PROJECT IDENTIFICATION FORM (PIF)
PROJECT TYPE: Medium-sized Project
TYPE OF TRUST FUND:GEF Trust Fund

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PART I: PROJECT INFORMATION

Project Title:	Delivering the Transition to Energy Efficient Lighting in Residential, Commercial, Industrial, and Outdoor Sectors in Pakistan		
Country(ies):	Pakistan	GEF Project ID:[1]	5799
GEF Agency(ies):	UNEP (select)	GEF Agency Project ID:	01285
Other Executing Partner(s):	National Energy Conservation Centre	Resubmission Date:	30 April 2014
GEF Focal Area (s):	Climate Change	Project Duration (Months)	36 months
Name of parent program (if applicable): • For SFM/REDD+ ☐ • For SGP ☐ • For PPP ☐		Project Agency Fee ($):	149,500

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK[2]:

Focal Area Objectives	Trust Fund	Indicative Grant Amount ($)	Indicative Co-financing ($)
CCM-1	GEFTF	787,750	4,012,500
CCM-2	GEFTF	787,750	4,012,500
Total Project Cost		1,575,500	8,025,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To secure significant global climate change mitigation and environmental benefits by instituting efficient lighting policies and creating a framework for innovative financial mechanisms that promote innovative and high efficiency products

Project Component	Grant Type[3]	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount ($)	Indicative Cofinancing ($)
1. Developing a National Efficient Lighting Strategy	TA	1.1 National Efficient Lighting Strategy employing an integrated policy approach to phase-out inefficient incandescent lamps and accelerate the transition to light emitting diode (LED) products. 1.2 Measuring, Reporting, and Verifying (MRV)	1.1.1 Draft policies, including minimum energy performance standards (MEPS), are developed to ensure a successful transition to an efficient lighting market including financial mechanisms to support Pakistan in its effort. 1.2.1 Development	GEFTF	350,000	1,780,000

[1] Project ID number will be assigned by GEFSEC.
[2] Refer to the reference attached on the Focal Area Results Framework and LDCF/SCCF Framework when completing Table A.
[3] TA includes capacity building, and research and development.

		procedures and methodology are developed to enhance Pakistan's Nationally Appropriate Mitigation Action, NAMA 1.3 Identifying and convening potential funders for the NAMA	of measurement methodologies including defining the scope, baseline, impact indicators, data collection system, and procedures to ensure reliability of data. 1.2.1 Development of reporting procedures including content and format. 1.3.1 Identifying and convening potential sources of funding for Pakistan's transition to efficient lighting.			
2. Strengthening monitoring, verification and enforcement (MVE) capacities in Pakistan to ensure an effective transition to efficient lighting	TA	2.1 Pakistan's lighting market is compliant with energy efficiency policies and standards	2.1.1 Implementation of legal and administrative processes to improve compliance with MEPS and labels in Pakistan 2.1.2 Technical training and support to market control authorities and customs 2.1.3 National laboratories to verify compliance with standards including for LEDs and controls strengthened.	GEFTF	271,750	1,385,000
3. Design for a "Lighting Funding Window" in Pakistan's Revolving Loan Fund (RLF)	TA	3.1 Revolving loan fund successfully receives financing for energy efficient lighting.	3.1.1 Analysis of existing RLFs, sample application forms and programme guidelines 3.1.2 Development of administrative and operational produces for the RLF. 3.1.3 Form the committee to review loan applications	GEFTF	200,000	1,020,000

			and determine other administrative needs			
4. Accelerating the use of light emitting diodes (LEDs) and controls	TA	4.1 Greater market penetration of LEDs through increased awareness of the benefits by consumers and key stakeholders (e.g. building managers, lighting designers and policymakers)	4.1.1 Communication campaign demonstrating the potential of LEDs and controls to select audiences 4.1.2 Support the design and evaluation of pilot demonstration programme/s for locally appropriate LEDs and lighting controls in high profile locations and for disadvantaged populations 4.1.3 Training for building managers and lighting designers on installation of LED systems and controls	GEFTF	682,000	3,470,000
			Subtotal		1,503,750	7,655,000
			Project Management Cost (PMC)[4]	(select)	71,750	370,000
			Total Project Cost		1,575,500	8,025,000

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount ($)
Private Sector	Osram	In-kind	1,000,000
Private Sector	Philips	In-kind	1,000,000
GEF Agency	UNEP	In-kind	25,000
Private Sector	National Lighting Test Center, China	In-kind	100,000
National Government	National Energy Conservation Centre (ENERCON)	In-kind	2,000,000
National Government	Engineering Development Board	In-kind	1,300,000
National Government	Pakistan Council of Scientific & Industrial Research (PCSIR)	In-kind	1,300,000
National Government	Climate Change Division of Pakistan	In-kind	1,300,000
Total Cofinancing			8,025,000

D. INDICATIVE TRUST FUND RESOURCES ($) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

[4] To be calculated as percent of subtotal.

