ventures or partnership agreements to develop municipal ESCO activities aimed at promoting green urban development in other towns and cities in Moldova. A comprehensive lessons learned study needs to be prepared which will help inform and complement the final project evaluation. Finally, an end of project workshop should disseminate the lessons learned and project results from the development and launch of ESCO Moldova.

*Incremental cost reasoning and expected contributions from the baseline, the GEFTF and co-financing*

14. Due to significant market barriers and risks in Moldova related to ESCOs, there is currently no commercial municipal ESCO operating in the country. In spite of the existence of the new law 142 on Energy-Efficiency, it is highly unlikely that under a business as usual environment an ESCO industry would develop. Additional costs associated with being the first mover and developing the first municipal ESCO in Moldova do not make it an attractive business proposition. By funding these incremental costs, the GEF can help to bring down the market barriers and demonstrate the economic viability of the ESCO business model. Investment in the municipal ESCO is estimated to require over time at least US \$ 3.4 million, including a grant mechanism, \$900,000, a \$1 million contribution from the municipality of



Chisinau (cash and assets), and a \$1.5 million contribution from the private investor/investors. Experience has shown the importance of an adequate level of capitalization (cash and assets), a strong balance sheet, a good business plan and a strong management team as the key factors to success. Many companies around the world claiming to be ESCOs are in fact only energy consulting companies. Under the investment component, the requested US \$0.9 million of incremental GEF funding is requested to be provided as a grant to the City of Chisinau. This grant will then be used as an equity investment contribution in ESCO Moldova meaning that the funds will be used to purchase equity in the new public private partnership. The purchaser of equity will be the city of Chisinau because UNDP cannot invest directly in a private company but it can support the municipality with having an equity contribution. The \$900,000 GEF equity investment contribution is proposed to be in the form of cash and/or assets which will be first transferred to the municipality and then to the ESCO Moldova. One additional consideration which will be considered as part of the establishment of ESCO Moldova will be to fully privatize the ESCO at a future point in time. Once the ESCO business model has been successfully demonstrated it can be scaled up and rolled out in other towns and cities in Moldova achieving the transformative impact that the project aims for.

### *Global environmental benefits*

15. The role of an ESCO is to design, realize and finance all necessary and cost effective investments in the municipal buildings, the district heating network or other energy consuming local facilities through energy performance contracts (EPCs) or other applicable contracts, aimed at providing up-front investments, reducing the facilities' energy, operation and maintenance costs, and reimbursing the investments through a portion of the savings actually realized. Assuming an average municipal ESCO investment in energy-efficiency in public or residential buildings can be expected to lead to approximately 20% energy savings; and assuming that ESCO Moldova is able to implement 20 projects, over the lifetime of the project with capital expenditure of \$10 million USD an initial estimate is that this could lead to direct CO<sub>2</sub> emission reductions of 221,500 tonnes over a 20 year lifetime of the energy savings investments or on average approximately 11,075 tonnes CO<sub>2</sub> per year from 20 projects. This represents a cost of under 8 USD per tonne of CO<sub>2</sub> savings from the GEF investment of \$1.6 million which represents a highly cost-effective use of GEF funds. This calculation is based on the grid emissions factor of Moldova of 443kg per MWh and the avoidance of approximately 500MWh of electricity equivalent from 20 energy savings projects. Considering further that additional ESCOs will be established in Moldova during the lifetime of the project and/or if ESCO Moldova successfully expands operations out of Chisinau then one can safely assume that CO<sub>2</sub> emission reductions will be much larger. GHG emission reductions will be more closely and accurately estimated during the PPG phase once further information is available about the size and potential scope of the planned energy savings investments.

