UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

THE GEF TRUST FUND

UKRAINE

INDEPENDENT MIDTERM EVALUATION

IMPROVING ENERGY EFFICIENCY & PROMOTING RENEWABLE ENERGY IN THE AGRO-FOOD & OTHER SMALL AND MEDIUM ENTERPRISES

UNIDO Project Number: 103078 (GF/UKR/11/A04)

UKRAINE

June **2014**

Table of Contents

Acknowledgement

The Evaluation Team (ET) would like to acknowledge the many and diverse contributions made to this evaluation report. We are particularly thankful to staff of UNIDO at the Headquarters and in the field, to officers and staff from government agencies in Ukraine visited during the mission.

Cristóbal Vignal	International consultant and Team leader
Natalia Perestyuk	National consultant

Glossary of Evaluation Terms

Term	Definition
Baseline	The situation prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention
Effectiveness	The extent to which the objectives of a development intervention were or are expected to be achieved.
Efficiency	A measure of how economically inputs (through activities) are converted into outputs
Impact	Positive or negative, intended or non-intended, directly and indirectly, long term effects produced by a development intervention
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention
Intervention	An external action to assist a national effort to achieve specific development goals
Lessons learned	Generalizations based on evaluation experiences that abstract from specific to broader circumstances
Logframe (logical framework approach)	Management tool used to guide the planning, implementation and evaluation of an intervention. System based on (Management by Objectives) also called Results-based Management principles.
Outcomes	The achieved or likely effects of an intervention»s outputs.
Outputs	The products in terms of physical and human capacities that result from an intervention
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries requirements, country needs, global priorities and partners and donor»s policies
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention»s objectives
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken

List of Acronyms

CEO	Chief Executive Officer
CMU	Cabinet of Ministers of Ukraine, Ukrainian Government
EE	Energy Efficiency
EnC	Energy Community
ES	Energy saving(s)
ET	Evaluation Team
EU	European Union
EUR	Euro
FSP	Full Sized Project
GDP	Gross domestic product
GEF	Global Environment Facility
M&E	Monitoring and Evaluation
MTE	Mid Term Evaluation
NEEAP	National Energy Efficiency Action Plan
NREAP	National Renewable Energy Action Plan
PMU	Project Management Unit
PP	Pilot Project
PSC	Project Steering Committee
RE	Renewable Energy
SAEE	The State Agency on Energy Efficiency and Energy Savings of Ukraine
SME	Small and Medium Enterprises
ToR	Terms of Reference
UN	United Nations
UNIDO	United Nations Industrial Development Organization
UNIDO HQ	United Nations Industrial Development Organization Headquarters, Vienna
USD	United States Dollar
VAT	Value Added Tax
WEM	Wholesale electric energy market in Ukraine

Executive summary

This document presents the external Mid Term Evaluation (MTE) of the project entitled "Improving energy efficiency (EE) and promoting renewable energy (RE) in the agro-food and other small and medium enterprises (SME) in Ukraine", scheduled to be implemented in 2011-2016.

The objective of this project was to develop a market environment for scaling up EE and enhanced use of EE technologies for fuel switching in the energy intensive manufacturing SMEs in Ukraine (as a basis for promoting their competitiveness) while ensuring an integrated approach for lower carbon intensity and improvement in the local environment.

The justification for designing this project was to strengthen country energy security and independence through improvement of EE and wider use of RE within everyday business life. And the Project relevance hinges on the applicability of the country policies and legal framework as Ukraine seeks to align these with the ones of the European Union (EU).

The independent MTE was carried out from April 2014, to July 2014, and a field mission took place from 14th to 23th May 2014. The evaluation was carried out based on a review of all available literature and official project documents, semi structured interviews and discussions with key stakeholders, and meeting with staff of the project, as well as with representatives of pilot projects (PP) and governmental authorities. A field visit allowed for direct observation of the project activities at the middle of the project implementation in May 2014.

Objective, Scope and Methodology

The objectives of the MTE were to enable the Government of Ukraine, the Global Environmental Facility (GEF), United Nations Industrial Development Organization (UNIDO) and other stakeholders and donors to: (a) verify prospects for development impact and sustainability (providing an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators); (b) enhance project relevance, effectiveness, efficiency and sustainability (by proposing a set of recommendations with a view to ongoing and future activities).

The key question for this MTE was to understand if the project has made a significant contribution to: (a) strengthening the policy and regulatory framework in Ukraine; (b) improving productivity and competitiveness of the energy intensive SMEs; (c) enhancing their strategic capacity through creating a support infrastructure for EE/RE technologies; (d) scaling up markets for other SMEs; (e) increasing awareness of energy intensive SMEs of EE/RE potentials; (f) enhancing the capacity of key players to develop and implement EE projects.

The ET considers that documentary information, as well as information collected in the field, was sufficient to allow for establishment of a baseline for the project. The sources of information were sufficient to verify and document progress and constraints encountered during the assessment. Information obtained also allowed the ET to verify that progress to date corresponds to activities, outputs and potential outcomes, as set up in the logical framework of the project.

The methodology for the assessment was based on: (a) a review of project documents; (b) interviews with the members of the Project Management Unit (PMU) in Ukraine, with

representatives of the different Government agencies involved, with representatives of the PPs, as well as with staff in UNIDO Headquarter (UNIDO HQ) in Vienna; (c) field visits in Ukraine, for on-site observation of the implementation of 2 of the 4 PP's sites (the other 2 PPs being located in the Crimea region, were not accessible to the ET)

Key Findings:

The impact of the political developments in Ukraine on the project are difficult to predict; the situation may offer an opportunity for the relevance and importance of the project to increase, yet on the other hand there is a possibility for the project, as a whole but more likely for specific components, to be affected by the political situation.

Overall project findings relate to the low level of knowledge of UNIDO administrative / procurement policies leading to some delays, and to translation capacity as a potential bottleneck. The ET does not consider these issues as serious and solutions have been discussed with UNIDO and PMU, and should easily be implemented (opportunity in June 2014 to train PMU staff present in Vienna (on mission), and hiring of additional translation/editing capacity).

Conclusions and Recommendations:

CONCLUSION 1	
	Recommendation 1
This is a "very important project in the current […] context", "timely", "necessary" for energy independence. It is a "Custom made" project "performing at high level"	The Project Steering Committee (PSC) should consider strengthening mechanisms to ensure that information regarding the successes of the project is available not only for stakeholders, but for all levels of society
Contributing Conclusions	**Supportive Recommendations**
High degree of relevance and ownership evidenced at all levels (stakeholders) No shortcomings identified, the Project appears to be highly effective, notwithstanding current context, which could have had strong negative impact, in particular on 2 PPs in Crimea. However, no long term risks foreseen The Project fills a gap (in particular through implementation of PP) and facilitates "popularizing" of RE and EE. The replication potential for the PPs is considered very high by all stakeholders, "the most efficient way to demonstrate cutting edge technologies", however there are not enough of them (Social aspects not covered)	In order to ensure the continued success of the project, UNIDO should consider maintaining the current (high) level of support it provides to the Project and might wish to consider increasing the frequency of its visits to the field The PSC should consider the implementation of one or more PP in public institutions such as schools

Overall the Project is likely to strengthen the sector – "RE and EE demonstrated" – this is facilitated by direct contacts w/equipment manufacturers and financial institutions for example There are minor delays in implementation of a small number of outputs, but overall these are not affecting the efficiency of the implementation however, the low level of knowledge re UNIDO and its administrative / procurement policies are perceived by PMU as leading to delays	UNIDO should consider with some urgency the need to provide training to project staff regarding its Administrative processes (SAP) be it in Vienna, or in the field
CONCLUSION 2	
	Recommendation 2
There is currently a "climate of opportunity" in the country It would be beneficial if steps were taken to increase the visibility of the project, which would maximize the penetration of EE and RE	The PSC should consider designing and implementing activities to disseminate success stories and use of information / outreach and media campaigns, as the "opportunity is now"
Contributing Conclusions	**Supportive Recommendations**
PMU is highly regarded – submits information regularly in detailed and systematized manner however; translation capacity is already a source of bottlenecks. As outputs continue to be produced, this has the potential to become a major hindrance on Project implementation	The PSC should consider the urgent increase in the editorial and translation capacity of the PMU, possibly by assigning a full time editor/senior translator (quality assurance and homogeneity), and contracting a pool of translators (outsourcing)
No major shortcomings in design identified, however there is a flaw regarding a communications / outreach strategy, as well as budget, as this was not contemplated, per se, in the Prodoc	The PSC might wish to consider facilitating access to funds to produce these communications materials and raise awareness (including translation/printing budgets and participation in relevant national and international events) should be a priority As well, facilitating the development of inter agency collaborative communications mechanisms to make use of the capacity already present in the country's own institutions should be pursued
UNIDO – very fruitful collaboration, all stakeholders want an increased presence of this Agency. The current level of	UNIDO should consider establishing a UNIDO desk in Ukraine, and should plan to strengthen its presence, as there is a high

representation – although appreciated and highly regarded - does not correspond to the cooperation needs of the country, both in development of ongoing activities, or in particular for potential new activities.	potential for additional cooperation activities with the country

1 Evaluation objectives, methodology and process

1.1 Information on the evaluation

The purpose of the Mid Term evaluation[1] was to enable the Government of Ukraine, the GEF, UNIDO and other stakeholders and donors to:

1. Verify prospects for development impact and sustainability, providing an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators;
2. Enhance project relevance, effectiveness, efficiency and sustainability by proposing a set of recommendations with a view to ongoing and future activities.

Key for this evaluation was to understand if the project has made a significant contribution to:

- Strengthening the policy and regulatory framework in Ukraine through inducing wide scale dissemination and adoption of EE, energy management standards and RE technologies and processes in energy intensive industries particularly SMEs;
- Improving productivity and competitiveness of selected energy intensive SMEs through reducing fossil fuel consumption and energy costs, increasing compliance with national EE standards and increasing use of RE for fuel switching;
- Enhancing the strategic capacity of Ukrainian energy intensive SMEs through creating a support infra-structure for improved EE and RE technologies and providing targeted financing for such investments;
- Scaling up markets for other SMEs for wider coverage of improved EE and RE technologies and standards Promote an end-user incentive programme;
- Increasing awareness of energy intensive SMEs of EE/RE potential;
- Enhancing the capacity of key players to develop and implement EE projects.

In particular the ET sought to obtain and verify information demonstrating the existence of evidence as regards:

- Policy support;
- EE and RE interventions;
- Scaling up strategy;
- Awareness raising and capacity building in energy intensive SME's.

[1] Terms of reference for the MTE Evaluation of the project

2 Scope and objectives of the evaluation

2.1 Information sources and availability of information

The evaluators consider that there was sufficient evidence in the form of documentary material and information collected in the field allowing them to establish a baseline for the project.

Sources of information sufficed to verify and document the progress and constraints encountered during the assessment; data and information derived from interviews were qualitatively satisfactory which was verified through comparison of figures from different sources and via crosscheck interviews with relevant actors in an independent way, showing that respondents views and contributions were in full agreement.

In addition, information obtained allowed the ET to certify that progress to date corresponds to the activities, outputs and eventual outcomes, as set out in the logical framework of the project. This also allowed the ET to verify that indicators defined in the logical framework measure progress.

2.2 Methodological remarks, limitations encountered and validity of the findings

The methodology for the assessment was based on:

- A review of project documents;
- Interviews with members of the PMU in Ukraine, with representatives of different line Government agencies and institutions, with representatives of the PPs, as well as with staff in UNIDO HQ in Vienna;
- Field visits in Ukraine, for on-site observation of the implementation of two of the four Pilot Project sites (the other two Pilots being located in the Crimea region, were not accessible to the ET).

The interviews carried out satisfactorily ensured that the views and experiences of all relevant stakeholder categories (men/women, project staff/participants, beneficiaries and non-beneficiaries) were appropriately reflected in the evaluation.

3 Country and project background

3.1 Country context

3.1.1 Geography and population

Ukraine is located in the heart of Eastern Europe, occupying a fertile plain, north of the Black and Azov Seas, between Poland, Romania, Slovakia, Hungary and Moldova in the west and Russia in the east.

It ranks 32nd in the world by population (44 million) and 46th in size with 580,000 km^2 of land and 24,000 km^2 of water. [2]

3.1.2 Recent socio-political developments

Twenty years ago when the Ukraine-EU Partnership and Cooperation Agreement was signed, the foundations were laid down initiating the process of closer cooperation between the two Parties.

In November 2013 the Government's backtracking from a trade and cooperation agreement with the EU, in favor of closer economic ties with Russia, led to a three-month long public protest on the central square of Kiev. The government's use of force to break up the protests in February 2014 led to its overthrow and, at the time of writing of this MTE, the country has a new democratically elected President.

In March 2014 Russia annexed the Crimean Peninsula and Russian authorities now claim it as Russian territory. The Ukrainian Government asserts that Crimea remains a part of Ukraine.

The recent dramatic changes in the Crimea have raised a number of issues and concerns for businesses in the peninsula. The key priorities for Ukrainian and foreign investors are to determine how to operate their business and how to secure assets located in the territory of Crimea.

Currently Ukrainian and foreign private investors who possess assets in Crimea have to evaluate available strategies concerning conducting, transferring, restructuring or winding up of their businesses fully or in part.

[2] CIA World Fact book was used as a source for statistical data for this chapter https://www.cia.gov/library/publications/the-world-factbook/geos/up.html

3.2 Economic and political overview

3.2.1 Economy

Ukraine suffered from the economic collapse of 2008 and started a fragile recovery, put on hold during the political and social turmoil and is expected to slowly regain speed after the Presidential elections at the end of May 2014.

Emigration is high and the population numbers continue to fall, with implications for domestic demand, and growth in age dependency. Ukraine is the 42nd country in the world by gross domestic product (GDP) - as USD 337 M per annum 20013. GDP per capita is USD 7,400 and the share of GDP by sectors is:

- Agriculture (10%),
- Industry (30%),
- Services (60%).

Main exports are ferrous and nonferrous metals, fuel and petroleum products, chemicals, machinery and transport equipment, and food products.

The main imports are mineral fuel, petroleum and petroleum distillation products, machines and equipment, and chemicals.

3.2.2 Energy

Ukraine is a major net importer of oil and gas and an important transit country. At the same time, its economy remains one of the most energy-intensive and inefficient in the region.

Ukraine is the 21st country in the world by volume of electricity consumed (175 kWh per annum) and the 22nd - by production (198 kWh per annum).

The energy sector has suffered from years of serving primarily quasi-fiscal or political, rather than commercial objectives. Ukraine's accession to the European Community (EnC) creates conditions for energy sector reform, greater EE and energy saving (ES) and support for Ukraine's ambition to remain an energy transit country.

3.2.3 Transport

Ukraine has a well-developed transport infrastructure and is readily accessible by land and air. A significant boost in the country's transport infrastructure took place during preparation for a major continental sport event, the UEFA Euro 2012[3].

3.2.4 Government

Ukraine declared independence on 24 August 1991 following the dissolution of the Soviet Union and since February 2014 is a parliamentary republic. The constitution, adopted in June 1996, lays out the structure of the national government along with its powers and functions. The powers of government are divided into three branches -

[3] the 14th European Championship for men's national football teams organised by UEFA, hosted for the first time by Poland and Ukraine

legislative, executive and judicial. The country capital is located in the city of Kiev. The administrative structure of the country is divided into 24 regions, 1 autonomous republic (Crimea) and 2 Municipality Cities (Kiev and Sevastopol).

3.3 Policy and Legal framework:

3.3.1 Investment climate

The regulatory framework for businesses set up for foreign investors in Ukraine is similar to that for domestic investors (with the exception of ownership of agricultural land). As a general rule, investment permits are not required, but all enterprises must be established according to the forms and procedures prescribed by law and registered with the appropriate government registry. Foreign investors are generally not required to seek special approval for foreign direct investments, but may register with the state authorities, which can in turn ease restrictions on the remittance of dividends abroad.

However many investors still encounter practical difficulties not related specifically to the issue of foreign ownership or investment, but rather to arbitrarily enforced administrative complications and/or random delays.

3.3.2 Recent economic development plans

The State Economic Stimulation Program for 2013-2014 was adopted by the Government in March 2013 and envisages developing priority industries, promoting positive structural changes in the economy, diversifying energy sources, and reducing the energy intensity of production.

The program stipulated the involvement of banks to finance priority projects (i.e. import substitution, energy efficiency projects), in the selection of projects that will receive state support (including loan guarantees or interest rate compensation), and to oversee the proper use of allocated funds. At this time it is not clear how this program will be implemented or what its impact will be on the economy.

3.3.3 General energy regulating framework

Energy supply is increasingly the focus of political and public attention. Issues of reliability and sustainability of the energy supply, quality (meeting environmental requirements) as well as prices for energy resources, demand efficient solutions and are discussed publicly.