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount ($) (a)	Agency Fee ($) (b)[2]	Total ($) c=a+b
UNEP	GEFTF	Climate Change	Pakistan	1,575,500	149,500	1,725,000
Total Grant Resources				1,575,500	149,500	1,725,000

[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. PMC amount from Table B should be included proportionately to the focal area amount in this table.

[2] Indicate fees related to this project.

E. PROJECT PREPARATION GRANT (PPG)[5]

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	Amount Requested ($)	Agency Fee for PPG ($)[6]
• No PPG required.	-- 0--	--0--
• (upto) $50k for projects up to & including $1 million		
• (upto)$100k for projects up to & including $3 million	45,662	4,338
• (upto)$150k for projects up to & including $6 million	0	0
• (upto)$200k for projects up to & including $10 million		
• (upto)$300k for projects above $10 million		

[5] On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

[6] PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

PART II: PROJECT JUSTIFICATION[7]

A. PROJECT OVERVIEW

A1.1 Summary of the national energy situation

Pakistan faces multiple challenges to its economic and social growth, which are increased by its worsening energy crisis. Pakistan relies on oil, natural gas, and liquefied petroleum gas, coal, hydroelectricity, nuclear energy and imported electricity. Due to insufficient generation capacity, Pakistan often has an energy deficit of 5,000 MW during the summer season, resulting in rolling blackouts of up to 12 hours a day in urban areas and 18 to 20 hours in rural areas. In 2008, Pakistan's national GHG inventory was 310 $MtCO_2e$. The energy sector is the most significant contributor to GHG emissions, totaling 157 $MtCO_2e$ (over 51% of the country's total emissions) in 2007 to 2008. Pakistan's growing population of 180 million is expected to increase demand for power to 306,797 GWh by 2020, and 889,583 GWh by 2035, most of which is likely to be sourced from the country's vast coal reserves. Energy related emissions are expected to be 64% of total emissions in 2050, evidence that the energy sector will become increasingly carbon-intensive without intervention.

Pakistan's Energy Efficiency and Conservation Bill, currently under promulgation, will strengthen institutions and accelerate mechanisms and procedures for the effective conservation and efficient use of energy in Pakistan[8]. Efficient appliances and lighting products are key targets in the Bill.

A1.2 Summary of the national efficient lighting situation

Presently, Pakistan has adopted: an energy efficiency endorsement label; MEPS for compact fluorescent lamps (CFLs); and, MEPS for ballasts for linear fluorescent lamps. These MEPS establish mandatory quality and performance specifications for the above products and do not phase out the use of inefficient incandescent lamps. This project will assist Pakistan to establish mandatory MEPS for all major types of lighting products. The technology-neutral approach to MEPS that is promoted by en.lighten would achieve the complete phase-out of inefficient incandescent lamps and all other obsolete technologies currently in the market, such as inefficient high intensity discharge lamps, commonly found in outdoor lighting and public spaces, and inefficient linear fluorescent lamps commonly used in commercial, industrial but also domestic applications to a high extent. Procurement specifications and testing standards will also be developed for light emitting diode (LED) lighting products to ensure that reliable, good quality, efficient products are available, especially for those applications that account for the greatest lighting electricity consumption. Government demonstration of and support for targeted use of lighting controls and high efficacy lamps could significantly reduce peak demand.

Lighting monitoring, verification and enforcement (MVE) activities are executed by the Quality Control Centre (QCC) of Pakistan Standards and Quality Control Authority (PSQCA). Additionally, there are two test laboratories in operation, but they only have the equipment and capacity to test CFLs and ballasts. National capacities should be significantly strengthened, given the present effectiveness of surveillance and enforcement measures is limited and low-grade lamps are still widely available in the market.

