



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:	Energy Efficient Low-carbon Transport in South Africa		
Country(ies):	South Africa	GEF Project ID: ¹	
GEF Agency(ies):	UNIDO (select) (select)	GEF Agency Project ID:	130281
Other Executing Partner(s):	SANEDI, TIA, eThekweni Municipality, dti, DEA, DoT, DOE	Submission Date:	03/07/2014
		Resubmission Date:	03/21/2014
GEF Focal Area (s):	Climate Change	Project Duration (Months)	36 months
Name of parent program (if applicable):		Project Agency Fee (\$):	123,500
<ul style="list-style-type: none"> • For SFM/REDD+ <input type="checkbox"/> • For SGP <input type="checkbox"/> • For PPP <input type="checkbox"/> 			

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CCM-4 Promote energy efficient, low-carbon transport and urban systems	(select)	1,300,000	6,050,000
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
Total Project Cost		1,300,000	6,050,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: Promotion of the widespread use of electric vehicles and non-motorized transport (NMT) as part of the Green Transport and Green Cities initiatives of South Africa to facilitate local manufacturing of EV and bicycle parts and components and the development of the necessary infrastructure						
Project Component	Grant Type ³	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Improvement of policy and regulatory frameworks for EV use and local manufacturing, and NMT, capacity of concerned institutions built and awareness raised.	TA	Enabling policy and regulatory framework, together with strengthened institutional capacity enhanced awareness; facilitating early and widespread use and local manufacturing of EVs and NMT in South Africa.	1.1 National policy and regulatory framework, incentive programmes, tax incentives, design, planning, and safety guidelines, etc. to promote early take-off, widespread use, and local manufacturing of EVs and NMT strengthened; 1.2 Concerned institutional capacity at the national level built, and awareness raised.	GEFTF	350,000	700,000

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.

2. Promotion of non-motorized and public transport in eThekweni Municipality and development and demonstration of the supporting infrastructure for electric vehicles.	TA	Improved non-motorized and public transport result in a reduction of GHG emissions in the transport sectors of the big South African cities;adequate infrastructure facilitates widespread utilization of EVs powered by renewable energy.	2.1. Policy and regulatory framework to promote NMT and public transport in eThekweni Municipality enhanced;	GEFTF	650,000	3,800,000
	INV		2.2. Institutional capacity for eThekweni Municipality strengthened and awareness raised on NMT; experience shared with the other 10 cities of South Africa under the DEA/KfW Green Cities Promoting NMT programme. 2.3 Standards and regulation for EV infrastructure, charging stations, networks, support applications, etc. developed.		2.4. Design, installation and testing of at least 2 PV-based (fast, off-line) charging stations for EVs;	160,000
3. Monitoring & Evaluation.	TA	Adequate monitoring and evaluation mechanisms are in place, facilitating smooth and successful project implementation and sound impact.	3.1. Regular monitoring exercises conducted, PIRs and tracking tools according to GEF requirements prepared; 3.2. Mid-term and final project evaluation conducted.	GEFTF	50,000	100,000
Subtotal					1,210,000	5,800,000
Project Management Cost (PMC) ⁴				(select)	90,000	250,000
Total Project Cost					1,300,000	6,050,000

⁴ To be calculated as percent of subtotal.

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
GEF Agency	UNIDO	Cash	60,000
GEF Agency	UNIDO	In-kind	100,000
National Government	dti/DST	In-kind	500,000
National Government	TIA	In-kind	700,000
National Government	SANEDI	In-kind	650,000
Local Government	Thekwini Municipality	Cash	3,040,000
National Government	DoT/DEA	In-kind	500,000
Others	Tbi during PPG phase	In-kind	500,000
Total Cofinancing			6,050,000

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant 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
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. 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	65,000	6,175
• (upto)\$150k for projects up to & including \$6 million	_____	_____
• (upto)\$200k for projects up to & including \$10 million	_____	_____
• (upto)\$300k for projects above \$10 million	_____	_____

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

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

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

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 JUSTIFICATION⁷

A. Project Overview

A.1 Project Description: Briefly describe the project, including;

1) The global environmental problems, root causes and barriers that need to be addressed;

Worldwide, the increase in greenhouse gas (GHG) emissions originating from transportation is continuing rapidly, while global dependence on private motor vehicles persists and continues to increase significantly (IEA, 2013). The transport sector in many developing countries has become the largest GHG emission sector of the economy, and these emissions are not only detrimental to the environment but also have a serious negative impact on health and socioeconomic factors. In the case of South Africa, the transport sector is the second most rapidly growing source of combustion emissions, accounting for 13% of total such emissions in South Africa. In 2004, the transport sector accounted for 25.7% of total energy demand within the country.⁸

Electric vehicles hold significant potential for not only transforming how the world moves, but also for increasing energy security and reducing carbon emissions and other pollutants. Transportation accounts for about one-fifth of global energy use, and passenger vehicles account for about 10% of energy-related carbon dioxide emissions. With the rapid rise in personal vehicle ownership around the globe, demand for fuel will continue to increase along with carbon emissions unless there is a significant shift in transportation.

There are a variety of clean vehicle technologies and fuels in development and in use, but electric vehicles (EVs) represent one of the **most promising technologies for reducing oil use and cutting emissions**. This market is still developing, however, and there are still many challenges in ensuring its sustainability and growth, particularly with technology integration, optimization, and scale-up. In South Africa, EVs and cycling present a high potential for a reduction of GHG emissions, in particular if the EVs are powered by renewable energy (RE) sources, and widespread cycling is interlinked with improved public transport. Despite the significant opportunities present in the market for EVs and improved infrastructure, there are still many barriers preventing market acceptance of EVs and widespread cycling. These include:

- Lack of enabling policy and incentive programmes to encourage early market take off and first-movers;
- Low awareness within the public of the opportunities associated with EVs and cycling;
- Lack of the necessary supporting infrastructure to develop sustainable alternative forms of transportation. The growth of non-motorized transport, in particular cycling, has been very low in almost all developing countries due to a large extent to lacking infrastructure.

