



GEF SECRETARIAT REVIEW FOR FULL/MEDIUM-SIZED PROJECTS* THE GEF/LDCF/SCCF TRUST FUNDS

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| GEF ID: | 4790 | | |
| Country/Region: | Egypt | | |
| Project Title: | Promoting Low-carbon Technologies for Cooling and Heating in Industrial Applications in Egypt | | |
| GEF Agency: | UNIDO | GEF Agency Project ID: | |
| Type of Trust Fund: | GEF Trust Fund | GEF Focal Area (s): | Climate Change |
| GEF-5 Focal Area/ LDCF/SCCF Objective (s): | CCM-3; Project Mana; CCM-3; | | |
| Anticipated Financing PPG: | \$0 | Project Grant: | \$6,500,000 |
| Co-financing: | \$41,650,000 | Total Project Cost: | \$48,150,000 |
| PIF Approval: | | Council Approval/Expected: | |
| CEO Endorsement/Approval | | Expected Project Start Date: | |
| Program Manager: | David Elrie Rodgers | Agency Contact Person: | Ms. Rana Ghoneim |

| Review Criteria | Questions | Secretariat Comment at PIF (PFD)/Work Program Inclusion | Secretariat Comment At CEO Endorsement(FSP)/Approval (MSP) |
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| Eligibility | 1. Is the participating country eligible? | DER/DZ, December 21, 2011. Yes. | |
| | 2. Has the operational focal point endorsed the project? | DER/DZ, December 21, 2011. No. Please supply endorsement letter. DER, March 26, 2012. Yes. The endorsement letter provides for \$7.31M for the project, PPG, and fee. Signed by OFP Mr. Hegazy on 11 March 2012. | |
| Agency's Comparative Advantage | 3. Is the Agency's comparative advantage for this project clearly described and supported? | DER/DZ, December 21, 2011. Yes. | |
| | 4. If there is a non-grant instrument in the project, is the GEF Agency capable of managing it? | DER/DZ, December 21, 2011. The project does not yet include a non-grant instrument. UNIDO is encouraged to identify potential partners who can manage non-grant instruments, such as risk guarantee or revolving loan | |

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| | | private sector financial institutions in the project. DER, March 26, 2012. A non-grant instrument and private sector involvement will be explored during the PPG phase. Comment cleared. | |
| | 5. Does the project fit into the Agency's program and staff capacity in the country? | DER/DZ, December 21, 2011. Yes. | |
| Resource Availability | 6. Is the proposed Grant (including the Agency fee) within the resources available from (mark all that apply): | | |
| | • the STAR allocation? | DER/DZ, December 21, 2011. Yes. | |
| | • the focal area allocation? | DER/DZ, December 21, 2011. Yes. | |
| | • the LDCF under the principle of equitable access | DER/DZ, December 21, 2011. NA | |
| | • the SCCF (Adaptation or Technology Transfer)? | DER/DZ, December 21, 2011. NA | |
| | • Nagoya Protocol Investment Fund | DER/DZ, December 21, 2011. NA | DER/DZ, December 21, 2011. NA |
| | • focal area set-aside? | DER/DZ, December 21, 2011. NA | |
| Project Consistency | 7. Is the project aligned with the focal /multifocal areas/ LDCF/SCCF/NPIF results framework? | DER/DZ, December 21, 2011. Not yet. a) For CCM-1, more justification is needed for the innovative, low-carbon technologies. If the solar technologies being proposed are commercially available and already in use in Egypt, CCM-1 is not appropriate. Please clarify. b) Table D is not filled out. Please supply. DER, March 26, 2012. a) Project has been re-classified as CCM2. Renewable energy. Comment | |

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| | | b) Table D is not required, but is filled out regardless. Thank you. | |
| | 8. Are the relevant GEF 5 focal/multifocal areas/LDCF/SCCF/NPIF objectives identified? | DER/DZ, December 21, 2011. Yes. | |
| | 9. Is the project consistent with the recipient country's national strategies and plans or reports and assessments under relevant conventions, including NPFE, NAPA, NCSA, or NAP? | DER/DZ, December 21, 2011. Yes. | |
| | 10. Does the proposal clearly articulate how the capacities developed, if any, will contribute to the sustainability of project outcomes? | DER/DZ, December 21, 2011. Not sufficiently. Please clarify how the project will lead to replicable and sustainable financing options for solar energy in industry after the project is complete. DER, March 26, 2012. The response documents important regulatory and financial activities of the project that will support sustainability. Comment cleared. | |
| | 11. Is (are) the baseline project(s), including problem (s) that the baseline project(s) seek/s to address, sufficiently described and based on sound data and assumptions? | DER/DZ, December 21, 2011. Yes. At CEO endorsement stage, more descriptions are expected on the existing policies for promotion of solar and the gaps for application of solar in industry. DER, March 26, 2012. Acknowledged for response at CEO endorsement stage. | |
| Project Design | 12. Has the cost-effectiveness been sufficiently demonstrated, including the cost-effectiveness of the project | | |