### *Innovativeness, sustainability and potential for scaling up*

16. The concept of an ESCO ('Energy Service Company') is well known in Western Europe and in the United States and has been proven in many cases to work as an effective tool to reduce energy consumption and promote energy-efficiency. However, the concept is new to Moldova and has not been tested for its viability and can therefore be considered innovative. The ESCO model is market based and if designed and managed properly and the business is profitable it is inherently sustainable. Starting out on a public-private partnership basis, one could aim for fully privately held ESCOs in the future. Experience has shown that it will be important for the private sector partner of the ESCO to have >50% share in order that the ESCO is run and managed on a private sector for-profit basis and not as part of the local administration. With an urban share of 45% of the total population in Moldova, the potential for scale-up is significant as there are many urban centers outside of the capital Chisinau where ESCOs could

be introduced. Other cities with populations of 20,000 or more include Tiraspol, Balti, Bender, Ribnita, Cahul, Ungheni, Soroca, Urhei, Dubasari, and Comrat.

## A.2. Stakeholders

17. The project will work with key stakeholders as follows:

The Ministry of Environment is the GEF Operational Focal point in Moldova and will be the key local implementing agency for this project, through its Climate Change Office.

The City of Chisinau will take the lead in the development of the green urban development plan and the green urban procurement guide and to be a partner and a shareholder in the new public private partnership to be developed by this project, ESCO Moldova. The City will contribute cash and assets to ESCO Moldova in order to help ensure the success of the new venture.

The Committee for Sustainable Urban Development and Public Debate of the City will ensure that a wide range of other stakeholders (civil society, NGOs etc ...) are involved in this project.

The Energy-Efficiency Fund under the Ministry of Economy, launched in 2012, and the new municipal ESCO will work closely together to ensure that green urban development energy savings projects are successfully financed and realized.

The Ministry of Regional Development and Construction will play an important role in the replication of ESCO activities from the city of Chisinau to other towns and cities in Moldova. In this regard, the USAID project on support for local Government will also play a key role in assisting other towns and municipalities with implementing the ESCO concept.

Private Sector Partner(s) will play a key role in the financing, operation, and management of the municipal ESCO. Private sector partner(s) will be selected for their ability to bring capital, expertise, and a successful business track record (in a relevant field) to the municipal ESCO.

**A.3 Risks.** Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

18. Key project risks are assessed as follows:

**Table 3: Risks and Mitigation Measures**

<b>Risks</b>	<b>Rating</b>	<b>Mitigation Measures</b>
Political risk of Moldova withdrawing its commitment from UNFCCC, Kyoto Protocol and/or Copenhagen Accord	Low	The Republic of Moldova associated itself with the Copenhagen Accord and submitted a voluntary emission reduction target to be specified in its Appendix II: “A reduction of no less than 25% of the base year (1990) level total national GHG emissions have to be achieved by 2020 through implementation of global economic mechanisms focused on the climate change mitigation, in accordance with the Convention’s principles and provisions.” This voluntary target is part of the Cancun agreement. Moldova is on track to easily meet its commitments by the year 2020.
Lack of Municipal co-financing to invest in urban green growth projects	Medium	The risk is that the project develops a wish-list of urban green development projects but that the funds cannot be found to implement these projects in the municipal budget. This risk is real and cannot be understated. However, by working with the Energy-Efficiency Fund and other debt providers and by providing an approach whereby a small amount of GEF funding aims to mobilize significant additional co-financing, it is expected that this risk can be mitigated. A focus on component 3 of the project (financial mechanism) will ensure that this risk is mitigated and help ensure sustainability of project results. Some of the profits from the ESCO operations will be used to invest in new green urban development projects.