These barriers, along with the relative ineffectiveness of the current policies and investment programmes focusing on these issues, have been recognized by the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in their aim to reduce CO₂ and black carbon emissions from land transport.

The GEF, under its GEF6 cycle, will also very much focus on promotion of low-carbon transport. Program 3 of the GEF6 CC Mitigation Focal Areas will promote integrated low-carbon urban systems and sustainable transport and Program 1 will focus on development, demonstration and financing of low-carbon technologies.

2) The baseline scenario and associated baseline projects;

Green Mobility, Alternative Fuels, and E-mobility

In South Africa, technology developments in alternate fuels and propulsion systems have not yet been commercially exploited. The South African National Energy Development Institute (SANEDI) and the Department of Transport (DoT), in recognition of this, are planning to develop a National Green Transport Strategy. SANEDI is also planning the launch of a Green Energy Mobility Centre at the Council for Scientific and Industrial Research (CSIR) in Pretoria to provide a facility to test and demonstrate these new innovations, as well as to provide a 'soft start' incubator for new business development and technology partnerships.

Work being conducted under the WWF Low Carbon Frameworks project is looking at the use of system dynamics

⁷ Part II should not be longer than 5 pages.

⁸ South Africa's Second National Communication under the United Nations Framework Convention on Climate Change, 2011

modeling tools to explore the potential for various mitigation interventions to reduce emissions in the sector, as well as the effects of feedbacks in the system on uptake, mitigation potential and socio-economic impacts. The project is conducting two separate case studies, one on freighting and the other on passenger transport in Gauteng. Similar interest has also been shown in academic circles with, for example, the University of Cape Town's Centre for Transport Studies intending to offer a post-graduate and professional programme in Low-Carbon Transport in 2014.

The EV Industry Road Map for South Africa was launched in July 2013 and is currently under revision and available for public comments. The initial version of the Road Map includes incentives for South African EV manufacturers that would offer a rebate of 1/3 of production costs over a three year period for manufacturers that produce more than 5,000 EVs. The Road Map has been developed by the dti, in cooperation with other relevant government departments and multinational car manufacturers. However, much is still to be done in order to align the South African EV Road Map content with international standards and best practices, as well as to include all potential EV alternatives.

Alongside the efforts in policy making, the EV market is experiencing a resurgence amongst traditional automakers, and in South Africa consumers have a number of EV options to consider, such as the Nissan Leaf, BMW i-line and VW Electric Golf. The Nissan Leaf went on sale in South Africa in October 2013 and accounts for more than half of all EV sales in South Africa. BMW will enter the South African market gradually in 2014 with only 100 models of the BMWi8, and 20 i3s to begin with. However, adoption by consumers will largely be a function of government incentive schemes and the availability of electric vehicle charging options. In the current situation, most EV charging will take place at home; in order for EVs to gain widespread consumer adoption, it is critical for electric vehicle supply equipment (EVSE) infrastructure to exist in public places. In the meantime, South Africa's national Department of Environmental Affairs (DEA) has launched a Zero Emission Electric Vehicle Pilot Programme using Nissan Leaf vehicles.

Below are a number of projects that form the baseline situation and fall within the promotion of EV charging infrastructure in South Africa to pave the way for the introduction and adoption of EVs.

Research and Development of DC Quick Charger Prototype (2014-15)

This project will investigate the possibility of developing a locally developed charging station and proposes potential improvements to the EVSE currently available on the overseas market. The project aims to develop globally competitive quick DC chargers and locally produced EVSE product portfolio with a proposed budget of R4.8million (~US\$485,000). Potential project counterparts include Stellenbosch University (SUN), the Technology Innovation Agency (TIA), the Nelson Mandela Metropolitan University (NMMU), Adept Engineering cc and ChargeMaestro. Planned enhancements include: (i) Decreased charging time; (ii) Improved efficiency; (iii) Incorporated battery storage to decrease peak demand from the electricity grid; and (iv) Improved design of EVSE that can be integrated with solar panels and wind generators.

uYilo Live Testing Environment (LTE) (2013-18)

This platform will provide important insight into EVs' energy requirements and user acceptance, as well as provide valuable information for Original Equipment Manufacturers (OEMs) and Utility and Energy companies, for further development and testing of procedures for controlled charging and feedback of electric energy into the power grid. The LTE plays an important role in demonstrating locally developed technology and intellectual property, as well as becoming a platform for the development and validation of national standards. The platform will, therefore, consist of testing and the development of various EV ecosystem elements, such as electric vehicles, charge points, data and information communication systems, and smart grid devices. Therefore, the proposed budget for the project is R4.5m (~US\$450,000) and project counterparts include NMMU, TIA and potentially OEMs, SANEDI, and the Nelson Mandela Bay (NMB) Municipality.

Data Aggregation

This project, the timeline of which is still to be determined, will investigate the development of a national aggregator, an easy to use database for charging stations, capable of real-time updates on the availability of charging stations. The system developed will allow the identification of charge point locations through a web-portal, thus securing a comprehensive overview of the charging infrastructure in South Africa and allowing for

reservations of charging stations through a smartphone application. Possible partners include GridCars, SANEDI, BMW SA, Nissan SA, and the DEA.

EVSE Research Forum

Under this research project, the timeline of which is yet to be determined, topics such as the cost of charging EVs will be investigated; tariff structures and other incentives to promote charging will be considered. Further investigations will include significant temporal, spatial and institutional variations in the cost of charging an EV on the South African grid; this is to allow consumers to make proper purchasing decisions. The project will also look into factors that influence consumer charging behavior, and how this behavior is expected to develop. Possible partners include universities, BMW SA, and Eskom.

