

PROJECT IDEA NOTE (PIN)

Description of size and quality expected of a PIN

Basically a PIN will consist of approximately 5-10 pages providing indicative information on:

- A.** Project participants
- B.** Project description, type, size, location and schedule
- C.** Avoided / reduced GHG emissions
- D.** Financial aspects
- E.** Expected environmental and socio-economic benefits
- F.** Risks
- G.** Other relevant information

A. PROJECT PARTICIPANTS

Name of the Project Participant	Ministry of Local Government (MoLG)
Role of the Project Participant	a. Project Operator b. Owner of the project's site c. Owner of the emission reduction credits
Organizational category	Public
Contact person	Mr. S. Purmessur, Assistant Permanent Secretary.
Address	Ministry of Local Government (MoLG), Rodrigues and Outer Islands, 3 rd Floor, Emmanuel Anquetil Building, Corner Jules Koenig and SSR Streets, Port Louis
Telephone/Fax	Tel: +230 201 3008 Fax: +230 208 9729,/201 1660
E-mail and web address, if any	http://www.gov.mu/portal/site/mlge
Main activities	<p>The Ministry of Local Government (MoLG) is responsible for local government administration and coordination. The MoLG budgets and distributes the grants necessary for the local authorities to afford general services, such as street lighting for example.</p> <p>Another important function of the Ministry concerns the responsibility for Solid Waste Management, including arrangements for the collection and safe disposal of solid waste, setting up and operation of waste disposal sites such as transfer stations and sanitary landfill, issue of waste carrier's licenses, control of illegal dumping.</p> <p>In addition, the Ministry has general responsibility for the control and management of public beaches across the island.</p>
Summary of the relevant experience of the Project Participant	As the parastatal body in charge of Street Lighting management, the MoLG has all the necessary resources and experience in undertaking this project.

B. PROJECT DESCRIPTION, TYPE, LOCATION AND SCHEDULE

OBJECTIVE OF THE PROJECT <i>Describe in not more than 5 lines</i>	The objective of the project is to reduce the carbon footprint of the government by installing efficient lightings on the roads of Mauritius. This project will enable the Ministry of Local Government, with time, to reduce its spending on electricity and allocate those funds to other priority sectors.
PROJECT DESCRIPTION AND PROPOSED ACTIVITIES <i>About ½ page</i>	<p>In total there are 104,510 street lights around the Islands of Mauritius and Rodrigues. These lights are of many various wattage intensities and brands. The Ministry of Local Government (MoLG) is the Governmental body in charge of public road lighting. In the proposed project, the MoLG has studied the possibility of replacing all the street lights in Mauritius with low energy consumption units. This will enable the MoLG to streamline its purchasing activity, reduce its electricity bill and participate in a national effort to achieving lower GHGs emissions.</p> <p>To date, the brand of the new lights and suppliers are not yet known, however, it has been decided that the type of lighting device to be installed to be of T-5 Ecotube type, as this device results in high reductions in energy use</p>

	<p>compared to the currently installed lights (i.e., uses 70W against 100W, 125W or 150W)</p> <p>Due to the lack of project funding, the Ministry will solicit financing from the “Maurice Ile Durable (MID)¹ fund”, a fund designed to finance partially or totally sustainable governmental development projects in the Island.</p> <p>Depending on the availability of funding, the project will be implemented in two phases. Phase 1 will involve the installation of 21,314 low consumption units. An assessment by an independent consultant will then be undertaken to highlight the impact of phase 1 on the basis of which MoLG and MID will decide on granting their green light to Phase 2. Phase 2 will see the installation of the remaining 83,196 units.</p>
<p>TECHNOLOGY TO BE EMPLOYED² <i>Describe in not more than 5 lines</i></p>	<p>The Eco Tube can be best described as a very efficient electronic transformer housed in an intrinsically safe flame retardant high impact plastic extrusion; this is coupled to a T8 to T5 tube adaptor. This is a passive retro fit and does not require specialized knowledge, as simple as changing a standard fluorescent tube.</p> <p>For full technical information, please refer to website: http://www.ecotube.com.au/technical_specifications</p>
TYPE OF PROJECT	
Greenhouse gases targeted CO ₂ /CH ₄ /N ₂ O/HFCs/PFCs/SF ₆ <i>(mention what is applicable)</i>	Carbon dioxide (CO ₂)
Type of activities Abatement/CO ₂ sequestration	GHGs abatement
Field of activities <i>(mention what is applicable)</i> <i>See annex 1 for examples</i>	Energy efficiency improvement
LOCATION OF THE PROJECT	
Country	Mauritius
City	All cities
Brief description of the location of the project <i>No more than 3-5 lines</i>	Mauritius is a 2,040 km ² Island in the Indian Ocean with a population of about 1,200,000 inhabitants. The island has 2000 km of roads, 1960 km of which is paved and about a quarter of it being publicly lighted. The overall Island of Mauritius and that of Rodrigues is the project boundary.
EXPECTED SCHEDULE	
Earliest project start date <i>Year in which the plant/project activity will be operational</i>	December 2009
Estimate of time required before becoming operational after	6 months

¹ MID stands for Maurice Ile Durable, i.e. Mauritius Sustainable Island. This fund has been created to support national projects that will benefit the sustainable development strategy of Mauritius.

