PROJECT IDENTIFICATION FORM (PIF) [1]
PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND:GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	Russia Energy Efficiency Financing (REEF) Project		
Country(ies):	RUSSIA	GEF Project ID:[2]	
GEF Agency(ies):	WB (select) (select)	GEF Agency Project ID:	P123692
Other Executing Partner(s):	Ministry of Energy, Russian Energy Agency, Gazprombank	Submission Date:	2010-12-22
GEF Focal Area (s):	Climate Change	Project Duration(Months)	60 Months
Name of parent program (if applicable): ➢ For SFM/REDD+ ☐	NA	Agency Fee:	2,272,727

A. FOCAL AREA STRATEGY FRAMEWORK[3]:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Indicative Financing from relevant TF (GEF/LDCF/SCCF) ($)	Indicative Cofinancing ($)
CCM-2 (select)	GHG emissions avoided (tons of CO2 equivalent)	Investments mobilized Energy savings achieved	1,300,000	180,000,000
CCM-2 (select)	Sustainable financing and delivery mechanisms established and operational for industry	Commercial lending for industrial energy efficiency (EE) demonstrated	2,700,000	373,000,000
CCM-2 (select)	Replication/Spill-over lending to other financial institutions	Commercial lending for industrial energy efficiency (EE) demonstrated Investments mobilized	9,200,000	40,500,000
CCM-4 (select)	GHG emissions avoided (tons of CO2 equivalent)	Energy savings achieved Investments mobilized	2,650,000	72,150,000
CCM-4 (select)	Replication of EE Action Plans in other regions/ cities	Framework for municipal EE Action Plans developed	5,350,000	144,350,000

[1] It is very important to consult the PIF preparation guidelines when completing this template.
[2] Project ID number will be assigned by GEFSEC.
[3] Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

		Investments mobilized Demonstration of financing and implementation schemes for municipal EE Action Plans		
(select) (select)				
(select) (select)				
(select) (select)				
CCM-4 (select)				
(select) (select)				
(select) (select)	Others			
Project management cost[4]			1,527,273	14,500,000
Total project costs			22,727,273	824,500,000

[4] GEF will finance management cost that is solely linked to GEF financing of the project.

B. PROJECT FRAMEWORK

Project Objective: The project objective is to reduce greenhouse gases through the removal of barriers related to energy efficiency investments in the industrial and municipal sectors.					
Project Component	**Grant Type (TA/INV)**	**Expected Outcomes**	**Expected Outputs**	**Indicative Financing from relevant TF (GEF/LDCF/SCCF) ($)**	**Indicative Cofinancing ($)**
1. EE investment lending for large, energy-intensive Russian enterprises	TA	Commercial lending for industrial energy efficiency (EE) demonstrated GHG emissions avoided (tons of CO2 equivalent).	Loans provided for EE improvements in Russian industry Sustainable financing and delivery mechanisms established and operational for industry	4,000,000	553,000,000
2. TA and investment support for municipal-level EE Action Plans (INV and TA)	Inv	GHG emissions avoided (tons of CO2 equivalent). Replication of EE Action Plans in other regions/ cities	Framework for municipal EE Action Plans developed Investments mobilized Energy savings achieved Demonstration of financing and implementation schemes for municipal EE Action Plans	8,000,000	216,500,000
3. Market development and replication	TA	Replication/Spill-over lending to other financial institutions	Increased awareness and capacity across market Additional banks recruited with strong investment plans Case studies and experiences documented and disseminated	9,200,000	40,500,000
4. Project management	TA			1,527,273	14,500,000
	(select)				
	(select)				
	(select)				
	(select)				

	(select)				
	(select)				
Project management Cost[5]					
Total project costs				22,727,273	824,500,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, ($)

Sources of Cofinancing for baseline project	Name of Cofinancier	Type of Cofinancing	Amount ($)
(select)		(select)	
Local Government	Russia Energy Agency (IN CASH & in-kind)	(select)	7,000,000
GEF Agency	IBRD	Hard Loan	300,000,000
Private Sector	Gazprombank (IN CASH)	(select)	300,000,000
Private Sector	Gazprombank (IN CASH & in-kind)	(select)	17,000,000
Private Sector	Borrowers, ESCOs (PROJECT EQUITY)	(select)	130,000,000
Private Sector	Other participating banks	Hard Loan	40,000,000
Local Government	Regions/Municipalities	In-kind	500,000
Local Government	Regions/Municipalities (PROJECT EQUITY)	(select)	30,000,000
(select)		(select)	
Total Cofinancing			824,500,000

[5] Same as footnote #3.

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF Agency	Type of Trust Fund	Focal area	**Country name/Global**	**Project amount (a)**	**Agency Fee (b)[2]**	**Total c=a+b**
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				0	0	0

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

[2] Please indicate fees related to this project.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 THE GEF FOCAL AREA STRATEGIES: The project is consistent with the GEF Climate Change Focal Area, in particular with the second and fourth climate change mitigation objectives under GEF-5: "Promote market transformation for energy efficiency (EE) in industry and the building sector" and "Promote energy efficient, low-carbon transport and urban systems." The GEF incremental financing would contribute to ensuring that the project activities would promote global environmental benefits in addition to national benefits in Russia. The activities that would be included to achieve this would support establishing financing and delivery mechanisms that promote EE investments.