There are still questions on whether Ukraine can move away rapidly from traditional energy sources in the short term and also regarding the true potential of RE. However, Ukraine faces a very interesting moment in time as it seeks to ensure its energy independence and is openly inviting and encouraging EE and RE development.

The Law on ES is the basic regulatory document for development of ES and EE at the national level. It sets up the legal, economic, social and environmental basis for ES for all Ukrainians (including enterprises, associations and organizations active on the territory of Ukraine).

In addition, a series of legislative documents regulate the sphere of EE and ES in Ukraine, and these are included for reference in the bibliography.

3.3.4 Energy market barriers (licensing)

The energy market is controlled by the Ministry of Fuel and Energy and regulated by the National Energy Regulation Commission (NERC), which establishes fixed rates for electricity producers, fixed tariffs on transmission and supply for electricity providers, as well as the rate for households. Activities related to the production, transmission and supply of electric energy in Ukraine are carried out subject to obtaining the relevant license, and only one state enterprise (Ukrenergo) possesses the license for transmission of electricity via primary electric networks into Ukraine.

In addition there is a wholesale electric energy market (WEM) designated for any wholesale energy transactions. It is also the sole place for purchase of any electric energy produced at power plants (whose production capacity or output exceeds the boundary parameters), as well as at wind power stations (irrespective of actual established electricity production capacity or output - except electric energy produced at cogeneration plants, which belongs to electricity suppliers, for consumption within the territory of their licensed activities). Given that a considerable part of the WEM participants are natural monopolies, WEM operates according to the single buyer model.

The single buyer is the state enterprise "Energorynok" and all electricity generated in Ukraine is to be sold to this enterprise which then resells it to the 27 regional energy companies ("Oblenergos") and to other suppliers (which possess a license for supply of electric energy at non-fixed tariffs - independent suppliers). Oblenergos sell electricity to end users at the fixed tariff.

3.4 Overview of RE and EE policy and legal framework

The strategy level documents setting forth the Ukrainian national policy on EE and RE are:

- Ukrainian Energy Strategy till 2030, approved by the Cabinet of Ministers of Ukraine (CMU) in 2006
- National RE Action Plan (NREAP)
- National EE Action Plan (NEEAP)

At the time of preparation of this MTE, the update of these documents is considered a priority for the Government [4].

3.4.1 RE policy and framework

Ukrainian law defines the following alternative energy sources:

- RE sources (among which solar, wind, geothermal, waves and tidal, hydro, biomass, landfill gas, sewage treatment stations gas, biogases); and
- Secondary energy resources (which include blast furnace and coke oven gases, methane gas from degasification of coal deposits and, conversion of waste energy potential from technological processes).

[4] Decree of the President “On the decision of the National Security and Defense Council of Ukraine of 28 April 2014 "On the State to ensure energy security in connection with the situation concerning the supply of natural gas to Ukraine" # 448/2014 dated 1May 2014

Key Ukrainian objectives in the area of energy supply aim to achieve ESs through application of ES technologies and transition from traditional energy sources to alternative types of energy. The fact that there is a majority of traditionally monopolized entities on the energy market of Ukraine is one of obstacles that will have to be surmounted, however, it is expected that new opportunities for the use of alternative types of energy could help Ukraine make a leap forward.

According to NREAP, some of the major incentives to promoting the development of RE in Ukraine) are the following:

- Implementation of a “green” tariff;
- Corporate tax exemption for core activities of energy companies generating electricity only from RE sources;
- Decrease of land tax for RE companies;
- Value added tax (VAT) exemption for import of certain types of RE equipment; and,
- Import customs duty exemption for certain types of RE equipment.

Special "green" tariffs were established in 2008 for electric energy produced by means of RE sources. The "green" tariff rate is calculated by multiplying the retail tariff by a special ratio, within a defined range, varying from 0.8 (for electric power produced by small hydropower plant) to 4.8 (for electric power produced by surface energy generating facilities from solar energy).

The "green" tariff ratio for electric energy produced by electric energy facilities set up (or modernized substantially) after 2014, 2019 and 2024 shall be reduced by ten, twenty and thirty percent respectively from its reference value. The "green" tariff is set for the period up to January 1, 2030. It is to be noted that there are a number of “national producer protection” clauses in the area of “green” tariffs”.

The Ukrainian law provides some incentives for utilizing RE production and usage, however some of them are rather “artificial” in nature, for example, a customs duty exemption is envisaged for importing equipment to use in the RE production process. However corresponding by-laws require the serial number to be provided in the special Governmental act. Thus, the “customs duty exemption” incentive is subject to a special Governmental authorization.

3.4.2 EE policy and framework

There are some tax incentives (corporate tax, VAT, customs duty) in the area of development, implementation of energy-saving measures and, commissioning of EE projects. The Law on ES states the following on EE incentives:

- Tax preferences for companies – producers of EE equipment, machinery and materials, tools for measuring, control and management of fuel and energy use, for producers of equipment using RE sources [5];

[5] List of equipment with sales of 80%-exempted from taxation in Ukraine approved by the CM of Ukraine by its Resolution No 1005 dd. 28.09.2011

- Tax preference for companies using RE and equipment functioning on RE sources;
- Priority financing (by state banks) of measures as to rational use and saving of fuel and energy resources[6];
- Targeted state and other subsides and non-repayable financing for basic research in RE and EE areas, on new EE equipment and technology production and exploration.[7]

Implementation of EE measures of NEEAP in the residential, public services, industry and transport sectors is expected:

- To achieve ES in 2020 at the level of 9% from average final energy consumption, specifically – 6283 ktoe[8];
- To reduce energy intensity of product unit production, fulfillment of works, and provision of services by 9% from 2012 levels;
- To reduce the level of heat energy losses in public and residential buildings by 50% from the level of 2012;
- To reduce average specific annual energy consumption by the housing stock of Ukraine and bring it in line with the EU norms and standards;
- To reduce by 15-20% the volume of natural resources usage (through decreased consumption of fuel and energy resources);
- To secure the decrease of pollutant emission by 15-20%;
- To improve the level public utility services provided to the Ukrainian public at large.

3.5 Sector-specific issues of concern

At the time of preparation of this MTE a number of elements could strengthen the Project's impact. These new "windows of opportunity" of enabling the EE and RE energy policy in Ukraine could be facilitated by the following elements:

- Ukraine holds the presidency of the EnC in 2014;
- New President and Government, with clear political intention for European integration

[6] Resolution #439 of the CMU dated 13.04.11 "On Approval of the Procedure of the Use of the Funds Provided in the State Budget for Governmental Support to Energy Saving Measures via Easy Loan Mechanism"; Order of the Ministry for Economic Development dated 27.09.11, #64, "On Approval of the Procedure of Competitive Selection of EE Projects Eligible for Governmental Support from the State Budget Funds Provided for the Programme of Governmental Support to Energy Saving Measures via Easy Loan Mechanism";

[7] Order of conduction on competitive basis of evaluation and selection of investment projects involving budget funds approved by the CM of Ukraine by its Resolution No 2145 dd. 25.11.1999; Order of conduction on usage of budget funds for energy saving projects implementation approved by the CM of Ukraine by its Resolution No 241 dd. 14.03.2001

[8] ktoe = 1000 toe. The tonne of oil equivalent (toe) is a unit of energy: the amount of energy released by burning one tonne of crude oil, approximately 42 GJ (as different crude oils have different calorific values, the exact value of the toe is defined by convention).

- Presidential Decree[9] requiring the update of the Ukrainian Energy Strategy to ensure its compliance with international obligations on RE
- Memorandum of Understanding[10] between Ukraine and the EnC Secretariat

As a member of the EnC, Ukraine committed to achieve and maintain RE at a level of 10%, and the NREAP targets 11% by 2020. In this respect the recent events relative to the Crimea region could have a serious impact as regards meeting of this target, in particular due to the fact that a major share of Ukrainian RE sources (such as solar and wind), are located in that region. However, this is considered a challenge, rather than an obstacle by the Government [11].

[9] Decree of the President "On the decision of the National Security and Defense Council of Ukraine of 28 April 2014 "On the State to ensure energy security in connection with the situation concerning the supply of natural gas to Ukraine" # 448/2014 dated 1May 2014

[10] Memorandum of Understanding on establishing an implementation partnership between the Ministry of Energy and Coal Industry of Ukraine and the Secretariat of Energy Community, dated 7 February 2014. By signing the Memorandum, Ukraine confirms its commitment to transpose into its national legal framework and fully implement Energy Community legislation. Ukraine and the Secretariat have agreed to set up an effective implementation mechanism, including the establishment of working groups for amending and drafting legislation to transpose the Energy Community law. Each working group should include the representatives of all relevant stakeholders, including regulatory authorities, network operators, consumers, relevant businesses and industry associations, donors, international financial institutions and development banks, civil society organizations, expert centers, etc. The Secretariat will ensure a draft law's compliance with the Energy Community Treaty and provide technical and legal assistance when requested.

[11] Interview data

4 Project summary

4.1 Project Fact Sheet

Country	UKRAINE
Project title	Improving EE and Promoting Renewable Energy in the Agro-Food and other Small and Medium Enterprises (SMEs) in Ukraine
GEFSEC (PMIS) ID	3917 - Full Size Project (FSP)
GEF Agency Project ID	GFUKR11004
GEF Focal Area and Operational Program	Climate Change, SP2 - Industrial EE, SP4 – Renewable Energy Production, Promoting EE in the Industrial Sector
Agency	UNIDO
Other Executing Partners	Institute of Renewable Energy of the National Academy of Sciences, National Agency of Ukraine for Efficient Use of Energy Resources, Ministry of Agrarian Policy of Ukraine
Project Approval Date	13 May 2011
Date of Project Effectiveness	20 July 2011
Total project Cost	$5,768,400
GEF Grant	$5,156,108
Agency Fee	$515,611
GEF Project Preparation Grant Amount	$88,000

4.2 Brief description

The PIF was initially submitted to GEF on 10 April 2009 and a revised PIF was resubmitted on 16 April 2009 (GEF budget of USD 5,140,000 and co-financing of USD 12,650,000 for a total of USD 17,790,000). The PIF was cleared and the PPG approved on 22 April 2009.

The FSP project document was submitted on 23 February 2011, and GEF Secretariat review sheet was received in March 2011; the revised Chief Executive Officer (CEO)

Endorsement Document was resubmitted on 8 April 2011 and the CEO approved it on 13 May 2011 (GEF budget of USD 5,156,108 and co-financing of USD 82,230,568 for a total of USD 87,386,676).

4.2.1 Project Objectives

The main objective of the project is to develop a market environment for scaling up energy efficiencies and enhanced use of RE technologies for fuel switching in the energy intensive manufacturing SMEs in Ukraine as a basis for promoting their competitiveness while ensuring an integrated approach for lower carbon intensity and improvement in the local environment [12].

4.2.2 Project Components, Outputs and Expected Outcomes

The project consists of 4 main components, each with specific outputs and expected outcomes, as described below:

4.2.2.1 Output 1: Policy Support

Developing a policy and regulatory framework and building institutional capacity to promote EE and RE, in the industrial sector.

This includes the following activities:

1.1 Policy analysis / review

1.2 Strengthen institutional &policy incentives / tools

1.3 Targeted action plans

1.4 Integration of EE/RE into other programmes

1.5 Biomass sustainability indicators

Expected outcome

Policy and regulatory framework strengthened, inducing wide-scale dissemination and adoption of EE management standards and RE technologies and processes in the energy intensive industrial sector (with specific focus on SMEs) in Ukraine.

4.2.2.2 Output 2: EE and RE Interventions

Preparing and implementing projects to demonstrate EE / RE technologies in use, energy management systems and technology supply chain strengthening.

This includes the following activities:

2.1 Sector diagnostic reports

2.2 Sector energy plans

2.3 Selecting demonstration projects

2.4 Preparing and implementing technology supply and EMS demonstration projects

[12] UNIDO Ukraine Prodoc CEO Endorsement 21.2.11

2.5 Preparing and implementing EE/RE demonstration projects

Expected outcome

Improved productivity and competitiveness of selected energy intensive SMEs; reduced fossil fuel consumption and energy costs; increased compliance with national EE standards / guidelines); and increased use of RE for fuel switching. Total energy saved as a result of the project (GWh/yr) - target 20 GWh per year by 2015. Total energy generated by renewable sources as a result of the project (GWh/yr) - target 30 GWh per year by 2015. Target 2.2 million tonnes (over 10 year lifetimes) by 2015. Volume of investment in RE / EE technologies - target 44 million USD by 2015.

4.2.2.3 Output 3: Scaling Up Strategy and Catalyzing Investments

Facilitating the creation of a project pipeline for EE interventions and use of RE in agro-food and other energy intensive SMEs.

This includes the following activities:

3.1 Scaling up strategy on EE and RE

3.2 Technology and financing packages

Expected outcome

Strategic capacity of the Ukrainian energy intensive SMEs enhanced; investments and targeted financing in creating support infra-structure for improved EE and RE technologies; Scaling up markets for other SME units for wide coverage of improved EE and RE Technologies and standards.

4.2.2.4 Output 4: Capacity Building

Awareness raising and, capacity building in the agro-food industry and energy intensive SMEs.

This includes the following activities:

4.1 Training

4.2 Guidebooks

4.3 Website

4.4 Study course

4.5 Dissemination of best practices

Expected outcome

Increased awareness in energy intensive SME sector, enhanced capacity of key players to develop and implement EE saving projects, and new patterns of responsible, ES behavior in the agro-food and energy intensive SME industry.

4.3 Project implementation

UNIDO is the sole GEF Implementing Agency for this Project and holds the ultimate responsibility for the implementation of the project, delivery of the planned outputs and the achievement of the expected outcomes.

The project is directly executed by UNIDO in collaboration with the Institute of Renewable Energy of the National Academy of Sciences, Ministry of Agrarian Policy of

Ukraine and the State Agency on Energy Efficiency and Energy Savings of Ukraine (SAEE).

UNIDO is responsible for the general management and monitoring of the project, and reporting on the project performance to the GEF. UNIDO is in charge of procuring the international expertise needed to deliver the outputs planned under the project components. It manages, supervises and monitors the work of the international teams and ensures that deliverables are technically sound and consistent with the requirements of the project.

4.4 Positioning of the UNIDO project

The project will build upon experiences and lesson learned from past and ongoing projects that seek to promote EE and RE technologies in Ukraine.

Through project activities, key stakeholders within the government will be closely involved in the project, thus ensuring co-ordination with local efforts. There are a number of international projects related to EE and RE being implemented in Ukraine, which are relevant in some way to the same market

4.5 Counterpart organization(s)

Institute of Renewable Energy of the National Academy of Sciences, SAEE, Ministry of Agrarian Policy of Ukraine.

5 Project assessment

5.1 Design and Relevance

Relevance was assessed by the Evaluation Team (ET) at two distinct but interrelated levels: firstly, with regard to national development and environmental agendas, country's commitment to regional and international agreements; secondly, with relevance to target groups and UNIDO and GEF. Overall, a high degree of relevance and ownership was evidenced at all levels. No major shortcomings in design were identified, although the ET did evidence a flaw/omission relating to the lack of a communications / outreach strategy & budget as this was not contemplated per se in the Project Document.

The overall relevance of the Project was assessed by the ET as being ***Highly Satisfactory,*** as is detailed below.

- ***Relevance to national development and environmental agendas, recipient country commitment, and regional and international agreements.***

The Project is highly relevant with a high degree of ownership from all stakeholders, both public and private. Stakeholder consultations, organized during the preparation of the PIF, PPG and FSP stages with business representatives, financial institutions, investment companies, industry representative and policy-makers[13] have significantly contributed to this.

The project is in line with the key national priorities of Ukraine, which aim at ensuring the country's energy security and independence for the effective reduction of fossil fuel consumption and limit country's dependence on imported fuels. At the regional level, the Project's relevance hinges on the applicability of the policies / legal framework as the country seeks to align these with the EU.

The project is fully in line with the country legislation and norms on EE and RE including the following: Laws "On ES", "On Alternative Energy Sources", "On Alternative Types of Liquid and Gaseous Fuel", "On Combined Generation of Heat and Electric Energy (Co-generation) and the Use of Waste Energy Potential"; Decrees of the CMU as of 03.04.06 №412 „Issues of the SAEE" and as of December 17, 2008 № 1567-p "On Development of Industry Programs for Enhancement of EE between 2010-2014" and as of March 01, 2010 № 243 "the State Special Economic EE Program for 2010-2015".

The project is also fully in line with Ukraine's energy strategy up to 2030 as outlined in the Order of the CMU #1071-r dated July 24,2013 (revised in March 15, 2006), which defines the long-term energy policy of Ukraine. The Strategy sets out an objective to decrease natural gas consumption domestically and to increase the use of renewable sources in energy production. This was further updated in May of 2014 by a President's Decree on Energy Security to reflect the current situation.

