1. Project Data

Summary project data			
GEF project ID		3593	
GEF Agency project ID		103056	
GEF Replenishment Phase		GEF-4	
Lead GEF Agency (include all for joint projects)		EBRD and UNIDO	
Project name		Market Transformation Programme on Energy Efficiency in Greenhouse Gas-Intensive Industries in Russia	
Country/Countries		Russia	
Region		ECA	
Focal area		Climate Change	
Operational Program or Strategic Priorities/Objectives		CC-SP2-Industrial Energy Efficiency	
Executing agencies involved		Russian Energy Agency	
NGOs/CBOs involvement		None	
Private sector involvement		ESO – Co-financier	
CEO Endorsement (FSP) /Approval date (MSP)		June 21, 2010	
Effectiveness date / project start		October 12, 2010	
Expected date of project completion (at start)		March 2015	
Actual date of project completion		December 31, 2017	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0.23	-
	Co-financing	0.6	-
GEF Project Grant		15.39	UA
Co-financing	IA own	307.60	1.69
	Government	0	0.63
	Other multi- /bi-laterals	0	0
	Private sector	0	55.68
	NGOs/CSOs	0	0
Total GEF funding		15.610	UA
Total Co-financing		308.199	58.0
Total project funding (GEF grant(s) + co-financing)		323.81	58.0
Terminal evaluation/review information			
TE completion date		September 2018	
Author of TE		Marjan Mihajlov (International expert) and Vitaly Bekker (National expert)	

TER completion date	December 21, 2018
TER prepared by	Spandana Battula
TER peer review by (if GEF IEO review)	Molly Sohn

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	-	S	-	S
Sustainability of Outcomes		L	-	ML
M&E Design		HS	-	MS
M&E Implementation		S	-	MS
Quality of Implementation		S	-	MS
Quality of Execution		S	-	S
Quality of the Terminal Evaluation Report		-	-	MS

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The Global Environmental Objective of the project was to "reduce greenhouse gas emissions in the Russian Federation by transforming the market for industrial energy efficiency in GHG-intensive industries" (TE pg 6).

3.2 Development Objectives of the project:

The Development Objective of the project was to "1) to enhance the effectiveness and efficiency of the project portfolio funded through the credit lines and 2) to build local capacity in government and industry (including training of trainers) to achieve results in replication and sustainability far beyond the project life span and contribute significantly to market transformation" (TE pg 7).

The project aimed to achieve its objective through the following components:

Component 1: Enhancing knowledge assets: creating the training materials, information campaign and training trainers;

Component 2: Capacity building for large industry: targeting knowledge and financial market barriers aiming to facilitate investment in energy efficiency for large companies;

Component 3: Capacity Building for small and medium sized enterprises (SMEs): targeting knowledge and financial market barriers aiming to facilitate investment in energy efficiency for SMEs; and

Component 4: Policy support: targeting legislative and market barriers.

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

The TE does not mention any changes to objectives or activities during implementation.

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: Satisfactory

The project was consistent with GEF's focal area of climate change and Strategic Program 2 on Industrial Energy Efficiency. It is also aligned to the country's federal regulatory framework such as Law on Energy Efficiency (2010), Sub- regulatory acts for stimulation of EE implementation in industry (2012-2017), National Energy Efficiency Action Plan by Ministry of Economic Development (2017). As per the TE, the project "proves to be very relevant to the national development and environmental priorities and strategies of the Russian Federation and consistent with national priorities that support sustainable development" (TE pg 16).

4.2 **Effectiveness**	Rating: Satisfactory

The TE gave a Satisfactory rating the effectiveness of the project as it met and exceeded many of its targets. Although the TE provided an assessment of only three components because one of the components was implemented by EBRD, it pointed that the project was successful in developing guidelines on energy efficiency and industrial energy management, promoting best modern energy management practices to small and medium sized enterprises, and providing capacity building to the government. The TER also gives a Satisfactory rating as the project was effective in achieving its outcomes. Below is a detailed assessment per component:

Component 1: Enhancing knowledge assets:

Under this component the project intended to develop a set of training materials for energy management, implement an information campaign, including a fully functional Russian-English website, establish discussion forum, and train up to 120 national trainers in energy management system (EMS). The project was successful in developing training materials and a manual for classroom training and practical hands-on factory training. For the information campaign, the project conducted a webinar training on EMS for 25,000 participants, and participated in fairs, seminars and conferences. It launched a fully operational website in Russian-English language and implemented a discussion forum on the website. Lastly it also trained 175 national trainers on EMS and trained 110 in system optimization.

Component 2: Capacity building in large industries:

The TE does not provide an assessment of component 2 effectiveness as the implementation of activities were done by EBRD.