Integrated Data Management System

The widespread electrification of road transport must be accompanied with adequate electric infrastructure development and the grid integration concept must have a wide reach. When planning the introduction of EVs on the grid, issues such as infrastructure planning and costs, quick charging impact, bi-directional energy flow capabilities (V2G), standardization, and regulatory aspects (business models, billing issues, tariff schemes, etc.) need to be considered. This project, once off the ground, has the potential to develop and implement systems to capture and collect EV data and run basic analytics to understand the impact of EVs on the national grid. Possible partners include SUN, Eskom, Municipalities, Nissan SA, and the DEA.

Structured Roll-out of Charging Infrastructure

As South Africa starts to roll out charge point infrastructure, there is a need to first understand how the rollout can be targeted, how the infrastructure network should be developed and where the demand really is. Such an initiative, with a strong research component, will help steer an economically efficient and targeted roll-out of infrastructure. This will also help the municipal distributors of electricity to identify and target early hotspots to be considered for medium voltage infrastructure upgrades. Possible partners include DEA, dti, universities, Municipalities, Nissan SA, BMW SA, ChargeMaestro, and Eskom.

With these ongoing projects in mind, the proposed project's approach will aim to fill the policy gaps still present in the baseline situation. For instance, while there is a multitude of projects focusing on the expansion of the EV market, very few dedicate adequate attention to the supporting policy framework or the building of capacity within the relevant institutions. The proposed project will correct this omission while also aiming to coordinate with existing projects for the development of the strategy papers under Component 1 of the project.

Non-Motorized Transport

While the NMT modes in South Africa still have some way to go before they are fully integrated within the mobility system, South Africa has made great strides, particularly in the last 5 years, in their NMT policy and implementation.

The National Draft NMT Policy, in draft form since 2008, is currently being updated and finalized, while the DoT's Pedestrian and Bicycle Facility Guidelines (an Engineering Manual to plan and design safe pedestrian and bicycle facilities), drafted in 2003, is to be updated in 2014 to reflect international and national best practices.

The roll-out of Integrated Rapid Public Transport Networks (IRPTNs) in major cities has paid dividends to local NMT policy and implementation, with the cities of Johannesburg, eThekweni, Ekurhuleni, Rustenburg, Tshwane, Polokwane and Cape Town preparing or updating NMT policy, strategy and design principles, as well as implementing pilot or integrated projects. In addition, both the City of Johannesburg and the City of Cape Town have prepared Feasibility Studies for the implementation of bicycle-sharing systems (2013).

Furthermore, the DEA, in partnership with KfW (German Development Bank) as part of their National Greening Programme is working to build the capacity of the 11 cities of South Africa to promote NMT. Launched in May 2010, a strategic element of this programme is the implementation of demonstration walking and cycling infrastructure projects in these cities. So far, eThekweni Municipality has been the forerunner amongst the 11 cities, and has invested significantly in upgrading and building its 5 cycling routes and the associated infrastructure that was used during the COP17. KfW has provided €5 million for the current phase of the NMT

programme, and are preparing to provide another € million for the second phase.

3) The proposed alternative scenario, with a brief description of expected outcomes and components of the project;

The proposed project will assist the efforts of the Government of South Africa and the business sector to promote early and widespread use of EVs and cycling practices that will lead to a reduction in the currently rapid growth of GHG emissions originating from the transport sector. The project will focus firstly on the demand side of the market through the promotion of local bicycles and EV use as a means to provide the market space for the supply side aspect of the project. In order to stimulate demand in the South African market, the project will focus specifically on the development and improvement of incentive schemes and awareness raising as pull-factors to ensure sufficient market-demand from users. South African industries will be strengthened and supported to develop and supply the required parts, manufacturing and assembly of EVs, EV infrastructure, and bicycles, hence creating income and jobs within South Africa. Lastly, the project would seek to partner with national institutions and businesses to develop the necessary infrastructure for the introduction of EVs and non-motorized transport. This will have a significant impact on the transport sector and labor markets not only in South Africa, but also in other countries within the SADC region. The project intervention will take a holistic approach by working closely with national government counterparts, local government, specifically eThekweni Municipality, and the private sector. The objectives of the proposed project are closely in line with those of the government and will also assist in the coordination of already ongoing government initiatives in this sector. Although the proposed project is a MSP project, a two-step approach has been selected to carry out more consultations, assessments and review during the PPG phase in order to develop a CEO Approval Request document that is more focused and detailed in its approach to dealing with South Africa's needs and requirements.

Currently, Malaysia and South Africa are the first two countries to have requested and worked with UNIDO to develop projects to promote the early take-off and widespread use of EVs. Through UNIDO, the project counterparts of the two countries have already communicated intensively to share experience and knowledge. Furthermore, to link into global networks and maximize GHG reductions, the project will consider and incorporate the sustainable city concept.

The proposed project will be hosted and coordinated by the Green Transport section of SANEDI and is structured around 2 substantive components:

Component 1: Improvement of policy and regulatory frameworks for EV use and local manufacturing and NMT, capacity of concerned institutions built and awareness raised

This component will be jointly led by the dti and the DoT, with the dti focusing on the promotion of EVs and DoT on NMT promotion.

Output 1.1 National policy and regulatory framework, incentives programmes, tax incentives, design, planning and safety guidelines, etc. to promote early take-off, widespread use, and local manufacture of EVs and NMT strengthened

The project will assist South Africa to strengthen the existing policy framework to have an enabling policy environment for the effective promotion of low-carbon transport with a focus on EVs and non-motorized transport. It will work with the active participation of all stakeholders and will draw on and share the relevant experiences and lessons learned from industrialized countries such as Denmark, France, Germany, the US, Japan, etc. as well as developing countries such as China.