Pakistan has signed the Minamata Convention on Mercury and by 2020 must prepare its market for introduction of mercury-added lamps with lower mercury content. Pakistan will also phase

[7] Part II should not be longer than 5 pages.

[8] Accessed 23 April 2014: <http://www.enercon.gov.pk/index.php?option=com_content&view=article&id=17&Itemid=18>

out mercury vapor lamps, per the Convention's requirements.

A1.3 Summary benefits of the transition to energy efficient lighting

The UNEP-GEF en.lighten's Country Lighting Assessment estimates that a complete transition to efficient lighting in the residential, commercial/industrial and outdoor lighting sectors in Pakistan would result in the reduction of two million tonnes of CO_2 annually. Annual energy savings would be approximately four TWh, or 5.5% of total national electricity consumption and 35.3% of lighting-related electricity consumption. Annual savings in reduced electricity bills for consumers would be approximately 408 million USD.

Table 1: Annual benefits of a complete transition to efficient lighting in Pakistan (residential, commercial/industrial and outdoor sectors)[9]

CO_2 emission reduction (Mt)	Energy savings (TWh)	Cost savings (million USD)
2	**4.1**	**408**

As Pakistan currently only has mandatory performance and quality requirements for CFLs and ballasts; inefficient incandescent lamps continue to be present in the market, reducing the uptake of more efficient products. Through the technology neutral MEPS which will be implemented through this project, UNEP estimates that total annual savings would be 1.1 MT CO_2 emissions, energy savings of 2.3 TWh, and financial savings of over USD 226 million (Table 2) during initial four years of the project. These calculations account for about 30% of the savings from phasing-out inefficient incandescent lamps as the on-going Asian Development Bank's *Energy Efficiency Investment Program* in Pakistan (further explained in section A.4) is to distribute 30 million CFLs lamps for the exchange of inefficient incandescent lamps. The ADB CFL distribution project will accounts for close to 70% of the currently installed incandescent stock in Pakistan. The policy developments that this project will facilitate would accrue for the benefits of the residual incandescent stock of 30%, and the full potential (100%) after the distributed CFLs reach the end of their lifetime in approximately four years.

Further, the project may claim 80% of the savings from the transition to higher efficient lighting technologies in other applications, due to the permanent structural changes that the future regulations it will create the lighting market. The savings of attributed during the first four years of the project are presented in Table 2, while beyond four years the project would claim the full potential in Table 1.

Table 2: Annual benefits estimated from GEF grant-related activities to phase out inefficient incandescent lamps, from 2016 onward

CO_2 emission reduction (Mt)	Energy savings (TWh)	Cost savings (million USD)
0.3	0.6	60

[9] UNEP/GEF en.lighten initiative, July 2012, Country Lighting Assessment. See "The Second Generation On-Grid Country Lighting Assessments: Modelling Methodology for Energy and Financial Savings Potential from Replacing All On-Grid Lighting in All Sectors, "*at: < http://www.enlighten-initiative.org/Portals/0/documents/country-support/On-Grid%20Country%20Lighting%20Assessment%20Model%20Methodology%20for%20web%20July%2012-06-03.pdf*>

Annual benefits estimated from GEF grant-related activities to transition to other higher efficiency lighting technologies, from 2016 onward		
0.8	1.7	166
Total annual benefits estimated from GEF grant-related activities for this project, from 2016 onward		
1.1	**2.3**	**226**

A1.4 The proposed alternative scenario and project components:
The project will apply an integrated policy approach, developed on the basis of international best practices, identified by en.lighten's expert taskforces. This approach has been implemented successfully in 27 countries. The elements of the approach include:

- Minimum energy performance standards (MEPS) for lighting products
- Supporting policies and other mechanisms (such as fiscal policies, labelling and consumer information, and innovative financial mechanisms) to ensure that MEPS can be implemented successfully and permanently
- Monitoring, verification and enforcement (MVE) of lighting regulations
- Environmentally sound management of lighting products (including manufacturing of lamps and other lighting products and collection and recycling of spent products)

The project includes four components that will help to achieve a successful transition to energy efficient lighting. These components are described below and will be further analyzed and developed in the Project Document.