A.1.2. FOR PROJECTS FUNDED FROM LDCF/SCCF: THE LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES: NA

A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS, IF APPLICABLE, I.E. NAPAS, NAPS, NBSAPS, NATIONAL COMMUNICATIONS, TNAS, NIPS, PRSPS, NPFE, ETC.:

Whereas the need to reduce the energy intensity was in principle recognized in Russia by the mid 1990s, the matter has in practice received little attention until 2008. Specifically, on June 4, 2008, the Russian President, Dmitry Medvedev, signed a decree calling for an action plan to cut the energy intensity of Russia's economy by 40% by 2020. In November 2008 the Government approved the Concept of the Long-Term Socio-Economic Development of Russia until 2020, outlining state policy measures needed to achieve this target. In the throes of the economic crunch, EE has been repeatedly proclaimed by the country's top authorities as a key driver of the post-crisis revival and modernization agenda.

Further, after about a year of intense consultations and preparation, a federal law *"On Energy Efficiency Improvement and Energy Saving"* was passed by Duma last November (Federal Law #261-FZ of November 23, 2009)[6]. The government is presently working on more than 70 by-laws formulating specific implementation mechanisms of the policy concepts presented in the Law. In addition, *the State Program of Energy Saving and Energy Efficiency Improvement until 2020* (at a final stage of approval by the government)[7] and *Action Plan on EE and Energy Saving* (issued as Government Order #1830-p of December 1, 2009)[8], emerged as main EE implementation vehicles. Further, the government established in December 2009 the Russian Energy Agency (REA) that is taking the lead role in coordinating and implementing the government EE agenda.

In addition, the Energy Strategy 2030, approved by the government in 2009, determines the long-term development policy for Russian energy and fuel sector. Current plans call for continued increases in energy pricing to cost-recovery levels and universal metering, particularly in the public buildings and housing sectors. For illustration, gas tariff increases in the past years were in the range of 15-25% per year depending on the customer group and are expected to grow at about the same pace in the coming two years. Electricity tariffs grew for more than 10% on average in the past years and are set to further go up in 2011 and 2012. The project will comply with Strategy goals in terms of supporting EE and GHG emission reductions, as well as with the new national GHG reduction goals, announced by President Medvedev at the Copenhagen UN Climate Change Conference. These goals call for emissions cuts ranging from 15 to 25% by the year 2020, as compared to 1990. The project is also in line with the Climate Doctrine of the Russian Federation that stresses developing and promoting energy efficient technologies among concrete steps towards climate protection.

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[6] The law contains provisions on a number of critical "stick and carrot" EE policy instruments: mandatory EE improvement programs for regions, municipalities and utilities; EE conducive tariff setting methodologies; energy audits; EE classification and labeling in buildings, domestic appliances and other equipment; ESCO and energy performance contracts; EE fiscal stimuli; EE information campaigns and statistics, etc.

[7] The Program specifies standard EE policy and technical measures for each major sector, sets up EE targets and identifies sources of funding.

[8] The Plan assigns specific EE mandates to concerned Ministries and government agencies, sets timelines and identifies concrete steps required to implement the Law provisions.

PROJECT OVERVIEW:

B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:

Background. Russia has one of the most energy intensive economies worldwide. Little attention has been paid to energy conservation in Russia for decades of extensive development, especially during the Soviet times. That practice, coupled with abundant energy resource endowments, made Russia one of largest but least efficient energy consumers in the world. Russia consumed 668 million tons of oil equivalent (toe) in 2007, while its energy use per unit of PPP adjusted GDP was more than two times higher than in the EU and other developed countries. Energy waste is present virtually in all sectors of the economy, both in the supply and demand sides.

Russia possesses a huge untapped energy resource – energy efficiency (EE). A 2008 World Bank Study[9] found that Russia could reduce its total energy consumption by 45% or in absolute terms – by 294 million tons of oil equivalent, which will translate into CO_2 emission reduction of 793 million toe per year. Achieving Russia's full EE potential could cost a total of US$320 billion to the economy, but would result in annual cost savings to investors and end users of about US$80 billion. By realizing its EE potential Russia can save 240 billion m^3 of natural gas; 340 billion kWh of electricity; 89 million tons of coal; and 43 million tons of crude oil and crude oil equivalents in the form of refined petroleum products. The largest technical EE potential can be found in the residential sector (53.4 mtoe), electricity generation (44.4 mtoe), manufacturing (41.5 mtoe), transport (38.3 mtoe), heat supply systems (31.2 mtoe), and public buildings (15.2 mtoe). Although these numbers were estimated before the global crisis of 2008 and now need to be adjusted to the current level of hydrocarbon prices and other macroeconomic parameters, EE remains an extremely attractive opportunity for the country from both an economic and financial standpoints.

Energy efficiency is vital to Russia's energy security, stable economic development, local and global environmental goals. More specifically, EE is important to Russia for the following reasons:

Energy security. Russia has not been investing in the upstream oil and gas sector at a level that would allow it over the longer term to sustain, let alone increase, its existing production levels. As a result, the country may soon begin facing a serious challenge in meeting its growing domestic energy demand and honoring its energy export commitments. Furthermore, Russia is confronted with the shortage of power generation capacity. Energy efficiency investments represent a remarkable opportunity for the country to reduce the need for investments in energy production and realize economic gains. Specifically, it is estimated that Russia would need to invest over US$1 trillion in energy supply facilities, whereas EE could achieve the same effect at a third of the cost.