During the PPG phase, additional consultations will be carried out with concerned stakeholders to identify the need for the further development of policies, strategies, roadmaps, implementation guidelines, etc. that will be developed during the project main phase to effectively stimulate both demand for and supply of EVs and bicycles in South Africa. For instance, consultations will be carried out with the DEA to consider potential cooperation with the Green Fund (US\$100 million for a three-year period) that looks at investment in infrastructure development and the related local manufacturing.

Specifically targeting the stimulation of market demand, the proposed project will aim to strengthen incentive programmes, including for instance, various tax incentives. These improved incentives, combined with the

awareness raising events planned under Output 1.2, and the development of adequate charging infrastructure will ensure that end-users are encouraged to invest in and adopt low-carbon transportation options. This approach will also seek to ensure market sustainability beyond the closure date of the proposed project.

The proposed project will also encourage and facilitate investment in infrastructure development and maintenance, in the local production of parts and maintenance facilities and human resources both for EVs and bicycles. This will seek to enhance partnerships, pool available resources and generally streamline the concerns associated with such investment, thus reducing the perceived investment risks. The proposed project will also pay attention to the promotion of the development and use of public transport, in particular e-buses, with more people cycling to public transport stations. The policy framework will facilitate the development of PV-based infrastructure to reduce the consumption of fossil fuels and other GHG-intensive energy sources, such as coal. International consultants and local consultants will be recruited to work alongside local partners and concerned institutions and workshops, seminars and study tours, etc. will be organized.

A study will also be carried out under this Output with regard to the promotion of local manufacturing and assembly of special EVs for niche markets in South Africa and the SADC region, for example for the game parks in South Africa that require vehicles with minimum environmental impact and noise for relatively short distances.

Output 1.2 Concerned institutional capacity at the national level built, and awareness raised

In order for the project's interventions to be sustainable and have a real impact on GHG emissions, institutional capacity within the concerned South African authorities and institutions must be strengthened in this field. This will be achieved through trainings, study tours, and close cooperation between these institutions and local and international consultants. The built institutional capacity will play an important role in ensuring that sufficient investment is attracted and working to incorporate the policy framework strengthened under Output 1.1 into the existing policy framework.

Building on the developed strategies, roadmaps, and results of testing and demonstration under Component 2, the project will develop and implement a programme to raise public awareness of the opportunities and benefits, such as environmental, health, and economic factors, associated with public transport, electric vehicles and non-motorized transportation. This increased awareness and better understanding of the low-carbon transportation options available on the market will serve to create demand in the South African market, thus increasing the likelihood of widespread adoption of EVs.

Component 2: Promotion of Non-Motorized and Public Transport in eThekweni Municipality and development and demonstration of supporting infrastructure for electric vehicles

As a follow-up to the NMT component of the very successful Greening the COP17 project, also financed by the GEF and implemented by UNIDO, this component will assist eThekweni Municipality to promote cycling in the eThekweni Municipality, including cycling to and from public transport stations, hence contributing to the promotion of public transport. This approach will also help to develop demand for bicycles in the market, thus stimulating supply from the private sector. Experience will be shared with the other 10 cities of the DEA/KfW NMT programme and the component will also focus on the promotion and development of the local production of bicycles. For example, a pre-investment study will be carried out for the setting up of local production of bicycles, and funding from the dti, the Industrial Development Corporation, and other sources can be used for investment.

The second aspect of this component will focus on the development of supporting infrastructure for the use of EVs, creating local manufacturing for EV parts and infrastructure equipment, and the local development of infrastructure facilities. The eThekweni Municipality will take lead on Outputs 2.1 and 2.2 of this component, and TIA on Outputs 2.3 and 2.4:

Output 2.1 Policy and regulatory framework to promote NMT and public transport in eThekweni Municipality enhanced

The project will assist eThekweni Municipality to review existing policies, regulations, and support programmes, etc. on the promotion of cycling and to improve them where necessary. Policy framework and incentive programmes for the promotion of local bicycle manufacturing will be improved, and pre-investment studies will be carried out. The project will work closely with financing institutions, such as the KfW, for the development of

a safer cycling infrastructure that connects to the eThekweni IRPTN and E-buses. Experiences from other countries such as the Netherlands, Denmark, France, Germany, etc. will be shared and active participation of all stakeholders will be critical for the development and implementation of the policy framework. Other necessary strategies, roadmaps, incentive schemes, etc. will be developed in close cooperation with eThekweni Municipality in order to ensure that new investments made/technologies developed are easily incorporated into the IRPTN. This will serve to support the easy and wide-spread adoption by the public of NMT and E-buses. Various bicycle rental business models will also be developed to be implemented as follow-up to this project.

For example, the project will focus on permitting bicycles on board public transportation, such as railways and buses, as a significant and sustainable transport intervention as it encourages last mile/first mile bicycle trips, and effectively deals with one of the cities' great challenges – sprawl and long-distances which make entire trips by bicycle difficult. The project will also assist in the development of comprehensive policy, strategy, best practices and specifications for bicycle 'parking' within public transport vehicles, as well as an awareness and 'branding' programme for bicycle-friendly public transport vehicles. This component will effectively link eThekweni IRPTN with bicycle use.

The development and improvement of the regulatory framework will encourage the growth of demand for new EVs and other alternative forms of NMT. By encouraging the demand side of the market, the supply of such products will follow accordingly (supported by Outputs 2.3 and 2.4), thus helping to create new skilled jobs in South Africa.