[13] CEO Endorsement Document and interview data

- ***Relevance to target groups: relevance of the project's objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.)***

The ET considers the project to be highly relevant to target groups and was able to document this on numerous occasions. In addition to what is mentioned above, the enterprises selected to be the recipient and hosts of the PPs made it exceedingly clear that not only did they strongly support the Project, but also that they considered that the penetration of these "cutting edge" technologies would simply not be possible in such a short time frame, without the incentives and facilities provided by the Project.

- ***Relevance to the GEF and UNIDO:*** **Are the project's outcomes consistent with the focal areas/operational program strategies of GEF? Are they in line with the UNIDO mandate, objectives and outcomes defined in the Programme & Budget and core competencies?**

The project contributes and is in line with the GEF Climate Change focal area Strategic Program (SP) 2 – Promoting EE in the Industrial Sector, and SP-3 – Promoting Market Approaches for RE. In addition, the project is in line with SP-4 – Promoting Sustainable Energy Production from Biomass – as it seeks to remove barriers to scale up use of RE in the agro-food and other energy intensive manufacturing SMEs / industrial sectors of Ukraine.

UNIDO is included in the Comparative Advantage Matrix for SP-2: promoting EE in the industrial sector and CC – SP-4: Promoting Sustainable Energy Production from Biomass. Furthermore, GEF Council Document on Comparative Advantages of the GEF Agencies has recognized UNIDO's extensive expertise in supporting SMEs in developing and transition countries.

The project also fits into the general strategy of UNIDO on energy and industrial development, and builds on the organization's extensive experience of promoting EE and RE in the industrial sector of emerging and transition economies.

UNIDO has drawn upon its previous experience of cooperation with major Ukrainian stakeholders on identification and implementation of the technical cooperation projects that contribute to strengthening industry and improving its competitiveness and productivity. UNIDO's expertise of the food industry and SME sector development is another advantage of the organization's involvement into the preparation and implementation of the project [14].

- ***Is the project's design adequate to address the problems at hand?***

The ET considers that the design of the Project is not adequate to address the problems at hand and considers that the Project meets the current needs of Ukraine and provides an mechanism for SME's to access EE and RE technologies and their benefits, a sector previously not covered, and with a high potential for RE and EE.

[14] Project Identification Form (PIF) Ukraine

It is important to note that the Project was prepared in a very different economic context, considered to be favorable in particular as regards bank rates, which went from around 14% at the time of drafting the FSP, to 24% during implementation. The Project also faced unforeseen barriers, for example to ensure the transparent selection of PP, as it became apparent that in order to avoid risks, equipment would have to be provided to recipients, rather than financial support.

- ***Was a participatory project identification process applied and was it instrumental in selecting problem areas and national counterparts?***

The ET was able to document the existence of an inclusive participatory process that sought to bring on as many stakeholders as possible and this was observed in numerous instances. Overall the Project was described as "custom made, timely, necessary and important" [15].

Upon invitation of the Ministry of Foreign Affairs, a UNIDO delegation came to Ukraine in 2007 to explore opportunities for cooperation. The Ukrainian government declared its interest in expanding the United Nations (UN) project portfolio in the country. The idea of working on RE and EE related projects was put on the table by the Institute for RE, in close collaboration with the Ministry of Economy which then informed the CMU. Further to this the CMU drafted a letter, assigning different ministries to work on and develop this initiative.

The above mentioned letter was signed by the Vice Prime Minister and opened the door to multi-stakeholder consultations over the course of 2007 to 2009 with, amongst others, the SAEE, Ministry of Agricultural Policy, Ministry of Economy, Foreign Affairs Ministry, Parliamentary Committee on Environment, Parliamentary Committee on Fuel and Energy, National Academy of Sciences, NGO's, Academia. This process was described as "lengthy" and had to take into consideration the internal realities, specific attributions and ambitions of the main government entities involved in this sector [16].

Further to this, UNIDO was asked to identify and contract National and International Consultants to prepare an initial project proposal that was validated in a series of 3 "round table" consultations, which reportedly "generated very positive feedback".

- ***Does the project have a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators?***
- ***Was the project formulated based on the logical framework approach?***

It could be confirmed that the project has a verifiable and clear thematically focused development objective and was formulated based on the logical framework approach. The narrative synthesis is consistent; the outputs are necessary to achieve the expected results. The baselines and targets are clear; the indicators are suitable; the verification sources are accessible. The risks and assumptions identified are external critical factors that are beyond the control of the project.

[15] Interview data

[16] Interview data

- ***Was the project formulated with the participation of national counterpart and/or target beneficiaries?***

As described above the ET was able to document and cross-reference the fact that the project from its inception benefited from an approach aiming to include a very large base of stakeholders. Government agencies, private sector enterprises, the academic sector, and NGOs were all involved in the initial discussions that led to the development of the Project.

5.2 Effectiveness

The **effectiveness** of the project was assessed against the outputs and outcomes, as stated in the project document, and it has been determined to be ***Highly Satisfactory*** by the ET, as detailed below.

Overall, at mid term, the Project has delivered the expected number of outputs for this stage and the ET is of the opinion that it is highly likely that these will be completed in the timeframe of the Project (2016) and will lead to the intended outcomes.

- ***What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?***

5.2.1 Component 1 – Policy Support

The overarching objective of this Component is to develop a policy and regulatory framework and build institutional capacity to promote EE and RE in the industrial sector. The expected outcome is to strengthen the policy and regulatory framework to induce a wide scale dissemination and adoption of EE management standards and RE technologies and processes in the energy intensive industrial sector, focusing specifically on SME's.

This component includes the following 5 main Outputs [17] and is carried out through implementation of various Activities:

1.1 - Policy analysis / review

1.2 - Strengthen institutional & policy incentives / tools

1.3 - Targeted action plans

1.4 - Integration of EE/RE into other programmes

1.5 - Biomass sustainability indicators

The results are described in more detail below for each of the 5 Outputs.

Output 1.1 - Policy analysis / review

[17] As per the approved Project Work Plan of February 2013

The review, assessment and monitoring of current energy policy and regulatory framework has been completed and the ET estimates that this can provide the baseline upon which to build recommendations and make them compatible and concordant with the EU legislation. It is also expected that this could serve as primary input for the review of the Energy Strategy of Ukraine and the national Action Plans (NEEAP and NREAP) of the country.

This approach required an in-depth analysis of the current policy, legislative and regulatory framework in Ukraine, as well as the analysis of the draft laws in the area of EE, energy-saving and renewable sources of energy. In addition, analysis of the effectiveness and performance of existing financial mechanisms and fiscal rules in the EE/RE sphere was conducted. Although the analysis of the current institutional framework is still to be completed, as expert has not been identified, it is expected that this will be completed before the end of 2014.

In support of this Output, the following publications have been prepared:

- *Analysis of the Draft Laws in the Area of EE, Energy-Saving and renewable Sources of Energy (o. Matveichuk, 2012);*
- *Analysis of Current Policy, legislative and Regulatory Framework in Ukraine on Operationalization of Policies and laws to Scale Up EE and Use of renewables in Energy Intensive Industrial Sector with Specific Focus on SMEs (O. Pepelov, 2012);*
- *Analysis of the Effectiveness and Performance of Existing Financial Mechanisms and Fiscal Rules in the Sphere of Energy Efficiency and Renewable Sources of Energy (N. Kostyshena, 2014)*

It should be pointed out that although a NAP exists, it will need to be "updated" to reflect the current situation with Crimea, in particular as the RE potential there was high. At this stage it is apparent that the NAP will have to be refocused towards biomass power generation, rather than PV and wind.

During the transitional period of early 2014, the Council of National Security and Defense declared it urgent to make "corrections to the ES to align it with Ukraine's international obligations". These obligations were highlighted in previous versions of the NAP (developed with the assistance of the Project [18]). This can be seen as an opportunity for the Project to provide input and help to shape the NAP and ES, and in this sense the ET was able to verify that this process could be facilitated by the strong links, which have been established with the current administration [19].

Output 1.2 - Strengthen institutional & policy incentives / tools

The ET was informed that the preparation of recommendations for strengthening the policy, regulatory and institutional frameworks to scale up EE and use of renewables in

[18] The Project assisted the State Agency for EE with preparation of the NAP on RE (for the Energy Community), and assisted in parallel with the NAP on EE (Funded by European Commission)

[19] The Project is highly regarded not only for its relevant experience in the field, but also because of the fact that it is able to prepare/review documents in English. The Project was described as "a Gold fish" for the government.

energy intensive manufacturing SME's is ongoing, with minor delay, pending also finalization of previous component.

In particular, the *Recommendations on Launching of Market Mechanisms and Financial and Fiscal Instruments to Improve EE and Promote RE – N. Kostyshena 2014* have been prepared at the national level, and internationally, the *Lessons learnt in other countries on EE and RE regulatory/legislative frameworks* are nearly completed.

Having become a full-fledged EnC member, Ukraine committed to implement a range of European directives and regulations, in order to harmonize its energy sector legislation with the European legal and regulatory framework. In February 2014, a Memorandum with the EnC Secretariat was signed, according to which Parties agreed to establish working groups for amending and drafting primary legislation in order to transpose EnC legislation [20].

In this context, it is expected that the recommendations prepared by the Project's National and International Experts will contribute significantly to strengthening the policy, regulatory and institutional frameworks in Ukraine, based on the best international policies and practices.

In addition, the Project's National Experts have also contributed to the preparation of the EU RE Directive implementation action plan that envisages UA-EU legislation harmonization in the field of EE/RE.

Output 1.3 - Targeted action plans

The ET was informed that the drafting of targeted action plans on promoting EE and RE in SME's is ongoing. In particular, as mentioned above, the Project has already contributed its technical and financial assistance to prepare the initial NREAP draft to 2020 - in accordance with the template for national RE action plans as set out in Directive 2009/28/EC of the European Parliament and of the Council. The NREAP now has to be adapted to reflect the Presidential Decree on energy security [21] aiming, amongst others, to ensure compliance with international obligations on RE.

The NREAP includes agreed indicative targets, however the share of RE included in the previous draft and which stands at 11% (by 2020) does not coincide with the indicator contained in the updated draft of the Energy Strategy of Ukraine, which was developed by the Ministry of Energy and Coal Industry (MECI). The latter provided for a 10% share of energy from alternative sources and RE. Thus the Energy Strategy and NREAP will have to be adjusted and finalized and it is expected that the Project is will make a significant contribution to this activity.

Output 1.4 - Integration of EE/RE into other programmes

[20] Memorandum of Understanding on establishing an implementation partnership between the Ministry of Energy and Coal Industry of Ukraine and the Secretariat of Energy Community, dated 7 February 2014

[21] Decree of the President "On the decision of the National Security and Defense Council of Ukraine of 28 April 2014 "On the State to ensure energy security in connection with the situation concerning the supply of natural gas to Ukraine" # 448/2014, dated 1May 2014

The ET was informed that the provision of policy support to responsible public authorities is ongoing. It aims at ensuring effective integration of EE and RE promotion objectives into programmes of economic and social development at national and local levels.

Awareness campaigns (including study tours [22]) considered an indispensable tool for improving EE and promoting RE, as well as provision of guidance to Government agencies (including, to date, participation in Parliamentary Hearings [23] and strengthening relations with the regions), are currently being implemented. These are based on a critical mass of information and examples emanating from other activities of the Project and more particularly on two publications:

- *Awareness Campaign As An Important Factor Of Improving Energy Efficiency And Promoting Renewable Energy* (O. Reminska, 2014), and,
- *Current Situation and Prospects for Further Development of Agro-Food and Other Small and Medium Enterprises (SMEs) in Ukraine with Regard to Efficient Use of Energy Resources and Introduction of Renewable Sources of Energy* (N. Polishchuk, 2012).

The study tours and facilitating the dissemination of results aim to take advantage of the current climate of planned decentralization. It is likely that the accent will now be shifted to the regions as regards decisions and development of local programs. In this context, the priority for the Project will be to strengthen relations with the regions to ensure and facilitate increased local involvement. This will be done, on one side, through a second study tour in June to Austria [24] and, on the other, through work with local authorities [25], and could take the form of meetings, seminars and/or workshops to introduce results and share knowledge built by the Project on relevant issues and international best practices leading to the development of local plans for RE and EE.

In addition, the ET was informed that this could also be an opportunity for the PSC to hold meetings in the regions/area where the Pilot Project have and/or will be implemented.

Output 1.5 - Biomass sustainability indicators

The ET was informed that the development of biomass sustainability standards is ongoing. The assessments of existing schemes to prepare recommendations and the development of indicators have been completed. In particular the following publications have been produced:

[22] 2 training/study tours have been organized, in cooperation with the Austrian Energy Agency, during which participants are presented with examples and receive training on test sites

[23] Members of the PMU participated in Parliamentary Committee Hearings on RE and EE. Inputs contributed to the Conclusions/Outcome document of the Hearings

[24] The first study tour, organized in 2012 to Germany is described as a success by interviewees

[25] There are 24 regions or “Oblasts” - and one autonomous republic (Crimea, although this is currently considered an “occupied territory”) - with previously appointed local authorities (likely to face elections). Visits could be grouped into 4 “clusters” (N, S, E, W).

- *Assessment of Existing International Certification Schemes for Sustainable Biofuel/Biomass and Development of an Agreed National Implementation Plan for their Formal Acceptance in Ukraine* (M. Datsenko, 2012);
- *Biomass sustainability schemes in the EU and scenarios for implementing similar schemes in Ukraine* (E. Kottasz, 2012);
- *Advisory assistance to the work group of UNIDO-GEF Project on Developing National Standard of Sustainable Production of Biomass in Ukraine* (V. Zablotskyi, 2012);
- *Development of the Sustainable Biomass Standard: specifics of Ukraine* (R. Marutovskyi, 2013).

The ET considers that the current context appears to be favorable for the consolidation of the Project's impact on energy policy formulation for the introduction of EE and RE. In addition to the previously mentioned Presidential Decree regarding the need to update the Energy Strategy to 2030, Ukraine has taken the Presidency of the EnC and is working on establishing Multi-Stakeholder Groups [26] to develop and promote these reforms. The country's commitments in the EnC seem to have provided much needed impulse and, for example, the fact that it is currently planned to have "adopted and published NREAP and NEEAPs by August 1, 2014" - as well as detailed implementation plans for the directives 2009/28/EC, 2010/32/EC, 2010/31/EU, 2010/30/EU - are considered by the ET as positive indicators, both for the success of the Project, as well as for its longer term sustainability.

One element that was brought to the attention of the ET shows that the Project has facilitated the establishment of links between different government entities by sharing the mentioned reports, and these entities are now aware that there are requirements for sustainability in EU RE Directive (sustainability standards certification), which have to be absorbed into Ukrainian policy. This is of particular interest given that in Ukraine there are large agro-holdings, where issues of sustainability can have environmental and social consequences and for which, for example, no policy exists on biomass sustainability.

For the sake of comparison, in Europe there are 13 different sustainability evaluation indicators and it is considered that in order to avoid "bribe generating threats", Ukrainian specific sustainability indicators must be developed. The Project aims to include broader standards for each specific sub sector and has facilitated discussions on the process of standardization (a "skeleton" draft is being developed). As it will be discussed later on in the MTE, this has a direct impact on the PPs that will likely be seeking to obtain certification, which for the moment can only be delivered by private enterprises in other countries (Poland, for example).

5.2.2 Component 2 – EE and RE Interventions

The overarching objective of this Component is to demonstrate the practical integration of EE and RE into the productive activities of enterprises in the agro-food sector through the implementation of selected demonstration projects.

[26] The Project has been invited to participate in an expert capacity

This component includes the following 5 main Outputs [27] and is carried out through implementation of various Activities:

2.1 Sector diagnostic reports on energy consumption analysis

2.2 Sector level EE and management plans

2.3 Selection of projects / technologies for demonstration

2.4 Strengthening the technology supply chain and demonstrating Energy Management Systems (EMS)

2.5 Demonstration of return on investments in EE and RE PPs

The results are described in more detail below for each of the 5 Outputs.

Preparatory work for this component commenced with two workshops for government officials and academia, which helped to identify the key development needs for Ukraine. This was followed by a call for expressions of interest, which resulted in more than 70 project ideas from a range of industries. Twenty of the project concepts received were pre-selected, based on project viability, reproducibility, CO2 impact, and technological and financial viability. Because these projects were proposed by industry, this was felt to ensure a strong industry involvement and commitment from the start [28].

Output 2.1 - Sector diagnostic reports

The ET was informed that 9 EE benchmarking reports for different sectors of agro-food industry were prepared and completed [29] and that, in addition, a workshop was conducted (January 2013) and the results of this benchmarking activity were delivered and validated, with over 70 beneficiaries.