² Please note that support can only be provided to projects that employ commercially available technology. It would be useful to provide a few examples of where the proposed technology has been employed.

approval of the PIN	
Expected first year of CER/ERU/VERs delivery	December 2010
Project lifetime <i>Number of years</i>	Ongoing project – new efficient street lights will be replaced over and over as often as necessary in order to ensure continuous quality lighting to the general public. One street light has a lifespan of about 30,000 hours (some 6-7 years operational time at 12h lighting per day).
For CDM projects: Expected Crediting Period <i>7 years twice renewable or 10 years fixed</i>	10 years fixed period
For JI projects: Period within which ERUs are to be earned (<i>up to and including 2012</i>)	
Current status or phase of the project	<ul style="list-style-type: none"> • Pre-feasibility and carbon layer study made
Current status of acceptance of the Host Country	<ul style="list-style-type: none"> • Only informal communication with DNA as of now
The position of the Host Country with regard to the Kyoto Protocol	The Host Country acceded to the Kyoto Protocol in 2001

C. AVOIDED / REDUCED GHG EMISSIONS

ESTIMATE OF GREENHOUSE GASES ABATED/ CO₂ SEQUESTERED <i>In metric tons of CO₂-equivalent, please attach calculations</i>	Phase 1: 3,590 ER => probably VERs to valorize initial phase at lowest possible cost Phase 2: 17,604 ER => worth developing as CER Over 10 years ER => 161,191 tCO ₂ equivalent See calculations and assumptions in attached document
BASELINE SCENARIO Baseline methodology to be used This project is covered by an existing Approved CDM Small-Scale Methodology II.J./Version 02 Sectoral Scope: 03 EB 44: “Energy efficiency improvement projects”. The grid emission factor (GEF) has been calculated using ACM0002 / Version 07: “Consolidated baseline methodology for grid-connected electricity from renewable sources”, a GEF value of 1.136 was obtained. What modifications the project would induce? This project will not modify the current lighting devices in any dramatic ways. The major change is in the technology and price of the new efficient lights that will be used. Retrofitting of street lamps’ poles is not part of the project scope and is not thought necessary at this stage. What would be the situation in the absence of the project activity? The baseline scenario is to keep on using a mix of light bulbs’ “types and wattage” that would correspond to what	

is used today – i.e., a whole array of different brands and wattage types (see calculation XL tables). Those Bulbs would be using the electricity generated by the Grid. The baseline scenario used in this study is therefore the electricity generated using existing power plants, and delivered by the grid.	
ADDITIONALITY Please explain which additionality arguments apply to the project:	<ul style="list-style-type: none"> • The cost of efficient technology is high, even if the return on investment can be quite fast, in the actual financial and political situation; the Ministry cannot make efficient lighting as its top priority and disburse all the necessary money from its current budget. • The MID might support the project but only if the project promoter shows that all possible “personal efforts” were done to self finance the project.

C. FINANCIAL ASPECTS

TOTAL CAPITAL COST ESTIMATE (PRE-OPERATIONAL)	
Installed costs	3.484 US\$ million (equipment = bulbs + installation)
Other costs (please specify)	0.5 US\$ million (Consulting assessment report)
Total project costs	3.984US\$ million
SOURCES OF FINANCE TO BE SOUGHT OR ALREADY IDENTIFIED	
Equity Name of the organizations, status of financing agreements and finance (in US\$ million)	Does not apply
Debt – Long-term Name of the organizations, status of financing agreements and finance (in US\$ million)	Does not apply
Debt – Short term Name of the organizations, status of financing agreements and finance (in US\$ million)	Does not apply
Carbon finance advance payments ³ sought from the World Bank carbon funds. (US\$ million and a brief clarification, not more than 5 lines)	Does not apply
SOURCES OF CARBON FINANCE Name of carbon financiers other than any of the World Bank carbon funds that your are contacting (if any)	Not yet approached
INDICATIVE CER/ERU/VER PRICE PER tCO₂e⁴	Ideally looked for by promoter, at present time:

³ Advance payment subject to appropriate guarantees may be considered.

⁴ Please also use this figure as the carbon price in the PIN Financial Analysis Model (cell C94).

⁵ The World Bank Carbon Finance Unit encourages the seller to make an informed decision based on sufficient

Price is subject to negotiation. Please indicate VER or CER preference if known. ⁵	VER = 5 USD per VER sought (free of validation and auditing costs) CER = 10 Euro for pre-2012 and 7 Euro for Post-2012
TOTAL EMISSION REDUCTION PURCHASE AGREEMENT (ERPA) VALUE	
A period until 2012 (end of the first commitment period)	To be negotiated US\$ / €
A period of 10 years	To be negotiated US\$ / €
A period of 7 years	To be negotiated US\$ / €
<p>Please provide a financial analysis for the proposed CDM/JI activity, including the forecast financial internal rate of return for the project with and without the Emission Reduction revenues. Provide the financial rate of return at the Emission Reduction price indicated in section “Indicative CER/ERU/VER Price”. DO NOT assume any up-front payment from the Carbon Finance Unit at the World Bank in the financial analysis that includes World Bank carbon revenue stream.</p> <p>Provide a spreadsheet to support these calculations. The PIN Financial Analysis Model available at www.carbonfinance.org is recommended.</p>	