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| | <p>alternative approaches to achieve similar benefits?</p> | | |
| | <p>13. Are the activities that will be financed using GEF/LDCF/SCCF funding based on incremental/additional reasoning?</p> | <p>DER/DZ, December 21, 2011. a) The investment components are not well defined. Are the demonstration projects going to be financed with grants? b) Please describe in the PIF how non-grant instruments, such as revolving loan programs or risk guarantee programs, or other types of instruments, that will increase availability of financing for solar investments and enhance the supply chain. These could be most applicable in component 3.</p> <p>DER, March 26, 2012. a) & b) Non-grant instrument will be studied during PPG phase and may be used for financing. Comment cleared.</p> | |
| | <p>14. Is the project framework sound and sufficiently clear?</p> | <p>DER/DZ, December 21, 2011. Not yet. a) Component 1, Strengthening of Policy and Institutional framework includes adoption, which is positive. Please clarify the commitment from Government of Egypt to adopt the policy guidelines. b) Component 2, is shown as an Investment component. Please clarify if any of the funding, either GEF grant or co-financing is for TA. If TA is included, please delineate the TA and Investment portions of this component on two separate rows. c) Component 2. Please clarify how much investment per project is expected. Will the investment portion provide loans for demonstration projects</p> | |

d) Component 3. Please explain how the business model development will be related to the demonstration projects in component 2. Will suppliers of solar technology be eligible for loans? Please consider providing a non-grant instrument that makes it easier for suppliers to scale up business models.

e) Component 4. The relative size of component 3 compared to component 4 is good, showing more resources are allocated on scale up.

f) The relationship between component 2 (demonstration projects) and component 3 (scale-up) is somewhat confusing. Will the investment component be used for the pilot projects? Or will a financing facility be established that will provide sustainable funding for scale up? Please clarify. please include the demonstrations in one component and the scale-up and financing in a separate component.

g) The inclusion of an investment element in component 3 is positive. How will that element ensure sustainable financing for scale-up after the project is completed? Please clarify.

h) The project focuses in applications both in the industrial and the tourist sector. It is not clear if the needs and the opportunities in these two sectors merit an integrated approach with common incentives and technological solutions; please clarify. Also, the different characteristics of the stakeholders from the governmental side and the private sector side might complicate the execution arrangement; please address this issue.

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| | | DER, March 26, 2012. All comments cleared. Thank you. | |
| | 15. Are the applied methodology and assumptions for the description of the incremental/additional benefits sound and appropriate? | <p>DER/DZ, December 21, 2011. Yes.</p> <p>DER, March 26, 2012.</p> <p>a) There are some errors in the project benefits analysis. The figure of 8,000 MW is not credible given the supporting documentation. We also do not understand how the calculation of global environmental benefits was performed.</p> <p>b) Please clarify the expected amount of thermal and electrical capacity established by the project and ensure that the amount is consistent with the financing and co-financing requested.</p> <p>c) We do not understand the replication estimate based on 3% of Egypt solar potential. Please provide a better estimate based on the sectors that will be demonstrated and supported through the project.</p> <p>DER, August 8, 2012.</p> <p>a) The estimation of benefits has been clarified and expanded. However, the explanation for the figure of 8,000 MW has not been explained. Please explain how the project financing can help create this much solar power by demonstrating the average installation costs for solar power.</p> <p>b) Please provide as requested.</p> <p>c) Please expand on the 3% explanation. Also, the 16,000 million tCO₂e estimate is very high - that is 16 gigatons, which is two times US annual carbon emissions. Perhaps the mathematical notation is using a mixture of european and united states notation.</p> | |