Stable economic development. Reducing energy consumption can also help the government achieve its longer-term economic development goals. These include:

- *Maintaining competitiveness:* As rising tariffs diminish the world's largest energy subsidy (Russia energy subsidies totaled US$40 billion in 2005), profits of industrial enterprises will decrease by at least 15%. Energy efficiency will allow companies to maintain and enhance competitiveness.
- *Increasing of oil and gas export earnings:* Russia's GDP per unit of energy use of US$2700/toe (2005 PPP) has an estimated cost of US$84-$112 billion per year in terms of foregone export revenues for the government. This is roughly equivalent to a third of Russia's budget in 2008.
- *Fiscal savings:* The recent World Bank/IFC Russia Energy Efficiency report estimates that more than US$3 billion can be saved annually from federal and local budgets by improving efficiency levels in public facilities, as well as lowering the fiscal burden from energy price subsidies across a number of sectors.
- *Job creation:* The proposed national level EE program is also expected to create a vibrant domestic EE industry – from the production of electrical appliances and other products (e.g.,

[9] World Bank/IFC. "Energy Efficiency in Russia: Untapped Reserves." December 2008. World Bank.

insulation, windows, construction materials) for construction companies that can rehabilitate and weatherize buildings to energy service companies (ESCOs).

- *Carbon trade revenues:* Russia's technical potential for energy intensity reduction is worth roughly $10.2 billion in carbon credit sales annually (at $13.70/ton per CO_{2e}).

Environment. Russia's high energy intensity adversely impacts both the national and global environment. By ignoring the consequences of emissions caused by its energy inefficiencies, Russia sacrifices the health and welfare of its citizens. A handful of pollutants, primarily PM10, SO_2 and NO_x, linked to fossil fuel combustion are responsible for 90% of human health risks from air pollution in Russia. According to Rosgidromet data for 178 Russian cities, 219,000-233,000 premature deaths or 15-17% of the total number of mortality cases in Russian towns in 1993-1998 might be attributable to air pollution. On the global scale, EE improvements alone have the potential to reduce its CO_2 emissions in Russia by 793 million tons per year (about 40% of its 2005 emissions) and hence to contribute to global climate change mitigation efforts.

EE Financing. Given the tremendous opportunities for EE, substantial financing would have to be mobilized. World Bank estimates indicate that realizing this vast potential would require some US$320 billion in investment financing, but could save US$80 billion per year in lower energy costs. Given such huge investment requirements, and the potential for attractive returns on these measures, mobilizing commercial financing sources will be necessary. However, at present, significant barriers exist in the Russian market, which prevent this commercial lending from taking place. Further, financiers are more conservative, particularly in light of the recent global financial crisis, from lending for new lines of business or areas with a higher perceived risk and high transaction costs such as EE. Other barriers include:

- *Lack of knowledge among banks about EE project performance and risks:* Lenders in Russia have insufficient experience assessing EE project benefits, assessing technical and repayment risks, and verifying EE savings estimates. As a result, perceived risks and thus risk premiums are prohibitively high.
- *Lack of methodology in Russia to appraise EE projects:* Russian banks lack approaches to identify and appraise projects, review the technical merits, classify projects as EE, monitor energy savings, etc.
- *Lack of banking schemes to finance EE projects:* Banks lack proper financial products and services to support many EE projects, which often are small, require longer loan tenors, involve operating cost reduction (rather than production expansion), and can be more difficult to collateralize. Methods for banks to work through energy service companies (ESCOs) are undeveloped. High transaction costs hinder EE among all end-users due to the small-size of improvements and modest returns of EE investments. Irrespective of cost, the number of improvements needed to realize substantial EE savings may require too much time, knowledge, effort, risks (hassles) to make EE investments "worth it" for many end-users.
- *Limited institutional capacity in market to identify, prepare bankable EE projects:* Consumers and private companies tend to systematically overestimate the costs, and underestimate the benefits of EE investments. End-users lack information on savings potential, financing options and implementing approaches. Service companies lack tested business models, access to financing, market credibility and enabling framework. ESCOs exist that provide engineering and consulting services for EE investments, but most lack the ability to offer financing, provide performance guarantees, and isolate and securitize energy cost savings.
- *Lack of frameworks to develop EE investment plans for the region and municipal sectors and finance/implement them:* Municipalities lack implementation strategies and frameworks to develop plans to comply with the legal requirements, and lack mechanisms to finance and implement them. There are insufficient funds for energy audit costs across all public facilities, lack of consumption data and norms, limited technical capacity at the local levels,

and restrictive budgeting and procurement rules which make investments in EE projects more difficult.

Project Baseline. Due to the above barriers, and the generally underdeveloped EE market in Russia, actual market activity and lending remain low. The World Bank has thus proposed to provide a US$300 million IBRD loan in order to begin to develop expertise in at least one commercial bank and, thus, begin the process of generating some domestic experience with EE lending in Russia. This project concept was discussed and presented to a number of systemic banks, but only Gazprombank (GPB) showed the interest and commitment to take on an IBRD loan and begin to develop its in-house EE lending business. GPB is the third largest bank in Russia; it has a network of about 40 regional branches. Also, the bank has been lending to various industries from its inception – that is for more than two decades. As a result, it has accumulated the excellent knowledge about this market niche, and hence is well placed to on-lend the IBRD loan to its industrial clients.