A1.4.1 Component 1: Developing a National Efficient Lighting Strategy
The project will develop Pakistan's National Efficient Lighting Strategy, which will provide the overall framework for the transition to efficient lighting. Adoption of the National Efficient Lighting Strategy in Pakistan will lead to the progressive phase-out of the remaining inefficient lighting technologies and the accelerated phase-in of efficient solutions, such as LED lamps, LED luminaires, and lighting controls. The strategy will set national objectives and a detailed roadmap based on the integrated policy approach. Activities will include:

- Identifying and quantifying national efficient lighting objectives and targets.
- Establishing national mandatory lighting MEPS, based on global best practices, accepted international standards and local conditions.
- Creating policy support mechanisms such as: economic and financial incentives and tools, information and awareness raising campaigns, labeling schemes and other market-based actions.
- Support to prepare Pakistan's markets and supply chains to offer greater and faster access to high performance LED lamps, LED luminaires, and lighting controls.
- Designing and strengthening a national lighting MVE system, to include market surveillance and testing of products to ensure compliance with the lighting MEPS.
- Designing an environmentally sound management legal framework and scheme, incorporating and expanding upon existing laws and efforts. This will include supporting Pakistan's compliance with the Minamata Convention on Mercury.
- Creating a locally appropriate and targeted communication, information and awareness raising campaign.
- Establishing stakeholder roles, responsibilities and an achievable timeline for implementing the strategy.
- Considering how to best finance the strategy to address initial costs and to measure and capture long-term economic benefits.

Upon completion of the National Efficient Lighting Strategy, the project will support Pakistan

to revise its UNFCCC-registered Nationally Appropriate Mitigation Action (NAMA) for efficient lighting. Presently this NAMA lacks a detailed measuring, reporting, and verifying (MRV) strategy, which is essential for a NAMA to attract investors. The objectives of a detailed MRV plan are to increase the transparency of mitigation efforts made by developing countries and to build mutual confidence among all countries. MRV is essential to the regular evaluation of a country's progress toward the objectives of the NAMA, on the basis of predefined indicators.

The project will support the development of an MRV plan that defines the geographical scope, data collection systems, procedures to ensure reliability of data collected, and, indicators to track implementation. The plan will establish the procedures for reporting the progress on the NAMA to investors, national authorities and relevant stakeholders. The project will support the convening of potential funders of the NAMA such as bilateral donors, the private sector, international financial institutions, domestic institutions, The NAMA Facility and the Green Climate Fund (GCF).[10]

A1.4.2 Component 2: Strengthening monitoring, verification and enforcement (MVE) capacities in Pakistan to ensure an effective transition to efficient lighting

The success of a transition strategy depends on a well-functioning system of monitoring, surveillance, control, and testing facilities. This component of the project will promote enforcement and full compliance with MEPS for all lighting products. International experience indicates that unless effective market surveillance systems are established and enforced, substandard products continue to enter national markets, reducing energy and financial savings and thus spoiling the market for high efficiency, high performance products. MVE capacities must include methods and facilities for testing and evaluating LEDs and controls because they are critical technologies for delivering maximum energy savings. MVE activities potentially include: capacity building for professional personnel; continuously assessing the process to verify product efficiency; establishing a public registry for products and for validating declarations of conformance; and, enforcing actions against manufacturers, suppliers or retailers of non-compliant products.

This component will strengthen the operational elements that will guarantee compliance with lighting MEPS. To enhance lighting MVE capacity in Pakistan, en.lighten will facilitate sharing of information and skills between neighboring countries. The project will encourage regional cooperation and harmonization of MVE schemes to discourage entry of poor-performance products.

A1.4.3 Component 3: Design for a "Lighting Funding Window" in Pakistan's Revolving Loan Fund (RLF)

The project will develop analysis, preparatory studies and a framework for expanding Pakistan's existing Revolving Loan Fund (RLF) to solicit proposals for support for efficient lighting installation projects in the residential, commercial, industrial, and outdoor sectors. The objective of the design of the "lighting window" of the RLF is to attract access to financing for lighting-specific loans from the private sector, development banks and other investment institutions. Loans from the fund to the private sector and national institutions will enable the borrowers to retrofit or purchase energy efficient lighting that would otherwise not be available to them and to help address the high initial cost of efficient lighting products. The "lighting window" design will address specific financial and technological barriers for the deployment of energy efficient and energy conserving lighting. Under this project the overall framework, strategy, procedures and requirements will be developed. Implementation and capital funding

[10] United Nations Environment Programme, 2013, *Guidebook for the Development of a Nationally Appropriate Mitigation Action on Efficient Lighting*.

will occur subsequently under Pakistan's registered NAMA.