It is useful to point out that this analysis method, which was unknown in Ukraine, helped to assess ES potential for enterprises for entire sectors (industry) and, given that EE benchmarking can be used in different sectors of the economy, it can be considered that the Project took the very first steps to introduce EE benchmarking into the Ukrainian economy.

This work was based on the UNIDO methodology on benchmarking and required the collection, by 3 contracted experts, of energy consumption and production related information from agro-food enterprises [30], which proved to be much more challenging than initially contemplated. Indeed, enterprises were very reticent to participate in this type of exercise, as they were concerned that it might attract the interest of the government and in particular of “officially supported raiders”, and potentially lead to the confiscation of their companies. Although the team sent out approximately 600 letters,

[27] As per the approved Project Work Plan of February 2013

[28] CEO Endorsement Document - Final

[29] The 9 sectors are: Bakery, Beverages, Canning, Confectionery, Dairy, Livestock Raising, Meat Processing, Vegetable Oil and, Sugar

[30] This allowed for the understanding of the level of EE and potential energy saving and led to calculation of benchmarks for each sector

the response was less than 1%, and overcoming this barrier required the involvement of the Oblast State Administrations (requested to provide statistical data) as well as the involvement of the SAEE.

Output 2.2 - Sector energy plans

The ET was informed that the development of the "Energy consumption improvement Roadmaps (roadmaps)" described as sector-level scenarios and management plans for EE and RE have been successfully completed. Although these still need to be finalized with the Austrian Energy Agency [31] (scheduled for June 2014), the technical roadmaps are intended to increase EE in the agro-food sector.

These roadmaps are based on the EE benchmarking results described above, and are expected to form the basis for ES programs for the agro-food industry, contributing to its development. In addition, the high replication potential is expected to be used in other sectors of Ukrainian economy (replicated). The ET is of the opinion that use of these Roadmaps is highly likely in the agro-food sector and could assist managers in identifying and quantifying opportunities for improving EE, thereby stimulating the creation of a future pipeline of EE and RE projects in the sector.

In addition to the above, the ET was informed and verified that a "benchmarking calculator" is online (on the project's website) for users to determine potential level of EE in their enterprises.

Output 2.3 - Selecting demonstration projects

Output 2.4 - Preparing and implementing technology supply and EMS demonstration projects Output 2.5 - Preparing and implementing EE/RE demonstration projects

These three Outputs are geared towards the identification, demonstration, dissemination and eventual replication of positive experiences in the implementation of ES projects and aim to demonstrate that ES projects are feasible, attractive and can be implemented successfully. This potential is in turn expected to be a positive signal to other enterprises, allowing for replication effects to be achieved, and leading to the increased EE of this sector of the Ukrainian economy.

Conceptually the longer-term impact expected is that the process of implementing demonstration projects will help to develop and establish mechanisms for overcoming the barriers (organizational, technical, legislative, financial) that currently inhibit investment in such projects.

During the PPG phase of the project, a selection of 20 potential demonstration projects was made, based on the following criteria [32]:

- High replication potential (sustainability)
- Cost per tonne of CO2 emissions reduction
- Amount of CO2 emissions reduction

[31] The Austrian approach to calculations is different than that used in Ukraine, due to legislation

[32] CEO Endorsement Document

- Project payback period
- Contribution to EE / RE technological innovations
- Compliance with government priorities on economic and technological restructuring
- Share of the company's own capital in the total investment
- Co-financing commitment from companies

All 20 enterprises whose projects were selected were asked to submit information necessary for the preparation of detailed business plans. Under this activity, the financial and economic characteristics of all 20 projects is reported to have been analyzed using the UNIDO COMFAR III Expert software, and they were also assessed for their technical, marketing, administrative and managerial aspects.

The ET was informed that although this selection process was expected initially to allow the PMU (based on the above mentioned assessment and preferences of the co-financing institutions), to select 10 projects for further development [33], at this stage only 4 projects were identified for immediate implementation. The reasons given for the withdrawal of a number of these enterprises are in part explained above (desire to remain discreet) but were also compounded by a changing political and economic situation, rapidly increasing interest rates, high level of co-financing required of enterprises 75%), or simply the closing of the enterprises. It is important to note that 10 of the 20 enterprises selected initially have withdrawn from participating “temporarily” asking to be put on hold for 6 months to 1 year.

The ET was able to verify that 4 PPs are currently being implemented [34] (1 – 4 below, Output 2.4) and that 3 additional ones are in the process of being implemented (5 – 7 below). 3 Pilot Projects out of the 10 expected are yet to be identified (Output 2.5):

1. PE "Kilgan" - The installation of a biodiesel production unit has been completed and is producing approximately 1,000 liters per hour (6 to 7 hours/day);

2. JSC "Hlibprom” - The installation of heat recovery units was completed in May and commissioning is expected in June 2014, with a reported – but as of yet unverified [35]- ES of approximately 10%. This enterprise also received ISO 50001 implementation training for compliance with EMS (3 trainees, August 2012) however, management changed and retraining will be necessary to ensure the successful continuation of the Pilot and correct use of the measurement equipment for energy management which was also supplied;

[33] 3 with equipment suppliers, 1 involving implementation of an EMS and 6 involving installation of EE and / or RE technology at productive enterprises in the energy intensive SME sector

[34] 2 of the PPs were visited by the ET in Western Ukraine, the other two located in Crimea were off limits (Security Clearance) and interviews were conducted by Skype/phone

[35] 170,000 m^3 of gas saved per annum, to be verified

3. PE "Krymbumaga" - located in Crimea. The enterprise reports the ongoing installation of a steam turbine after the successful delivery of equipment[36], but the progress is currently being delayed because of the political situation in Crimea. Although the enterprise needs to explore new suppliers and market opportunities, their intention of continuing with the Project was conveyed to the ET;

4. JSC "Krymmoloko" – located in Crimea. The installation of solar collectors for hot water production is almost ready for completion, but is currently being delayed because of the political situation in Crimea. Equipment reportedly with the capacity to cover all of the hot water needs of the enterprise for 8 out of 12 months of the year, leading to considerable savings (gas). The company has downsized (from 400 to 100 employees) and is looking for alternative markets. Impact of interest rates has also been strongly felt as loans are in USD.

5. JSC "Elitwood" - Project concept being refined (size) but the enterprise aims to use wood waste for gasifier operation and electrical power generation. They have already installed, at their own cost, wood waste fired boilers (2) and EE dryers that no longer use natural gas;

6. Farm enterprise "Shevchenko" – Large-scale pig farm (3,000 hogs). The project in final stage of definition and negotiations are ongoing regarding level of co-financing as it is a very large project (approx. USD3 million);

7. JSC "Kvazar". Development of business strategy ongoing, ToRs for technology transfer under preparation. Manufacturers of PV panels and EE lighting systems aiming to install state of the art equipment.

Pilot Project 8, 9 and 10 have not been identified at this stage, however it is expected that these could be selected from the respondents of the call for proposals currently open to identify projects for Component 3 aiming to provide technical assistance to develop prospective 50 EE and RE investment projects (see below). As it was mentioned throughout this MTE, the Project has encountered difficulties to identify enterprises willing to participate in these activities but the situation is expected to change as the political panorama becomes clearer.

The situation in Crimea, and indeed in all of Ukraine, leads the ET to assess as likely the possibility that the ongoing PPs will be completed successfully as, in particular, RE and EE have the potential to compensate for some of the losses due to the increased cost of gas (Ukraine), or the increase in the cost of electricity (Crimea), and possibly even generate savings.

[36] However the enterprise reported issues related to purchase of “missing” (superheater) equipment as well, but as this is not attributable to the Project, the MTE will not cover this issue in any detail

Finally, the ET was informed that a pool of banks and state financial institutions (leasing agencies) is in the process of being established to support initiatives in the agro-food and wider SME sector.

5.2.3 Component 3 – Scaling up Strategy and Catalyzing Investments

Through a combination of advisory and capacity building services, this Component seeks to strengthen national capacities on the technical analysis of energy management potentials at selected industries, financial analysis, policy advice and transfer of technology. Based on the experiences gained from implementing demonstration projects under Component 2, above, this component aims to create favourable conditions for the development of a pipeline of further EE and RE investment projects in the agro-food sector, and projects with technology suppliers.

This component includes the following 2 main Outputs [37] and is carried out through implementation of various Activities:

3.1 Preparation and operationalization of scaling up strategy on EE and RE in energy intensive SME clusters

3.2 Technical and financing packages for SMEs developed, based on detailed project reports

The results are described in more detail below for each of the 2 Outputs.

Output 3.1 - Scaling up strategy on EE and RE

The ET was informed that the preparation and operationalization of the scaling-up strategy is ongoing. The Terms of Reference (ToR) for a national expert have been developed and it is expected that she/he will be brought on board during Q3-2014. The final product of this consultancy will be a document establishing approaches to increase the positive effect of the Project. These approaches will support not only horizontal scaling up (expansion/replication), but also vertical scaling up (institutionalization) and it is expected that this document will be instrumental in supporting the development of EE/RE projects in Ukraine.

The ET was also informed that a web-based technology “clearing-house” has been developed aiming to facilitate the establishment of direct contacts between EE/RE equipment manufacturers (suppliers) and potential customers. This relatively new approach in Ukraine is expected to also be useful for other sectors of industry. Although the Clearing-House related information is already on the Website, this was described to the ET as still requiring to be improved. To this effect ToR have been prepared to bring on board an expert to develop, design and commission a fully searchable database, and to manage it for a period of 2 years.

Output 3.2 - Technology and financing packages

The aim of this Output is to support agro-food enterprises in the development of EE/RE business plans, thereby strengthening the positive effect achieved with the PPs and

[37] As per the approved Project Work Plan of February 2013

facilitating the establishment of contacts between agro-food SMEs and financial institutions as well as access to grants/loans.

The ET was informed that concerted efforts to identify potential enterprises (call for proposals) have so far produced about 35 proposals [38]. These will be screened and BP's will be prepared for each of the accepted ones. The ET was also informed that at present it is only contemplated to hire one expert to develop these BP's, however, given that it is expected that developing each BP will require approximately 2 weeks, the ET considers that, pending availability of resources, at least two national experts should be hired to complete this task as rapidly as possible.

Although the Project has established links and organized meetings with financial institutions from different countries (Ukraine, France, Austria, Russia) to map out possible financial schemes and present a portfolio of potential candidate projects, problems with authorities previously in power appeared as a strong barrier. This situation also led to a financial institution with which the Project had foreseen to cooperate leaving the country (Erste Bank withdrew from Ukraine in 2013).

5.2.4 Component 4 – Capacity Building

The overarching objective of this Component is to develop a range of capacity building activities addressing issues of energy management standards implementation, using RE technologies, economic stimulation of RE implementation, attracting investment in EE and RE projects, the transfer of RE technologies, licensing, certification, and opportunities for production in Ukraine.

This component includes the following 5 main Outputs [39] and is carried out through implementation of various Activities:

4.1 Trainings on EE and RE opportunities

4.2 EE and RE for fuel switching guidebooks for energy intensive SMEs prepared

4.3 Website launched and maintained

4.4 Study course on energy management standards and industrial applications of RE

4.5 Dissemination of best practices on improved EE RE technologies and standards

The results are described in more detail below for each of the 5 Outputs.

Output 4.1 - Training

The output supports training, workshops, study tours and the creation of informative, demonstration and methodological materials related to EE and RE use, particularly in the agro-food sector. The enterprises where PPs are being implemented are expected to become basis for the practical demonstration of EE and RE technologies in use, providing tangible examples of the resolution of issues relating to the integration of RE

[38] The call was disseminated via Project website, ordinary mail, and also through the Oblast Administrations

[39] As per the approved Project Work Plan of February 2013

technology into the enterprise infrastructure, connection to external power networks, and the evaluation of the actual effectiveness of various technology applications.

The Project aims to train 500 representatives from industry local officials, energy service companies, equipment suppliers in EE and RE opportunities, and fuel switching potential and practices. It is expected that initially 50 trainers will be trained through the 20 training sessions, and 40 representatives of government, industry and academic institutions will broaden their knowledge and experience on European best practice for policy making, technology and management techniques in EE and RE.

The ET was informed that the identification of the training needs of the target groups has been completed, and that approximately 108 hours of training "requirements" have been identified and are covered by the newly designed courses. Although the process has been completed and the actual needs of the target groups have successfully been identified - and the courses and content have been designed with the agreement of all stakeholders - the ET was informed that the level of effort required to reach this result was substantial and, time consuming [40].

Given the large volume of information to be covered by the courses, it is expected that these will be delivered via hands-on training, and distance learning. In addition, the potential trainees will be split into two groups: 1) Senior management and decision makers and representatives of local authorities will be updated to reinforce their understanding of technologies and processes (1 day training) and: 2) Middle managers, engineers and technicians and, academia, universities and representatives of professional associations will receive an intensive training of 2 or 3 days in an Oblast center, covering for example new technologies, equipment, comparative analysis of efficiencies etc. (100-110 training hours).

It is important to note that it became apparent early on that the potential trainees are not only interested in a UNIDO diploma, but expect a State recognized certificate / diploma. This has created a series of additional obstacles that the Project has had to surmount as State recognized courses can only be provided by licensed institutions. This "serious restriction" is compounded by the fact that State owned Universities work through the State Treasury and can't pay in advance for services (such as transport, printing, etc.), nor do they possess the required logistical expertise to coordinate the delivery of trainings. UNIDO HQ was requested to provide support in order to resolve the situation and reportedly this was carried out (via provision of international consultancy services) and led to a call for bids for a "mediating" Contractor company to conduct the trainings (see below).

The ET was informed that an Austrian organization had been contracted and has delivered drafts of 2 Training Modules, [41] and one educational test case, and that

[40] Direct communications had to be established between existing businesses, potential partners etc. and required the involvement of State and Local level administrative structures. As well, the Project actively participated in meetings, seminars, sector groups, professional associations, and public committee meetings to understand their training needs.

[41] Draft Training Modules: 1) The Use of Bio-Energy for Industrial Applications, and 2) The Use of Solar Thermal for Industrial Applications (prepared under Output 4.2)

procurement is ongoing for services of a Contractor to prepare and deliver [42] "Trainings of Trainers" (ToT) and Trainings of 500 [43] trainees across the country. The ToT will train 50 trainers - from which a core group of 20 Expert Trainers will be selected that will provide the Project with a core group of trainers who could "spread the word", and contribute to its sustainability - using the Modules mentioned above. The draft Modules will also be used as a template for the development of the other 30 identified Modules that have to be prepared covering RE, EE and energy management systems and issues for the following subsectors:

- Sugar making
- Beverages
- Canned food
- Meat processing
- Milk and dairy products
- Vegetable oil and animal fat
- Bakeries
- Chocolate and confectioneries
- Livestock raising (cattle, poultry, swine)

In addition to the recruitment of national and international experts, identification of potential participants for the first two training sessions is also ongoing (by the PMU).

Finally, as regards the study tours to Europe for two groups of key representatives from government, industry and academia, one tour has taken place (Germany, 2013) the other is in preparation. It is important to note that this activity was described as "very successful" by interviewees who consider in addition that this "strengthened partnerships with project partners and members of the PSC".

Output 4.2 - Guidebooks

The ET was informed that 2 Training Modules have been developed (see Output 4.1) and that the development of the guidebooks is currently ongoing and will rely heavily on the work done on the roadmaps (see Output 2.1). However the ET was informed that even though the development of these guidebooks can be considered as ongoing, these could only be finalized once the preparation of the training materials is complete, as the guidebooks will include the 30 different Modules developed.

Output 4.3 - Website

The Project Website is online and remains under the overall responsibility, technical maintenance and support of the Institute of Renewable Energy, while content management is within PMU's mandate.

As mentioned above, a Benchmarking calculator is currently under development and is expected to be online during Q4 2014.

[42] ToRs – Component 4.1

[43] 50 Senior management and decision makers; 450 middle management, engineers, technicians and representatives of professional associations

The ET observed that there is no mechanism in place to address items such as maintenance of the website, or even to pay the modest costs to retain the right to use the web domain name. Although this is not considered a major hindrance, it would be in the interest of the project to find solutions to address this situation, which is also likely to affect other outputs that would for example require printing of documents, or participation in outreach events.

Output 4.4 - Study course

The ET was informed that an ad hoc Working group on training and development had been created 2 years ago (composed of members from KPI, and other training institutes) and that although this had been dormant since May 2012, it had been reactivated in September of 2013 to assist in identifying key stakeholders involved in development of training materials.