However, without GEF resources, it is likely that GPB would only lend to its existing customer base, and only finance very large (~US$30 million) industrial EE and modernization projects. While the result would likely be very large energy savings, it is unlikely that the project would lead to substantial uptake by other banks or a sustained lending market, development of models and schemes to lend to less developed markets (e.g., municipal sectors, public utilities, ESCOs), or meaningful dissemination of GPB's experiences to other banks and customers throughout Russia. Furthermore, without GEF support, it would be unlikely that GPB would consider entering the regional/municipal EE markets, so progress in this sector would remain very low.

B. **B. 2. INCREMENTAL /ADDITIONAL COST REASONING: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) OR ADDITIONAL (LDCF/SCCF) ACTIVITIES REQUESTED FOR GEF/LDCF/SCCF FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS (GEF TRUST FUND) OR ASSOCIATED ADAPTATION BENEFITS (LDCF/SCCF) TO BE DELIVERED BY THE PROJECT:**

GEF support under the proposed project will be critical for unlocking the financing potential of large, commercial banks with regards to investments in EE improvements in the industrial, utility and municipal sectors. As evidenced by numerous studies[10], Russia possesses the opportunity to significantly reduce its GHG emissions through financially attractive EE investments. In particular, the McKinsey study estimated that, by investing €150 billion through 2030, Russia can reduce its energy consumption by about 214 mtoe or 23%, which translates to a GHG emission reduction of about 520mt or 17% of CO_2e, compared to the business as usual scenario.

The proposed joint World Bank and GEF project will help to address the above listed issues through a combination of financial and technical assistance (TA) to concerned Russian entities, including Russian banks and the Russian Energy Agency (REA). The project is expected to have three main components:

Component 1: Energy Efficiency Investment Lending for large, energy-using enterprises (Estimated cost: US$557 million; proposed financing: IBRD Loan US$210 million, GPB US$213 million, GEF US$4 million, project owners/ESCOs US$130 million)

The World Bank and GPB will jointly establish an EE credit line in the amount of US$600 million, with 70% or US$420 million allocated for loans for large, energy-using enterprises in order to modernize them and save energy. The IBRD loan will be matched at least 1:1 with GPB. Based on GPB's preliminary market assessment, they expect that these funds would be used to provide EE loans to large, strategic clients in the following key sub-sectors: petrochemical, machinery, metal, agro-processing, and regional/ municipal utilities.

This component consists of two sub-components, namely:

A) Project development, project appraisal and monitoring. [Total cost: US$7 million, GEF US$4 million, GPB US$3 million] Under this component, efforts would be taken to help ensure the

[10] WB Study "Energy Efficiency in Russia: Untapped Reserves" (2008), McKinsey Study "Pathways to an Energy and Carbon Efficient Russia" (2009)

successful implementation of the credit line and GPB's EE business development. Activities to be undertaken are expected to include: (i) pipeline development, possibly piloting the use of performance-based project development contracts; (ii) development of modified project appraisal assessments to take into account EE project risks and cash flows; (iii) technical due diligence for early EE projects; (iv) development of special EE project financing products or schemes, such as collateralization of future cash flows, ESCO financing, master leases, risk management tools, trust/escrow accounts, etc.; and (v) developing enhanced systems for monitoring energy savings after the projects have been financed and implemented.

B) Investment lending. [Total cost: US$550 million, IBRD US$210 million, GPB US$210 million, End users/ESCOs US$130 million] Under this EE credit line, GPB will on-lend funds at commercial rates in accordance with their own lending policies and assume all financial risks. Sub-project selection criteria, including a list of eligible sectors, project type and size, energy savings requirements, as well as monitoring and reporting requirements will be fully defined in the Project's Operational Manual. The Manual will be developed by GPB during project preparation and will need to be agreed with the World Bank. The experiences gained under this sub-component will allow GPB to continue financing EE projects after the loan funds are fully disbursed. It would also develop appraisal systems, financial products, case studies, etc. which would be shared and disseminated widely under Component 3 in order to demonstrate the viability of EE lending and thus help convince other Russian banks to enter the EE financing market.

Component 2: Investments for Regional and Municipal-level EE Action Plans (Estimated cost: US$224.5 million; proposed financing: IBRD: US$90 million, GPB: US$94 million, GEF US$8 million, Municipal end users US$30.5 million, REA US$2 million)

Under the EE Law, regional and municipal entities are required to prepare and submit EE Action Plans, and once approved, implement them. However, until now, there is no well established framework for how these action plans should be developed, implemented or financed. Under this component, assistance would be provide to REA to help them work with pilot regions and cities to develop, test, and implement EE Action Plans for broader replication. While a range of existing analytical tools would be considered to support this work, the World Bank's Energy Sector Management Assistance program (ESMAP) has developed a city energy diagnostic tool, called the Rapid Assessment Framework or RAF, which is designed to help analyze a city's energy use and help them prioritize a list of actions they can take to improve their energy performance, and REA is interested in piloting the application of RAF in Russian cities. Further, REA would also work with the cities to then mobilize financing to implement these Plans through various viable schemes, which will initially include the GPB EE credit line.