The "Lighting Funding Window" proposed by Pakistan within its existing RLF builds on the existing Energy Conservation Fund (ECF), established by the UNDP/GEF funded "Fuel Efficiency in the Road Transport Sector (FERTS) Project" (1996-2005). According to ENERCON, ECF is carrying out its activities very effectively and in a secured manner. Presently, the Energy Conservation Fund (ENERCON/ECF) signs agreements to provide financial solutions for energy conservation equipment through leasing. These agreements extend funds to well-rated leasing institutions to promote use of fuel efficient devices and equipment.

As per the memorandum and articles of association of the ECF, the company can create a separate funding window for various sectors. Pakistan indicates that the existing ECF staff can effectively administer a "Lighting Funding Window" to specifically finance energy efficient lighting projects. Loans in this window are expected to be limited to the amount of US$30,000 to US$50,000 per borrower entity. The window will be implemented in two phases: the first will allow applications for funding from public, industrial and commercial sectors; the second phase will open to the residential sector. These two phases were prioritized by Pakistan based on the greatest reach and most immediate impact.[11]

Preparatory research for this component will include: studies on existing RLFs and funding windows (compiling sample applications, programme guidelines and other documentation of best practices); developing eligibility requirements; developing loan application forms; and, recommending the constituency of the loan review committee. Further, stakeholder consultations will be convened to identify each sectors' lighting and lighting efficiency loan needs and constraints. The outcome of this component will also enhance Pakistan's efficient lighting NAMA by detailing the "Lighting Funding Window."

A1.4.4 Component 4: Accelerating the use of high efficiency lighting and controls

The transition to high efficiency lighting, particularly products based on LEDs and controls, would significantly reduce electricity consumption and related GHG emissions (noted in Section A1.3), and enable better management of peak power demand. Pakistan has a strong interest in demonstrating, evaluating and deploying LED lamps and LED luminaires which are highly compatible with lighting controls that reduce wasted hours of use.

Prospective targets in the commercial and residential sectors will be detailed during the Project Preparation Grant. Initial prospects are: high efficiency LED luminaires and controls to replace inefficient linear fluorescent lamps, ballasts and luminaires in office buildings (especially government buildings); high efficacy LED lamps in retail applications to replace inefficient incandescent and fluorescent lamps; and, LED lamps to replace inefficient incandescent and fluorescent lamps and luminaires (indoor and outdoor applications) in low-income, multifamily, urban housing. The project will offer technical assistance to develop procurement specifications for appropriate, high performance and durable lighting products and controls.

Any demonstrations planned during this project will include guidance on how to properly collect and handle spent lamps, according to international best practices. LED lamps do not contain mercury; they are a highly efficient alternative to mercury-added lamps. Spent LED lamps are treated in the electronics waste stream, which reduces costs for their collection and recycling because they do not need to be separated, as do mercury-added lamps.

The market share of LED lighting products in Pakistan is still low due to higher initial costs,

[11] Center for Clean Air Policy (CCAP), May 2013, *NAMA Proposal Executive Summaries*.

unfamiliarity among users, and access to high performance products. The project will support the planning of targeted communication campaigns on LEDs and controls by showcasing their benefits, such as improved lighting quality, savings, and reduced electricity bills. The campaign will target key groups including policymakers, lighting retailers, and building managers. With private sector lighting manufacturer co-financing and technical support, the project will support the identification and design of two efficient lighting demonstration projects, which can be rapidly replicated and provide incentive for private sector investment. Further, the project will also educate buyers of LED products by supporting the development of lighting display centers by the project's private sector partners. The display centers will enable buyers to interact with a wide range of LED products and learn about their benefits.

A1.5 Innovativeness, sustainability, and potential for scaling up

Pakistan has an urgent need to reduce lighting electricity consumption and curb peak electrical demand, while delivering modern illumination services. The National Efficient Lighting Strategy will increase and coordinate institutional capacities and raise awareness of energy efficient lighting products, while increasing market demand and manufacturing opportunities for innovative lighting products that can operate well in local conditions. By strengthening Pakistan's lighting NAMA and the "Lighting Funding Window" of the RLF, investors should be reassured of lower risks and greater returns, which should in turn lead to greater access to funding for lighting installations. Further, the "Lighting Funding Window" of the RLF offers an innovative approach, which will prove the economic viability of investments in energy efficient lighting. The method of this project could be replicated in other countries and also with other technologies in Pakistan, including household appliances.