Output 2.2 Institutional capacity for eThekweni Municipality strengthened and awareness raised on NMT; experience shared with other 10 cities of South Africa under the DEA/KfW Green Cities Promoting NMT programme

The project will, in particular, focus on strengthening the institutional set up and human resources in eThekweni Municipality, for example the Energy Centre, the Transport Unit, and the Finance Office. All stakeholders will be invited to actively participate in project development and implementation, and workshops, study tours and trainings will be carried out. Experienced international and local consultants will be recruited to work, in particular at the Transport Unit, during the project period and will provide on-the-job training for staff of the Unit to ensure sustainability. Attention will also be given to building up maintenance capacity for bicycles. The project will work very closely with the DEA/KfW programme and other related programmes and projects.

The experience gained in eThekweni Municipality will be shared with the other 10 cities of South Africa that together with eThekweni Municipality, are benefiting from the support provided by KfW and DEA to promote NMT in their municipalities. Workshops and training courses will be organized and a small number of officers from other cities will receive short-term on-the-job training in eThekweni.

Output 2.3 Standards and regulation for EV infrastructure, charging stations, networks, support applications, etc. developed

Testing data and information collected will then be used for the development of a national standard and regulations for charging stations. These standards and regulations will contribute to the policy framework developed under Component 1 and are important to ensure the high quality of the developed infrastructure, safety, and consumer confidence and acceptance. The development of these standards and regulations will be done in close consultation with the private sector to ensure that their requirements are also met, as well as with the concerned international institutions, for example: MCE-EVI, Electrical Vehicles Symposium, ISO, etc. to ensure that adaptation is, as much as possible, in line with internationally accepted standards. It will also aim, for example, to facilitate the work currently being carried out by an inter-departmental technical working group coordinated by the South Africa Standards Bureau (SASB).

Output 2.4 Design, installation and testing of, at least, 2 PV-based (fast, off-line) charging stations for EVs

The proposed project will assist in the design, purchase of necessary equipment, installation, operation and maintenance of at least 2 PV-based fast charging stations. The costs associated with one PV-based off-line and fast charging station, equipment and installation can be estimated between US\$ 300,000 and US\$ 400,000. The stations will be installed during the project implementation period in places suitable for charging as many EVs as possible for testing purposes, collection of information and data for further development, as well as for

demonstration. During the PPG phase of this project, additional considerations will be made regarding whether to also include further focal areas. These will be used to charge the EVs either to be purchased by the Government as stipulated in the Key Programmes associated with the EV Roadmap, or provided by business partners, for example the 9 multi-national car manufacturers that have participated in the development of the dti's industrial EV roadmap. The project will also assist in increasing the use of some existing charging stations, for example those at the DEA, for the purpose of testing and demonstration.

South Africa already has a developed car manufacturing industry and has the capacity to expand further into the EV and supporting components industry. South Africa's strong automotive cluster has, in the recent years, received many support projects from UNIDO to increase their productivity, competitiveness and reduce waste. The EV Roadmap that is currently under revision and open to public comments includes incentive programmes for the manufacture of EVs (see A.1), and the policy activities undertaken under Components 1 and 2 will serve to further concretize these incentives in favor of EV and component manufacturing, specifically expanding into incentives for production of charging station components. Furthermore, the baseline projects discussed above, such as the Research and Development DC Quick Charge Prototype (2014-15), will further develop this capacity concurrently with the proposed project's activities.

This output presents ample opportunity to cooperate with a number of private sector manufacturers at various points along the value chain, thus seeking strong partnerships with the private sector. These potential partnerships will be assessed in the PPG phase of this proposed project and are considered a priority for the project's activities.

4) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing;

Incremental cost reasoning

In 2011, the investment from the GEF in the non-motorized public transport initiative was US\$250,000 as part of the larger MSP, "Greening the COP17" project, and the development of the project and its implementation were altogether less than one year.

The new project takes stock of the legacy created during COP17 and aims to build on the lessons learned, extending the scope of the intervention to tackle not only non-motorized public transportation, but also the larger theme of low-carbon transport, including activities and interventions dedicated to energy efficient mobility as a whole. The project will strengthen capacities of concerned local partners, such as local manufacturers, and promote the creation of a market for energy efficient and low-carbon transportation across the country, accelerating the transition to a greener economy in South Africa. In addition, the project will facilitate the implementation of the various baseline projects listed above.

In the case of no support from the GEF to assist South Africa in removing the above-mentioned barriers, it is very likely that the transport sector will continue to grow without taking into consideration its environmental impact and without exploiting its energy efficient growth potential. Consequently, many opportunities to reduce GHG emissions and strengthen partnerships with the private sector to invest in e-mobility and provide support to the government in developing policies to ensure an enabling environment, would go unrealized in South Africa and the SADC region. Indeed, under this project it has been planned that the experience of South Africa could be shared with other developing countries and that the replication potential in SADC Region could be investigated.

Co-financing

The total co-financing to the project is equivalent to roughly US\$6 million. Ample consultations have been carried out and strong support and commitment has been secured from SANEDI, through the Department of Energy, TIA, dti, DEA, KfW, and the eThekweni Municipality, as well from the private sector. As each of these partners already has on-going projects and programmes promoting low-carbon transport, the Government of South Africa and the transport sector's key players consider this project an opportunity to accelerate the implementation of the other interconnected national initiatives that would otherwise be delayed or neglected. In addition, the project is seen as a suitable platform for coordination, dialogue and policy engagement with regard to e-mobility and more generally in support of the promotion of low-carbon transportation. The involvement of the business sector in the project, for example the 9 multi-national OEMs and local manufacturers, will be carefully considered in the PPG phase, in order to avoid jeopardizing the free market mechanism while also strengthening public-private partnerships for the sake of sustainable development. During the PPG phase,

experience from other UNIDO projects, which have worked together with a few large car manufacturers, such as Volvo and BMW, will be carefully considered, as well as co-financing possibility from the UNIDO’s on-going project on Fostering Sustainable Linkages in the Automotive Supplier in Industry in SA.