Two sub-components are envisaged under the regional/municipal component:

A) Development of EE Action Plan framework, pilot plans and financing schemes. [Total cost: US$12 million, GEF US$5.5 million, GPB US$4 million, REA US$2 million, regions/municipalities US$0.5 million (in-kind)] REA would make use of existing tools, such as RAF, and customize it to suit the Russian city context. Then, it would pilot test the tool in 15-20 local government entities (either regions or cities or both) in order to develop viable models for these Action Plans. The tools, as required by the Law, should cover the main energy-using sectors within the city – from heating and power to transport to water to public lighting. Based on preliminary discussions, it is expected that the pilot regions/cities would be selected from four *oblasts*: Kaliningradskaya, Kaluzhskaya, Sverdlovskaya, and Irkutskaya. Regions/Municipalities would fully participate in the development of these Plans, collect all the relevant data, participate in the analysis and prioritization of measures, etc. These plans would then be disseminated widely for large-scale replication. Efforts under this sub-component would also be made to support GPB business development in EE financing in the regional and municipal sectors, including US$3 million for the development of suitable schemes for financing, implementation, appropriate bundling, etc.

B) Financing and implementation of pilot EE Action Plans. [Total cost: US$212.5 million, IBRD US$90 million, GPB US$90 million, GEF US$2.5 million, regions/municipalities/ESCOs US$30 million] Once the EE Action Plans are developed, investment capital would be mobilized and mechanisms developed for implementing them. Given the complete lack of implementation experience, it is proposed that investments derived from the EE Action Plans are financed with a portion of the GEF grant. While the details would only be worked out during detailed project preparation, it is proposed that ~US$250,000-500,000 in grant funds could be allocated to each of the initial regions or cities that agreed to undertake measures within their pilot EE Action Plans, successfully complete them, and mobilize the financing for implementation. The GEF funds would be blended with the loan funds to provide a more attractive financing package, thus also reducing repayment risks to the credit line or other financing partners. These initial investments would also provide case studies for further replication.

Component 3: Technical Assistance to Support Broad Market Development (Estimated cost: US$49.7 million; proposed financing: GEF US$9.2 million, REA US$0.5 million, other commercial banks US$40 million)

This component would seek to help prime the market for EE financing through various market development efforts, ongoing policy dialogue to remove barriers to EE financing, share experiences from GPB's EE credit line, and recruit new banks into the EE lending market. Activities would include:

A) Market development, policy dialogue, and information dissemination. [Total cost: US$5.7 million, GEF US$5.2 million, REA US$0.5 million] In order to fully realize the benefits of the credit line, efforts must be made to broaden the impacts of the various TA and investment components through various outreach activities. Under this sub-component, efforts would be made to raise awareness on EE, both to initially market the credit line as well as help emerging ESCOs and other firms market their services. As specific market barriers are identified, either from the credit line or ongoing marketing/stakeholder consultations, REA would develop roundtables and commission reviews to provide policy recommendations to help address such barriers. And, as successes and other experiences are developed, REA will take the lead in disseminating them broadly, through case studies, training events, workshops, standardized documents and protocols, etc. throughout the country. This work would include working through the Russian Union of Industrialists and Entrepreneurs (RSPP), an association that would serve as a platform for connecting the banking sector with industries while sharing GPB's and their borrowers' experiences. For banks, GPB would develop and implement a US$2 million program to share best practice and lessons learned through the Association of Russian Banks (ARB), which includes about 80% of the country banks.

B) Recruitment of new banking partners. [Total cost: US$44 million, GEF US$4 million, other banks US$40 million] As the dissemination proceeds, REA will then begin recruiting new banking partners to the program. To ensure leverage and assess commitment, banks would likely be required to provide a specific investment plan of at least US$10-20 million in order to be eligible for these additional TA resources. Some of the TA would be provided to all the banks, in the form of general EE lending training – perhaps covering the following areas: i) business start-up/enhancement; ii) market assessment, marketing and pipeline development; iii) sub-projects due diligence; and iv) development of bundled project schemes, EE financing instruments and risk management tools. In addition, the following activities are planned to be conducted jointly by REA, GPB, and ARB: a) conducting a survey of EE market segments in various sectors, b) setting up an EE finance training center, c) development of EE projects data base, d) amending and/or developing legislation to enable banks boost lending for EE projects, etc. In addition, a portion of the GEF funds may be allocated to eligible banks, based on their investment plans, for more customized TA to develop their EE lending businesses.

Component 4: Project Management (Estimated cost: US$16.03 million; proposed financing: GEF US$1.53 million, GPB US$10 million, REA US$4.5 million)

The bulk of project implementation costs will be borne by the executing agencies themselves. GPB will incur costs to implement the EE credit line, including the recurrent costs of the GPB PIU that will be responsible for coordinating project activities. Project implementation costs will also include the costs incurred by GPB's operational departments in identifying, appraising and monitoring sub-projects that will be financed from the EE credit line of US$600 million. Similarly, REA will cover a portion of the operating costs of the PIU that will be responsible for managing the GEF grant. REA will also cover costs associated with the participation of its operational units in implementing activities co-financed by GEF. Specific items that would be supported with GEF grant resources may include (i) recruitment of consultants to support project implementation, including procurement, project monitoring, evaluation, and reporting activities, and (ii) PIU incremental operating costs, such as office rental, basic equipment, utilities, and travel.