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

Stakeholder	Role
Government and national standards-setting bodies	Policy makers, officials and technical staff within government ministries will play a crucial role in the implementation of the proposed project. The Ministry of Industry and Energy will be the national project partner. In practice, the Ministry of Industry and Energy is responsible for policy and regulatory actions to promote energy efficiency. The Ministry of Ecology and Natural Resources will play a key role because climate mitigation activities as well as mercury control competencies rely on this body. Other ministries such as trade, commerce, finance, standards and quality control will participate in project oversight and implementation of market control activities. The national standards-setting body will also play a key role in the proposed project implementation.
Energy providers	Electrical utilities and energy service providers have an incentive to encourage efficiency to lower capital costs for infrastructure. Regulated or state-owned utilities may have additional incentives. Utilities will provide key inputs to the project regarding patterns of electrical demand, by sector.
Testing laboratories and technical institutions	Test procedures are an important technical foundation for MEPS. Testing laboratories will take part in the process of developing standards and quality control measures.
Lighting manufacturers, importers, distributors and retailers	Lighting manufacturers, importers, distributors and retailers are directly affected by energy efficiency regulations. They have valuable information about production costs and market structures. MEPS necessarily impose some burdens on manufacturers and importers, but these can be acceptable as long as they affect all companies equally and also introduce new business

	opportunities. Domestic and international firms will provide their input. Equipment retailers will comment on the proposed project and its future implementation by characterizing the market and consumer response to lighting product efficiency and pricing.
Environmental advocates and consumer groups	Non-governmental organizations that advocate responsible energy policies will contribute their perspectives during the development of the National Efficient Lighting Strategy. They will provide a balancing perspective to manufacturers with regard to the stringency of MEPS and MVE schemes. Input from civil society consumer groups can ensure that regulations do not require overly expensive or less functional lighting products.
International organizations, regional banks and financial institutions	International organizations and institutions will be critical to ensure support in the implementation of national activities. They can accelerate the transition in all sectors by providing co-financing and technical assistance. The project will work very closely with international and regional development banks and other financial institutions to catalyze Pakistan's access to finance to implement the National Efficient Lighting Strategy and to invest in Pakistan's lighting NAMA.

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

Risk description	Mitigation measure	Level of risk
Weak government support, which leads to inadequate and ineffective enforcement or policies and regulations.	(i) Conduct direct consultation with policy makers for the formulation of roadmaps and policies to provide greater commitment; (ii) Increased capacities of Pakistan's MVE systems to allow for effective enforcement and sustainability. (ii) Improve the institutional arrangements for the enforcement of lighting product standards and quality norms	Low
Policies might be recommended but not implemented	(i) Implement proposed project via leading policy development bodies; (ii) Involve policy makers in the policy development and review process. (iii) Involve the UNEP Regional Office for advice and contacts for the implementation of project activities (iv) Closely coordinate activities and obtain political support and advice from the UNDP and UNIDO offices in Pakistan	Medium
Delayed implementation of activities that are baselines for specific incremental activities of the proposed project	During the proposed project design stage, implementation partners will be identified. Also, during the design stage, a realistic schedule will be established among responsible agencies.	Medium

Low level participation from the private sector actors including lighting technology manufacturers and distributors.	(i) Involve the private sector key players from the project design stage; (ii) disseminate latest information through appropriate channels; and (iii) identify needs and demands through continuous dialogue; (iii) involve the UNEP Executive Director to obtain participation and encourage progress from companies.	Medium

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

The project aligns with and provides a valuable resource for GEF's other initiatives linked to energy efficiency lighting. This project builds on the UNEP en.lighten initiative, which has been established as the GEF *de facto* global authority on lighting energy efficiency policies. The en.lighten initiative offers a repository of knowledge and best practice guidance to promote efficient lighting solutions. UNEP coordinates all of its GEF-funded lighting projects with en.lighten's integrated policy approach. The project will work closely with other GEF projects, while obtaining lessons learned and recommendation from already implemented projects, including BRESL (Barrier Removal to the Cost-Effective Development and Implementation of Energy Efficiency Standards and Labelling), which was a regional project funded by GEF. BRESL was implemented by UNDP with ENERCON. BRESL aimed to improve and produce energy efficient appliances and set standards and labels for six types of home appliances, including CFLs. This project will build on the accomplishments of BRESL by extending the MEPS beyond CFLs and linear fluorescent lamp ballasts to all most commonly used lighting products. Lessons learned and recommendations from BRESL have been incorporated in this proposal and will be further addressed in the project design.