The ET was also informed that the Project has already facilitated the preparation of the following publication:

- *Assessment of Current Education Programs on Industrial Applications of Renewable Energy in Ukrainian Universities (O. Kudrya, 2012)*

A draft course model on RE is ready to be reviewed once an international expert is brought on board and produces the complementary assessment of international educational practices. The delay in identifying this expert has impacted implementation of this Outcome, however measures are being considered to test and validate in a first stage (2014-2015 school year), the practical part of the course in the laboratory, to be followed during the second semester, by testing and validation of the theoretical part of the course. The ET considers this option to have a moderately likely chance of taking place but does not consider the overall Output to be at risk.

The above assumption is based on information provided as regards the plan to use an existing and State approved course name ("RE in industrial applications") and modifying the contents, as this would facilitate the approval by the Ministry of Education. If there is no change in name, or in structure (sequence of the laboratory classes/assignments) and number of hours, there is no requirement to obtain validation by the Scientific Council, which would require a minimum of 3 months.

Output 4.5 - Dissemination of best practices

The ET was informed that 8 best practices one pager Case Studies (7 different examples in Solar - irrigation channels, in farms, bee keepers, schools, 1 EE), have been designed for different target groups. At present, the ones for mass media and NGOs have already printed and over 1,000 have been disseminated in different events. In the near future a special folder will be prepared to present the complete series, which could be provided as part of training material.

It is expected that in total, approximately 40 different Case Studies will be prepared to cover the modules on training.

- ***Are the actual project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs/inputs, the evaluators should assess if there were any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from such projects.***

The evaluation evidenced that the project as it is being developed and implemented is fully aligned with the original project objectives. In addition, the project is considered to be "on schedule" as regards delivery of the different outputs.

This would tend to indicate that it is very likely that, on a purely results based management approach, the intended final outputs will be delivered in support of achievement of the outcomes.

Given that this is a Mid Term Evaluation, the ET was not expecting to document "real outcomes" at this stage. However there are clear indications that a number of outputs are likely going to lead to outcomes in the near future.

- ***To what extent have the expected outputs and outcomes been achieved? How do the stakeholders perceive their quality? Were targeted beneficiary groups actually reached?***

Stakeholders perceive the quality of these outputs as high to very high. During the course of the interviews and field visits the ET did not evidence any instances where these were described differently.

- ***Identify the potential longer-term impacts or at least indicate the steps taken to assess these (see also below "monitoring of long term changes"). Wherever possible, evaluators should indicate how findings on impacts would be reported to the GEF in future.***

Potential longer-term impacts of the Project are considered fully aligned with the expectations laid out in the original project document, as previously mentioned. The steps taken to assess these are in part picked up in the present mid term review, and are continuously being tracked by the projects well-established PMU and reported to the projects Steering Committee. This will provide a valuable source of data for ulterior evaluations where these longer-term impacts will be easier to assess.

- ***Catalytic or replication effects: the evaluation will describe any catalytic or replication effect of the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project's catalytic role.***

Although for the moment these effects can not be directly observed, the ET is of the opinion, based on information provided by different stakeholders, that it can be considered highly likely that in particular the Pilots will have catalytic and/or replication effects.

Replication potential is considered to be high, based on progress achieved with the BP component.

5.3 Efficiency

The ET assesses the **efficiency** of the project as ***Highly Satisfactory***, with project outputs at mid-term being delivered or in the process of being delivered on or close to target. These outputs have in addition been implemented in a cost-effective and efficient manner. With a total expenditure of USD 2,541,483.90 (GF Funding of USD 2,510,779.94 + XP Funding of EUR 22,485.34 equivalent to approx. USD 30,703.96), out of a total GEF Grant of USD 5,768,400, to date the Project has a delivery rate of slightly over 44% as regards the total available budget. Given the difficult context in which the Project evolved over the last few months of 2013 and the early part of 2014, the ET considers this a noteworthy achievement.

- ***Is the project cost effective? Is the project the least cost option? Is project implementation delayed, and, if it is, does that affect cost effectiveness?***

To date, the project has made considerable progress, at a reasonable cost, towards the delivery of expected outputs.

Table 1 - Overview of available funds

Project Components / Outcomes	***GEF ($)***	*Co-financing ($)*	**Total ($)**
Outcome 1: Policy and regulatory framework strengthened, inducing a wide-scale dissemination and adoption of energy efficiency management standards and renewable energy technologies and processes in the energy intensive industrial sector (with specific focus	508,140	1,265,000	1,773,140
Outcome 2: Improved productivity and competitiveness of selected energy intensive SMEs; reduced fossil fuels consumption and energy costs; increased compliance with national energy efficiency standards / guidelines); and increased use of renewable energy for fuel switching.	3,209,820	30,930,568	34,140,388
Outcome 3: Strategic capacity of the Ukrainian energy intensive SMEs enhanced; investments and targeted financing in creating support infra-structure for improved EE and RE technologies; Scaling up markets for other SME units for wide coverage of improved EE and RE Technologies and standards	519,860	47,720,000	48,239,860
Outcome 4: Increased awareness in energy intensive SME sector, enhanced capacity of key players to develop and implement energy efficiency saving projects, and new patterns of responsible, ES behavior in the agro-food and energy intensive SME industry	512,860	1,015,000	1,527,860
Project management and monitoring and evaluation	405,428	1,300,000	1,705,428
Total	**5,156,108**	**82,230,568**	**87,386,676**

Source: ToR for the MTE Evaluation

Table 2 – Expenditures as at *June 2014* – (*Source: UNIDO*)

The project has committed/spent budgeted resources on programmed activities as shown in the table below:

Components	Expenditure in 2011 (USD)	Expenditure in 2012 (USD)	Expenditure in 2013 (USD)	Total Expenditure (2011 – 2013) (USD)
All	347,879.36	*544,232.05*	*3,943.82*	
POLICY		*173,065.82*	*74,630.65*	
TECHNOLOGY DEMONSTRATION		*968,069.16*[44]	*164,085.66*	
SCALE UP			*27,144.85*	
CAPACITY BUILDING		***31,814.52***	*106,380.30*	
MANAGEMENT/MONITORING and EVALUATION		***14,650.29***	*54,883.50*	
GRAND TOTAL	***347,879.36***	***1,731,831.80***	***431,068.78***	**2,510,779.94**

XP Funding (UNIDO contribution)

Components	Expenditure in 2011 (EUR)	Expenditure in 2012 (EUR)	Expenditure in 2013 (EUR)	Total Expenditure (2012– 2013) (EUR)
All	***1,514.97***	11,383.63	17.44	
		11,383.63	***17.44***	
MANAGEMENT/MONITORING AND EVALUATION		***1,139.95***	***8,429.35***	
GRAND TOTAL	***1,514.97***	***12,523.58***	***8,446.79***	***22,485.34***

- ***Have the donor, UNIDO and Government/counterpart inputs been provided as planned and were adequate to meet requirements? Was the quality of UNIDO inputs and services as planned and timely?***

The ET was not informed of any shortcomings or delays as regards provision of inputs from UNIDO or the Government counterparts. The PMU reported that it was in "very close contact with all relevant government stakeholders" and the ET was able to verify this during the course of the interviews.

The ET documented on numerous occasions the expressions of satisfaction as regards the support received, and in particular as regards UNIDO ("Fully satisfied with the level of support", "appreciative of the integrated approach used to provide assistance" [45]).

[44] Including USD 460,699 from demonstration projects Kilgan and Krymmoloko, which were initially allocated under "policy" output due to the first UNIDO SAP structure of the project; this has been corrected now.

[45] Interview data

Contributions were reportedly provided in a timely manner and, the ET considers that it is likely to highly likely that project efficiency, through cost-effective delivery, will be achieved.

5.4 Sustainability

Overall the ET assesses the medium term sustainability of the Project as ***highly likely.***

The medium term sustainability of project results depends on several factors including relevance, soundness and timeliness of the outputs, in particular those generated by Component 1 – Policy Interventions.

The fact the ET received strong indications of support from various levels of government and stakeholders as to the intention of continuing to allocate in-kind resources to ongoing activities contribute to the assessment for the sustainability of the Project.

- ***Financial, Socio-political, Institutional Framework and Governance, and Environmental Risks***

The Project enjoys the strong and active support of Ministries and Agencies at State level and the UNIDO Focal Point has contributed to keep decision makers informed and involved, which is considered a positive factor indicating that there is minimal internal political risk. However this will depend on the continuity of the staff involved in the follow up of the project, which in the current post electoral climate is considered at low but present risk. In particular the ET was informed that there were internal discussions that could lead to the RE Agency's reporting lines changing. In the best and most EU aligned case, the line would be directly to the Prime Minister.

As regards the UNIDO Focal Point, although the work of this entity is highly appreciated, the ET received and took note of numerous comments regarding the fact that there was a strong desire to see UNIDOs presence strengthened with a larger and more permanent high-level structure. In particular it was felt that the current level of representation does not correspond to the cooperation needs of the country, both in development of ongoing activities, or for development of potential new activities.

5.5 Assessment of Monitoring and Evaluation (M&E) systems and Project Management

- ***M&E design and implementation***

The ongoing M&E design, implementation and level of funding are assessed as **Highly Satisfactory** by the ET and constitute the basis for decision-making as regards the overall implementation of the Project. At this stage (Mid term) the system helps to ensure successful and quality implementation of the project by tracking and reviewing project activities implementation and overall project progress and providing information on the project progress.

The Project monitoring and evaluation (M&E) was designed to be carried out under UNIDO and GEF guidance and in accordance with established procedures [46].

The ET was able to ascertain that project implementation follows the performance-based framework, which served as a tool to establish a results-based management system. The framework states the project outcomes, indicators, baselines and targets, and is the basis for planning the project work (budgeting, staffing, allocating resources).

The ET was not informed of any major corrective actions required to be taken by the PMU further to identified deviations in the actual project performance, from that which was initially planned for. Further to this it also follows that at this stage it has not been necessary to amend the initial project strategy and implementation plan.

- ***Budgeting and Funding***

No shortcomings were identified as regards budgeting and/or funding by the ET and this neither on paper (PIRs etc.) nor during the interviews.

- ***Project Management***

The Kick Off workshop took place on 15 June 2011 and the PMU was established after this, in two stages: July 2011 – recruitment of the National Project Coordinator and Project Assistant and; December 2011 – recruitment of the rest of the team including the Senior Expert for Policy, the Senior Technical Expert and the Senior Expert for Capacity Building. The PMU is housed in the premises of the Institute of renewable Energy.

The PMU has developed a Project Operational Manual (defining project implementation modalities) and put in place a Project Work Plan [47], as well, the first two meetings of the PSC have taken place (September 2012 and June 2013). The Project Supervisory Board (Project Steering Committee - PSC) consists of representatives from the Ministry of Agrarian Policy, NAER, NEFCO, Institute of Renewable Energy, UNIDO, and the GEF Focal Point in Ukraine (Ministry of Environment). The PSC members are tasked with the review of project plans, and providing advices on strategic approaches to efficiently achieve Project objectives.

The meetings of the PSC are in theory to be held bi-annually, however the situation in the country made it such that the second meeting of 2013 had to be postponed. To date this has not taken place but is being scheduled for the second half of 2014.

Success on project implementation is measured by achieved objectives set in the project proposal and in the project in accordance with annual performance indicators for project implementation. These indicators include total CO2eq emission reductions, volume of investment, total energy saved as a result of the project, to name a few, and will be in used at the time of the Final Evaluation to asses the project in term of its direct and indirect impact. At this stage (MTE), and given in particular that all demonstration projects are not completed, information on direct energy and GHG emissions savings has not yet been generated in a way that can be of use to this MTE.

[46] GEF Project Document (UNIDO Ukraine Prodoc CEO Endor 21.2.11 final.doc)

[47] UNIDO PIR – 11 October 2012

5.6 Assessment of processes affecting attainment of project results

- ***Preparation and readiness. Are the project's objectives and components clear, practicable and feasible within its time frame? Are counterpart resources (funding, staff, facilities), and adequate project management arrangements in place at project entry?***

The ET was not able to document any shortcomings as regards the above. The project objectives are assessed as clear, practicable and feasible within the time frame. No information regarding untimely availability of counterpart resources, nor of inadequacy of project management arrangements, was documented.

The ET was however able to document positive remarks on all of the above citing for example the importance of the projects and their objectives, the support and funding received, and arrangements to ensure all elements fell into place in a timely manner.

- ***Country ownership/driveness. Is the project concept in line with the sectorial and development priorities and plans of the country? Are project outcomes contributing to national development priorities and plans? Are the relevant country representatives from government and civil society involved in the project? Does the recipient government maintain its financial commitment to the project? Has the government approved policies or regulatory frameworks in line with the project's objectives?***

Overall the ET considers level of ownership by the country to be very high[48]. The project was developed following a participatory and multi-stakeholder approach and is considered to be in line with key national priorities of Ukraine[49] to ensure the country's energy security. This is of particular relevance in the current context since improvement of EE and wider use of renewable energy could effectively reduce consumption of fossil fuels and, in this way, lessen the country's dependence on imported fuels.

The project is fully in line with legislation and norms on EE and renewables including the following: Laws "On ES", "On Alternative Energy Sources", "On Alternative Types of Liquid and Gaseous Fuel", "On Combined Generation of Heat and Electric Energy (Co-generation) and the Use of Waste Energy Potential"; Decrees of the CMU as of 03.04.06 №412 „Issues of the SAEE" and as of December 17, 2008 "On Development of Industry Programs for Enhancement of Energy Efficiency between 2010-2014" and "the State Special Economic Energy Efficiency Program for 2010-2015".

The project is also fully in line with Ukraine's energy strategy up to 2030 as outlined in the Order of the CMU No. 145-p dated March 15, 2006, which defines the long-term energy policy of Ukraine. The Strategy sets out an objective to decrease natural gas consumption domestically and to increase the use of renewable sources in energy production.

[48] The availability of high-level government representatives (Deputy Minister, Director General, etc.) to meet with the ET at very short notice is considered to be an additional indication of the degree of relevance and ownership of the project by the country.

[49] UNIDO Ukraine Prodoc CEO Endorsement 21.2.11

As regards participation of country representatives from government and civil society, as explained above, the PSC's composition is considered to adequately allow for full cross-sectorial and multi-stakeholder involvement. In addition, the PMU works closely with all relevant stakeholders including the Parliamentary Committee on Energy Issues and working groups have been established to include members of all stakeholder groups to facilitate commitment and buy in.

- ***Stakeholder involvement. Does the project involve the relevant stakeholders through information sharing and consultation? Does the project implement appropriate outreach and public awareness campaigns? Are the relevant vulnerable groups and powerful supporters and opponents of the processes properly involved?***

The ET was able to ascertain that the Project involves all relevant stakeholders through information sharing and consultation and is developing and actively promoting the dissemination of materials to increase awareness.

Although the PSC is to meet twice a year, the recent political events led to the postponement of the second meeting for 2013, as well as the first one of 2014. In light of this situation the ET was informed that the PMU had initiated discussions regarding the possibility of implementing a more flexible meeting mechanism, which could allow for decisions to be made in cases of force majeure. For example, the PSC could convene via videoconference or Skype.

Although the ET did not receive any negative comments regarding the performance, composition or results obtained by the PSC, the option of holding future PSC meetings at or in the vicinity of where the PPs are (or will be located) could offer the possibility of sharing first hand both the results obtained, and to demonstrate that state of the art technology in action.

- ***Financial planning. Does the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds? Are there due diligence in the management of funds and financial audits? Did promised co-financing materialize?***

The ET was not able to document any issues as regards financial planning, including controls and reporting, and considers that the existing mechanisms provide sufficient and timely means to ensure the proper management of these. The PIRs are detailed and provide the required information to allow the PSC and UNIDO to maintain control of the project's expenditures. There were no reports of audits having been prepared at this stage.

- ***UNIDO supervision and backstopping. Does UNIDO staff identify problems in a timely fashion and accurately estimate their seriousness? Does UNIDO staff provide quality support and advice to the project, approve modifications in time, and restructure the project when needed? Does UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?***

The ET received ample evidence to document that the project had received quality and timely support from UNIDO. In addition the relationship between staff of the PMU and UNIDO is described as "strong" and UNIDO as "very responsive" with "direct working contact always available". The Project is designed in such a way that UNIDO is not

necessarily expected to “approve modifications and/or restructure the Project” as this is a task that is expected of the PSC.

Regarding staffing levels, although this was not an issue raised to signal a deficiency on the part of UNIDO, the PMU raised concerns that allow the ET to determine that a potential bottleneck as regards translation of documents exists. The position of translator is currently filled part time, and given the expected volume of work currently in the pipeline, this will not be sufficient to address future needs. This has reportedly already led to minor delays and will need to be resolved.