Incremental benefits. GEF support will be critical to help establish viable financing and implementation models which can be tested in the Russian market, refined based on early implementation experiences, and institutionalized so that they can later be scaled up with purely commercial financing. The IBRD loan will allow these early experiences to be gained on a more commercial basis and create a critical mass of successful investments to allow for broader replication. Without GEF involvement aimed at bringing down the barriers and creating the investment enabling environment, the participation of a major bank such as GPB and additional recruited banks would be less likely, and thus EE financing in Russia would be significantly delayed and suboptimal, which will in turn translate into lost economic opportunities for the country and climate change mitigation opportunities for the world. The GEF project will also allow broad sharing of GPB experiences to ARB, which would not have occurred under the baseline project. Finally, GEF funds would allow for the piloting of regional- and municipal-level EE Action Plans and financing/implementation schemes which would not have been possible at all under the baseline scenario.

The project will produce significant global environmental benefits. According to conservative estimates, the project will catalyze about US$810 million of investments in EE projects. As estimated by the WB EE study and demonstrated by the ongoing IFC credit line to Russian regional banks, US$1 million invested in EE could result in savings of about 920 toe and reductions of GHG emissions by 2,500 tons of CO2e a year. Therefore, the joint IBRD/GEF project will lead to a reduction in GHGs emissions by more than 2 million tons of CO_2e per year. However, the removal of systemic barriers to EE investments and creating the enabling environment, supported by the GEF grant, is expected to spur other large nationwide and regional banks on to undertake EE financing as well as begin to develop the vast municipal market. Therefore, the project global environmental benefits are expected to substantially exceed the indicative level provided above.

B.3. DESCRIBE THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS, INCLUDING CONSIDERATION OF GENDER DIMENSIONS, AND HOW THESE WILL SUPPORT THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS(GEF TRUST FUND) OR ADAPTATION BENEFITS (LDCF/SCCF). AS A BACKGROUND INFORMATION, READ MAINSTREAMING GENDER AT THE GEF.": The project will help Russia realize it is vast EE potential and thus, to make the country's economy more efficient and hence competitive. Improved competitiveness will in turn create favorable conditions for further economic growth at both the federal and regional levels, reducing budget expenses for paying utility bills and household utility related subsidies, and correspondingly creating the opportunity for increasing allocations for health, education and other socially important areas. Overall, a more competitive and robust economy will also have a positive impact on the labor market and hence will improve people's living standard. In addition, the implementation of EE projects, with most of them be implemented at the municipal and regional levels, will also be accompanied by the creation of new jobs.

The municipal level component will also help cities develop and implement investment plans designed to reduce their energy cost burden, thus creating fiscal space for them to make other critical socioeconomic investments. Further, some of the investments, which are likely to include schools, street lighting,

heating, water, and other systems with broad social functions, will likely lead to improved levels of service, rehabilitated infrastructure, etc. which is extremely important to the municipalities themselves.

In addition, due to insufficient investments in development of new oil and gas fields in the past two decades, Russia may start facing the shortage of hydrocarbon resources in the mid-term. This may impact the country's ability to honor its energy export commitments and meet the growing domestic demand. Realizing its EE potential will help Russia mitigate this issue and ensure a sufficient supply of energy resources to support further economic growth.

B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND IF POSSIBLE, PROPOSE MEASURES THAT ADDRESS THESE RISKS TO BE FURTHER DEVELOPED DURING THE PROJECT DESIGN:

Risk	Rating	Mitigation
Lack of commitment to energy pricing reforms which then undermines economics of EE investments	M	Government commitment to pricing reforms and metering is demonstrated in the Federal Law #261-FZ. Ongoing policy dialogue will also help follow-up on planned pricing adjustments.
Lack of supporting frameworks and procedures, particularly in the public sector, to finance and implement EE projects	L	The government is now revising public procurement rules to allow for ESCOs and other EE products and services. EBRD is developing practical bidding and contract models to be used. Other issues will be identified and resolutions developed under Component 3.
Credit line is unable to generate proper financial products and project pipeline to allow for high investment levels	H	The Law and rising energy prices provide strong drivers for demand for financing. Multiple channels for project origination will be developed. Inclusion of municipal sector market will also help ensure strong pipeline. The mounting pressure on regional authorities to reduce energy intensity will help create demand for EE commercial financing.
EE service market is unable to offer viable models to generate strong portfolios	M	Several donors and government initiatives are ongoing to support market development activities. Use of pilot pipeline development contracts and EE Action Plans will also further stimulate EE service market.
Inability to develop and implement bundles of projects creates high transaction costs, threatening the viability of the market	M	Intensive efforts by GPB and REA to identify larger clients initially and explore bundling schemes (ESCOs, regional funds, municipal-level schemes), etc. are part of the project's approach.
Municipalities are unable to mobilize co-financing needed to implement some of their EE Action Plan measures	M	With the GEF pilot grants and access to the GPB credit line, it is expected that some of the co-financing issues can be addressed. Success of EBRD's public ESCO schemes will also help develop new ways for off-budget financing for public system retrofits.

B.5. IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:

Key project stakeholders include the Russian Energy Agency (REA), Gazprombank (GPB), relevant government ministries (Finance, Regional Development, Energy, Economic Development, Environment), other Russian commercial banks, regions and municipalities, and the private sector, including ARB and RSPP.