Further, the project will closely collaborate with the Asian Development Bank's *Energy Efficiency Programme* in Pakistan, which plans to distribute about 30 million efficient and high quality CFLs for the replacement of incandescent lamps. The programme includes bulk procurement and a door-to-door CFL delivery to registered household customers. The proposed UNEP/GEF project offers strong synergies by implementing technology neutral MEPS to allow for a permanent and sustainable transition. This will ensure that consumers do not return to inefficient incandescent lamps after the lifetime of the CFLs they were offered, something frequent in CFL give away programmes.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

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

As non-annex I party, the national communication of Pakistan to the UNFCCC clearly identifies energy efficiency as a critical path to reduce CO_2 emissions. The proposed project is in line with the National Energy Conservation Policy of 2006 and National Climate Change Policy of 2012 of Pakistan. National Climate Change Policy in its mitigation section very clearly states specific policy measures for energy efficiency improvement, energy conservation and electrical demand reduction methods. The National Energy Conservation Policy of 2006 also echoes the measures stated in the Climate Change policy by promoting energy conservation practices and energy savings of perceptible magnitude at national level. It encourages energy audits in commercial buildings and use of energy efficient appliances in residential/commercial buildings.

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

The proposed project supports GEF climate change focal area objective CCM-1 that deals with the promotion, demonstration, deployment, and transfer of innovative low-carbon technologies, particularly high efficiency and usage-controlling lighting technologies. Lighting is a major electricity-consuming appliance system in all buildings, sectors and industries, so the project is consistent with GEF climate change focal area objective CCM-2 that deals with the promotion of market transformation for energy efficiency in industry and the building sectors.

The project contributes to the following CCM-1 and CCM-2 outcomes and outputs:

CCM-1 Technology Transfer
Outcome 1.1: Technologies successfully demonstrated, deployed, and transferred
Outcome 1.2: Enabling policy environment and mechanisms created for technology transfer
Output 1.1: Innovative low-carbon technologies demonstrated and deployed on the ground
Output 1.2: National strategies for the deployment and commercialization of innovative low-carbon technologies adopted

CCM-2: Energy Efficiency
Outcome 2.1: Appropriate policy, legal and regulatory frameworks adopted and enforced
Outcome 2.2: Sustainable financing and delivery mechanisms established and operational
Output 2.1: Energy efficiency policy and regulation in place
Output 2.2: Investment mobilized
Output 2.3: Energy savings achieved

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

With the global leadership of UNEP which co-leads with the Collaborative Labeling & Appliance Standards Program (CLASP) the "High Impact Opportunity on Advanced Lighting and Appliance Efficiency" of SE4All, this global programme will become a flagship of the UN Secretary General's initiative Sustainable Energy for All (SE4All), and enable meeting the goal of doubling the global rate of improvement of energy efficiency by 2030. In addition, the project will be aligned with the mandate of the Energy Efficiency Hub recently established in Copenhagen as a collaborative effort from the Government of Denmark, UNEP and the Danish Technical University (DTU) to support the coordination and facilitation of the "SE4All high-impact opportunities" in the area of Energy Efficiency, and the Energy+ initiative which will help put NAMAs into effect.

As the executing partner in the GEF en.lighten initiative, UNEP has generated a globally accepted policy consensus to phase out inefficient incandescent lamps. The en.lighten initiative offers a Centre of Excellence comprised of over 50 lighting experts—representing over 30 countries—from private sector companies, governments, civil society, academia, research organizations and international agencies. The Centre of Excellence provides recommendations, technical guidance and efficient lighting expertise to assist countries in the shift to energy efficient lighting.

The project also offers good opportunities for collaboration across UNEP, notably between the Energy Branch, the Sustainable Consumption and Production Branch (10YFP, Procurement, Consumption patterns/behavioural changes), the OzonAction Team and UNEP Chemicals.

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)*
Mr. Muhammad Irfan TARIQ	Director General	**ENVIRONMENT AND CLIMATE CHANGE DIVISION**	**04/07/2014**

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

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	**Signature**	**DATE** *(MM/dd/yyyy)*	**Project Contact Person**	**Telephone**	**Email**
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