Component 3: Capacity building in small and medium sized enterprises (SME):

As per the TE, this component was moderately satisfactory in achieving its targets. The project intended to train 100 SMEs in energy management systems but was able to train only 50 companies and 53 SMEs in systems optimization. As per the TE, all the companies that implemented EMS have developed energy saving programmes/plans. It developed benchmarking methodology and automated benchmarking system, and introduced benchmarking in four new sectors such as oil & gas, paper production, cement production, and baking. The benchmarking was carried out in 121 SMEs. The project also developed a data bank on energy efficiency for technologies, and prepared a voluntary certification scheme.

Component 4: Policy support:

As per the TE, this component exceeded its targets in providing policy support to government officials. It trained 141 government officials in industrial energy efficiency policy preparation, and developed monitoring and evaluation procedures for the federal target programme. It also trained 43 experts from Russian Energy Agency in "different aspects of energy management and its implementation, including information campaigns and web tools" (TE pg 69). The project developed energy performance indicators for an online training tool, and provided expert recommendations on issues related to best-practices for energy performance data preparation, energy performance metrics and analysis methodologies, and Energy Performance Indicators. It also prepared a comprehensive report "containing proposals for the introduction of a Russian Energy Management Standard and road map for long-term agreements with industry and budgetary institutions" (TE pg 70).

4.3 **Efficiency**	Rating: Moderately Satisfactory

The TE gave a Moderately Satisfactory rating to the project's efficiency as there were several delays in project completion. The project experienced delays because of incomplete risk analysis, slow engagement of companies, partial public campaign, and insufficient project coordination between UNIDO and EBRD. The TE stated that the "justification for the extension was to continue with the good implementation pace that the project had achieved after the significant difficulties faced during the first 2 project years, especially with regard to work with enterprises on EnMS and energy system optimization. Certainly, another reason for the extension was to allow time for the project to achieve the planned outputs and the expected outcomes and developmental/ environmental benefits as much as possible" (TE pg 21). Considering the time delays, the project also gives a Moderately Satisfactory to efficiency.

4.4 **Sustainability**	Rating: Moderately Likely

The TE gave a Likely rating to project's sustainability and stated that no significant risks were identified. The TER finds that the socio-political, institutional and environmental risks are low, however, due to low materialization of co-financing amount, there may be financial constraints to sustain the benefits of the project. Below is a detailed description of sustainability criteria:

Financial: The TE does not describe financial risks to project's sustainability, but it should be noted that the project received substantially less co-financing than expected at the CEO endorsement stage.

Socio-political: The project managed to conduct sustainability activities such as establishment of Regional competence centre, supported the development of the Russian standard on Monitoring and verification of energy efficiency, and built capacity on EMS at a federal and regional level. These capacity building efforts would help in socio-political sustainability.

Institutional: The project received cooperation and support from the Russian Energy Agency which was part of Ministry of Energy and main policy maker in the field on energy efficiency. The project also collaborated with other government stakeholders which helped in gaining support on key activities. As per the TE, the project "contributed to support research, development and capacity building for a number of policies that can support and accelerate industrial energy efficiency improvements, and in so doing contributing to mitigate (i.e. maintain low) the risk for sustainability, lack of Government commitment and market demand" (TE pg 27). Thus, the institutional risk seems low.

Environmental: The TE does not mention any risks to environmental sustainability.

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project received significantly less co-financing, $58,000,000, than the expected amount of $307,595,631. The UNIDO expected grant did not completely materialize and it only contributed $1,689,000. However, the TE does not mentioned whether this had any effect on project's outcomes.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project experienced significant delays due to incomplete risk analysis, slow engagement of companies, partial public campaign, and insufficient project coordination between UNIDO and EBRD. This led to project implementation delay of two years as the project was only completed by December 2017.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

The project had local ownership through its activities with SMEs and the Russian Energy Agency provided support to implement the project.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: Moderately Satisfactory

The project document had provision for M&E plan including Annual Project reports, Project Implementation Reports, Quarterly Reports, Mid-term Review and Terminal Evaluation. The TE stated that the project had a "well-defined Monitoring and Evaluation plan indicating M&A activities, frequency of monitoring and responsible parties together with allocated budget and timeframe" (TE pg 32). However, in terms of indicators, the TE noted that some indicators were not SMART, and they referred to the overall scope of the project and were not broken down per component which made it difficult to track and monitor progress. Although the project had a M&E plan in place but its indicators were faulty, hence, the TER gives a Moderately Satisfactory rating to M&E design at entry.

6.2 **M&E Implementation**	Rating: Moderately Satisfactory

The TE gave a Satisfactory rating to M&E implementation but mentioned that there were minor shortcomings in the implementation of M&E system. The TE noted that there were no quarterly progress reports filed and lessons learnt identified. However, the project team did submit Annual Project Reports and PIRs, reports of the Steering Committee meetings, conducted mid-term review and terminal evaluation. Thus, the TER gives a Moderately Satisfactory rating to M&E implementation.