- ***Co-financing and project outcomes and sustainability. If there was a difference in the level of expected co-financing and the co-financing actually realized, what were the reasons for the variance? Does the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?***

At this stage in the implementation of the project (Mid Term) the ET was not informed of any shortcomings or variance in the expected level of co-financing. Although precise figures are not available at this stage, the ET pointed out on numerous occasions that this was an area that deserved much closer attention. Even though it is clear co-financing is taking place (Office spaces are provided to PMU, as well as furniture, cleaning services, etc.), this will need to be documented formally.

- ***Delays and project outcomes and sustainability. If there were delays in project implementation and completion, what were the reasons? Do the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?***

The ET is not aware of any major delays in the implementation of the projects, per se. Although minor delays exist in the implementation of a number of outputs and for the PPs in Crimea, these are not considered to pose a risk to the delivery of the projects outcomes and/or its longer-term sustainability.

Even under the extraordinary circumstances that the country was facing in late 2013 and early 2014 (time of the MTE), the deadline for project completion and delivery of outputs of 2016 seems very likely to be reached.

Criterion	Evaluator's Summary Comments	ET Rating
Attainment of project objectives and results (overall rating) **Sub criteria (below)**	No shortcomings were evidenced by the evaluation	**HS**
Effectiveness		**HS**
Relevance		**HS**
Efficiency		**HS**
Sustainability of Project outcomes (overall rating) **Sub criteria (below)**		**ML**
Financial		**L**
Socio Political	Changes in government could lead to minor delays, while new staff is briefed	**ML**
Institutional framework and governance		**L**
Ecological	Alignment/finalization of overarching framework will require time	**ML**
Monitoring and Evaluation (overall rating) **Sub criteria (below)**	No shortcomings were evidenced by the evaluation	**HS**
M&E Design		**HS**
M&E Plan Implementation (use for adaptive management)		**HS**
Budgeting and Funding for M&E activities		**HS**
UNIDO specific ratings		
Quality at entry		**HS**
Implementation approach		**HS**
UNIDO Supervision and backstopping		**HS**
Overall Rating		**HS**

RATING OF PROJECT OBJECTIVES AND RESULTS

- Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

RATINGS ON SUSTAINABILITY

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

Rating system for sustainability sub-criteria

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.
- Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on 'M&E Design', 'M&E Plan Implementation' and 'Budgeting and Funding for M&E activities' as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project M&E system.
- Satisfactory (S): There were minor shortcomings in the project M&E system.
- Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly Unsatisfactory (HU): The Project had no M&E system.

"M&E plan implementation" will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on "M&E plan implementation."

All other ratings will be on the GEF six-point scale.

HS	= Highly Satisfactory	Excellent
S	= Satisfactory	Well above average
MS	= Moderately Satisfactory	Average
MU	= Moderately Unsatisfactory	Below Average
U	= Unsatisfactory	Poor
HU	= Highly Unsatisfactory	Very poor (Appalling)

6 Conclusions and Recommendations

CONCLUSION 1	**Recommendation 1**
This is a "very important project in the current […] context", "timely", "necessary" for energy independence. It is a "Custom made" project "performing at high level"	The Project Steering Committee (PSC) should consider strengthening mechanisms to ensure that information regarding the successes of the project is available not only for stakeholders, but for all levels of society
Contributing Conclusions	**Supportive Recommendations**
High degree of relevance and ownership evidenced at all levels (stakeholders)	In order to ensure the continued success of the project, UNIDO should consider maintaining the current (high) level of support it provides to the Project and might wish to consider increasing the frequency of its visits to the field
No shortcomings identified, the Project appears to be highly effective, notwithstanding current context, which could have had strong negative impact, in particular on 2 PPs in Crimea. However, no long term risks foreseen	
The Project fills a gap (in particular through implementation of PP) and facilitates "popularizing" of RE and EE.	The PSC should consider the implementation of one or more PP in public institutions such as schools
The replication potential for the PPs is considered very high by all stakeholders, "the most efficient way to demonstrate cutting edge technologies", however there are not enough of them (Social aspects not covered)	
Overall the Project is likely to strengthen the sector – "RE and EE demonstrated" – this is facilitated by direct contacts w/equipment manufacturers and financial institutions for example	
There are minor delays in implementation of a small number of outputs, but overall these are not affecting the efficiency of the implementation however, the low level of knowledge re UNIDO and its administrative / procurement policies are perceived by PMU as leading to delays	UNIDO should consider with some urgency the need to provide training to project staff regarding its Administrative processes (SAP) be it in Vienna, or in the field

CONCLUSION 2	
	Recommendation 2
There is currently a “climate of opportunity” in the country It would be beneficial if steps were taken to increase the visibility of the project, which would maximize the penetration of EE and RE	The PSC should consider designing and implementing activities to disseminate success stories and use of information / outreach and media campaigns, as the “opportunity is now”
Contributing Conclusions	**Supportive Recommendations**
PMU is highly regarded – submits information regularly in detailed and systematized manner however; translation capacity is already a source of bottlenecks. As outputs continue to be produced, this has the potential to become a major hindrance on Project implementation	The PSC should consider the urgent increase in the editorial and translation capacity of the PMU, possibly by assigning a full time editor/senior translator (quality assurance and homogeneity), and contracting a pool of translators (outsourcing)
No major shortcomings in design identified, however there is a flaw regarding a communications / outreach strategy, as well as budget, as this was not contemplated, per se, in the Prodoc	The PSC might wish to consider facilitating access to funds to produce these communications materials and raise awareness (including translation/printing budgets and participation in relevant national and international events) should be a priority As well, facilitating the development of inter agency collaborative communications mechanisms to make use of the capacity already present in the country’s own institutions should be pursued
UNIDO – very fruitful collaboration, all stakeholders want an increased presence of this Agency. The current level of representation – although appreciated and highly regarded - does not correspond to the cooperation needs of the country, both in development of ongoing activities, or in particular for potential new activities.	UNIDO should consider establishing a UNIDO desk in Ukraine, and should plan to strengthen its presence, as there is a high potential for additional cooperation activities with the country

7 Lessons Learned

Although reduction of political support had been foreseen as a potential risk, it was impossible to foresee the severity both of the economic crisis, and of the social uprising, that led to the toppling of the previous government.

In this challenging context, a highly organized, talented and very well connected PMU is key to the success of initiatives on the ground [50].

[50] The PMU succeeded in navigating very troubled waters, although this required many personal efforts, creative thinking and the unswerving resolve of its staff

8 Annexes

1. **List of Interviewees**
2. **Bibliography**
3. **ToR for the Final Evaluation**

List of Interviewees

	Name	Institution	Position	Contact details (e-mail, phone)
1	Artem Evdokymov	Krymbumaga (pilot project)	Executive Director	krymbumaga@mail.ru Tel.mob: +380992249004 Skype: krymbumaga
2	Diego Masera	UNIDO	Chief, Renewable and Rural Energy Unit	d.masera@unido.org
3	Evgenij Inshekov	National Technical University of Ukraine, Kyiv Polytechnic Institute – Institute for ES and Energy Management	Director of Training Centre for Energy Management	eni@iee.kpi.ua; eni23@i.ua Tel.mob:+380678112877
4	Galyna Sakhro	PJSC Concern Hlibprom (pilot project)	Head of Technical Department	gsakhro@hlibprom.com.ua
5	Iryna Bill	UNIDO - PMU	Assistant to PMU Head	I.BIL@unido.org
6	Ivan Kilgan	PE "Kilgan" (pilot project)	Owner	ivankilhan@gmail.com Tel.mob: +380676768159
7	Liudmyla Musina	UNIDO Focal Point, Ministry of Economic Development and Trade of Ukraine	Advisor to the Minister	musina@me.gov.ua Tel.mob: +380503510884
8	Mark Draeck	UNIDO	Project Manager	m.draek@unido.org
9	Mykola Kobets	PMU - UNIDO	National Policy Support Expert	m.kobets@unido.org
10	Oleksandr Lozovytskyi	Ministry of Agricultural Policy and Food of Ukraine	Head of the Certification Programme	Tel.mob: +380673779060
11	Oleksander Sen	Ministry of Agricultural Policy and Food of Ukraine	Deputy Minister	oleksandr.sen@minagro.gov.ua Tel.w.: +380442262621
12	Oleksandr Kyrychok	The State Agency on Energy Efficiency and ESs of Ukraine	Advisor to the Minister	aleksandr.kyrychok@meta.ua Tel.mob:+380954084162
13	Pavlo Rosen	PMU - UNIDO	National Expert on EE and RE	p.rozen@unido.org
14	Peter Korolyshchuk	Krymoloko (pilot project)	First Deputy Board Head, Chief	Tel.mob:+380503448923 Tel:

			Engineer	+380652583655
15	Roman Vereshchanskiy	Lviv Regional State Administration	Acting Director of the Department of Agro-Industrial Development	kryhuna@ukr.net
16	Sergii Dubovyk	The State Agency on Energy Efficiency and ESs of Ukraine	Deputy Chairman	dsf@ukr.net; dfs@saee.gov.ua Tel.mob: +380953547314
17	Sergii Shcherbak	PMU - UNIDO	National Expert on Capacity Building	S.SHCHERBAK@unido.org Tel: +380442854097
18	Stepan Kudrya	National Academy of Sciences of Ukraine	Deputy Director	kudrya@ive.org.ua Tel.mob: +380674656668
19	Valeriy Dubrovin	National University of Bio-Resources and Life of Ukraine	Director of the Technical Science and Research Institute	dubrovin.valeriy@gmail.com Tel.mob: +380502492591
20	Vasyl Budko	National Technical University of Ukraine, Kyiv Polytechnic Institute	Secretary of the Department of RE of NTU Kyiv Polytechnic Institute	solar_budko@ukr.net Tel.mob: +380502492591
21	Volodymyr Chernetskyi	Trade Industrial Company Lvivkholod Ltd.	Assistant to the General Director	V_chernetskyi@lvivcold.com.ua
22	Volodymyr Zablotskiy	Ministry of Agricultural Policy and Food of Ukraine	Advisor to the Minister	zvlat.kiev@mail.ru Tel.mob: +380677607675
23	Yuriy Kolisnyk	PJSC Concern Hlibprom (pilot project)	Head of Department	YKolisnyk@hlibprom.com.ua Tel.mob: +380673506043 Tel.w.: +380322977270 (ext. 20 21)

Bibliography

1. State energy efficiency and renewable energy policy

Energy Strategy of Ukraine for the period till 2030 approved by Order of CMU dated 15 March 2006 No.145-p

Updated Energy Strategy of Ukraine for the period till 2030 approved by Order of CMU dated 24 July 2013 No.1071 (however, it has not been published in the established order so far)

Law of Ukraine "On Electric Power Industry" dated 16 October 1997, No. 575/97-VR

Law of Ukraine "On Energy Saving" dated 1 July 1994, No. 74/94-VR

Draft Law of Ukraine "On Efficient Use of Fuel and Energy of Ukraine" (reg. No.3071 dated 12 August 2013) approved in principle

Law of Ukraine "On Basic Principles of Electricity Market Functioning in Ukraine" dated 24 October 2013 No. 663-VII

Draft National Energy Efficiency Action Plan till 2020 including Action Plan on Implementation of Certain EU's Energy Efficiency Directives

2. Governmental bodies regulating energy efficiency

Regulations on the State Agency on Energy Efficiency and Energy Saving of Ukraine approved by the Decree of the President of Ukraine dated 13 April 2011 No.462

Procedure of Entering into the State Register of Enterprises, Institutions, Organizations Involved in Development, Implementation and Use of Energy Saving Actions and Energy Efficiency Projects approved by the Order of the National Agency of Ukraine "On the Issues of Ensuring Efficient Use of Energy" dated 1 April 2008, No. 49

3. Governmental bodies regulating power industry

NERC Ordinance "On the Conditions and Rules of Power Generation Business Activities" dated 8 February 1996, No.3

NERC Ordinance "On Approval of the Guidelines on the Procedure of Issuing Licenses by the National Electricity Regulatory Commission for Certain Business Activities" dated 6 October 1999, No. 1305

NERC Ordinance "On Approval of the Procedure of Setting, Reviewing and Cancelling "Green Tariff" for Economic Entities" dated 02.11.2012 No.1421

NERC Ordinance "On Approval of the Procedure of Determining Local Content for Electricity Industry Facilities including Completed Power Plant Line Facilities (Start-up Complexes) Generating Electricity from Alternative Energy Sources (except blast furnace and coke gas)" dated 27.06.2013 No. 744

NERC Ordinance “On Approval of Model Contracts between Business Entities Generating Electricity from Alternative Energy Sources” dated 11.10.2012 No. 1314

4. Electricity wholesale market

Contract between wholesale market players dated 15 November 1996 as amended

NERC Ordinance “On Approval of the Wholesale Electricity Market Regulations of Ukraine” dated 12 November 1997 No.1047a

5. Tax and customs legislation

Tax Code of Ukraine dated 2 December 2010, No. 2755-VI

Customs Code of Ukraine dated 13 March 2012, No. 4495-VI

CMU’s Resolution dated 28 September 2011, No. 1005 “On Approval of the List of Goods of Domestic Origin Subject to 80% Exemption from Corporate Tax within the Customs Territory of Ukraine”

CMU’s Resolution dated 14 May 2008, No. 444 “Issues of Importing Energy Efficient Materials, Equipment and Components to the Customs Territory of Ukraine”

6. Public-private partnership

Law of Ukraine “On Public-Private Partnership” dated 1 July 2010, No. 2404-VI

Concept of Public-Private Partnership Development in Ukraine for 2013-2018 approved by Directive of CMU dated 14.08.2013 No.739

Procedure of Governmental Support to Public-Private Partnership approved by Resolution of CMU dated 17.03.2011 No.279

7. Energy audit

Model methodology “General Requirements to Organizing and Implementing of an Energy Audit” approved by Order of National Agency of the Efficient Use of Energy dated 20.05.2010 No.56

Regulations on the procedure of organizing energy inspections approved by Order of the State Committee on Energy Saving of Ukraine dated 09.04.1999 No.27

Temporary Regulations on the procedure of energy examination of enterprises and certification of specialized organizations to empower them conduct examinations approved by Order of the State Committee on Energy Saving of Ukraine dated 12.05.1997 No.49

8. Stock Market

Law of Ukraine “On Securities and Stock Market” dated 23 February 2006, No. 3480-IV

9. State and sectoral energy efficiency programmes

State Target Economic Programme of Energy Efficiency and Development of Energy Generation from Renewable Energy Sources and Alternative Fuels for 2010 - 2015 approved by Resolution of CMU dated 01.03.2010 No.243

Sectoral Programme of Energy Efficiency and Energy Saving in Housing and Utilities Sector for 2010-2014 approved by Order of the Ministry of Housing and Utilities dated 10.11.2009 No. 352

State Programme for Activation of Economic Development for 2013 - 2014 approved by Resolution of CMU dated 27.02.2013 No.187

National Programme for Reforming and Development of Housing and Utilities for 2009-2014 approved by the Law of Ukraine dated 24.06.2004 No.1869

State Programme of Development of Domestic Production approved by Resolution of CMU dated 12.09.2011 No.1130

Priority Action Plan with a view to implement the State Programme of Development of Domestic Production approved by Order of CMU dated 07.11.2012 No.970

Decree of the President of Ukraine "On National Action Plan for 2013 for the Implementation of the Economic Reform Programme for 2010-2014 "Prosperous Society, Competitive Economy, Efficient State"

Methodology for Development of Sectoral, Regional Energy Efficiency Programmes and Programmes of Energy Consumption Reduction by Budget-Funded Institutions via Efficient Consumption approved by Order of National Agency for Efficient Use of Energy dated 17.03.2009 No.33

Order of CMU "On the Energy Efficiency Improvement and Energy Consumption Reduction Programmes" dated 17 December 2009 No.1567

10. Governmental support to energy efficiency investment projects

Law of Ukraine "On Investment Activities" dated 18 September 1991, No. 1560-XII

Procedure of Selection of Project (Investment) Proposals and Investment Projects to be Granted Governmental Support approved by Resolution of CMU dated 13.11.2013 No.835

Procedure and Criteria of Evaluation of Economic Efficiency of Project (Investment) Proposals and Investment Projects approved by Resolution of CMU dated 18.07.2012 No.684

Order of the Ministry of Economic Development and Trade of Ukraine "On Approval of the Application Form for Investment Project or Project (Investment) Proposal" dated 03.09.2012 No.965

Procedure of Maintenance of the State Register of Investment Projects and Project (Investment) Proposals approved by Resolution of CMU dated 18.07.2012 No.650

Procedure of Competitive Selection of Energy Efficiency Projects for Governmental Support from the Governmental Budget Allocations for the State Target Economic Programme of Energy Efficiency and Development of Energy Generation from Renewable Energy Sources and Alternative Fuels for 2010 - 2015 approved by Order of the Ministry of Economic Development and Trade of Ukraine dated 06.10.2011 No.105

Regulations on the State Expert Appraisal of Energy Saving approved by Resolution of CMU dated 15.07.1998 No.1094

11. Procedure of budget fund allocation

Procedure of the Use of the Funds Provided in the State Budget for the Implementation of the State Target Economic Programme of Energy Efficiency and Development of Energy Generation from Renewable Energy Sources and Alternative Fuels for 2010 - 2015 approved by Resolution of CMU dated 29.06.2011 No.689

Procedure of the Use of the Funds Provided in the State Budget for Soft Loans to Legal Entities including Condominiums, for Reconstruction, Overhauling and Maintenance of the Housing Resource approved by Resolution of CMU dated 31.05.2012 No.599

Procedure of the Use of the Funds Provided in the State Budget for Governmental Support to Energy Saving Measures via Easy Loan Mechanism approved by Resolution of CMU dated 13.04.11 No. 439

Procedure of Competitive Selection of Energy Efficiency Projects Eligible to Governmental Support from the State Budget Funds Provided for the Programme of Governmental Support of Energy Saving Measures via Easy Loan Mechanism approved by Order of the Ministry of Economic Development dated 27.09.11 No. 64

12. Energy services

Methodological Recommendations on Creation of the System of Economic Incentives to Encourage Implementation of Energy Saving Measures at Housing and Utility Enterprises approved by Order of the Ministry of Housing and Utilities of Ukraine dated 26.01.2011 No.9

13. Energy balance

General Table (List) of Forms of State Statistic Observations for 2014 approved by Order of the State Statistics Committee of Ukraine dated 19.12.2013 No.403

Implementing Order of CMU “On De Facto and Forecast Energy Balance of Ukraine Based on Statistics and Observations” dated 11.03.11 No. 203-p.