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| | | <p>assistance to the manufacturing sector is helpful. Please confirm the math - 468 million CO2e reductions per year for an investment of \$40 million is less than 10 cents per ton reduced. We would not expect to see such high cost-effectiveness. Also, please check that the estimates are based on life of equipment.</p> <p>e) Please rationalize the emissions benefit calculation against similar projects, such as #4753 in Pakistan. In that project, a similar investment leads to 150 ktonCO2e benefits per year.</p> <p>DER, August 29, 2012.</p> <p>a) The correct figure is 8,000 kw or 8MW. Comment cleared.</p> <p>b) The breakdown was provided. Comment cleared.</p> <p>c) & d) Some mathematical errors were corrected. The estimated emissions reductions are 9.5 million tCO2e over 20 years. At CEO endorsement, please provide a more robust estimation and justify why the bottoms-up estimate is higher than the top-down estimate. Comment cleared.</p> <p>e) After correction, the levels are reasonable. Comment cleared.</p> | |
| | <p>16. Is there a clear description of: a) the socio-economic benefits, including gender dimensions, to be delivered by the project, and b) how will the delivery of such benefits support the achievement of incremental/additional benefits?</p> | <p>DER/DZ, December 21, 2011. Incomplete. Please provide a description of the gender dimensions for industry sectors.</p> <p>DER, March 26, 2012. PIF updated. Comment cleared.</p> | |
| | <p>17. Is public participation, including CSOs and indigeneous people, taken into consideration. their role</p> | <p>DER/DZ, December 21, 2011. Yes. At CEO endorsement, please identify specific CSOs and industrv associations</p> | |

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| | | DER, March 26, 2012. Acknowledged and will be handled at CEO endorsement. | |
| | 18. Does the project take into account potential major risks, including the consequences of climate change and provides sufficient risk mitigation measures? (i.e., climate resilience) | DER/DZ, December 21, 2011. The list of risks is quite low, however, the reference to sustainability risk does not include mention of the risk that sustainable funding mechanisms are not established. Please clarify. DER, March 26, 2012. Risk identified. Comment cleared. | |
| | 19. Is the project consistent and properly coordinated with other related initiatives in the country or in the region? | DER/DZ, December 21, 2011. To be determined. Please respond to the following comments: a) The provided document summarizing the Government of Egypt GEF-5 project priorities shows several different projects all related to renewable energy, some of which list UNIDO is a candidate Agency. Please clarify how this project will not overlap other projects and whether these projects should be combined. b) The funding level requested in the PIF is higher than the funding level for the project of the same name identified in the Government of Egypt document. Please clarify. DER, March 26, 2012. a) The efforts have been better coordinated and consolidated. Comments cleared. b) Correct number provided in endorsement letter. Comment cleared. | |
| | 20. Is the project implementation/ execution arrangement adequate? | DER/DZ, December 21, 2011. Not specified. Please supply. | |

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| | | provided. Comment cleared. | |
| | 21. Is the project structure sufficiently close to what was presented at PIF, with clear justifications for changes? | | |
| | 22. If there is a non-grant instrument in the project, is there a reasonable calendar of reflows included? | | |
| Project Financing | 23. Is funding level for project management cost appropriate? | DER/DZ, December 21, 2011. No. The project management cost exceeds 5% of the GEF requested amount of \$6.2 M. Please adjust to 5% or less of the requested GEF funding amount, or justify the level above 5%. DER, March 26, 2012. Adjusted. Comment cleared. | |
| | 24. Is the funding and co-financing per objective appropriate and adequate to achieve the expected outcomes and outputs? | DER/DZ, December 21, 2011. No. a) It appears that co-financing for component 2 is adequate, though funding appears to come only from the Government of Egypt. Please clarify if private sector funding will be used in the demo projects. b) Co-financing for scale-up is low. Please consider consolidating the scale-up and financing focused in one component, not split across two. DER, March 26, 2012. a) & b) The co-financing numbers have been raised, but there is a disconnect between the level of financing, both GEF requested and co-financing, and the expected deliverables of thermal and electrical capacity. A cost-effective project will have significantly higher levels of solar thermal and electrical | |

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| | | <p>re-designed and the amount of financing justified consistent with the deliverables. A technical consultation with GEF and agency staff is recommended.</p> <p>DER, August 8, 2012. a) & b) Thank you for adding the estimates of the benefits from component 3. This is helpful, but the math needs to be confirmed. (This also relates to the comment in box 15 and the new estimates provided for GEB on page 11-12 of the PIF.) Please re-confirm the math and re-submit.</p> <p>DER, August 29, 2012. a) & b) The benefits estimate for component 3 has been included. Comment cleared.</p> | |
| | <p>25. At PIF: comment on the indicated cofinancing; At CEO endorsement: indicate if confirmed co-financing is provided.</p> | <p>DER/DZ, December 21, 2011. No. a) Please clarify the role of for private sector co-financing. How is that co-financing divided between the pilots and the scale-up? b) The amount of co-financing from the Government of Egypt is quite good, however, the overall level of co-financing is low approximately 4:1. Please increase the level of co-financing. c) The PIF could be enhanced with additional private sector and local financing through the use of catalytic non-grant instruments. Please clarify.</p> <p>DER, March 26, 2012. a) & b) Please see box 24. c) The use of non-grant instruments needs to be described at the PIF stage</p> | |