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the

control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: Moderately Satisfactory

The TE gave a Satisfactory rating to UNIDO and EBRD's quality of project implementation, however the TER finds that there were some issues with project implementation. According to the mid-term review, "UNIDO and EBRD keep each other up to date on progress at regular donor cooperation meetings and concentrate on their own project responsibilities, but beyond this limited interaction there is little cooperation or sharing of information" (TE pg 30). Both the agencies did not plan a central management structure and there were issues with implementation of activities such as the failure in implementing crucial information campaign which resulted in unplanned awareness activities without proper financial support. Furthermore, in the middle of the project, EBRD froze its activities postponing the execution of the financial proposals for selected companies. However, UNIDO modified its strategy "to achieve the intended objectives and bring companies in the EnMS and system optimization technical assistance programmes offered by the project" (TE pg 31). Given the shortcomings by EBRD, the TER rates quality of project implementation as Moderately Satisfactory.

7.2 **Quality of Project Execution**	Rating: Satisfactory

The Russian Energy Agency (REA) was the executing agency of the project and the TE gave Satisfactory rating to project execution. As per the TE, REA provided good cooperation, increased its capacity, progressed in order to deliver results, and took ownership of the project. For example, it took over the operation of Web-portal with E-guide for EMS implementation. REA also provided support in developing innovative methodology and related guidelines for energy efficiency benchmarking in the energy industry. Considering the helpful support provided by REA for project execution, the TER rates quality of project execution as Satisfactory.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The TE mentioned that the project "succeeded to initiate an intensive process for structural improvement of industrial energy efficiency (EE) in heavy and light industries through the implementation of energy management systems in line with ISO 50001 and other energy efficiency measures with visible results and wider direct positive effect on rational energy use with related environmental benefits" (TE pg viii). At the end of the project, there were total 2,563,895 tons CO2 emission reduction over 10 years, and 13,443,929 MWh total energy savings over 10 years (TE pg 23).

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The TE does not mention any socioeconomic changes.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities: The TE noted that the implementation of extensive program for energy efficiency capacity building in SMEs "resulted in better understanding of energy management, improvement of EE personal and company skills and competences, implementation of Energy Management Systems (EnMS) and energy saving plans. Following a proven best practice methodology and a structured and systematic approach, companies have managed to integrate energy efficiency in enterprise management culture and daily practices" (TE pg 24).

b) Governance: As per the TE "the benchmarking process conducted with the project and the Austrian Energy Agency, lasted 3 years, resulted in a unified guideline and use in 50 companies24 in the oil and gas industry and replication in over 70 companies from the cement, paper and bakery sectors in the Toms Region. According with the analysis and records of REA oil and gas companies that participated in the pilot industrial energy efficiency benchmarking study saved 214 mil USD during the biennium 2016-2017" (TE pg 24).

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The TE does not mention any unintended impacts.

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The project was successful in getting the energy efficiency concept "widely accepted among decision-makers as a way for financial and environmental benefits and translated into numerous legislative instruments. Business managers recognize it as a solution to save energy and money and accept it as a development and management pillar, while company employees are more confident in the effect of EE solutions" (TE pg 24).

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

The TE provided the following key lessons (TE pg 40):

1. Cooperation with new companies should be based on the following selection criteria:
   a) export orientation, b) greater interaction with international markets and supply/value chains, c) modern management and business strategy practices, d) the aspiration for innovation leadership, e) companies that had already demonstrated interest in energy and resource efficiency, and f) holdings.
2. Companies with wider team cooperating on the Energy Management Systems implementation, showed faster recognition of the concept and better results

9.2 Briefly describe the recommendations given in the terminal evaluation.

The TE provided the following recommendations (TE pg 39):

1. Indicators should be separately set for all expected results to ensure proper evaluation for each agency in the case of joint implementation;
2. Baseline data should be included for every indicator and the indicators should be developed with SMART criteria;

3. There should be proper delivery of project website and peer-to-peer network to a governmental institution to ensure sustainability of the tools;
4. For better understanding of energy efficiency within companies, trainings should include local context and sector representatives including top management and financial sector;
5. Project design should include more time for engagement with companies and project start-up time;
6. The government should use the momentum created by the project to continue the pace of the energy efficiency policy improvement; and
7. The government should support the sustainability of the project results after the project completion.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	**GEF IEO comments**	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The report contains adequate assessment of the outcomes and impacts and provides appropriate rating.	**S**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The ratings and evidence provided are mostly consistent, except in the case of quality of implementation and M&E design.	**MS**
To what extent does the report properly assess project sustainability and/or project exit strategy?	The TE well assessed the sustainability as per the criteria and provided ratings accordingly.	**S**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	The lessons learned and recommendations are well presented in the report.	**S**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	The TE provides co-financing information but does provide project costs per component	**MS**
Assess the quality of the report's evaluation of project M&E systems:	The TE did not provide a good explanation of M&E design, although it critiqued the quality of indicators and gave an inconsistent rating.	**MU**
Overall TE Rating		**MS**

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

No additional sources were used in the preparation of this TER.