Lack of Private Sector Investment	Medium	Private sector investment is driven by two main factors; risk and return. As this project is helping to develop the regulatory environment it means it also reducing risks. As incentive mechanisms, business environment and regulatory structure are improved the possibility for private sector to make more money is enhanced and therefore lack of private sector investment is a risk which over time should diminish. The risk of establishing a successful ESCO is also rated medium as the track record in establishing ESCOs around the world is a mixed one and success is by no means guaranteed.
Low capacity of city authorities to implement required regulatory changes	Low	This is low risk as the capacity of the City of Chisinau to implement project given that the City has a successful track record of implementing public infrastructure projects. Secondly, UNDP has a successful track record in working with the City of Chisinau, in particular on the Chisinau Municipal Development project. The risk can be effectively mitigated by support learning-by-doing activities for the municipal staff, and by ongoing support and backstopping.
Increases in temperature reduce demand for heating and energy savings project become less important	Low	Over the next four years, this risk is negligible. Over the longer-term, this risk is mitigated by the fact that the green urban development plan will focus on development of climate resilient infrastructure. It will be important to incorporate appropriate climate change adaptation strategies into the design, building, and management of new urban infrastructure. Energy savings projects in buildings will remain a key component of CC policy in Moldova in conjunction with climate resilient building design and construction.
ESCO Moldova goes bankrupt	Medium	This is a risk for all businesses. Hence, it is important to have a well managed company without too high levels of debt and with a strong focus on cost-effective operations and profitability.

**A.4. Coordination.** Outline the coordination with other relevant GEF financed and other initiatives:

19. The project will coordinate with the following relevant initiatives:

Project	Brief Description
UNDP Strengthening capacities to undertake environmental fiscal reform to meet national and global environmental priorities project	This project which starts in early 2013 sets out to build capacities for implementing environmental fiscal reforms (EFR) that will produce increased national and global environmental benefits through the adoption of selected subsidies, fees, fines, taxes and other appropriate fiscal instruments. The reforms will focus on creating conditions, financial incentives and disincentives, and decreased opportunity costs to undertake actions that deliver global environmental outcomes. This project can explore what environmental and fiscal reforms are necessary to promote the development of a vibrant and dynamic market for ESCOs in Moldova.
UNIDO-GEF Industrial Energy Efficiency	The UNIDO project, supported by the GEF, is focused on removing barriers to improving industrial energy-efficiency. This includes developing and disseminating best practice information, developing a mandatory certification programme, training and awareness activities, and developing several pilot project activities.
UNDP Biomass Project	UNDP is implementing a biomass project for the European Union (14m euro) focused on creating demand at a municipal level for biomass pellets in heating systems
UNDP Chisinau Municipal Development Project	This on-going UNDP project will be an important basis for cooperation with the Municipality of Chisinau within the framework of Component 3 and will build on strong partnership with the Housing Department of the Municipality established during the development of Chisinau Housing Strategy till 2020 (supported by UNDP).
Municipality of Chisinau	The municipality of Chisinau spends approximately 40 Mio Lei per year on renovating and maintaining the residential buildings whose management and maintenance is still in the responsibility of the Municipality. The City is also responsible for implementing transportation upgrades and investments and has a mandate to promote energy savings projects. The mn
EBRD Sustainable	The EBRD project focuses on the financing of energy-efficiency projects. The EBRD

Energy Financing Facility	project develops dedicated credit lines to local Participating Banks up to a total of 20 Mio. EUR for on-lending to eligible private borrowers for energy efficiency and small renewable energy projects in Industries, SMEs, agribusiness and commercial.
World Bank Energy II Project	The project focuses on supply-side energy efficiency measures (heating supply improvement) in public buildings (schools and hospitals). Municipal energy managers involved in this WB project will receive additional training on EE design and building maintenance through the proposed UNDP-GEF project.
EU Ciudad project	The project aims to increase the 'energy-efficiency' perspective within the municipality of Chisinau, including the development of an energy efficiency strategy for Chisinau and helping to define the legal framework to create conditions for increased investments in the increase of energy efficiency. Part of this project involves collecting data on GHG emissions for the City of Chisinau and preparing a Sustainable Energy Action Plan (SEAP) for the City of Chisinau to assist it with its commitment under the EU Covenant of Mayors.
Synenergy USAID/Hellenic Aid Program: SYNENERGY Program	This project is financed by USAID (IRG and ASE) and Hellenic Aid (CRED) is being implemented in 8 countries, including Moldova during 2008-2010. Among the 4 key components in Moldova, the program focuses on developing the National Energy Efficiency Action Plan in Buildings, recommendations on the energy auditing regulations and certification procedures, developing the operational Manual for the Energy Efficiency Fund. USAID also implements the local government support project in Moldova aimed at improving municipal governance and effectiveness.