14. Public awareness of energy efficiency

Action Plan for Raising Public Awareness of Energy Efficiency Improvement for 2010-2011 approved by Order of CMU dated 25.11.2009 No. 1425

15. Rationing specific fuel and energy consumption

Resolution of CMU dated 15 July 1997, No.786 “On the Procedure of Rationing Specific Costs of Fuel and Energy in Social Production”

16. Research and development

Procedure of Planning, Implementation and Financing of Research and Design Works approved by Order of the State Agency on Energy Efficiency and Energy Saving of Ukraine dated 02.11.2012 No.77

17. Harmonization of the Ukrainian legislation with Acquis Communautaire

National Programme of Harmonization of the Ukrainian Legislation with the EU Law approved by Order of CMU dated 15.04.2009 No.408

Action Plan on the Implementation in 2012 of the National Programme of Harmonization of the Ukrainian Legislation to the EU Law approved by Order of CMU dated 28.03.2012 No.156

Action Plan on the Implementation in 2013 of the National Programme of Harmonization of the Ukrainian Legislation to the EU Law approved by Order of CMU dated 25.03.2013 No.157

Action Plan on the Implementation of contractual obligations under the Contract Establishing the Energy Community approved by Order of CMU dated 03.08.2011 No.733

Priority Action Plan on Integration of Ukraine into the European Union for 2012 approved by Order of CMU dated 05.04.2012 No.184

Terms of Reference

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Evaluation methodology

Independent Mid-Term Evaluation of the UNIDO Project:

UNIDO Project Number: 103078

GFUKR11A04

- Improving energy efficiency and promoting renewable energy in the agro-food and other small and medium enterprises (SMEs) in Ukraine -

JANUARY 2014

CONTENTS

I. Project Background and Overview

1. Project summary

The project “Improving energy efficiency and promoting renewable energy in the agro-food and other small and medium enterprises (SMEs) in Ukraine” is financed by the GEF and implemented by UNIDO as an implementing agency of the GEF. The project was approved in May 2011, now is under implementation in Ukraine and is of duration of five years.

The project consists of four components:

- Policy Support: Integrating Energy Efficiency (EE) and Renewable Energy (RE) priorities into national industrial policies and development programmes on energy intensive SMEs in Ukraine
- EE and RE Interventions: Promoting energy efficiency interventions and use of renewable energy by way of improved technologies, management standards and tools and fuel switching in selected agro-food and other energy intensive SMEs
- Scaling up Strategy: Strengthening the industry-level strategy and promoting markets for scaling up EE and RE technologies and catalysing investments in selected agro-food and other SME units and
- Awareness raising and capacity building in energy intensive SMEs.

2. Project objective

The main objective of the project is to develop a market environment for introducing EE and enhanced use of RE technologies in the agro-food and other energy intensive manufacturing SMEs in Ukraine as a basis for promoting their competitiveness while ensuring an integrated approach for lower carbon intensity and improvement in their productivity and local environment. The project is expected to:

- Strengthen the policy and regulatory framework in Ukraine inducing a wide scale dissemination and adoption of energy efficiency, energy management standards and renewable energy technologies and processes in energy intensive industries particularly SMEs;
- Improve productivity and competitiveness of selected energy intensive SMEs through reducing fossil fuel consumption and energy costs, increasing compliance with national energy efficiency standards and increasing use of renewable energy for fuel switching;
- Enhance the strategic capacity of Ukrainian energy intensive SMEs through creating a support infra-structure for improved EE and RE technologies and providing targeted financing for such investments;
- Scale up markets for other SMEs for wider coverage of improved EE and RE technologies and standards Promote an end-user incentive programme if feasible;
- Increase awareness of energy intensive SMEs of EE/RE potential;
- Enhance the capacity of key players to develop and implement energy efficiency projects.

The project main activities will focus on:

- Performing a detailed review of the policy and regulatory framework on EE and RE in Industry
- Developing policies and laws to scale up EE and use of RE in energy intensive manufacturing SMEs
- Putting in place policy incentives and institutional networks / tools to promote EE and RE in SMEs
- Setting up targeted action plans on promoting EE and RE in SMEs
- Providing policy support to responsible public authorities to ensure effective integration of EE & RE promotion objectives into programs of economic and social development at the national level
- Developing sustainability indicators for use of biomass residues (on fuel switching)
- Preparing sector diagnostic study reports focusing on energy consumption / audit in selected energy intensive SMEs
- Developing sector level energy efficiency plans in consultation with selected energy intensive SMEs
- Selecting projects / technologies for demonstration as pilot SME systems
- Strengthening the technology supply chain and demonstrating Energy Management Systems (EMS)
- Demonstrating return on investments in EE and RE PPs
- Establishing a scaling up strategy on EE and RE in energy intensive SME clusters
- Making available technology and financing packages for SMEs based on DPRs
- Training industry representatives, local officials, energy service companies and equipment suppliers on EE & RE opportunities.
- Preparing EE and RE for fuel switching guidebooks for energy intensive SMEs
- Launching a website providing information on relevant EE & RE technologies, best practices, funding sources, existing incentives etc. for SMEs
- Introducing a study course on energy management standards and industrial applications of RE at three selected universities
- Disseminating best practices on improved EE and RE technologies in all energy intensive SME units in Ukraine
- Ensuring an effective implementation and monitoring of the TPMP

3. Budget Information

a) Overall Indicative Cost and Financing (including co-financing):

Project Components/Outcomes	GEF ($)	Co-financing	Total ($)
Outcome 1: Policy and regulatory framework strengthened, inducing a wide-scale dissemination and adoption of energy efficiency management standards and renewable energy technologies and processes in the energy intensive industrial sector (with specific focus on SMEs) in	508,140	1,265,000	1,773,140
Outcome 2: Improved productivity and competitiveness of selected energy intensive SMEs; reduced fossil fuels consumption and energy costs; increased compliance with national energy efficiency standards /	3,209,820	30,930,568	34,140,388

Outcome 3: Strategic capacity of the Ukrainian energy intensive SMEs enhanced; investments and targeted financing in creating support infra-structure for improved EE and RE technologies; Scaling up markets for other SME units for wide coverage of improved EE and RE	519,860	47,720,000	48,239,860
Outcome 4: Increased awareness in energy intensive SME sector, enhanced capacity of key players to develop and implement energy efficiency saving projects, and new patterns of responsible, ES behaviour in the agro-food and energy intensive SME industry	512,860	1,015,000	1,527,860
Project management and monitoring and evaluation	405,428	1,300,000	1,705,428
Total	**5,156,108**	**82,230,568**	**87,386,676**

b) UNIDO expense (GEF funding excluding agency support cost in USD):

EXPENDITURES FROM 2011 to 2013

GF funding (GEF contribution)

Budget line	Item	Expenditure in 2011 (USD)
1100	International Expert/Consultants	19,616.50
1500	Travel of project staff	4,659.09
1700	National Experts/Consultants	19,278.76
2100	Subcontracts	301,391.00
3000	Trainings/Fellowships/Study Tours	
3500	Non-UNDP meeting	
4500	Equipment	
5100	Sundries	2,934.01
xxxx	***TOTAL***	***347,879.36***

Component	Budget line	Expenditure in 2012 (USD)	Expenditure in 2013 (USD)	Total Expenditure (2012 – 2013)
All	1100	28,992.54		
	1500	15,623.67		
	1700	79,957.08	2,514.89	
	2100	396,391.00	-77.12	
	3000	19,241.83	1,580.88	
	5100	4,025.93	-1.54	
		544,232.05	***4,017.11***	

POLICY	1100	2,765.43	13,593.39	
	1500	2,679.59	30,558.05	
	1700	52,639.92	29,833.41	
	2100	111,912.01	-227.47	
	3000	2,647.18		
	4500	460,669.00	174.53	
	5100	451.69	110.13	
		633,764.82	***74,042.04***	
TECHNOLOGY DEMONSTRATION	1100	12,986.29	4,289.55	
	1500	2,606.31		
	1700	22,889.18	61,694.78	
	2100	49,044.34	63,165.29	
	3000	2,940.00	23.59	
	4500	416,904.00	-18,935.17	
	5100		2.53	
		507,370.16	***110,240.57***	
SCALE UP	1700		21,240.87	
	2100		5,910.45	
			27,151.32	
CAPACITY BUILDING	1100		9,769.32	
	1700	16,983.06	31,382.85	
	2100		64,997.29	
	3000	14,831.46		
	4500		2,382.43	
	5100		23.59	
		31,814.52	***108,555.48***	
MANAGEMENT and MONITORING	1500		3,236.73	
	1700	14,650.29	55,201.12	
	5100		88.74	
		14,650.29	***58,526.59***	
GRAND TOTAL		***1,731,831.84***	***382,533.11***	**2,114,364.95**

*GF funding total expenditure from 2011 to 2013 = ***USD 2,462,244.31***

XP Funding (UNIDO contribution)

Budget line	Item	Expenditure in 2011 (Euro)
1600	UNIDO staff travel	1,091.64
xxxx	***TOTAL***	***1,091.64***

Component	Budget line	Expenditure in 2012 (EUR)	Expenditure in 2013 (EUR)	Total Expenditure (2012– 2013) (EUR)
All	1100	2,347.62		
	5100		17.44	
		2,347.62	***17.44***	
Project Management and Monitoring	1500		1,399.12	
	1600	10,175.96	3,160.70	
	1700		3,869.18	
	5100		0.35	
		10,175.96	***8,429.35***	
GRAND TOTAL		***12,523.58***	***8,446.79***	***20,970.37***

*XP funding total expenditure from 2011 to 2013 = ***€ 22,062.01***

c) Implementation Status:

The PIF was initially submitted to GEF on 10 April 2009 and a revised PIF was resubmitted on 16 April 2009 mentioning a GEF budget of USD 5,140,000 and cofinancing of USD 12,650,000 (total USD 17,790,000). The PIF was cleared and the PPG approved on 22 April 2009.

The FSP project document was submitted on 23 February 2011, and GEFSEC review sheet was received in March 2011; the revised CEIO Endorsement Document was resubmitted on 8 April 2011 and the CEO approved it on 13 May 2011 mentioning a GEF budget of USD 5,156,108 and cofinancing of USD 82,230,568 (total USD 87,386,676).

The Kick Off workshop took place on 15 June 2011; the first PSC meeting on 7 September 2012 and the second PSC meeting on 18 June 2013. An overview of main progress per component is provided in the Project Implementation report (PIR), dated October 2013.

II. Objectives and scope of the evaluation

The purpose of the mid-term evaluation is to enable the Government, counterparts, the GEF, UNIDO and other stakeholders and donors to:

(a) verify prospects for development impact and sustainability, providing an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators. The assessment includes re-examination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in chapter IV.

(b) Enhance project relevance, effectiveness, efficiency and sustainability by proposing a set of recommendations with a view to ongoing and future activities.

III. Methodology

The evaluation will follow UNIDO and GEF evaluation guidelines and policies. It will be carried out as an independent in-depth evaluation using a participatory approach whereby the UNIDO staff associated with the projects is kept informed and regularly consulted throughout the evaluation.

The methodology will be based on the following:

1. A desk review of project documents including, but not limited to:
   (a) The original project document, monitoring reports (such as progress and financial reports to UNIDO and GEF annual Project Implementation Review reports), output reports (case studies, action plans, sub-regional strategies, etc.) and relevant correspondence.
   (b) Notes from the meetings of committees involved in the project (e.g. approval and steering committees).
   (c) Other project-related material produced by the project.
2. The evaluation team will use available models of (or reconstruct if necessary) theory of change for the different types of intervention (enabling, capacity, investment, demonstration). The validity of the theory of change will be examined through specific questions in interviews and possibly through a survey of stakeholders.
3. Counterfactual information: In those cases where baseline information for relevant indicators is not available the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.
4. Interviews with project management and technical support including staff and management at UNIDO HQ and in the field and – if necessary - staff associated with the project's financial administration and procurement.
5. Interviews with project partners including Government counterparts, GEF focal points and partners that have been selected for co-financing as shown in the corresponding sections of the project documents.

6. On-site observation of results achieved in demonstration projects, including interviews of actual and potential beneficiaries of improved technologies.

7. Interviews and telephone interviews with intended users for the project outputs and other stakeholders involved with this project. The evaluator shall determine whether to seek additional information and opinions from representatives of any donor agencies or other organisations.

8. Interviews with the relevant UNIDO Country Office and the project's management and PSC members and the various national and sub-regional authorities dealing with project activities as necessary. If deemed necessary, the evaluator shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.

9. Other interviews, surveys or document reviews as deemed necessary by the evaluator and/or UNIDO EVA.

IV. Project Evaluation Parameters

The ***ratings for the parameters described in the following sub-chapters A to E will be presented in the form of a table*** with each of the categories rated separately and with **brief justifications for the rating** based on the findings of the main analysis. An overall rating for the project should also be given. The rating system to be applied is specified in Annex 5. The following is a list of guiding questions for the assessment of the different parameters.

A. Project relevance and design

Relevance to national development and environmental agendas, recipient country commitment, and regional and international agreements. See possible evaluation questions under "country ownership/driveness" below

Relevance to target groups: relevance of the project's objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.).

Relevance to the GEF and UNIDO: Are the project's outcomes consistent with the focal areas/operational program strategies of GEF? Are they in line with the UNIDO mandate, objectives and outcomes defined in the Programme & Budget and core competencies? Ascertain the likely nature and significance of the contribution of the project outcomes to the wider portfolio of the GEF Operational Programme (OP) #14 (or CHEM-1)

Is the project's design adequate to address the problems at hand? In particular, further analyse the proposed use of dechlorination as the sole PCB decontamination method.

Was a participatory project identification process applied and was it instrumental in selecting problem areas and national counterparts?

Does the project have a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators?

Was the project formulated based on the logical framework approach?

Was the project formulated with the participation of national counterpart and/or target beneficiaries?

B. Effectiveness: attainment of objectives and planned results (progress to date).

What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?

Are the actual project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs/inputs, the evaluators should assess if there were any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from such projects.

To what extent have the expected outputs and outcomes been achieved or are likely to be achieved? How do the stakeholders perceive their quality? Were the targeted beneficiary groups actually reached?

Identify the potential longer-term impacts or at least indicate the steps taken to assess these (see also below "monitoring of long term changes"). Wherever possible, evaluators should indicate how findings on impacts will be reported to the GEF in future.

Catalytic or replication effects: the evaluation will describe any catalytic or replication effect of the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project's catalytic role.

C. Efficiency

Is the project cost effective? Is the project the least cost option? Is project implementation delayed, and, if it is, does that affect cost effectiveness?

Have the donor, UNIDO and Government/counterpart inputs been provided as planned and have they been adequate to meet requirements? Is the quality of UNIDO inputs and services as planned and timely?