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| | | DER, August 8, 2012. c) The use of a non-grant instrument based on an existing UNDP model is described. Comment cleared. | |
| | 26. Is the co-financing amount that the Agency is bringing to the project in line with its role? | DER/DZ, December 21, 2011. Yes. | |
| Project Monitoring and Evaluation | 27. Have the appropriate Tracking Tools been included with information for all relevant indicators, as applicable? | | |
| | 28. Does the proposal include a budgeted M&E Plan that monitors and measures results with indicators and targets? | | |
| Agency Responses | 29. Has the Agency responded adequately to comments from: | | |
| | • STAP? | DER/DZ, December 21, 2011. NA | |
| | • Convention Secretariat? | DER/DZ, December 21, 2011. NA | |
| | • Council comments? | | |
| | • Other GEF Agencies? | DER/DZ, December 21, 2011. NA | |
| Secretariat Recommendation | | | |
| Recommendation at PIF Stage | 30. Is PIF clearance/approval being recommended? | DER/DZ, December 21, 2011. Not at this time. Please respond to comments in boxes: 4, 7, 10, 11, 13, 14, 16, 17, 18, 20, 23, 24, and 25. Also please pay attention to box 31 for items requested at CEO endorsement. Please coordinate PIF re-submission and responses with the related project 4788 (India). DER, March 26, 2012. Not at this time. Please see comments in boxes 14, 24, and 25. Additional work is needed to prepare a sound analysis of the energy capacity and emissions benefits of the project; and to ensure that GEF requested resources are delivering | |

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| | | <p>a cost-effective manner. Also, we need to see more description of how non-grant instruments would be included in the project.</p> <p>DER, August 8, 2012. Not at this time. Comments in box 25 was addressed. Comments in box 15 and 24 need additional response. Please supply.</p> <p>DER, August 29, 2012. Yes. The PIF has been technically cleared and may be included in an upcoming Work Program.</p> | |
| | 31. Items to consider at CEO endorsement/approval. | <p>DER/DZ, December 21, 2011.</p> <p>a) Confirmed letters of co-financing from all partners are expected.</p> <p>b) Please explore options for the use of non-grant instruments that could help enhance and attract more local private sector financing.</p> <p>c) At CEO endorsement stage, more detailed descriptions of the baseline project are needed, specifically existing policies for promotion of solar and the gaps for application of solar in industry.</p> <p>d) please identify specific CSOs and industry associations as partners.</p> <p>DER, March 26, 2012.</p> <p>e) We expect to see a more detailed analysis supporting the estimate for global environmental benefits.</p> | |
| Recommendation at CEO Endorsement/Approval | 32. At endorsement/approval, did Agency include the progress of PPG with clear information of commitment status of the PPG? | | |
| | 33. Is CEO endorsement/approval being recommended? | | |
| Review Date (s) | First review* | December 21, 2011 | |

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| | Additional review (as necessary) | August 29, 2012 | |
| | Additional review (as necessary) | | |
| | Additional review (as necessary) | | |

* This is the first time the Program Manager provides full comments for the project. Subsequent follow-up reviews should be recorded. For specific comments for each section, please insert a date after comments. Greyed areas in each section do not need comments.

REQUEST FOR PPG APPROVAL

| Review Criteria | Decision Points | Program Manager Comments |
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| PPG Budget | 1. Are the proposed activities for project preparation appropriate? | DER/DZ, December 21, 2011. No. Most of the components of the PPG are appropriate. What is missing is an analysis of financial and market opportunities for sustainable financial mechanisms in partnership with private sector and local financial institutions. This should be added to the PPG in order to build the necessary understanding and mechanisms to support components 2 and 3 of the PIF. DER, March 26, 2012. Analysis and consultation added. Comment cleared. |
| | 2. Is itemized budget justified? | DER/DZ, December 21, 2011. Yes. |
| Secretariat Recommendation | 3. Is PPG approval being recommended? | DER/DZ, December 21, 2011. Not at this time. a) Please address comments in Box 1 b) The PPG form is not signed. c) The proposed time scale for the PPG, from March 2012 to August 2013, is 18 months. The CEO endorsement must be submitted and approved within 18 months under GEF-5, and therefore the project design phase must be shorter to accommodate sufficient time for submission, review, and endorsement. Please rectify. d) Please coordinate the project preparation with the related project 4788 (India). DER, March 26, 2012. All comments cleared. UNIDO understands the PPG must be completed in sufficient time to meet all GEF cycle requirements. |
| | 4. Other comments | |
| Review Date (s) | First review* | December 21, 2011 |
| | Additional review (as necessary) | March 26, 2012 |

* This is the first time the Program Manager provides full comments for the project. Subsequent follow-up reviews should be recorded. For specific comments for each section, please insert a date after comments.