## B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

### **B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:**

20. Moldova ratified the UNFCCC on June 16, 1995 and the Kyoto Protocol on February 13th, 2003. Moldova has formally associated itself with the Copenhagen accord and made a commitment to ensure that greenhouse gas emissions are at least 25% below 1990 levels by 2010. Moldova has also associated itself with the 2010 Cancun agreement and has committed to developing a low emission development strategy as well as Nationally Appropriate Mitigation Actions (NAMAs). The 2<sup>nd</sup> National Communications of Moldova to the UNFCCC identifies energy efficiency as a key area where new investments can lead to significant reductions in greenhouse gas emissions, in particular in the urban centers.

21. The project is consistent with the commitment of the City of Chisinau under the EU Covenant of Mayors. In January 2012, the Mayor of Chisinau signed the EU Covenant of Mayors which commits the city to voluntary actions to mitigate the effects of climate change through energy-efficiency programmes, including sustainable urban mobility, and through promotion of renewable energy resources. As part of the commitment, Chisinau should aim to reduce GHG emissions by at least 20% below 1990 levels by the year 2020 and prepare a Sustainable Energy Action Plan (SEAP). The Sustainable Energy Action Plan for Chisinau is currently under preparation and should be submitted to the EU by mid 2013. A public-private partnership which is successful (such as an ESCO) can play an important role in helping the City of Chisinau with implementing its commitments under the EU Covenant of Mayors.

### **B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:**

22. GEF Climate Change Strategy Objective 2 promotes market transformation for energy efficiency in the building and industrial sector which is fully consistent with the objective of this project. GEF Climate Change Strategy Objective 4 promotes increased investment in energy-efficiency urgent systems which is also fully consistent with the objectives of this project.

### **B.3 The GEF Agency's comparative advantage for implementing this project:**

23. The project fully complies with the comparative advantages matrix approved by the GEF Council, where UNDP is assigned a leading role for technical assistance and capacity building on climate change. UNDP has a strong comparative advantage in the implementation of projects both in the area of climate change mitigation and urban/local development. UNDP has a strong track record of project implementation in energy efficiency, sustainable transport, renewable energy, public service delivery, regional/urban/local development and inter-municipal cooperation as well as in providing technical assistance on policy development in these areas. Lessons learned by UNDP in carrying out other similar projects promoting the concept of ESCOs have highlighted the importance of the ESCO having assets and a balance sheet in order to be able to finance additional savings projects and in order to be able to borrow from financial institutions and provide guarantees. UNDP will bring this specific previous experience with ESCOs to bear in this project. The project is fully aligned with UNDP-GEF's signature program on *Low emission climate resilient urban and transport infrastructure*.


24. The UNDP Country Office in Moldova currently manages a portfolio of over \$25 million USD of projects (current annual delivery \$7.5 million USD). Dedicated resources include a full time Assistant Resident Representative on Energy and Environment strategically guiding project implementation as well as monitoring and evaluation, an experienced full time Environment and Energy Portfolio who oversees project implementation on a daily basis supported by a UNDP Moldova Finance and Operations unit with 12 staff. In addition, UNDP Moldova is supported by the UNDP Bratislava Regional Service Centre and Regional Technical Advisors, which is implementing over 30 GEF projects on climate change mitigation in other countries in the region. UNDP has significant experience in working in other countries with projects which aim to use the ESCO mechanism to promote additional investment in energy savings projects.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE(MM/dd/yyyy)
Gheorghe Salaru	GEF Operational Focal Point	MINISTRY OF ENVIRONMENT	27/12/12

**B. GEF AGENCY(IES) CERTIFICATION**

<b>This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.</b>					
Agency Coordinator, Agency name	Signature	DATE(MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Adriana Dinu UNDP/GEF Officer-in-Charge		03/08/2013	John O'Brien Regional Technical Advisor EITT	421 917 415 017	John.obrien@undp.org