The detailed breakdown and description of the various contributions will be detailed throughout the PPG phase. At this stage, in-kind co-financing is foreseen to entail the following contributions to the project; staff-time, workshop/event support services, engagement with policy-makers and stakeholders, use of outreach programmes for awareness raising etc.

5) Global environmental benefits (GEFTF, NPIF) and/or adaptation benefits (LDCF/SCCF);

As mentioned above, the transportation sector in South Africa is a significant contributor to the country’s GHG emissions. Exhaust gases, and the dust and noise created by this sector not only impact climate change, but also pollute the environment, and therefore negatively affect health and socioeconomic sectors, in particular in big cities such a Johannesburg, Durban, and Cape Town. This project, once implemented, will provide significant opportunities for reductions in GHG emissions, other exhaust gas emissions and noise from the transport sector. Detailed estimations of GHG emission reductions, as well as other environmental and socioeconomic benefits, will be carried out during the PPG phase of this project based on the GEF Manual for GHG Benefits of GEF Transportation Project⁹. At this stage, it is estimated that the direct impact of the project would be 130,000 tons of GHG reduced, with 520,000 reduced indirectly, thus giving an abatement cost of around US\$ 2/ton to US\$ 10/ton, based on the current Grid Emission Factor in South Africa of 940 kg CO₂/MWh.

6) Innovativeness, sustainability and potential for scaling up;

The proposed project will support the development and expansion of innovative non-motorized and public transport alternatives in South Africa. While there are currently some ongoing initiatives in this field, a number of barriers including low awareness and limited policy frameworks have limited progress in this sector. The proposed project, through policy framework support and promotional efforts will attempt to overcome these barriers, thus allowing these new technologies to gain traction in the South African market.

In order for these new technologies to gain market share, they must also be shown to be sustainable. The proposed project will support this sustainability through the development of an enabling policy environment, capacity building within the relevant institutions, creation of a successful bike sharing business model and the promotion of the required supporting infrastructure. These interventions will continue on beyond the scope of the proposed project, and will serve to institutionalize these new technologies into the existing South African transport infrastructure. As a result, the capacity built will continue to achieve the project’s objectives well beyond the 3 year scope of project implementation.

The project will initially focus on the eThekweni Municipality, a project partner, for the project’s interventions in order to achieve maximum impact and build upon the efforts already made under the Greening the COP17 project. There is, however, large potential for expansion into additional South African Municipalities using the enhanced policy and regulatory framework, the built institutional and manufacturing capacity, and infrastructure to encourage large implementation programmes by the private and public sectors. Furthermore, South Africa’s first-mover image at the regional level also provides opportunities for additional expansion beyond the national borders.

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 and mandate	Envisaged role in the project
<p>South Africa National Energy Development Institute (SANEDI)</p> <p>The main function of SANEDI is to direct, monitor and conduct applied energy research and development, demonstration and deployment as well to undertake specific measures to promote the uptake of Green Energy and Energy Efficiency in South Africa.</p>	<p>SANEDI will be the lead executing agency of the proposed project; responsible for the coordination of the work to be carried out by other local project partners.</p>

⁹ http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF_CalculatingGHGbenefits_webCD.pdf

Stakeholder and mandate	Envisaged role in the project
<p>The Department of Trade and Industry (dti)</p> <p>The dti’s vision is of a South Africa that has a vibrant economy, characterized by growth, employment and equity, built on the full potential of all citizens. To achieve this, the dti has become an outwardly-focused, customer-centric organization. The dti’s strategic objectives are to:</p> <ol style="list-style-type: none"> 1. Facilitate transformation of the economy to promote industrial development, investment, competitiveness and employment creation; 2. Build mutually beneficial regional and global relations to advance South Africa’s trade, industrial policy and economic development objectives; 3. Facilitate broad-based economic participation through targeted interventions to achieve more inclusive growth; 4. Create a fair regulatory environment that enables investment, trade and enterprise development in an equitable and socially responsible manner; and 5. Promote a professional, ethical, dynamic, competitive and customer-focused working environment that ensures effective and efficient service delivery. 	<p>The dti, together with DoT, will be responsible for the effective implementation of Component 1 of the project, with dti focusing specifically on EV promotion</p>
<p>The Department of Transport (DoT)</p> <p>The DoT is responsible for regulation of transportation in South Africa, specifically, public transport, rail transportation, civil aviation, shipping, freight, motor vehicles, and non-motored transport.</p>	<p>DoT, together with the dti, will be responsible for the effective implementation of Component 1 of the project, with DoT focusing specifically on NMT promotion</p>
<p>eThekwini Municipality</p> <p>eThekwini Municipality is a Category A municipality found in the South African province of KwaZulu-Natal. Its vision is that by 2030, eThekwini Municipality will enjoy the reputation of being Africa’s most caring and liveable City.</p>	<p>eThekwini Municipality will be responsible for the effective implementation of Outputs 2.1 and 2.2 of the project.</p>
<p>The Technology Innovation Agency (TIA)/Ministry of Science and Technology</p> <p>The TIA was established with the objective of stimulating and intensifying technological innovation in order to improve economic growth and the quality of life of all South Africans by developing and exploiting technological innovations. TIA’s core business objective is to support the development and commercialization of competitive technology-based services and products. The Agency primarily uses South Africa’s science and technology base to develop new industries, support the creation of sustainable jobs and help diversify the economy. It invests in the following technology sectors: Advanced Manufacturing, Agriculture, Industrial Biotechnology, Health, Mining, Energy and ICT.</p>	<p>TIA will be responsible for the effective implementation of Outputs 2.3 and 2.4 of the project.</p>
<p>Department of Environmental Affairs (DEA)</p> <p>The DEA is mandated to ensure the protection of the environment and conservation of natural resources, balanced with sustainable development and the equitable distribution of the benefits derived from natural resources. The Department of Environmental Affairs fulfils its mandate through formulating, coordinating and monitoring the implementation of national environmental policies, programmes and</p>	<p>The DEA will be engaged throughout project development and implementation to oversee project progress and strategically maintain the direction of the project in line with environmental priorities.</p>