The *Russian Energy Agency (REA)* was founded in December 2009. It inherited an organizational structure and about 70 regional branches of the RosInformResource that used to collect energy sector

information across Russia and provide it to the Ministry of Energy. REA enjoys a well established management structure and a secured budget to cover the operational expenses. For illustration, the REA budget in 2010 is about RUB 2.5 billion, or some US$80 million and this is expected to rise about 20% in 2011. In addition to continuing energy sector data collection and performing some other functions, REA is now starting to play a key role in implementing the government EE agenda. Specifically, it is assuming responsibilities in regards to providing support to regions and municipalities in developing and implementing their respective EE programs; developing innovative EE financing schemes, as well as contracting and procurement mechanisms; developing a national EE information system in order to monitor the progress achieved by regions in achieving their EE targets, etc.

In relation to the project, REA will play a central role in creating the environment that will enable commercial financing of EE projects, including by the banks that will participate in the project. REA, supported by the GEF grant, would be tasked to help develop the EE financing market to a point that it is capable of sustained growth without the need for constant interventions. REA's role is thus to help market the program and raise awareness, facilitate policy adjustments that impede EE investments from taking place, managing the municipal EE Action Plan component, disseminating information, and recruitment of additional banking partners - all of which are expected to subside as early impacts are achieved.

Gazprombank has already been identified as a bank participating in the project. It is the third largest bank in Russia; it has a network of about 40 regional branches. Gazprombank top management has confirmed to the World Bank its commitment to the proposed project and has started to develop its EE lending business. Besides on-lending for EE projects, Gazprombank will be expected to share its EE related experience and lessons learned with other Russian banks through platforms arranged by REA, including the Assciation of Russian Banks.

The *Government of Russia*, represented by various ministries (e.g., Finance, Economic Development, Regional Development, Energy, Economic Development, Environment) also have a stake in the EE Law, and thus this project. In line with legal traditions in Russia, the EE Law is a framework law. Shortly after its approval, the government developed a list of more than 50 by-laws, which are now being developed by concerned Ministries. Further, the government adopted an Action Plan on EE and Energy Saving (issued as Government Order #1830-p of December 1, 2009). The Plan assigns specific EE mandates to concerned Ministries and government agencies, sets timelines and identifies concrete steps required to implement the Law provisions, which among other things, should enable commercial financing for EE projects.

Other commercial banks will also be stakeholder in this project. As experiences are gained, banks will be able to participate in outreach events designed to disseminate experiences and share lessons learned. Other banks will also have opportunities to benefit from training events developed by REA with support from GPB. Further, for those banks that are especially keen to enter the market, and are able to submit viable investment plans, some access to GEF funds for customized assistance to develop their internal business unit will be available.

Russian regions and municipalities are required, under the EE Law, to develop and implement EE Action Plans. Further, requirements for universal metering and expected steep increases in energy prices will further compel cities to undertake EE measures in order to avoid huge fiscal burdens. Under the project, pilot regions and/or cities will work with REA to develop EE Action Plans which will then become examples for other cities. Further, they will then need to mobilize funds to undertake an initial set of the identified measures, with financing from internal sources, GPB, the GEF grant, and other sources. They will also be required to provide information for case studies to be developed and disseminated to other interested regions and cities.

The *private sector*, which includes potential industrial borrowers, EE service or ESCOs, equipment suppliers, industrial/banking associations, etc. would also have a stake in the project. Industries would ultimately be the borrowers of the funds under Component 1 and assume responsibility for implementation and operation and maintenance of the sub-projects. The service and equipment sectors

would help to meet the demand for specific solutions that are required for the various sub-projects, both in the industrial and municipal sectors. They may also benefit from some of the market development and policy dialogue activities under the project.

B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES: The Russia climate change mitigation and EE agenda has been supported in the past years by several international organizations, including EBRD, IFC, UNIDO, and UNDP. Many of their TA programs are being funded by a combination of GEF grants, contributions from donor countries, and their own funds. In addition, there are ongoing projects implemented by bilateral donors (e.g., Germans) and large industrial corporations that are present on the Russian market, though they are relatively small compared to those carried out by international organizations. The proposed project is designed in a way that complements the ongoing climate change mitigation and EE initiatives and builds synergies among them.

The largest ongoing initiative is the Umbrella Program "Energy Efficiency in the Russian Federation" that is funded by GEF. Overall, it includes six projects initiated by UNDP, EBRD and UNIDO, and aims to improve EE in the industrial, building, and residential sectors through regulatory support, investment, and capacity building at the federal and local levels. The proposed project will benefit from the projects under the Umbrella Program that, among other activities, aim to bring down barriers and create an environment enabling EE investments in the residential sector; pilot ESCO and EPC models in public buildings; help industries embrace energy management practices; conduct public awareness campaigns; etc. These efforts will collectively help to increase demand for commercial EE financing to be provided by the banking sector, including such a large bank as GPB.