D. Assessment of sustainability of project outcomes.

Sustainability is understood as the likelihood of continued benefits after the GEF project ends. Given the uncertainties involved, it may be difficult to have a realistic a priori assessment of sustainability of outcomes. Therefore, assessment of sustainability of outcomes will give special attention to analysis of the risks that are likely to affect the persistence of project outcomes. This assessment should explain how the risks to project outcomes will affect continuation of benefits after the GEF project ends. It will include both exogenous and endogenous risks. The following four dimensions or aspects of risks to sustainability will be addressed:

- ✓ **Financial risks.** Are there any financial risks that may jeopardize sustainability of project outcomes? What is the likelihood of financial and economic resources not

being available once GEF assistance ends? (Such resources can be from multiple sources, such as the public and private sectors or income-generating activities; these can also include trends that indicate the likelihood that, in future, there will be adequate financial resources for sustaining project outcomes.)

- ✓ **Sociopolitical risks.** 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 project benefits continue to flow? Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?
- ✓ **Institutional framework and governance risks.** Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits? Are requisite systems for accountability and transparency, and required technical know-how, in place?
- ✓ **Environmental risks.** Are there any environmental risks that may jeopardize sustainability of project outcomes? The evaluation should assess whether certain activities will pose a threat to the sustainability of the project outcomes.

E. Assessment of monitoring and evaluation systems and project management:

- **M&E design.** Does the project have a M&E plan to monitor results and track progress towards achieving project objectives? The Evaluation will assess whether the project met the minimum requirements for the application of the Project M&E plan (see Annex 2).

- **M&E implementation.** The evaluation should verify that an M&E system was in place and facilitated timely tracking of progress toward project objectives by collecting information on chosen indicators continually throughout the project implementation period; annual project reports were complete and accurate, with well-justified ratings; the information provided by the M&E system was used during the project to improve performance and to adapt to changing needs; and projects had an M&E system in place with proper training for parties responsible for M&E activities to ensure that data will continue to be collected and used after project closure.

- **Budgeting and Funding for M&E activities.** In addition to incorporating information on funding for M&E while assessing M&E design, the evaluators will determine whether M&E was sufficiently budgeted for at the project planning stage and whether M&E was funded adequately and in a timely manner during implementation.

- **Monitoring of Long-Term Changes.** The monitoring and evaluation of long-term changes is often incorporated in GEF-supported projects as a separate component and may include determination of environmental baselines; specification of indicators; and provisioning of equipment and capacity building for data gathering, analysis, and use. This section of the evaluation report will describe project actions and accomplishments toward establishing a long-term monitoring system. The review will address the following questions:
  a. Did this project contribute to the establishment of a long-term monitoring system? If it did not, should the project have included such a component?

b. What were the accomplishments and shortcomings in establishment of this system?
c. Is the system sustainable—that is, is it embedded in a proper institutional structure and does it have financing?

- **Project management.** Are the national management and overall coordination mechanisms efficient and effective? Does each partner have specific roles and responsibilities from the beginning? Does each partner fulfill its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions…)? Are the UNIDO HQ based management, coordination, quality control and technical inputs efficient, timely and effective (problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits).

F. Assessment of processes affecting attainment of project results

The evaluation will consider, but need not be limited to, the following issues that may have affected project implementation and attainment of project results:

a. **Preparation and readiness.** Are the project's objectives and components clear, practicable, and feasible within its time frame? Are counterpart resources (funding, staff, and facilities), and adequate project management arrangements in place at project entry?

b. **Country ownership/drivenness.** Is the project concept in line with the sectoral and development priorities and plans of the country? Are project outcomes contributing to national development priorities and plans? Are the relevant country representatives from government and civil society involved in the project? Does the recipient government maintain its financial commitment to the project? Has the government approved policies or regulatory frameworks in line with the project's objectives?

c. **Stakeholder involvement.** Does the project involve the relevant stakeholders through information sharing and consultation? Does the project implement appropriate outreach and public awareness campaigns? Are the relevant vulnerable groups and powerful supporters and opponents of the processes properly involved?

d. **Financial planning.** Does the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds? Are there due diligence in the management of funds and financial audits? Does promised co-financing materialize?

e. **UNIDO supervision and backstopping.** Does UNIDO staff identify problems in a timely fashion and accurately estimate their seriousness? Does UNIDO staff provide quality support and advice to the project, approve modifications in time, and restructure the project when needed? Does UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?

f. **Co-financing and project outcomes and sustainability.** If there was a difference in the level of expected co-financing and the co-financing actually realized, what are the reasons for the variance? Does the extent of

materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?

g. **Delays and project outcomes and sustainability.** If there have been delays in project implementation and completion, what are the reasons? Do the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?

V. Evaluation Team and Timing

The evaluation team will be composed of one international evaluation consultant acting as team leader and one national evaluation consultant.

UNIDO (ODG/EVA) evaluation group will be responsible for the quality control of the evaluation process and report. The evaluators and the responsible project managers will keep the ODG/EVA informed and share correspondence and draft documents for review.

The evaluators will be able to provide information relevant for follow-up studies, including evaluation verification on request to the GEF partnership up to two years after completion of the evaluation.

The evaluation consultants will be contracted by UNIDO. Their tasks are specified in the job descriptions attached to these terms of reference.

Members of the evaluation team must not have been directly involved in the design and/or implementation of the programme/projects.

Timing

The evaluation is scheduled to take place in the period 13 January 2014 to 12 April 2014. The field mission for the evaluation remains to be scheduled in consultation with the project team in Ukraine.

After the field mission, the evaluation team leader will come to UNIDO HQ for debriefing. The draft evaluation report will be submitted 6 weeks after the debriefing at the latest.

VI. REPORTING

Evaluation report format and review procedures for mid-term evaluations

Inception report

This Terms of Reference provides some information on the evaluation methodology but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with project manager(s) the International Evaluation Consultant will prepare a short inception report that will operationalize the ToR relating the evaluation questions to information on what type of and how the evidence will be collected (methodology). The Inception Report will focus on the following elements: preliminary

project theory model(s); outline of the evaluation mission including interviews and site visits; division of work between the International Evaluation Consultant and National Consultant; and a reporting timetable[51].

Evaluation report

The evaluation report should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Evidence, findings, conclusions and recommendations should be presented in a complete and balanced manner. The evaluation report shall be written in Spanish; the Executive Summary shall be written also in English, and follow the outline given in annex 3.

Review of the Draft Report: Draft reports are shared with the corresponding Programme or Project Officer for initial review and consultation. They may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. The consultation also seeks agreement on the findings and recommendations. The evaluators will take the comments into consideration in preparing the final version of the report.

Quality Assessment of the Evaluation Report: All evaluations are subject to quality assessments in accordance with the quality criteria established by UNIDO Evaluation Group. The quality assessments are used as a tool for providing structured feedback to the evaluators. The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality (annex 4).

The draft report will be delivered to UNIDO and circulated to UNIDO staff associated with the project, including the UNIDO office in 4 February 2013.

[51] The evaluator will be provided with a Guide on how to prepare an evaluation inception report prepared by the UNIDO Evaluation Group.

Annex 1. Required Project Identification and Financial Data

The evaluation report should provide information on project identification, time frame, actual expenditures, and co-financing in the following format, which is modeled after the project identification form (PIF).

I. Project general information:

Project Name:	
Project's GEF ID Number:	
GEF Agency Project ID	
Country:	
GEF Focal Area and Operational Program:	
Agency:	
Other Cooperating Agencies:	
Project Approval Date:	
Date of Project Effectiveness:	
Project duration:	
Total Project Cost:	
GEF Grant Amount:	
GEF Project Preparation Grant Amount (if any):	

II. Dates

Milestone	Expected Date	Actual Date
Agency Approval date		
Implementation start		
Midterm evaluation		
Project completion		
Terminal evaluation completion		
Project closing		

III. Project Framework

Project Component	Activity Type	GEF Financing (in $)		Cofinancing (in $)	
		Approved	Actual	Promised	Actual
Total					

IV. Co-financing

Co-financing Sources				
Name of co-financier	Classification	Type	Amount ($)	Status
Subtotal co-financing				

Expected amounts are those submitted by the GEF Agencies in the original project appraisal document. Co-financing types are grant, soft loan, hard loan, guarantee, in kind, or cash.

Annex 2 - GEF Minimum requirements for M&E[52]

Minimum Requirement 1: Project Design of M&E

All projects will include a concrete and fully budgeted monitoring and evaluation plan by the time of work program entry for full-sized projects and CEO approval for medium-sized projects. This monitoring and evaluation plan will contain as a minimum:

- SMART indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management;
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, indicators identified at the corporate level;
- baseline for the project, with a description of the problem to be addressed, with indicator data, or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation;
- identification of reviews and evaluations that will be undertaken, such as mid-term reviews or evaluations of activities; and
- organizational set-up and budgets for monitoring and evaluation.

Minimum Requirement 2: Application of Project M&E

Project monitoring and supervision will include implementation of the M&E plan, comprising:

- SMART indicators for implementation are actively used, or if not, a reasonable explanation is provided;
- SMART indicators for results are actively used, or if not, a reasonable explanation is provided;
- the baseline for the project is fully established and data compiled to review progress reviews, and evaluations are undertaken as planned; and
- the organizational set-up for M&E is operational and budgets are spent as planned.

[52] http://gefeo.org/uploadedFiles/Policies_and_Guidelines-me_policy-english.pdf

Annex 3 - Outline of an in-depth project evaluation report

Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be 3-4 pages in length

I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

II. Country and project background

- Brief country context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project[53] and important developments during the project implementation period
- Project summary:
  - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
  - Brief description including history and previous cooperation
  - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
  - Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
  - Counterpart organization(s)

III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the ToR (see section III Evaluation Criteria and Questions). Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

[53] Explicit and implicit assumptions in the logical framework of the project can provide insights into key-issues of concern (e.g. relevant legislation, enforcement capacities, government initiatives, etc.)

A. Design
B. Relevance
C. Effectiveness
D. Efficiency
E. Sustainability
F. Project coordination and management

At the end of this chapter, an overall project achievement rating should be developed as required in Annex 5. The overall rating table required by the GEF should be presented here.

IV. Conclusions, Recommendations and Lessons Learnt

This chapter can be divided into three sections:

A. Conclusions

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

B. Recommendations

This section should be succinct and contain few key recommendations. They should:

- be based on evaluation findings
- realistic and feasible within a project context
- indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- be commensurate with the available capacities of project team and partners
- take resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Drafting Group
- Counterpart Organizations
- Donor

C. Lessons Learnt

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation

- For each lessons the context from which they are derived should be briefly stated

Annexes should include the evaluation ToR, list of interviewees, documents reviewed, a summary of project identification and financial data, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Report quality criteria	UNIDO Evaluation Group Rating Assessment notes
A. Did the report present an assessment of relevant outcomes and achievement of project objectives?	
B. Were the report consistent and the evidence complete and convincing?	
C. Did the report present assessment the sustainability of outcomes or did it explain why this is not (yet) possible?	
D. Did the evidence presented support the lessons and recommendations?	
E. Did the report include the actual project costs (total and per activity)?	
F. Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action?	
G. Quality of the recommendations: Did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?)'. Can they be implemented?	
H. Was the report well written? (Clear language and correct grammar)	
I. Were all evaluation aspects specified in the ToR adequately addressed?	
J. Was the report delivered in a timely manner?	

Annex 4 - Checklist on evaluation report quality

Rating system for quality of evaluation reports
A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1, and unable to assess = 0.

Annex 5. Overall Ratings Table

Criterion	Evaluator's Summary Comments	Evaluator 's Rating
Attainment of project objectives and results (overall rating) **Sub criteria (below)**		
Effectiveness		
Relevance		
Efficiency		
Sustainability of Project outcomes (overall rating) **Sub criteria (below)**		
Financial		
Socio Political		
Institutional framework and governance		
Ecological		
Monitoring and Evaluation (overall rating) **Sub criteria (below)**		
M&E Design		
M&E Plan Implementation (use for adaptive management)		
Budgeting and Funding for M&E activities		
UNIDO specific ratings		
Quality at entry		
implementation approach		
UNIDO Supervision and backstopping		
Overall Rating		

RATING OF PROJECT OBJECTIVES AND RESULTS

- Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

RATINGS ON SUSTAINABILITY

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

Rating system for sustainability sub-criteria

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.
- Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on 'M&E Design', 'M&E Plan Implementation' and 'Budgeting and Funding for M&E activities' as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project M&E system.
- Satisfactory(S): There were minor shortcomings in the project M&E system.
- Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly Unsatisfactory (HU): The Project had no M&E system.

"M&E plan implementation" will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on "M&E plan implementation."

All other ratings will be on the GEF six point scale.

HS	= Highly Satisfactory	Excellent
S	= Satisfactory	Well above average
MS	= Moderately Satisfactory	Average
MU	= Moderately Unsatisfactory	Below Average
U	= Unsatisfactory	Poor
HU	= Highly Unsatisfactory	Very poor (Appalling)

Annex 6. Job Descriptions

Job Description 1

Post title International Evaluation Consultant

Duration 35 work days spread over 3 months

Start date

Duty station Home based and travel to Vienna and Kiev

Duties

The consultant will evaluate the projects according to the Terms of Reference. S/he will act as leader of the evaluation team and will be responsible for preparing the draft and final evaluation report. S/he will perform the following tasks:

Main duties	Duration/ location	Deliverables
Review project documentation and relevant background information; determine key data to collect in the field and prepare key instruments (questionnaires, logic models…) to collect necessary data through interviews and/or surveys during and prior to the field missions		List of detailed evaluation questions to be clarified; questionnaires/ interview guide; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions
Briefing with the UNIDO Evaluation Group, project managers and other key stakeholders at HQ		Interview notes, detailed evaluation schedule and list of stakeholders to interview during the field missions Division of evaluation tasks with the National Consultant
Conduct field mission		Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in the country at the end of the mission. Agreement with the National Consultant on the structure and content of the evaluation report and the distribution of writing tasks

Main duties	Duration/ location	Deliverables
Present overall findings and recommendations to the stakeholders at UNIDO HQ (incl. travel)		Presentation slides, feedback from stakeholders obtained and discussed
Prepare the evaluation report according to ToR Coordinate the inputs from the National Consultant and combine with her/his own inputs into the draft evaluation report		Draft evaluation report
Revise the draft project evaluation reports based on comments from UNIDO Evaluation Group and stakeholders and edit the language and form of the final version according to UNIDO standards		Final evaluation report
TOTAL	**35 days**	

Qualifications

- Advanced university degree in a field related to industrial development;
- Extensive knowledge and experience in the field of renewable energy and energy efficiency;
- Experience in conducting evaluations

Languages: English (Russian / Ukrainian is an added value)

Background information: see the Terms of Reference

Impartiality: According to UNIDO rules, the consultant must not have been

involved in the preparation, implementation or supervision of the project subject to this evaluation

Absence of Conflict of Interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the Evaluation Group.

Job Description 2 (indicative)

Post title National Evaluation Consultant

Duration 30 work days spread over 3 months

Start date

Duty station Kiev, Ukraine

Duties

The consultant will evaluate the projects according to the Terms of Reference. S/he will work under the supervision of the leader of the evaluation team and will be responsible for providing substantive inputs to the draft and final evaluation report. S/he will perform the following tasks:

Main duties	Duration/ location	Deliverables
Review project documentation and relevant country background information; in cooperation with International Evaluation Consultant: determine key data to collect in the field and prepare key instruments (questionnaires, logic models…) to collect these data through interviews and/or surveys during and prior to the field missions	4 days Home base	List of detailed evaluation questions to be clarified; questionnaires/ interview guide; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions
Briefing with the evaluation team leader, UNIDO project managers and other key stakeholders Assist in setting up the evaluation mission agenda, coordinating meetings and site visits	3 days home base (telephone interviews)	Interview notes, detailed evaluation schedule and list of stakeholders to interview during the field missions Division of evaluation tasks with the National Consultant
Conduct field mission	8 days (including travel days)	Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in the country at the end of the mission. Agreement with the National Consultant on the structure and content of the evaluation report and the distribution of writing tasks
Present overall findings and recommendations to the stakeholders at	3 days	Presentation slides, feedback from stakeholders obtained and

Main duties	Duration/ location	Deliverables
UNIDO HQ (incl. travel)	Vienna	discussed
Prepare inputs to the evaluation report according to ToR and as agreed with Team Leader	10 days Home base	Draft evaluation report
Revise the draft project evaluation reports based on comments from UNIDO Evaluation Group and stakeholders and edit the language and form of the final version according to UNIDO standards	2 days Home base	Final evaluation report
TOTAL	**30 days**	

Qualifications

- Advanced university degree in a field related to industrial development;
- Extensive knowledge of country's industrial development situation, institutions and programmes in the field of renewable energy and energy efficiency;
- Good knowledge and experience in the field of renewable energy and energy efficiency;
- Experience in evaluations desirable

Language: English and Russina / Ukrainian

Background information: see the Terms of Reference

Absence of Conflict of Interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the Evaluation Group.

Annex 7: Project Related Documents

- CEO Endorsement document
- GEF Tracking tool
- Operational Manual
- Project Implementation report (Oct 2013)

See separate attachments