Stakeholder and mandate	Envisaged role in the project
legislation. DEA is also the GEF Focal Point in South Africa.	
<p>Automotive Industry Development Centre (AIDC)</p> <p>The AIDC has been established to assist in increasing the global competitiveness of the South African automotive industry to world-class levels. The AIDC works in partnership with business, local, provincial and national government, tertiary and further education institutions and other national and international organisations to provide technical services to the automotive industry across all tiers of suppliers and assemblers.</p>	The role of the AIDC will be to coordinate engagement with automotive manufacturers. Relevant OEMs will be identified and consulted during the PPG phase.
CSOs	The South African Local Government Association (SALGA), and the South Africa Cities Network have been involved in the development of the PIF, and will continue to play a role in awareness raising and policy inputs throughout the project

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	Rating	Mitigation
Management priorities in the participating public and private sector organizations change over time, resulting in reduced participation or even termination of collaboration.	Low	This will be mitigated by the signing of a Terms of Reference contract before the commencement of the project. Where possible, participating organizations will be legally bound to participate until project completion.
The general public opposes the execution of the proposed project, due to a lack of understanding and perceived danger of the technology.	Low	Mitigation by means of public awareness and advocacy activities are part of Components 1 and 2. In addition, showcasing of the technology in a visible way to the public will also be undertaken (Component 2). In particular, relevant university courses and/or summer school initiatives will serve to inform the general public and educate a new generation of sustainable energy engineers from a technical and safety point of view.
Proposed improvements to the institutional and regulatory framework are delayed by public institutions.	Medium	Close cooperation of the project partners in the Project Steering Committee (PSC) will be sought and the project document will indicate in detail the roles and responsibilities of each project partner. For instance, dti will lead Component 1, including policy formulation, and eThekweni Municipality and the TIA will jointly lead Component 2.
Incentive and financial support system are insufficient.	Low	Close coordination with the private sector and financing institutions will be sought under Component 2 of the proposed project to mitigate this issue.
Technology failure	Low	This risk can be considered low, as EVs and the associated required equipment are now commercially and widely available.
Project interventions are not sustained beyond the project life span.	Medium	Relevant public bodies' agreement will be secured in order to guarantee the project's continuation after the end of the GEF

Risk	Rating	Mitigation
		funding period.
Climate change negatively impacts the infrastructure installations put in place by the project.	Low	Detailed environmental assessments will be conducted before infrastructure, e.g. charging stations, are built to mitigate this risk and ensure long-term success of project interventions.

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

The project will be closely coordinated with the on-going GEF/UNIDO Cleantech Programme for SMEs in South Africa. Project implementation will also be closely coordinated with other GEF projects under the climate change (CC) Focal Areas in South Africa. For example, the on-going project on Industrial Energy Efficiency (IEE) funded by the Government of SA, SECO, and the UK, as well as the newly approved GEF/UNIDO follow-up project on IEE and other GEF CC projects managed by UNDP, UNEP and the World Bank.

This Energy Efficient and Low-Carbon Transport Project will also be closely coordinated with the other relevant projects of UNIDO in South Africa, in particular with those relating to the Montreal Protocol Branch and Environmental Management Branch, such as the HCFC Phase-out management plan with a budget of US\$6.5 million and the other POPs programmes implemented in the region. The project will also seek to coordinate with and build on projects implemented by the Business, Investment and Technology Services (BIT) Branch that have focused on developing the capacity of local component suppliers, as well as building productive partnerships with local and international car manufacturers operating in South Africa.

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.:

The project aims to raise awareness and change mind-sets about low carbon transportation, while simultaneously creating opportunities for studying, testing and demonstrating progress achieved in South Africa with regard to electric motor vehicles. The energy efficient transport sector is an innovative and attractive sector to capitalize on the available opportunities and expand its contribution to both employment and economic growth, namely stimulate the green industry and economy in the country. This will operate within the **National Industry Policy Framework (NIPF)** and as prescribed by the up-scaled **Industrial Policy Action Plan (IPAP) 2012/13 - 2014/15**, released by the Department of Trade and Industry (**the dti**) in April 2012, representing the fourth annual iteration of the first IPAP launched in the 2007/08 financial year.

The **Renewable Energy White Paper 2003** specifically addressed the potential for renewable energy in South Africa and established a target for renewable energy deployment. The draft **Revised White Paper on Renewable Energy Policy - 2010** for South Africa provides for an integrated renewable energy supply for the country, contributing a minimum of 27% of the national energy demand by 2030, concurrently providing: i) increased access to energy services, ii) increased employment, iii) maximum use of natural resources, iv) a reduction in greenhouse gas emissions and water use and v) economic growth.

The **Integrated Resource Plan 2010 (IRP2)** was promulgated on 6 May 2011 and is a subset of the Integrated Energy Plan – it is a National Electricity Plan. The IRP2 is a living plan that is expected to be continuously revised and updated as necessitated by changing circumstances. The Plan forecasts that renewable energy will produce 9% of South Africa’s electricity mix by 2030. This allocation, which is equivalent to about 42% of the country’s *new build capacity* that will be brought on line between 2010 and 2030, is a manifestation of the South African government’s determination to pursue a green growth path going forward. In addition, South Africa presently has in place a target of 10,000 GWh of renewable energy contribution to the final energy consumption by 2013. It is projected that through the 3725 MW that will be generated from renewable energy sources and which is required to ensure continued uninterrupted supply of electricity, this 2013 renewable target will be reached, if not surpassed.