For industry, the EBRD-UNIDO "Market Transformation Programme on Energy Efficiency in Greenhouse Gas-intensive Industries in the Russian Federation" will focus on assisting 75 selected large and medium industrial enterprises with conducting energy audits and establishing energy management systems (EMS), as well as raising awareness. Activities implemented by these firms under the EBRD-UNIDO program will not be eligible for similar support under the proposed IBRD/GEF REEF program. However, since the EBRD-UNIDO project does not include efforts to train banks in EE lending, the IBRD/GEF REEF program would complement the EBRD-UNIDO one. EBRD intends to provide direct loans for EE purposes to large enterprises, while supporting medium enterprises by establishing EE credit lines at regional banks, but they are seeking substantially smaller projects (below US$6.5 million), while industrial subprojects under the IBRD credit line area expected to be in the US$10-30 million range. The two programs have agreed to hold quarterly coordination meetings to share experiences, plans for the next quarter, invite program partners to each others' events, etc. to avoid any overlaps. Further, REA is the counterpart for both programs, so they will ensure full complementarity.

In addition, the project will benefit from IFC's Cleaner Production program (RCPP), which stimulates investment in cleaner production projects, promotes cleaner production best practices and policies in Russia, and helps to advance the economic and environmental performance of Russian industry. In particular, RCPP facility can be used to co-finance energy audits – an essential part of project identification and preparation. IFC also has a more recent Russia Sustainable Energy Efficiency Program which targets EE investments in small and medium enterprises (SMEs), a market the IBRD credit line will avoid.

On the municipal sector, EBRD has its GEF-supported "Improving Energy Efficiency in Public Buildings in the Russian Federation" project, which will pilot the use of energy performance contracting (EPC) in a district heating utility in one city (Surgut), finance some building retrofits, and expand it to about 50 cities. The IBRD/GEF program will not target public buildings, but rather help regions and municipalities develop EE Action Plans and then implement packages of measures. While some buildings are undoubtedly likely to be included in these Plans, the core measures are expected to be in the municipal service sector, i.e., heating, power, water, public lighting. Again, the project teams will coordinate regularly to ensure there is neither overlap, nor duplicate funding of activities to the same entity, and also that experiences and learning are shared. In fact, the World Bank team eagerly awaits

successful demonstration of the Surgut utility-based ESCO as a model that could be replicated across the country.

The project will also seek complementarities with and benefit from the experience of the joint IFC and EBRD-financed program facilitating and promoting commercial investments in residential EE (Russia Residential Energy Efficiency Program, or RREP), which has just been launched. By the time the proposed project unfolds in the residential sector, most of legal and regulatory barriers are expected to be removed by RREP.

C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT: The proposed project is an investment operation and is consistent with the comparative advantage of the World Bank as stipulated in the Comparative Advantage matrix. The World Bank has substantial experience in implementing EE projects globally, from Eastern Europe to China to North Africa, and within the region and is a leading international financial institution in a number of sectors related to the GEF's focal areas. The Bank's comparative advantage also lies in its ability to offer significant co-financing and its strong operational capacity, which is built on fiduciary standards, environmental and social safeguards, and portfolio quality assurance and monitoring system. Moreover, EE is identified as a strategic target and direction under the World Bank energy strategy and support program to developing economies. In Russia, the World Bank produced in 2008 the "*Energy Efficiency in Russia: Untapped Reserves*" report, which became a reference for policy makers and other stakeholders, and has been leading a policy dialogue with the government authorities since that time. Further, recent knowledge products, such as ESMAP's *Financing Energy Efficiency* (2008) and *Public Procurement of Energy Efficiency Services* (2010) will provide substantial operational knowledge and best practices in this area and the project team draws on this vast expertise.

C.1 INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:

According to conservative estimates, the project will result in mobilizing about US$810 million in EE investments during the implementation period of five years. This will include an IBRD loan of US$300 million, co-financing by GPB in the amount of US$300 million, and the balance of US$210 million provided by project owners and other banks. However, in practice, the co-financing is likely to be significantly higher. The removal of systemic barriers to EE investments and creating the enabling environment, as well as dissemination of GPB experience through ARB is likely to spur other large nation-wide and regional banks on to embark on EE financing during project implementation.

C.2 HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:

The project is fully consistent with government priorities and the current Country Partnership Strategy (CPS) between the World Bank and Russia (Report No. 37901-RU, dated November 20, 2006). Specifically, the project will support the CPS goal of "Sustaining rapid economic growth" by making the economy more efficient, and hence more competitive, while at the same time addressing environmental degradation. The CPS identifies environmental degradation, including low EE, as key development challenges to achieving sustained rapid economic growth. It also cites grant resources, such as the GEF, as being an important source of support to increasing EE in the country.

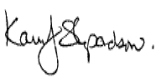
Project implementation will be overseen by a skilled and experienced World Bank team that is based in the Bank's Moscow Office, supplemented with EE experts from Headquarters in Washington, D.C. This Moscow team includes the project's Task Team Leader, Financial Management Specialist, Procurement Specialist, Safeguards Specialists, and Operations Officer. The team's proximity to the client will allow it to ensure continuous project supervision effectively and efficiently and to address any issues that may arise expediently.

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

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

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Igor Maydanov	Deputy Minister	NATURAL RESOURCES AND ENVIRONMENT	**08/06/2010**

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	**Signature**	**DATE** *(MM/dd/yyyy)*	**Project Contact Person**	**Telephone**	**Email Address**
Karin Shepardson, GEF Executive Coordinator, ENVGC, World Bank		02/24/2011	Angela Armstrong, GEF Regional Coordinator Yuriy Myroshnychenko, Task Team Leader	(202) 458-0975 +7 (495) 745 7000 – ext. 2034	aarmstrong@worldbank.org ymyroshnychenko@worldbank.org