D. EXPECTED ENVIRONMENTAL AND SOCIAL BENEFITS

LOCAL BENEFITS E.g. impacts on local air, water and other pollution.	Reducing the local impacts of global warming due to reduced GHGs emissions caused by the reduced energy consumption by the new street lights.
GLOBAL BENEFITS Describe if other global benefits than greenhouse gas emission reductions can be attributed to the project.	Reducing emission of carbon dioxide gas from the fossil-fuel grid sources thus reducing the impacts of global warming
SOCIO-ECONOMIC ASPECTS	
What social and economic effects can be attributed to the project and which would not have occurred in a comparable situation without that project? Indicate the communities and the number of people that will benefit from this project. <i>About ¼ page</i>	<ul style="list-style-type: none"> Reduction in the energy needs and associated foreign currencies spending for fuel Create less demands on budget – “savings on budget” can be used by the MoLG for waste management programs and beach preservation, protection and enhancement programs
What are the possible direct effects (e.g. employment creation, provision of capital)	<ul style="list-style-type: none"> By reducing the electricity needed to power street lights, the MoLG is in effect reducing the need for energy generation from the grid. The Mauritian grid heavily relies on fossil fuels (coal and HFO) all of which is

understanding of the relative risks and price trade-offs of selling VERs vs. CERs. In VER contracts, buyers assume all carbon-specific risks described above, and payment is made once the ERs are verified by the UN-accredited verifier. In CER/ERU contracts, the seller usually assumes a larger component - if not all – of the carbon risks. In such contracts, payment is typically being made upon delivery of the CER/ERU. For more information about Pricing and Risk, see [“Risk and Pricing in CDM/JI Market and Implications on Bank Pricing Guidelines for Emission Reductions”](#).

<p>required, foreign exchange effects)? <i>About ¼ page</i></p>	<p>imported. Lowering electricity demand will have a positive impact on fossil fuel importation; in turn, the country will save foreign currencies and the rupee will gather strength.</p>
<p>What are the possible other effects (e.g. training/education associated with the introduction of new processes, technologies and products and/or the effects of a project on other industries)? <i>About ¼ page</i></p>	<ul style="list-style-type: none"> • To push for energy efficiency on the large scale will show all the people on the island that the government is committed and showing the lead. This will give more weight to the overall policy of the government and might spur the general public to adopt similar attitude.
<p>ENVIRONMENTAL STRATEGY/ PRIORITIES OF THE HOST COUNTRY A brief description of the project's consistency with the environmental strategy and priorities of the Host Country <i>About ¼ page</i></p>	<p>Following the 2008 fossil fuel price crisis, the Government of Mauritius has realized that saving energy and promoting renewable sources of energy in the country was important for country's long term growth and stability. Incentives and advertising campaigns have been made to encourage people and the CEB (Central Electricity Board) has started an energy efficiency campaign, yet, own implementation of the energy efficiency principle is still in the making. This project would fit the general policy of the Host Country.</p>

F. RISKS

<p>Risks in the Project</p>	<p>Please describe the factors that may cause delays in, or prevent implementation of the project</p>
<p>Estimate the Degree of Risk</p>	
<p>Technical risk</p>	<p>Low – the technology and its implementation are straight forward – furthermore, the quality of the street lights to be installed will be guaranteed by the seller. This guarantee will ensure that is the technology chosen fails, the money will be reimbursed and the MoLG will be able to buy another type of technology/product.</p>
<p>Timing risk</p>	<p>Medium-low – the timing risk lies in:</p> <ol style="list-style-type: none"> 1. the MoLG's procurement process that could take longer than initially estimated 2. If the technology chosen is not efficient (or breaks down – see above technical risk), the project could be set back in terms of CDM Emission Reductions and associated revenues.
<p>Budget risk</p>	<p>Low – the government is moving in two phases in order to determine, on a large scale, if the project is really saving electricity and money. It has been demonstrated worldwide, that such projects work. Once convinced, the Government will therefore most likely unlock the necessary funds for this project's second phase. It must be noted that the Government recently validated a preliminary budget for the replacement of 50,000 light points meaning that Phase 1 is totally financed and Phase 2 nearly half financed. The risk is low.</p> <p>One other risk is that elections are to happen within the coming year. If the government changes, the possibility exist that the new entrant might not follow past projects through. This is highly unlikely but is a possibility.</p>

G. OTHER RELEVANT INFORMATION

Please mention any additional information or precisions to justify the project under CDM

Investment in “green/efficient” technologies is still a novelty in Mauritius, something that common people do not think much of. In a political context, it means that such project do not always receive the support it deserves from the public that fails to understand the long term benefits of such projects. It would greatly help the government to receive financial support from CDM (and other financial partners) in order to present the project to the people of Mauritius as a “no expense – great return” project.