Pursuing this initiative also has the potential to contribute toward the stated green jobs target under the **New**

Growth Path, as well as toward the achievement of the ‘**Green Economy Accord**’ that the Government of South Africa, business and labor signed in November 2011. The Accord is one of the most comprehensive social partnerships on "green" economy development in the world; geared to create 300,000 jobs within the next 10 years. The Accord was also signed by South Africa's three labor federations, whose membership together accounts for more than two million workers. These are the Congress of SA Trade Unions (Cosatu), the Federation of Unions of SA (Fedusa), and the National Council of Trade Unions (Nactu). Ten ministers actively involved in the development of the agreement include the Ministers of Environmental Affairs, Transport, Trade and Industry, and Labour. The agreement was signed ahead of the 17th Conference of the Parties (COP 17) to the UN Framework Convention on Climate Change, held in Durban from 28 November to 10 December 2011.

The **National Energy Efficiency Strategy (NEES)** was issued in 2005, revised in 2008, and the newly revised version (2nd review) has been submitted to the Cabinet in November 2012, setting an energy usage reduction of 15% for the transport sector by 2015.

The high potential for improved transport systems as a climate change mitigation action has been recognized by both the **2nd National Communication (2011)** and the **Technology Needs Assessment (2007)**. Specifically, the policy papers highlighted the need to prioritize EVs, improve energy efficiency in the transport sector, and to explore passenger modal shifts. The **Electric Vehicle Industry Road Map** issued by the dti in July 2013 encompasses 8 key action plans: (1) Government Vehicle fleet Procurement Policy to Include electric vehicles from 2015; (2) Provision of investment support for the Manufacture of Electric vehicles and components; (3) development of regulatory framework and Testing Infrastructure for the introduction of EVs; (4) foster energy storage research and Development initiatives to reduce costs; (5) incentive scheme to support the charging infrastructure; (6) tax incentives for electric vehicle purchasers; (7) improve electric vehicle consumer awareness & public education; (8) planning and management of urban Infrastructure.

The **Integrated Rapid Public Transport Network (IRPTN) Programme** from the eThekweni Municipality, issued in 2007 and still under implementation, intends primarily to reduce the overall impact of transport on the environment. Other objectives of the programmes are: (1) Ensure equal access to opportunity; (2) Promotion of a liveable city; (3) Rectification and enhancement of spatial structure; (4) Increase of the quality of service that is acceptable to car users; (5) Positive impact on the city's economy.

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

The objective of the project is fully consistent with the goal of the Climate Change Mitigation Focal Area, which supports developing countries and economies in transition toward a low-carbon development path, and in particular with Objective 4 of CC Focal Area, namely: Promote energy efficiency, low-carbon transport and urban systems.

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

UNIDO has been working for several years in South Africa and other countries to assist their automotive sectors to increase their competitiveness, and reduce their negative impact on the environment. Under an on-going project on industrial energy efficiency improvement in SA, many automotive factories have received the project support to reduce their energy consumption. UNIDO has also worked with a few large car manufacturers, such as Volvo and BMW, in creating capacity in some developing countries for proving better maintenance for trucks. In particular, UNIDO, with GEF support, has already supported South Africa in successfully implementing the Non-Motorized Transport Programme for COP 17 in 2011. UNIDO has, therefore, developed a strong level of expertise, trust and a large network of national counterparts involved in this space. In addition, under the ICHET project in Turkey, UNIDO has assisted the design, manufacture, operation and maintenance of a Hydrogen FC van powered by solar energy for emergency situations, and a fleet of tri-wheelers in New Delhi using Hydrogen combustion. Through this project, UNIDO has gained extensive experience working on low-carbon transport vehicles, specifically assisting local industries in the manufacturing, distribution and adoption of such.

In addition, UNIDO has considered in 2013 to establish a strategic approach to a sustainable transport sector centred around three areas of intervention: 1) low carbon transport promotion and development; 2) energy efficiency in vehicle manufacturing and supply chain; and 3) sustainability in the transport lifecycle. The proposed project will also closely liaise with other initiatives implemented in the country with regard to the fostering of a green industrial sector and the transition toward a green economy.

UNIDO has experts at UNIDO Headquarters in Vienna, as well as a regional office in Pretoria, which is responsible for supporting UNIDO projects and activities in 10 SADC countries: Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe. UNIDO has strong presence in South Africa with a very large cooperation programme, in particular on energy and climate change.

UNIDO's mandate is, inter-alia, to promote technology transfer, technology development and deployment in developing countries. One of the current three thematic priorities of UNIDO programme is sustainable energy and environment. At the Rio+20 Event, UNIDO launched the Green Industry Platform.

UNIDO's Energy Strategy aims at helping developing countries and countries in transition to achieve the following objectives:

- Increase the competitiveness of their industries by reducing the dependence on fossil fuels;
- Reduce their impact on climate change by decreasing the carbon emissions of their industries and by promoting renewable energy technologies;
- Increase the viability of their enterprises, particularly in rural areas, by augmenting the use of locally available renewable energy sources.


UNIDO, as part of their co-financing contribution to the project, will contribute US\$60,000 in cash and US\$100,000 in-kind to the project.

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. Zaheer Fakir	GEF Operational Focal Point, Acting Deputy Director-General, Department of Environmental Affairs (DEA)	DEPARTMENT OF ENVIRONMENTAL AFFAIRS (DEA)	18 DECEMBER 2013

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
Philippe Scholtès, Officer in Charge, Programme Development and Technical Cooperation Division (PTC) UNIDO GEF Focal Point		03/21/2014	Khac-Tiep Nguyen, Energy and Climate Change Branch, UNIDO	+43-1-26026-3086	k.nguyen@unido.org